Attachment V

Development Licence applications

Part 1 - FSRU form

Viva Energy Gas Terminal Project

1.0 Application type (Application ID: APP013874)

Application type	New
Permission type	Development Licence
Estimated project cost	$250,000,000

2.0 Applicant details

Choose permission applicant type

Applicant	Viva Energy Gas Australia Pty Ltd
Applicant type	Registered company
ACN	645 450 059

Organisation details

Billing email address	energyhub@vivaenergy.com.au

Registered office address

Street 1	720 Bourke St
Street 2	Level 16
City	Docklands
State	Victoria
Postcode	3008
Country	Australia

Mailing address

Mailing address is the same as registered office address

CEO or equivalent details

First name	[redacted]
Last name	
Email	
Contact number	

Signatory details

First name	[redacted]
Last name	

Email	[redacted]
Contact number	

Key contact person details

First name	[redacted]
Last name	
Email	
Contact number	

3.0 Suitability to hold a permission

3.1 Upload your forms and supporting evidence

Upload your prohibited person declarations, fit and proper person questionnaire, and any supporting evidence

3.2 Fit and proper person declaration

3.2.1 I declare the information I have attached for EPA to perform a Fit and Proper Person assessment is true and correct to the best of my knowledge.

I agree

3.3 Prohibited person declarations

3.3.1 Prohibited person declaration

No person or persons are identified as prohibited

3.3.2 I declare the information I have attached for EPA to perform a Prohibited Person assessment is true and correct to the best of my knowledge.

I agree

4.0 Prescribed permission activities

Activity category	K: Utilities
Scheduled category	K01 (Power generation)
Describe this activity	The activity involves operation of a ship known as a floating storage and regasification unit (FSRU) which would be continuously moored at a proposed extension to Refinery Pier in Corio Bay adjacent to Geelong Refinery. The FSRU is a component of the Viva Energy Gas Terminal Project (the project). This DL application is focused on the operation of the FSRU and associated emissions and discharges from the FSRU. The proposed FSRU would be equipped with 4 dual-fuel reciprocating engines. The four engines drive gensets that provide electrical power (up to 29.25 megawatts) for the equipment onboard the FSRU (e.g., driving pumps, gas compressors etc.) and for propulsion. All the power that is generated would be generated and used onboard the FSRU for ship operations. No power would be exported from the FSRU to the electricity grid.

	The operation of the FSRU involves regasification of liquefied natural gas (LNG), which requires a water intake of up to 350 megalitres (ML)/day in open loop mode regasification. This water would be sourced from Corio Bay and would be discharged via either a seawater transfer pipe to the Geelong Refinery for reuse (refer to DL application no. APP013841), or under certain limited circumstances, discharged into Corio Bay by a diffuser installed beneath the Refinery Pier extension. The FSRU would also be able to operate in closed loop mode if required, which would use less water that would be circulated within the regasification unit prior to being discharged directly into Corio Bay. The closed loop mode would require the water to be heated using gas-fuelled boilers, which would emit more air and noise emissions than the open loop mode. Refer to Section 2.3 of the supporting document for further detail on the project description.
Is this activity at a fixed or mobile location	Fixed

Activity category	L: Other
Scheduled category	L01 (General emissions to air)
Describe this activity	During operation of the FSRU, nitrogen oxides (NOx), carbon monoxide (CO) and volatile organic compounds (VOC) emissions from fuel combustion in the gas-fuelled engines are predicted to exceed the emission thresholds. Consequently, operation of the FSRU is expected to be a prescribed activity.
Is this activity at a fixed or mobile location	Fixed

5.0 Activity locations

If fixed select:

- *the 'add a location' button*
- *your location on the map or by typing into the search box in the map. You can add additional details (for example a shed or unit number if you are in an industrial estate) in the unstructured address field.*

6.0 Add waste information to activities

Add the waste codes that correspond to the waste that you will be accepting at your activity site. If you are applying for a permit or registration to transport reportable priority waste (A10a or A10b), add the waste codes that correspond to the waste that you will be transporting in your vehicle.

Not applicable for the FSRU Development Licence (DL) application.

7.0 Proposed activity

7.1 Process and technology

7.1.1 Summary of the background environmental condition - Include siting consideration and surrounding sensitive receptors

The project would be located in the City of Greater Geelong, 75 kilometres (km) south-west of Melbourne. The project is situated adjacent to, and on, Viva Energy's Geelong Refinery, within a heavily developed port and industrial area on the western shores of Corio Bay between the Geelong suburbs of Corio and North Shore. The Geelong central business district is located approximately 7km to the south of the project.

Corio Bay is the largest internal bay in the south-western corner of Port Phillip and is a sheltered, shallow basin at the western end of the Geelong Arm with an area of 43 square kilometres (km^2). The FSRU would be located approximately 1km to the south-west of the Point Wilson/Limeburners Bay area of the Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar site.

Refinery Pier facilitates the import and export of bulk liquid fuels from the Geelong Refinery with over 200 shipping movements per year through the Port of Geelong shipping channel.

For more than 60 years, the refinery has been using approximately 350 ML/day seawater for cooling purposes and discharging this seawater back into Corio Bay at temperatures approximately 9°C warmer than ambient conditions and containing residual chlorine, through the 4 EPA licensed discharge outlets. Surveys of the seagrass beds beneath the existing plumes showed that seagrass grows prolifically in close proximity to all refinery discharge points and the marine environment appears to be in a healthy condition.

Co-locating the project with the refinery and within the Port of Geelong offers significant opportunity to minimise potential environmental effects and utilise a number of attributes that come with the port and industrial setting, such as limited sensitive receptors in the vicinity of the project.

Further information on the background environmental condition, siting and options considered for the project is provided in Section 2.1.1 of the DL application supporting document.

7.1.2 Is the construction or installation of plant or equipment required?

Yes

7.1.3 Describe the plant or equipment to be constructed or installed

This DL application relates to the proposed mooring and operation of the FSRU, and the proposed discharges from the FSRU. The FSRU requires a water intake of up to 350 ML/day for the LNG regasification process. Under the proposed mode of operation, the FSRU discharge water will be piped to the adjacent Geelong Refinery for use as cooling water prior to discharge to Corio Bay via four existing licenced refinery discharge points (subject to a separate DL application (refer to DL application no. APP013841). As such, a pipe between the FSRU and the refinery under the seabed would be constructed to facilitate this water transfer. Under certain limited scenarios (see Section 7.5 of the DL application supporting document), the water discharge from the FSRU may be returned to Corio Bay via a diffuser constructed on the proposed Refinery Pier extension, which would facilitate mixing of the cooled water discharge.

In the event that the Geelong Refinery closes and reuse of the FSRU discharge water in the refinery for cooling water is no longer an option, a 300 m long diffuser with 100 small high-velocity ports would need to be installed by divers supported by a small crew vessel alongside the pier structure. The diffuser would need to be positioned under the pier such that it is at least 0.5m below the seawater surface at Lowest Astronomical Tide (LAT).

At present, the diffuser may not be constructed for project commencement. This is primarily because discharge via the diffuser would only be undertaken during a full refinery maintenance shutdown or following permanent closure of the refinery. Both of these scenarios are unlikely to occur before 2028. As such, it is proposed that gas demand and maintenance cooling water demand be monitored for a

period post project commencement and prior to the construction of the diffuser taking place. This would confirm whether or not a diffuser is needed as part of the project.

There are no construction activities required for the FSRU component of the project. The vessel would be built, commissioned and all production and safety systems verified prior to being brought to the new berth at Refinery Pier, where it would be continuously moored.

The FSRU would be up to 300m in length, 50m in breadth and 65m in height, with the capacity to store approximately 170,000m^3 of liquefied natural gas (LNG). The FSRU is a double-hulled ocean-going vessel that would store the LNG in a liquid state at very low temperatures. The cargo tanks on board the FSRU are purpose built to store LNG with primary and secondary barriers further supported by insulation and intervening spaces. These cargo tanks are designed to insulate and keep the LNG cargo at cryogenic temperatures (approximately –160°C) and to prevent leakages and isolate the cargo from the hull structure.

The FSRU would receive LNG from visiting LNG carriers. When gas is needed, the FSRU would convert LNG back into a gaseous state by heating the LNG using seawater (a process known as regasification). The regasification unit located on board the FSRU would be typically located near the bow or centre of the vessel.

To prevent marine growth in the FSRU heat exchange system, a small portion of the seawater intake would be subject to an electrolysis process. Electrolysis breaks up the naturally occurring salt molecules (sodium chloride) in seawater and produces hypochlorite. The water with hypochlorite is injected into the seawater coming into the FSRU to reduce biofouling of heat exchange equipment. Discharge of seawater from the FSRU would contain some short-lived residual hypochlorite after it has been used for regasification (hypochlorite is generically termed chlorine throughout this application).

The candidate engines and boilers for the FSRU are the Wärtsilä 6L50DF dual-fuel engine, Wärtsilä 8L50DF dual-fuel engine, and Mitsubishi MAC-90BF boiler. The four Wärtsilä 50DF dual-fuel engines are located below deck and would be equipped with silencers installed in the exhaust funnel to limit noise emission levels. The regasification boilers are located on the lower deck. Both the engines and boilers would be run on natural gas with marine diesel oil used only as a pilot fuel and during emergency, maintenance or start-up.

Further information on the FSRU is provided in Section 2.3.1 of the DL application supporting document.

7.1.4 Describe the processes or systems you will develop to perform the activity

The FSRU can operate in different regasification modes. For the project the usual regasification mode is ‘open loop mode’, where seawater would be continuously drawn in to the FSRU and used as the medium to heat the LNG into a gaseous state. The open loop regasification mode of operation proposed for the project would involve transfer of cooled water from the FSRU (approximately 7°C below ambient temperature) via a seawater transfer pipe to the existing refinery seawater intake for reuse in the refinery as cooling water. The discharge of the FSRU wastewater to the refinery and subsequent discharge to Corio Bay via the existing refinery discharge points is further discussed in DL application no. APP013841.

The project also provides for the direct discharge of some, or all, of the FSRU discharge water into Corio Bay via a diffuser located under the Refinery Pier extension.

The diffuser would only be required in the event that the refinery was permanently decommissioned in the future and the option for reuse of the FSRU discharge water in the refinery was no longer available or during refinery maintenance periods when the FSRU discharge exceeded refinery cooling water requirements. While the potential impacts of the diffuser have been assessed in the EES to enable its introduction in the event of a refinery closure or periodic maintenance, there would be no requirement for its use at the commencement of the project as the refinery is planned to be operational at that time and the next scheduled maintenance period after project commissioning would be some years away.

The FSRU would also be able to operate in closed loop regasification mode (where water is continuously recycled within the vessel) and combined loop regasification mode (where a combination of modes may be used to heat seawater if it falls below a specified temperature). Closed loop mode

would only be used in a situation where the FSRU was unable to discharge cooled water to the refinery, for example due to a pump failure, and would be of short duration.

The potential environmental impacts associated with the open loop mode of operation and the closed loop mode of operation have been fully assessed in the EES and in the attached DL application supporting document (refer to Section 7.5).

The FSRU is anticipated to produce up to 500 TJ/day of gas which would require approximately 300 ML/day of seawater for the regasification process during winter (June to August). On a limited number of peak demand days, the gas production rate would fluctuate throughout the day, but the maximum daily flowrate of seawater would be 350 ML/day. In autumn and spring, the FSRU is anticipated to produce up to 350 TJ/day of gas which would require approximately 208 ML/day of seawater. During summer, 250 TJ/day of gas would be produced, requiring approximately 148 ML/day of seawater.

The Geelong Refinery holds EPA Licence 46555 which sets licence conditions for the four existing refinery discharge outlets (W1, W3, W4 and W5). A separate Development Licence application (refer to DL application no. APP013841, Viva Energy Refining Pty Ltd) has been prepared for the refinery to enable discharge or depositing of industrial wastewater from another source (FSRU) through the four existing refinery discharge outlets. This application demonstrates that a modification to existing licence conditions will not be required as discharges through the four existing discharge outlets would remain compliant and within existing licence limits following the reuse of the FSRU discharge water in the refinery cooling water system.

New licence limits for wastewater discharge and new mixing zones would be required for direct discharge from the FSRU via the diffuser and direct discharge from the FSRU during operation in closed loop mode as well as ballast water discharge. Proposed licence limits and dimensions for the mixing zones are summarised in Section 9.1 of the supporting document.

The proposed FSRU engine emission limits to air have also been summarised and are presented in Section 9.2 of the supporting document.

Further information on the FSRU processes is provided in Section 2.3.1 of the DL application supporting document.

7.1.5 Is this a new activity or a modification of an existing activity?

New activity

7.1.6 Outline your experience and competency in performing the activity.

The FSRU would be located adjacent to, and on, Viva Energy's Geelong Refinery which has been operational for over 60 years. The co-location of the FSRU would enable Viva Energy to leverage their experience as an existing EPA licence holder and a Major Hazard Facility (MHF) operator.

As an existing EPA licence holder, Viva Energy is required to ensure that licensed activities are maintained and operated so that risk of harm to human health and the environment is reduced so far as reasonably practicable. In addition, Viva Energy implements a risk management and monitoring program to enable the EPA to determine compliance with the general environmental duty and the requirements of licence conditions. Viva Energy will look to use and build on their experience and consider the use of existing management and monitoring measures for the operation of FSRU.

Viva Energy maintains effective major incident prevention and control measures, an up to date safety case and an ongoing commitment to improving safety as an MHF operator. Viva Energy monitors their safety performance, reviews the effectiveness of safety systems and controls and makes improvements where needed. As part of this continual improvement process, Viva Energy also monitor technical developments and best available techniques or technology in their industry in order to apply learnings to refinery operations. Viva Energy would use their experience as an MHF operator during operation of the FSRU.

As stated in previous sections, while Viva Energy would oversee operation of the FSRU, Hoegh LNG is likely to be the third party operator of the FSRU, subject to finalisation of the commercial arrangements. Hoegh LNG is an industry leader in the development, ownership, and operation of modern FSRUs globally.

Hoegh LNG commenced operations in 1973 and currently operates a fleet of 2 LNG carriers and 10 FSRUs globally. The global fleet is managed inhouse by Hoegh LNG Fleet Management, a wholly owned subsidiary of Hoegh LNG. The integrated operations between the fleet management and the technical division in the company, facilitates experience exchange and continued optimisation of the vessel operation and design. The experience drawn from operation of FSRUs in different parts of the world with varying operating conditions and requirements is shared in the organisation and these learnings are used to further improve FSRU operational performance and the efficiency.

Hoegh LNG's position as a world leading FSRU provider is based on more than 45 years of operational experience and excellence. The company strives to minimise potential impacts related to its operations on the environment and other sensitive receptors. There is a focus within the company on energy management and energy efficient operation to minimise environmental impact. Hoegh LNG implements operational key performance indicators on zero pollution incidents across the global fleet.

The Maintenance & Performance Optimisation (M&PO) department within Hoegh LNG Fleet Management monitors the ongoing performance of the FSRUs in operation around the world for continual improvement. This department evaluates and implements measures to optimise operational performance of the various vessels across the fleet based on the monitoring data that is collected. An information management system has been installed onboard all vessels in the fleet, and this system allows for the FSRU performance to monitored by the M&PO department and continually improved.

The safety management system used by Hoegh LNG is certified in accordance with the International Safety Management (ISM) Code by the International Maritime Organisation (IMO) which is an international standard used for the safe management and operation of vessels at sea. The safety management system is also certified under the ISO 9001 (Quality Management System) and 14001 (Environmental Management System).

The operation of FSRUs is governed by internal procedures, guidelines, philosophies and contingency plans which have been developed over the years based on operational experience, industry standards, equipment manufacturer recommendations and applicable guidelines and regulatory authority requirements.

7.1.7 Is the proposed activity a research, development or demonstration activity as part of a Pilot project?

No

7.1.8 Summary of measures used to comply with the general environmental duty.

Satisfaction of the GED requires a proactive approach to risk identification, assessment and the implementation of controls to minimise impacts to human health and the environment so far as is reasonably practicable. Section 7.0 of the DL application supporting document identifies the potential impacts to human health and the environment from the operation of the FSRU and the mitigation measures to minimise potential impacts so far as is reasonably practicable. The mitigation measures proposed to comply with the GED are provided in EES Chapter 14: *Environmental Management Framework*.

7.1.9 Summary of measures considered as best available techniques or technologies.

The type of FSRU proposed is designed and constructed in accordance with prevailing requirements and recommendations from authorities such as the International Maritime Organisation (IMO) and the Society of International Gas Tanker and Terminal Operators (SIGTTO). The FSRU will be issued a Class notation (classification) by (Det Norske Veritas and Germanischer Lloyd (DNV GL). The FSRU is equipped with systems and solutions to operate efficiently and to limit the impact on the surrounding environment.

The FSRU will be fitted with four Wärtsilä 50DF dual-fuel engines (one 6L50DF and three 8L50DF engines). The Wärtsilä 50DF was selected as these engines are 22% more efficient than the average gas engine power generator and are considered as best available technology for powering the FSRU both in terms of propulsion and also on-board power generation. The four engines will be fitted with economisers that enable the use of waste heat from the flue gases (exhaust gases) within the process and silencers in the exhaust funnels to limit noise emission levels.

The FSRU will be fitted with two MAC-90BF gas-fired boilers. The boilers will only be required in either closed loop mode or combined loop mode to heat the LNG. The boilers will operate on boil-off gas and will also be fitted with economisers to enable the use of waste heat from the flue gases. In addition, the boilers have a flue gas recirculation system installed as a NOx control technique to minimise NOx emissions.

In the open loop regasification operational mode, heated cooling water from engine room consumers and the auxiliary machinery is transferred to the regasification seawater loop instead of being discharged directly to sea. This feature reduces the overall seawater consumption and makes use of waste heat within the process.

The FSRU has a larger maximum allowable LNG tank pressure (0.7 bar (g)) than conventional LNG carriers (0.25 bar (g)) and has the ability to use a temporary increase in tank pressure to manage generated boil-off gas. Boil-off gas will be used as the primary fuel for both the engine and boilers on board the FSRU. The regasification system is equipped with a recondensing system that includes a re-condenser to condense excess boil-off gas back to LNG during regasification operations.

In addition to the large conventional ballast water pumps, the FSRU will be equipped with an additional small ballast pump, for optimised ballast water handling during regasification operations when the LNG tank inventory rate of change is much lower than during normal LNG loading or discharge operations.

The diffuser was designed as an alternative discharge arrangement for the project for use during refinery maintenance shutdown periods where discharge water from the FSRU exceeded refinery demand or in the event that the refinery was permanently decommissioned. The diffuser was designed to achieve high dilution and mixing through high velocity discharge via multiple ports (approximately 100) along the entire length of the pier i.e., the longest diffuser that could be fitted on the pier extension was selected (approximately 300m). The high-velocity ports would discharge the seawater at approximately 5m/s and at an angle of 30° away from the underside of the pier. The spacing and configuration of the 100 high ports along the length of the diffuser has been designed to maximise the rate of mixing and to achieve a dilution of 20:1 which means that there would be 20 parts of seawater for every 1 part of discharge. The diffuser design is predicted to reduce the chlorine concentration from 100µg/L to 5µg/L by the time the plume reaches the seabed. In addition, the diffuser design is predicted to reduce the temperature change to less than 0.4°C from ambient by the time the plume reaches the seabed.

Other design options such as distributors above the water line e.g., water curtain or sprays as an alternative to a diffuser located below the water line, however, these options did not have enough power to achieve the mixing and dilution required.

7.1.10 Summary of greenhouse gas emissions generated from this activity.

The project would produce GHG emissions through various activities associated with both the construction and operation phases, however, emissions would primarily result from operation of the FSRU.

The total construction Scope 1, 2 and 3 emissions for the project are estimated to be 62,168 t CO_2-e. Scope 1 and 2 emissions during the construction period are estimated to be 6,878 t CO_2-e which equates to 0.01 per cent of Victoria's annual GHG emissions. This is considered to be a minor additional contribution to the State's GHG emissions. Of the total construction Scope 1, 2 and 3 emissions for the project, an estimated 15,901 t CO_2-e would be related to the transport of the FSRU to Geelong.

During operation, fuel consumed by the FSRU would be the primary source of GHG emissions accounting for majority of the Scope 1 emissions. Fugitive emissions from ship to ship transfer of LNG is also a contributor to GHG emissions during operation. The total annual Scope 1, 2 and 3 operational emissions for the project are estimated to be:

- Open loop regasification mode – 47,906 t CO_2-e
- Closed loop regasification mode – 178,985 t CO_2-e
- Combined loop regasification mode – 65,280 t CO_2-e

The project's estimated emissions during operation are estimated to contribute the equivalent of 0.05 per cent (FSRU open loop operation), 0.19 per cent (FSRU closed loop operation), and 0.07 per cent (FSRU combined loop operation) of Victoria's GHG emissions per annum.

As closed loop mode consumes natural gas in the regasification process, it emits more Scope 1 GHG emissions than open loop mode to convert the same amount of LNG to natural gas.

7.1.11 Summary of systems and processes to prevent or minimise greenhouse gas emissions.

To reduce GHG emissions produced during operation, mitigation measures would be implemented to avoid or minimise emissions where possible. The most significant opportunity to minimise GHG emissions during the project's operation would be to adopt open loop as the usual mode of operation of the FSRU. Estimated GHG emissions would be approximately four times less in the usual open loop operating mode compared to closed loop.

To further reduce emissions, plant and equipment for the project's operation would be selected with consideration of fuel efficiency to reduce the consumption of fossil fuels. Engaging a local workforce where possible would reduce transport emissions associated with transport and air travel. Safety controls and emergency management practices would be put in place in the case of unplanned activities, incidents, and emergencies (i.e., unplanned maintenance or venting) to reduce the likelihood of releasing fugitive GHG emissions.

Following the implementation of mitigation measures to avoid and minimise GHG emissions from project construction and operation, residual Scope 1 and Scope 2 GHG emissions would be quantified and Viva Energy has made a commitment to offset these emissions.

Viva Energy would incorporate energy use and GHG emissions associated with the operation of the gas terminal into existing reporting requirements under the *National Greenhouse and Energy Reporting Act 2007 (Cth)* ('NGER Act'). An energy management system would be implemented in accordance with the International Organisation for Standardisation (ISO) 50001 *Energy Management Systems* (ISO 50001) for the operation of the FSRU. The ISO 50001 provides a framework for organisations to take a systematic approach to achieve continual improvement of energy performance and efficiency and reductions in GHG emissions. This framework is considered to be part of global best available techniques or technology, and involves:

- Developing energy use baselines
- Developing energy management plans
- Identifying performance indicators
- Setting targets for improvement.

Progress would be regularly monitored, reported and reviewed. Implementation of this system would also involve external certification by ISO-accredited auditors (typically on a three year cycle) in which both compliance with the ISO standard and performance improvement would need to be demonstrated to maintain certification.

The more efficient the engine, the less fuel consumption and GHG emissions per unit of power generated. The FSRU will be fitted with four Wärtsilä 50DF four-stroke dual-fuel engines. Based on manufacturer specifications, the Wärtsilä engines have a maximum thermal efficiency of 47% higher than any other gas engine. With a heat rate (efficiency) of 7300 kJ/kWh the Wärtsilä engines are considered as best available technology for powering the FSRU both in terms of propulsion and also on-board power generation.

Boil-off gas (BOG) management facilities would also be in place on the FSRU to capture small amounts of natural gas that evaporates from LNG in the cargo tanks. The BOG would be used to fuel the onboard generators for operation of pumps and other equipment used onboard.

Excess BOG would potentially be directed into the refinery natural gas system to be used as a fuel at times where BOG production surpasses FSRU generator demand. The need for BOG piping connecting the FSRU to the refinery natural gas system would be determined during detailed design. If required, BOG would be compressed on the FSRU and transferred via a hose connection to piping that would run along the pier structure. This connection would provide an additional source of natural

gas for the refinery. The flow of BOG into the refinery natural gas system would be controlled using pressure control and priority would be given to BOG from the FSRU to reduce refinery gas consumption from the transmission network. The FSRU BOG injection point would be located near the existing fuel gas injection points at the refinery.

In addition, the FSRU will be equipped with a minimum send out compressor which would allow excess BOG to be compressed to the same specifications of the natural gas export system and sold into the Victoria wholesale gas market.

For further information, refer to Section 7.2 of the supporting document.

7.1.12 Summary of potential impacts from climate change on the activity and related adaptation methods.

A climate change risk assessment was undertaken consistent with *AS 5334-2013 Climate change adaptation for settlements and infrastructure – A risk-based approach* (Standards Australia, 2013) focusing on the potential climate change risks that may impact the project. These risks and the proposed adaptation measures to support safety and resilience of the project are summarised in Section 7.2.2 of the DL application supporting document.

Of the 47 risks to the project identified through the climate change risk assessment, eight were rated 'High'. No risks were rated 'Extreme', with the remaining risks being rated 'Medium' or 'Low'. These ratings take into consideration existing controls and mitigation measures implemented for the project. The risks rated 'High' were primarily associated with the following hazards: storms; extreme rainfall, sea level rise and extreme heat.

Viva Energy would maintain a register of risks to monitor climate-related impacts, projections and policy, and update and implement adaptation measures to minimise climate change risk throughout the life of the project.

Consultation with the project design team has determined that the climate change risks posed to the project are considered manageable over the project lifecycle on the basis that the identified design- and operation-related adaptation measures resulting from the risk assessment are adopted.

7.2 Waste

7.2.1 Summary of how waste is managed in line with the waste management hierarchy.

The waste hierarchy has been applied for the minimisation and management of industrial wastes generated as a result of operation of the FSRU.

Operation of the FSRU in open loop mode will result in the generation of a maximum of 350 ML/day of industrial wastewater (L200) which will be transferred to the existing refinery seawater intake via a seawater transfer pipe for reuse in the refinery as cooling water. The reuse of discharge from the FSRU in the refinery for cooling water purpose will be maximised to minimise potential environmental impacts and to manage industrial waste in line with the waste management hierarchy. Following reuse within the refinery, the industrial wastewater will be discharge back into Corio Bay via 4 existing licenced discharge outlets. A separate Development Licence (refer to DL application no. APP013841) is required for the refinery to discharge or deposit industrial wastewater from another source (FSRU).

Segregation of solid and liquid waste streams will be implemented to maximise their potential reuse and recycling, and to ensure that the appropriate level of treatment is being applied to each waste type. Segregation of waste generated on board the FSRU results in small volumes of concentrated waste that is easier to manage with targeted treatment rather than large volumes of diluted and mixed waste streams that require multiple levels of treatment. In addition, waste is segregated to allow waste receivers to make use of waste reuse potential.

Treated and raw waste will be collected in secured waste storage containers on board the FSRU that are designed for different types of waste generated. The containers will be lidded to mitigate fauna access. Collected waste will then be pumped (liquid waste streams) to shore and transported by licensed contractors for disposal at appropriately licensed facilities. Solid waste may be lifted by crane to the pier if there is truck access or lifted by crane to a barge and/or supply vessel prior to being transported by licensed contractors for disposal at appropriately licensed facilities.

7.2.2 Detail the systems and processes used to minimise risks of harm to human health and the environment from the handling, storage, use and transportation of substances.

FSRU waste would be managed with a waste management system that will be established as part of the broader Environment Management Plan, in accordance with the EP Act, Environment Protection Regulations, any supporting legislation and the GED.

Industrial wastewater generated onboard the FSRU during operation in open loop mode will be discharged into the seawater transfer pipe for reuse within the refinery for cooling water purposes (refer to DL application no. APP013841). All other waste generated on board the FSRU will be treated and/or stored and pumped to deck for off-site disposal by a licensed contractor in accordance with the relevant Commonwealth and State regulations, and the IMO regulations.

8.0 Risk assessment

8.1 Human health and the environment

8.1.1 Summary of the risk assessment identifying risks to human health and the environment.

An Environment Effects Statement (EES) was prepared for the project under the *Environment Effects Act 1978 (Vic)*. The EES was prepared in accordance with the scoping requirements and relevant legislation, policy and guidelines and was informed by the environmental impact assessments and specialist studies undertaken as part of the EES process.

Potential impacts to human health and the environment from operation of the FSRU were identified in each of the technical studies and mitigation measures were recommended to avoid, minimise and manage potential impacts so far as is reasonably practicable. Performance monitoring requirements were also recommended to monitor the effectiveness of mitigation measures. Section 7.0 of the DL application supporting document identifies the potential impacts to human health and the environment from the operation of the FSRU.

8.1.2 Summary of how you're eliminating or reducing identified risks as far as reasonably practicable.

Central to the EP Act is the General Environmental Duty (GED). The GED is an ongoing duty to prevent the risk of harm to human health and the environment. According to Section 25(1) of the EP Act, the GED requires that a person or entity who is engaging in an activity that may give rise to risks of harm to human health or the environment, to minimise those risks, so far as reasonably practicable.

When determining what is reasonably practicable, Section 6(2) of the EP Act gives regard to the following:

- the likelihood of those risks eventuating
- the degree of harm that would result if those risks eventuated
- what a person concerned knows, or ought reasonably to know
- the availability and sustainability of ways to eliminate or reduce risks
- the cost of eliminating or reducing risks.

Satisfaction of the GED requires a proactive approach to risk identification, assessment and the implementation of controls to minimise impacts to human health and the environment so far as is reasonably practicable. Performance monitoring requirements were also recommended to monitor the effectiveness of mitigation measures. Section 7.0 of the DL application supporting document identifies the potential impacts to human health and the environment from the operation of the FSRU and the mitigation measures to minimise potential impacts so far as is reasonably practicable.

8.2 Environmental management

8.2.1 Summary of environmental management systems used to prevent or minimise impact on the environment.

The existing Viva Energy HSSE Management System has been designed to facilitate compliance with the Australian regulatory regimes of the relevant jurisdictions within which Viva Energy operates and is consistent with the Viva Energy Business Principles and Code of Conduct. The HSSE Management System would serve as a reference document for this project and would help guide planning, development and implementation of management plans for the operation of the FSRU to prevent or minimise impacts to the environment and human health.

Approval under the *Planning and Environment Act 1987* will be required for the project via a Planning Scheme Amendment to the Greater Geelong Planning Scheme. It is proposed to apply a Specific Controls Overlay with an Incorporated Document. The Incorporated Document would allow the use and development of land for the project to be undertaken in accordance with specific conditions contained within the Incorporated Document. The proposed Incorporated Document requires the preparation of an EMP which would set out the process and timing for development of an OEMP that would stipulate the environmental management requirements for the FSRU operation.

The OEMP will include detailed management protocols for the management of:

- Air quality
- Hazardous substances management
- Noise and vibration
- Sediment, erosion and water quality (including surface water and groundwater)
- Marine monitoring
- Traffic and transport.

A monitoring program will be developed (discussed further in Section 10.3 of the DL application supporting document) to monitor operation of the FSRU and ensure compliance with conditions of statutory approvals such as the Development and Operating licences.

In addition, operation of the FSRU will be required to comply with all protocols of Ports Victoria as the port operator. Ports Victoria appoints the Harbour Master, and it is the Harbour Master, under the *Marine Safety Act 2010*, that must ensure the safety of persons and the safe operation of vessels, and in addition minimise the impact of vessel operations on the environment.

The safety and environment management plans that are developed for the operation of the FSRU need to be compliant with the operating standards and protocols for the Port of Geelong are set out in the Ports Victoria Harbour Master's Directions and Port of Geelong Safety and Environmental Management Plan and Maritime Security Plan managed by GeelongPort. In the event of an incident (safety, environmental, or security), the Harbour Master or the Duty Marine Controller (being the designated Person in Control) can activate the GeelongPort and Ports Victoria joint Emergency Management Plan and the initial response dictated for the incident. The FSRU will adhere to specific emergency response regulations and requirements such as MARPOL Annex I, requiring vessels to carry an approved Shipboard Oil Pollution Emergency Plan (SOPEP), and emergency response plans. These plans would be consistent with existing Viva Energy operational environmental management plans and emergency response plans and would form part of the existing overall management system.

Further detail about environmental management during operation is provided in Section 10.0 of the DL application supporting document.

8.2.2 Will you undertake an environmental audit related to the activity?

No

8.2.2.1 Summary of environmental auditing requirements and implementation approach

Not applicable

8.2.3 Summary of post-closure plans, including aftercare management, decommissioning and rehabilitation.

The FSRU, which would continue to be an ocean-going vessel throughout the operation of the project, would leave Corio Bay on completion of the project life estimated to be approximately 20 years to be used elsewhere. As such, there are no decommissioning activities required for the vessel itself. The seawater transfer pipe linking the FSRU to the refinery for transfer of cooling water would be either left in-situ under the seabed to avoid disturbance to the marine environment or removed if required by regulatory authorities.

9.0 Risk management

9.1 Air

9.1.1 Summary of the activity's emissions to air.

During operation of the FSRU, fuel combustion in the engines and boilers would emit air pollutants. The primary pollutants from the FSRU gas-fuelled engines are expected to be nitrogen oxides (NO_x), CO, and to a lesser extent, volatile organic compounds (VOC) (USEPA, 2000). The primary pollutants for the FSRU liquid-fuelled engines are expected to be particulate matter (PM_{10} and $PM_{2.5}$) and SO_2. CO, VOC, hazardous air pollutants (HAP) and particulate matter are primarily the result of incomplete combustion. For natural gas-fired engines, formaldehyde accounts for approximately two-thirds of the total HAP emissions (USEPA 2000). PAH, benzene, toluene, xylenes and others account for the remaining one-third of HAP emissions.

Modelling was undertaken to predict FSRU emissions across a range of operational scenarios. Section 7.3 of the DL application supporting document summarises the six operational scenarios modelled with, and, without an LNG carrier berthed alongside the FSRU. LNG carriers would be berthed alongside the FSRU for up to 20% of the year while unloading LNG and would use boil-off gas at a rate of 0.9 tonnes per hour. The presence of an LNG carrier, in addition to its air emissions, may also influence the modelling results by creating a barrier effect next to the FSRU.

Due to the potential to reuse discharge water from the FSRU in the refinery, open loop is the preferred mode of operation. However, the FSRU would also be able to operate in closed loop mode using gas-fired boilers to generate steam to heat the LNG, although this mode would only be used in the event that the refinery is unable to accept discharge water from the FSRU (e.g., during maintenance of the seawater transfer pipe). Due to the additional equipment required to operate in closed loop mode (e.g., gas-fuelled boilers) higher air emissions are expected.

Pollutant concentrations resulting from operation of the FSRU are summarised in Section 7.3 of the DL application supporting document. Results are presented as maximum concentrations at a sensitive or industrial receptor for the five years of meteorology data (2016 to 2020). Modelling was undertaken for the ‘FSRU’, and the ‘FSRU with LNG carrier’ unloading. Predicted pollutant concentrations at a receptor are presented as ‘incremental’ (no background) and cumulative (FSRU plus background) concentrations. The maximum cumulative results were then compared against the adopted criteria.

All modelled scenarios demonstrate that predicted pollutants are well below the adopted criteria and meet all regulatory requirements. It is important to note that peak demand cases would be infrequent. The peak demand case that has been modelled is for operation in closed loop mode as this would result in higher air emissions than the preferred open loop mode and represents a worst-case scenario. The air modelling assessment demonstrates that air quality impacts from the FSRU operations would be minor and emissions are unlikely to have regionally or State significant effects on the air environment.

The Environment Protection Act requires a Development Licence and Operating Licence for prescribed permission activities. The Environment Protection Regulations 2021 classifies activities that discharge or emit to the atmosphere at least 100 kilograms per day of volatile organic compounds (VOC), particulates, SOx (oxides of sulfur) and NOx (nitrogen oxides) or 500 kilograms per day of CO as permission activities type L01 (General discharges or emissions to the atmosphere).

Based on emissions data provided in manufacturer specifications NOx, CO and VOC emissions are predicted to exceed the permission activity thresholds when the FSRU operates on gas with 2 boilers at 100 per cent load in closed loop mode. Given the low sulfur content in natural gas being burnt in the FSRU, emissions of SO2 from the gas-fired FSRU are expected to be negligible and have not been included in the assessment. SO2 emissions were assessed for the liquid-fuelled FSRU scenario (two engines at 25% load) which has a higher sulfur content. SO2 emissions are not predicted to exceed the permission activity threshold in this scenario.

Consequently, the FSRU would require a development and operating licence for these air emissions.

Additionally, the potential air quality impact of the FSRU has been assessed using time varying background concentrations for NO_2, SO_2, PM_{10} and $PM_{2.5}$. The dispersion modelling has used a conservative approach based on worst-case operational scenarios and measured background concentrations (2016 - 2020).

Time varying cumulative NO_2 and SO_2 results are predicted to be well below the criteria at all sensitive residential and industrial receptors. Incremental increases from the project are negligible when backgrounds concentration are considered. Time varying cumulative results demonstrate that background PM_{10} and $PM_{2.5}$ concentrations dominate cumulative concentrations when the criteria is exceeded. Incremental increases from the FSRU plus LNG carrier at peak load are negligible and will not result in additional exceedances of the criterion and in most cases would not be discernible from the background pollutant levels.

9.1.2 Summary of the systems and processes to prevent or minimise impacts from air emissions.

As part of the FSRU development licence, best available techniques or technology would be demonstrated for activities affecting the quality of the environment such as energy use, greenhouse gas emissions, discharges to air, noise emissions, discharge to surface water and solid waste generation.

From an air quality perspective, BATT design parameters and emission standards would be applied to ensure emissions would be minimised to the extent practicable.

The candidate engines and boilers for the FSRU are the Wärtsilä 6L50DF dual-fuel engine, Wärtsilä 8L50DF dual-fuel engine, and Mitsubishi MAC-90BF boiler. Both the engines and boilers would be run on natural gas with marine diesel oil used only as a pilot fuel and during emergency, maintenance or start-up. The use of natural gas as a fuel, rather than diesel, provides the advantage of considerably lower pollutant emissions. In addition, the candidate engines and boilers have low-NOx emissions technology that is currently the best in class for natural gas-fired power plants. The Wärtsilä engines and Mitsubishi boiler provide an 80 per cent and 65 per cent respective reduction in NOx emissions compared with the reference plant (USEPA 2000b). The use of the candidate plant for the project is considered best-practice from an air quality emissions perspective.

To minimise emissions from the FSRU to the extent practicable in accordance with the requirements of the ERS, equipment and the burners in the boilers and engines would undergo regular maintenance as per manufacturer's specifications.

Performance monitoring during the operation phase of the project would include emissions testing of the FSRU and continued ambient air quality monitoring at the Viva AAQMS. Emissions testing would be conducted to confirm whether FSRU emission rates comply with design specifications and any operating licence requirements. Ambient air quality monitoring would be used to detect impacts on local air quality from FSRU operations and to ensure that air emissions are consistent with design specifications.

Further information is provided in Technical Report E: Air quality impact assessment (refer to Appendix H) and Chapter 14: Environmental Management Framework (refer to Appendix D). Further information on supporting the GED and 'so far as reasonably practicable' is presented in Section 6 of the DL application supporting document.

9.2 Noise

9.2.1 Summary of the activity's noise emissions.

Key noise sources associated with operation of the FSRU include the regasification boiler exhaust, FSRU engine exhaust, LNG carrier engine exhaust, tugboat exhausts and marine loading arms. It has been assumed that all equipment and facilities will operate 24 hours per day, seven days per week.

Operational vibration produced by the FSRU is not expected to result in human disturbance or structural damage of surface structures. Vibration impacts to above or below ground infrastructure would be controlled by engineering design requirements.

All modelled noise scenarios during operation of the FSRU are predicted to be within limits set by the Environment Protection Regulations 2021 at sensitive receivers.

Under one 'worst case' modelled scenario, there is the potential for cumulative noise impacts from nearby existing industries, combined with the noise emissions from the project during operation, at Geelong Grammar, Biddlecombe Avenue and School Road dwellings. However, it is considered highly unlikely that this exceedance would occur as it represents the 'worst case' night time scenario which would involve an LNG carrier moored adjacent to the FSRU operating at full production in closed loop mode with nitrogen trucks unloading nitrogen and nitrogen injection occurring simultaneously at the treatment facility during the night period. The concurrence of all these activities occurring simultaneously would be unlikely and would be readily managed by scheduling activities accordingly to eliminate the potential for all operational activities to occur at the same time during the night period.

9.2.2 Summary of the systems and processes to prevent or minimise impacts from noise emissions.

The FSRU is designed and constructed in accordance with prevailing requirements and recommendations from authorities such as IMO and the SIGTTO. Therefore, the vessel is equipped with systems and solutions to operate efficiently and limit noise impact on the surrounding environment.

In accordance with IMO requirements, the FSRU is designed to maintain an (external) noise level below 90 dB(A) anywhere on deck. The design features to minimise noise emissions from noise emitting equipment on board the FSRU is summarised in Section 7.4 of the DL application supporting document.

In order to minimise noise emissions to the extent practicable, controls to manage noise from the operation of the FSRU would include (but are not be limited to) the following:

- Preparation of an operational management plan to ensure all activities are correctly scheduled to minimise noise emissions. For example, during the night period, limit the number of activities occurring concurrently
- Additional cumulative impact management strategies would be developed in consultation with the relevant stakeholders
- Operational noise monitoring would be undertaken within the first 3 months of operation to confirm operational noise levels, verify cumulative noise impacts and implement additional mitigation measures if required.

Further information is provided in Technical Report I: Noise and vibration impact assessment (refer to Appendix I) and Chapter 14: Environmental Management Framework (refer to Appendix D). Further information on supporting the GED and 'so far as reasonably practicable' is presented in Section 6 of the DL application supporting document.

9.3 Water

9.3.1 Summary of the activity's emissions to surface waters.

Open loop operation with refinery reuse of FSRU discharge

The FSRU will require seawater for different purposes during operation. The use of seawater as process water and cooling water is the preferred and most feasible option for operation of the FSRU

as it is readily available in large quantities and at low cost compared to other sources of water (e.g., potable water or recycled water).

Most FSRUs around the world operate in open loop mode and discharge directly into the receiving waters in which they are located. In contrast, the usual mode of operation proposed for this project (described below) makes use of the synergy created by having the FSRU proximal to the Viva Energy refinery and provides a significant environmental enhancement through reuse of the FSRU discharge water for refinery cooling purposes.

The usual regasification mode of the FSRU for this project would involve open loop. The open loop regasification mode of operation proposed for the project would involve transfer of cooled water from the FSRU (approximately 7°C below ambient temperature) via a seawater transfer pipe to the existing refinery seawater intake for reuse in the refinery as cooling water. A separate Development Licence (refer to DL application no. APP013841) is required for the refinery to discharge or deposit industrial wastewater from another source (FSRU). As such, discharges from the 4 existing licenced discharge outlets following reuse of FSRU discharge in the refinery for cooling water purposes are discussed in the refinery DL application as operation in open loop with refinery reuse of the discharge involves discharge into the seawater transfer pipe and not the environment.

Open loop operation with diffuser

The project also provides for the direct discharge of some, or all, of the FSRU discharge water into Corio Bay via a diffuser located under the Refinery Pier extension.

The diffuser would only be required in the event that the refinery was permanently decommissioned in the future and the option for reuse of the FSRU discharge water in the refinery was no longer available or during periodic refinery maintenance where refinery cooling water demand may be lower than the FSRU water discharge as discussed below. While the potential impacts of the diffuser have been assessed in the EES to enable its introduction in the event of a refinery closure, there would be no requirement for its use at the commencement of the project as the refinery is planned to be operational at that time and the next scheduled refinery maintenance activity post commissioning of the project is not anticipated for a number of years.

Consideration was also given to whether there would be any periods where refinery demand for cooling water was lower than the volumes of water being discharged from the FSRU necessitating use of the diffuser for discharge of the surplus water. The only times where there would be potential for this to occur would be during refinery maintenance shutdowns. The refinery conducts significant maintenance shutdowns on average every second year where up to half of the refinery is taken offline for 2-3 months. During these times, cooling water is still required for the operational part of the refinery and is in the range of 200 – 250 ML/day. Based on this level of demand for cooling water even during refinery maintenance periods and based on the projected seasonal FSRU production rates discussed in Section 7.5.1.4 of the DL application supporting document, the FSRU would still be the primary source of cooling water for the refinery during refinery maintenance and there may be no requirement for diffuser use.

The major planned refinery shutdowns are conducted during spring or autumn every second year and not in winter which is the only time where a surplus of FSRU discharge water would be expected. Based on forecast gas production rates during these times, the FSRU would be producing an estimated 208 ML/day of discharge water. As such, it is likely that all of the discharge water would still be required by the refinery for cooling purposes during shutdowns with little or no requirement for use of the diffuser. Major refinery shutdowns are planned events with long lead times so there is certainty over the timing and scope of maintenance activity.

On the basis that the refinery is still planned to be operational at the commencement of the project and requiring 350 ML/day of cooling water, and that there are currently no planned major maintenance shutdowns reducing refinery cooling water demand until 2028, construction of the diffuser may occur at some point after the project became operational. In the event that there was the potential for surplus water to be generated, the FSRU production rates and water output would be managed to match the refinery demand of 200-250 ML/day of cooling water if the diffuser was not constructed at the time. A description of the process control logic is provided below for this scenario.

During a refinery maintenance period where there is lower cooling water demand, back pressure control valves would switch from low pressure control selector to flow control selector and restrict the flow of water into the refinery cooling water system. On a separate control loop which responds to high pressure, the header valves on the distributor would open to lower the pressure and this would allow the remaining flow to be discharged via the diffuser. If the diffuser was not constructed at this point in time the pressure on the header valves on the distributor would increase and there would be no diffuser to discharge the flow and lower the pressure. In this case, the high pressure in the header valves would be detected at the FSRU centrifugal water pumps which would subsequently lower the amount of water flow. The control system on the FSRU would automatically detect this and the control loop would reduce the LNG regasification rate. Therefore, an unintended over production request for natural gas would require more water generation than can be handled and would result in safe automatic management of the FSRU output without operator intervention.

In addition to the above, any planned decommissioning of the refinery in the future would provide ample lead time for diffuser construction which would be required for project operation in this situation.

Closed loop operation

The project also makes provision for use of the FSRU in closed loop mode which would be utilised in very limited instances where discharge water may not be able to be transferred to the refinery. Closed loop is not preferred as the usual operating mode as it uses up to 2.5% of the LNG cargo to heat the LNG and has higher greenhouse gas emissions than open loop operation. Notwithstanding this, closed loop operation also forms part of the project being put forward for regulatory approvals subject to the outcomes of the EES to enable its use in the limited instances outlined below.

Closed loop operating mode would only be utilised in the unlikely event that the FSRU was unable to discharge water through the seawater transfer pipe to the refinery, for example, during FSRU maintenance or due to a pump or pipe failure. Under this scenario, the refinery would simply revert to its current process of drawing 350 ML/day of cooling water through the existing refinery intake and discharging through its existing discharge points consistent with its operating licence and the FSRU would operate in closed loop mode. The reason that closed loop operation would be utilised in this eventuality is that it does not involve an ongoing water intake (after initial intake of approximately 500 m3 of seawater) or have any ongoing water discharge from the FSRU associated with the regasification process as the seawater is continuously recycled within the FSRU. This is important as the EES has not assessed the refinery and the FSRU operating independently and in parallel with separate seawater intakes and discharges in operation at the one time.

The potential impacts associated with the closed loop regasification mode have been assessed in detail in the EES.

Indicative production profile

This indicative profile is based on typical gas demand rates throughout the year. The FSRU is anticipated to produce up to 500 TJ/day of gas which would require approximately 300 ML/day of seawater for the regasification process. On a limited number of peak demand days, the gas production rate would fluctuate throughout the day, but the maximum daily flowrate of seawater would be 350 ML/day.

The three operating modes for the FSRU outlined in this section are being put forward for regulatory approvals subject to the outcomes of the EES and provide flexibility and an ability to respond to changing circumstances. The potential impacts associated with all three operating modes have been thoroughly assessed in Technical Report A: Marine ecology and water quality impact assessment (Appendix E of the DL application supporting document) and are considered to be able to meet the evaluation objectives established for the EES. A summary of the potential marine ecology and water quality impacts is provided in Section 7.5.3 of the DL supporting document.

FSRU water use

During operation, the FSRU would use seawater for a range of purposes, with regasification being the primary water using activity as described in previous sections. The FSRU water usage rate for regasification would vary depending on the mode of operation and the rate of gas production.

In addition to regasification, the FSRU would use seawater for the following purposes during operation:

- emergency fire water
- water curtain (a spray to ensure there is no direct contact between LNG carriers and the hull of the FSRU in the event of an LNG spill)
- cooling water for machinery (main generator and auxiliary cooling water)
- ballast water during LNG transfer.

Cooling water from the generators and auxiliary machine systems would be redirected to the open loop regasification cycle for reuse rather than being directly discharged to Corio Bay.

Ballast water would be taken on to the FSRU as well as discharged from FSRU to maintain vessel stability and longitudinal strength. During regasification, the FSRU would take in seawater as ballast to compensate for the reduction of LNG volume in the cargo tanks. The ballast water would then be discharged to sea during LNG transfer from the next visiting LNG carrier. LNG carriers would arrive full of LNG and would not need to discharge ballast water on arrival. As the LNG carrier unloads their cargo, they would take on ballast water to compensate for the reduction in cargo volume.

Periodic and continuous seawater flows associated with FSRU water usage during operation in open loop and closed loop are summarised in Section 7.5 of the DL application supporting document. The seawater consumption rates for open loop are based on the proposed winter gas production rate of 500 TJ/day. Seawater intake and discharges for combined loop would be the same as for open loop.

Summary of marine and water quality impacts

The following section summarises the potential impacts from direct discharge into the marine environment during operation of the FSRU including discharge via a diffuser as well as direct discharge from the FSRU. Potential impacts from discharges to the marine environment via the 4 existing licenced discharge outlets following reuse within the refinery for cooling water purposes is discussed in a separate Development Licence (refer to DL application no. APP013841) for the refinery. Technical Report A: Marine ecology and water quality impact assessment (Appendix E of the DL application supporting document) conducted to support the project EES provides more detailed information on the investigations and impact assessments conducted in response to the EES scoping requirements.

Temperature

The backup discharge arrangement for the project would involve discharge from the FSRU directly into Corio Bay through a diffuser located under the new pier. The diffuser would be used to discharge excess seawater during refinery maintenance periods when the rate of FSRU discharge could exceed the refinery demand for seawater or in the event that the refinery was permanently decommissioned in the future and the option for reuse of the FSRU discharge water was no longer available. A full refinery shut down was assumed as a worst case for modelling this scenario. However, in reality, the maintenance regime at the refinery involves one half of the refinery being taken offline for 2-3 months every second year with the other half of the refinery remaining operational. When in a maintenance period with half of the refinery offline, cooling water demand is still in the range of 200-250 ML/day. Based on the projected FSRU seasonal production rates, it is likely that the FSRU would still be the primary source of refinery cooling water even during maintenance periods as winter is the only season where FSRU discharge materially exceeds the refinery cooling water demand of 200-250 ML/day. However, refinery maintenance is typically conducted in spring and autumn, not winter, so it is unlikely that there would be surplus FSRU discharge water during winter. As such, the diffuser is likely to be used on limited occasions.

Notwithstanding the above, in this modelled worst case scenario the FSRU would operate in open loop mode using 350 ML/day and would discharge all of the cooled seawater (approximately 7°C below ambient temperature) through a 300 m long diffuser with 180 small high-velocity ports and located 0.5 metres below Lowest Astronomical Tide (LAT) under the new pier extension.

The diffuser would be designed to achieve high dilution and to ensure that the diluted discharge has a temperature change of less than 0.4°C from ambient. The high-velocity ports would discharge the

seawater at around 5 metres per second (m/s) and at an angle of 30° away from the underside of the pier. The cool seawater would be spread out across a number of outlets rather than being concentrated directly from a single point of discharge on the FSRU. This configuration would result in greater mixing and dilution. The predicted dilution in this case is 20:1 which means that there would be 20 parts of seawater for every 1 part of discharge.

As the diluted plume from the diffuser is cooler water, it is slightly more dense than ambient seawater and would form a plume of diluted effluent, about 3 m thick, on the seabed in the dredge shipping channel. The temperature of the plume on the seabed would be between 0.4 to 0.8°C below ambient temperature and the plume would form over an area of approximately 65 ha on the seabed at 10-13 m water depths. There would be negligible change in water temperature on the surface and at mid-depth of the water column. The temperature plume does not reach the Ramsar site including Limeburners Bay.

The FSRU can also operate in closed loop mode where seawater is recycled within the FSRU rather than being discharged. Closed loop mode would only ever be used in the event that the discharge water was unable to be piped to the refinery due to FSRU maintenance or an issue with the pipe, pumps or the like. Closed loop would be used in this instance as the EES has not assessed both the refinery and FSRU operating in parallel with separate water intakes and discharges.

Closed loop regasification would use gas-fired steam boilers to heat a closed loop of circulating seawater within the FSRU as an intermediate heating medium for heat exchange in the LNG regasification trains. Around 500 m^3 of seawater from Corio Bay would be required to fill the FSRU heat exchange piping. The seawater would then be continually circulated in the heat exchange process instead of being discharged from the FSRU as per open loop mode. Seawater would only be discharged to Corio Bay through two small pipes at the rear of the FSRU when switching back to open loop when the issue preventing discharge to the refinery was rectified. Discharged seawater from the closed loop process would be around 5 ºC warmer than the ambient water temperature.

The temperature contours for the future closed loop operation scenario plotted are 0.6°C, 0.7°C, 0.8°C and 0.9°C above ambient temperature. The maximum predicted temperature rise for operation in closed loop mode would be less than 1°C. In summary, the temperature plume for the closed loop operation is smaller than the existing plume from the refinery discharge and less intense, as the maximum temperature rise is less than 1°C outside a small mixing zone. The temperature plume does not reach the Ramsar site including Limeburners Bay.

The Australia and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG) list temperature as a stressor of aquatic ecosystems and the potential effects as a “Loss of native biota”.

Aquatic ecosystems are regulated by temperature. Biota, and physical and chemical processes, such as oxygen solubility and hydrophobic interactions, are sensitive to temperature changes. Large changes in temperature occur naturally as part of normal diurnal (daily) and seasonal cycles.

Growth, metabolism, reproduction, mobility and migration patterns can be altered by changes in water temperature. Fauna endeavour to remain near the centre of their tolerance range. High temperatures (usually over 40°C) and low temperatures (usually under 5°C) are considered deleterious. Current discharges from the refinery do not enter the deleterious ranges and the modelled discharges from the project for any of the FSRU operating modes/discharge locations would not enter the deleterious ranges. As such, the marine discharges associated with the project are not considered to have any adverse impacts on marine biota. The temperature plumes both from the current refinery operations, and from the project, do not extend to the Ramsar site or have any impact on ambient water temperature within the site.

A mixing zone is an area where an effluent discharge undergoes initial dilution close to the point of the licenced discharge point and where threshold or guideline values would be exceeded. The size and extent of the mixing zone would be designated in the EPA licence. The Australian and New Zealand Environment and Conservation Council (ANZECC) 2000 Guidelines were used to derive appropriate threshold temperature change limits at the edge of the mixing zone as a function of depth. The limits were derived based on the natural temperature variations within Corio Bay. The limits are widest at the water surface (the intertidal zone) at -3/+3°C and decrease to -2/+2.5°C in shallow water (0 to 2 m depth). The adopted threshold limits are more stringent in deeper water at -1/+2°C in water between 2 to 5 m depths and +1/-1°C for depths beyond 5 m.

The cool diffuser plume would sit in deeper waters where the -1°C would apply at the edge of the designated mixing zone. The predicted temperature within the 65 ha cool plume on the seabed for discharge through the diffuser would be between 0.4 to 0.8°C below ambient temperature and would therefore satisfy the derived threshold limits during project operation.

This section has outlined the results of modelling undertaken to predict the temperature plume associated with direct discharge from the FSRU including discharge via a diffuser as well as directly from the FSRU. Under both scenarios, the discharge water meets guideline values.

Chlorine

This section describes the potential impacts on the marine environment associated with chlorinated discharges into Corio Bay during operation of the project. Chlorine is used to control biofouling in the refinery cooling water system at present and would also be used in the FSRU for the same purpose. The chlorine would be converted by natural chemical transformation to other chlorine produced oxidants (CPO) such as bromoform through a series of rapid reactions as it travels through pipes and heat exchanges and would be subsequently discharged at low concentrations to Corio Bay.

As described earlier, a mixing zone is an area where an effluent discharge undergoes initial dilution close to the point of the licensed discharge point and where threshold or guideline values would be exceeded. The size and extent of the mixing zone would be designated in the EPA licence. The guideline value for chlorine was determined by considering the Victorian EPA Environment Reference Standard (ERS), the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (ANZG) and a recent Commonwealth Scientific and Industrial Research Organisation (CSIRO) paper specifically addressing the chlorine limit in marine waters (Batley and Simpson, 2020).

The ERS is a fundamental component of the Environment Protection Act 2017 (Vic) (EP Act). While the ERS does not specify a limit for chlorine, the EP Act introduces a new permissions scheme including the requirement for a development licence and operating licence for the operation of the FSRU where chlorine limits could be specified. The ANZG lists a chronic guideline value for chlorine in freshwater of 3 µg/L, however, does not list a guideline value for chlorine in marine water.

Batley and Simpson (2020) published a Guideline Value for chlorine in seawater in 2020 using the method of derivation described in ANZG. Batley and Simpson plotted a species sensitivity diagram, using data from short-term (mostly 48-hour or 96-hour) toxicity tests in marine waters with renewal of chlorine. The exposure period to chlorine in the tests was mostly 96 hours, but some tests with a lower exposure time were also included.

The tests with the two lowest CPO levels were for sea urchins. Threshold CPO concentrations which would apply over a period of 24 hours were determined to be

- CPO of 3.7 µg/L for 99% species protection
- CPO of 12 µg/L for 95% species protection
- CPO of 21 µg/L for 90% species protection

To convert the Lethal Concentration 50 (LC50) (i.e., the concentration of CPO in seawater that would be lethal to 50% of species in a single exposure) to a no or low effect concentration (Lethal Concentration 10 (LC10)), a factor of 0.6 was applied by Batley and Simpson.

According to the guidelines the level of species protection that applies to an aquatic ecosystem depends on the existing conditions (current or desired health status of an ecosystem relative to the degree of human disturbance. The 95% species protection applies to Corio Bay as it is classified as a slightly to moderately modified environment. The guideline value for CPO in Corio Bay at the edge of the designated mixing zone is therefore 7.2 µg/L (95% species protection 12 µg/L x 0.6).

As the Geelong refinery has been discharging chlorine into Corio Bay for more than 60 years, it provided an opportunity to assess the potential impacts on the marine environment from these existing discharges.

Field surveys in Corio Bay conducted for this study show very large numbers of sea urchins breeding in the current refinery mixing zone in waters with 5 to 10 µg/L of CPO. This is of interest in that sea urchins are considered to be the most sensitive sea animal to chlorine as outlined above in the discussion on toxicity. It is possible that the laboratory test does not represent what happens in nature,

and that the sea urchin results in the species sensitivity diagram are artificially low. The impact assessment for the project has been conducted on the basis that the guideline value for CPO in Corio Bay is 7.2 µg/L.

As described in previous sections, the backup discharge arrangement for the project would involve discharge from the FSRU directly into Corio Bay through a diffuser located under the new pier. The diffuser would be used to discharge excess seawater during refinery maintenance periods in the event that the rate of FSRU discharge exceeded the refinery demand for seawater or in the event that the refinery was permanently decommissioned in the future and the option for reuse of the FSRU discharge water was no longer available. A full refinery shut down was assumed for this scenario which is highly conservative as refinery maintenance occurs every second year with half the refinery being taken offline and the other half operating and still requiring cooling water in the range of 200-250 ML/day. As such, it is highly unlikely that the diffuser would operate at maximum discharge rates as the FSRU will still be piping most or all of its discharge water to the refinery even during maintenance periods. Based on FSRU production rates outlined in an earlier section, the winter months are the only period when there is potential for the FSRU to generate more water than required by the refinery during maintenance. However, refinery maintenance is typically conducted in spring or autumn so the need for discharging through the diffuser in winter is unlikely.

In this scenario the FSRU would operate in open loop mode using 350 ML/day and would discharge the seawater (with a residual CPO concentration of up to 100 µg/L) through a 300 m long diffuser with 180 small high-velocity ports and located 0.5 metres below Lowest Astronomical Tide (LAT) under the new pier extension.

The diffuser for cool water discharge from the FSRU would be designed to achieve a minimum initial dilution of 20:1 to ensure that the diluted discharge has a chlorine concentration less than the guideline value.

The diffuser would be designed to achieve high dilution and to ensure that the diluted discharge has a chlorine concentration less than the guideline value of 7.2 µg/L. The high-velocity ports would discharge the seawater at approximately 5 metres per second (m/s) and at an angle of 30° away from the underside of the pier. This configuration would result in greater mixing and dilution. The predicted dilution in this case is 20:1 which means that there would be 20 parts of seawater for every 1 part of discharge.

Initial dilution of 20:1 would reduce the chlorine level from 100 µg/L to 5 µg/L. The entire plume on the seabed would have CPO concentrations below 5.4 µg/L which is well below the 7.2 µg/L guideline value for chlorine in marine waters. The chlorine plume would be localised would not reach the Ramsar site including Limeburners Bay.

The predicted average diffuser discharge chlorine plume scenario the FSRU would operate in open loop mode using 250 ML/day and would discharge the seawater (with a residual CPO concentration of up to 100 µg/L) through the diffuser. The diffuser is 300 m long however, during the average flow scenario only 240 m of the diffuser would be used to maintain a high port velocity.

The plume for the diffuser scenario would have chlorine concentrations in the range of 4 to 5 µg/L and would encompass a total area of 2.8 ha on the seabed. The plume would spread out in the deep waters of the channel; however, the spatial extent would be limited by the decay of chlorine compounds in the plume. As with the peak diffuser discharge scenario discussed in the previous section, the entire plume on the seabed would have CPO concentrations below 5 µg/L which is well below the 7.2 µg/L guideline value for chlorine in marine waters. The chlorine plume would be localised and would not reach the Ramsar site including Limeburners Bay.

As described in previous sections, the FSRU can also operate in closed loop mode (water recycled within the FSRU) whereby a proportion of the LNG would be regasified using LNG-fired boilers on the FSRU. This mode of operation would be used in the event that either maintenance on the FSRU or an operational issue precluded seawater to be piped to the refinery. As such, it is expected that closed loop operating mode would rarely be utilised.

In this scenario the FSRU would operate in closed loop mode as the EES has not assessed the impacts of the refinery and FSRU operating in parallel with their own seawater intakes and discharges. Closed loop regasification would use gas-fired steam boilers to heat a closed loop of circulating

seawater within the FSRU as an intermediate heating medium for heat exchange in the LNG regasification trains. Around 500 m3 of seawater from Corio Bay would be required to fill the FSRU heat exchange piping. The excess heat generated by closed loop operation would be discharged as a warm water plume at approximately 5°C above ambient temperature with residual chlorine concentrations at 100 µg/L through two small pipes at the rear of the FSRU and only at the point when the vessel was switching back to open loop operating mode.

The maximum CPO concentration within the plume at the surface for the closed loop operation scenario would be less than 5 µg/L which is well below the 7.2 µg/L guideline value for chlorine in marine waters. The chlorine plume would be localised and would not reach Limeburners Bay or the Ramsar site.

9.3.2 Summary of the systems and processes to prevent or minimise impacts to surface water.

To minimise potential impacts to the marine environment so far as reasonably practicable during the operation of the FSRU, controls that would be implemented include:

- Maximising the reuse of discharge from the FSRU in the refinery to be consistent with existing discharges that have been occurring for over 60 years
- Designing the seawater intake to minimise the entrapment of small and large fish, and other free-swimming biota
- Locating the seawater intake on the FSRU at least 2 m below the water surface, and at least 2 m above the seabed, to minimise entrainment
- Design of the diffuser for cool water discharge from the FSRU to achieve a minimum initial dilution of 20:1
- Use of well-established measures to control and minimise the introduction of marine pests
- Maintenance of the FSRU anti-foul coating to avoid contamination impact
- Use of a well-established spill management plan, which would be upgraded as required to include operation of the FSRU
- Managing the seawater chlorination process at the FSRU to minimise the concentration of chlorine in seawater
- Monitoring of flow rate, temperature, and residual chlorine from all major discharges from the FSRU. Monitoring will be conducted to keep a record of all discharges, confirm that the discharge rate and chlorine concentration are within the values stipulated in the EPA licence conditions and, if not, provide the trigger for remedial action.

Further information is provided in Technical Report A: Marine ecology and water quality impact assessment (refer to Appendix E) and Chapter 14: Environmental Management Framework (refer to Appendix D). Further information on supporting the GED and ‘so far as reasonably practicable’ is presented in Section 6 and Section 7.5 of the DL application supporting document.

The FSRU does not require a detailed stormwater management assessment as it will be continuously moored at Refinery Pier.

The deck of the FSRU is equipped with deck scuppers to collect stormwater, sea spray and wash water. The scuppers are closed during normal operation and opened during a rain event, storm or during testing of the firewater system to allow the water to drain overboard. Equipment on the FSRU deck that may be subject to oil spills or leaks are equipped with coamings to collect and contain spills. The coamings and scuppers will be regularly inspected for oil spills and any contaminated water.

Any contaminated water from the deck will be collected and manually pumped to the bilge holding tank which would then either be discharged to shore/barge for off-site disposal by a licensed waste contractor or sent to the oily bilge separator on board the FSRU where the bilge water will be treated to an oil content of less than 15 part per million (ppm). Oil is sent to the Oily Bilge Tank and treated water is sent to the Clean Bilge Holding Tank prior to off-site disposal by a licensed waste contractor.

Small volumes of stormwater runoff from the sides of the FSRU into Corio Bay are expected. Due to the small volume of stormwater run-off discharges, potential impacts of these discharges on the receiving environment have not been assessed. The risk of oil spills or leaks on the deck of the FSRU is considered low as the equipment located on the deck of the FSRU that may be sources of oil spills or leaks have been minimised. In addition, these pieces of equipment (e.g., winches or cranes) contain small inventories of oil.

9.4 Land and groundwater

9.4.1 Summary of the activity's emissions to land or groundwater.

The proposed activity does not involve an emission or discharge to land or groundwater.

9.4.2 Summary of the systems and processes to prevent or minimise impacts to land and groundwater.

Not applicable.

9.5 Odour

9.5.1 Summary of the activity's emissions of odour.

The operation of the FSRU is not expected to generate odour emissions as the anticipated air pollutants do not generate odour. Therefore, an odour emissions assessment was not conducted. In addition, odour associated with the storage and handling of waste will be managed and conducted in accordance with legislative requirements to ensure that there are no odour emissions

9.5.2 Summary of the systems and processes to prevent or minimise impacts from odour emissions.

Not applicable.

9.6 Waste

9.6.1 Does your activity include management or control of industrial waste, priority waste and/or reportable priority waste?

Operation of the FSRU in open loop mode will result in the generation of a maximum of 350 ML/day of industrial wastewater (L200) which will be transferred to the existing refinery seawater intake via a seawater transfer pipe for reuse in the refinery as cooling water. The reuse of discharge from the FSRU in the refinery for cooling water purpose will be maximised to minimise potential environmental impacts and to manage industrial waste in line with the waste management hierarchy. Following reuse within the refinery, the industrial wastewater will be discharge back into Corio Bay via 4 existing licenced discharge outlets. A separate Development Licence (refer to DL application no. APP013841) is required for the refinery to discharge or deposit industrial wastewater from another source (FSRU).

Other industrial waste generated during operation of the FSRU including, but not limited to sludge and bilge water will be managed in accordance with EP Act, Environment Protection Regulations, any supporting legislation and would need to consider the GED. The Environment Protection Regulations provide detail on how waste should be classified (Schedule 5) and categorised (Schedule 6) where required. Once categorised, waste can only be sent to a place authorise to receive that waste. Only small quantities of industrial waste are expected to be generated during the operation of the FSRU, however this would likely include priority waste and reportable priority waste (refer to Section 7.7.2 of the Supporting Document).

The FSRU is classed as an oceangoing LNG carrier and is required to follow MARPOL regulations. This implies that while the FSRU is anchored/moored the vessel is not allowed to discharge any potentially oily water (e.g., bilge) to sea, even though the water would be treated in a separator to have an oil content below 15 parts per million (ppm).

Produced bilge water, grey water, sludge and sewage would be collected, treated as required and stored in holding tanks onboard the FSRU. The tanks would be emptied periodically to a barge or truck

via flexible connections or piped onshore, and the content sent to an external authorised treatment plant.

A sludge tank would collect sludge from marine diesel oil (MDO) and lube oil (LO) purifiers. The sludge would then either be pumped to deck for discharge to shore, or pumped to a Sludge Dewatering Unit where the sludge would be separated into bilge water and pumped to the Bilge Holding Tank and oil residue which would be pumped to the Oily Bilge Tank

The Oily Bilge Tanks would contain oil residue from drains, drip trays, oil separators, sludge dewatering unit. The oily bilge (sludge) would be pumped to deck for discharge to a barge or truck for offsite disposal.

Bilge water is collected in a dedicated holding tank. From here it may either be pumped to deck for discharge to a barge or truck for offsite disposal or pumped to the Oily Bilge Separator where the bilge water would be treated to an oil content of less than 15ppm and sent to the Clean Bilge Tank. Oil discharge from the separator would be sent to the Oily Bilge Tank.

FSRU waste would be managed with a waste management system that will be established as part of the broader Environment Management Plan, in accordance with the EP Act, Environment Protection Regulations, any supporting legislation and the GED.

9.6.2 Detail of the type, quantity and treatment of waste.

A summary of the waste that is anticipated to be generated through the operation of the FSRU is provided in Section 7.7.2 of the DL application supporting document.

Industrial wastewater generated onboard the FSRU during operation in open loop mode will be discharged into the seawater transfer pipe for reuse within the refinery for cooling water purposed. All other waste generated on board the FSRU will be treated and/or stored and pumped to deck for off-site disposal by a licensed contractor, in accordance with the relevant Commonwealth and State regulations, and the IMO regulations.

9.6.3 Is the proposed activity included in a relevant schedule of a Regional Waste and Resource Recovery Implementation Plan?

Not applicable.

9.7 Human health

9.7.1 Summary of the activity's potential human health impacts.

A Human Health Risk Assessment (HHRA), or other relevant human health assessment, has not been completed as part of this DL application. Human health has been assessed as part of air, noise, water, land and groundwater, odour and waste studies for the EES.

9.7.2 Summary of the systems and processes to prevent or minimise impacts to human health.

Mitigation measures to avoid, minimise and manage potential impacts to human health and the environment were identified and recommended as part of the technical studies undertaken for the EES. Refer to Chapter 14: *Environmental Management Framework* for a complete list of mitigation measures as well as systems and process which Viva Energy has committed to in order to prevent or minimise harm.

10.0 Community engagement

10.1.1 Have you engaged with the community and other third parties regarding this activity?

Yes

10.1.2 Summarise any planned or completed consultation, as well as concerns raised and the approach to address them. Include any concerns raised by the community and how they'll be resolved.

An extensive engagement and consultation program was undertaken to ensure that the community and interested stakeholders were informed, involved and able to actively contribute to the development of the project and preparation of the EES.

A Consultation Plan for the Viva Energy Gas Terminal Project (Consultation Plan) was prepared in accordance with the final scoping requirements and the EES Consultation Plan Advisory Note outlining the opportunities and approaches for community engagement during the preparation of the EES and to show how Viva Energy would consult with owners and occupiers of land about the proposed pipeline. The Consultation Plan was published on the DELWP website in April 2021. The Consultation Plan was updated in July 2021 to include an updated project timeline and project approvals schematic, and to provide a separate rolling Consultation Activities Plan for the upcoming months.

In October 2019, Viva Energy commenced preliminary engagement to introduce the Gas Terminal Project as part of the broader Geelong Energy Hub to individuals and stakeholders that would be directly involved in or impacted if it were to proceed. This initial engagement primarily involved Commonwealth, State and local governments as well as key regulators. Subsequent engagement then expanded to include the refinery's closest neighbours, local Geelong associations and businesses and the broader community primarily through announcements in the media in June and July 2020. Information about the project was made available on the Viva Energy website in November 2020.

Viva Energy has sought to understand and address stakeholder and community feedback received during preparation of the EES and consider, and where possible incorporate, this feedback in the design of the project. A summary of the issues raised is provided in Section 5.2 of the DL application supporting document. A complete list of mitigation measures is provided in EES Chapter 14: *Environmental Management Framework*.

In addition, Viva Energy has sought to provide stakeholders and the community with information about the key areas of concern through targeted communications collateral (displays and presentations) and targeted community meetings.

11.0 Additional details

11.1 EPA permissions and compliance

11.1.1 Have you ever held a permission from EPA for this activity at the same location?

No

11.1.2 Do you currently hold a permission or authorisation from EPA for this activity at the same location?

No

11.1.3 Do you currently hold an exemption for this activity at the same location?

No

11.1.4 Detail any engagements with other regulatory authorities, other than EPA, related to this activity.

In accordance with the EES scoping requirements, a Technical Reference Group (TRG) was convened and chaired by the Department of Environment, Land, Water, and Planning (DELWP) Impact Assessment Unit on behalf of the Minister for Planning. The TRG included a number of regulatory authorities who provided input throughout the EES process.

The regulatory authorities that were part of the TRG included:

- Department of Environment, Land, Water and Planning
  - Pipeline Regulation
  - Barwon South West Region
  - Heritage Victoria
- First Peoples – State Relations
- Environment Protection Authority Victoria
- Energy Safe Victoria
- Worksafe Victoria
- Corangamite Catchment Management Authority
- Ports Victoria
- Wadawurrung Traditional Owners Aboriginal Corporation
- City of Greater Geelong Council

11.1.5 Do you require any other planning permits or other approvals for this activity?

Yes

11.1.6 Do you currently hold a planning permit or any other approval for this activity?

No

11.1.7 Have you received any notices from EPA related to this location or activity?

No

11.1.8 List the notice numbers for all notices issued by EPA.

The Applicant, Viva Energy Gas Australia Pty Ltd, has not received any notices from the EPA related to this location or activity. However, given that Viva Energy Gas Australia Pty Ltd is part of Viva Energy Group and that the location of the proposed activity is adjacent to the Viva Energy Geelong Refinery (operated by Viva Energy Refining Pty Ltd), we hereby enclose information about Viva Energy Refining:

- Annual Performance Statement Viva Energy 46555 APS 2020-2021; and
- A summary of sanctions, orders, infringements, enforceable undertakings and/or prosecutions imposed on Viva Energy Refining in the past 10 years.

11.2 Other approvals

11.2.1 Do you require a proof of performance (commissioning) testing plan in relation to this activity?

Yes

A significant advantage of selecting an offshore FSRU based approach for the project, compared to an onshore alternative is that the FSRU would be commissioned for optimal operating parameters prior to arriving at Refinery Pier. Following the arrival of the FSRU at Refinery Pier it will need to be connected to important infrastructure such as the seawater transfer pipe. These connections would be tested prior to commencement of operation for function and serviceability.

Testing activities would include but are not limited to the following:

- Hydrotesting or service pressure testing of various piping sections and equipment connected to the FSRU
- Instrumentation functional checks for correct recording of values and stroke testing and validation of valves
- Control loop checks to verify whether the outcome to input signals match design intention
- System commissioning including preparation of pipes by charging with water to remove air from the system
- FSRU interface commissioning including:
  - Checking signals between FSRU and shore
  - Charging FSRU equipment with water
  - Function testing of regasification water networks
- Recording of data to validate expected flow and pressure performances

11.2.2 Summarise the proof of performance testing plan for this activity.

Air, noise and marine discharge from the FSRU during operation were modelled and potential impacts predicted as part of the preparation of the EES. Modelling and predictions of discharges were based on the FSRU manufacturer technical specifications. Proof of performance would be verified through monitoring to check actual impacts against predicted values and to ensure compliance with conditions of statutory approvals. Proposed environmental monitoring during operation of the FSRU is discussed in Section 11.3 of the supporting document. Viva Energy and their contractors will have in place contingency measures to facilitate an efficient and effective response where environmental monitoring indicates that discharges are greater than what was modelled and predicted or operation of the FSRU is non-compliant with statutory approval conditions. Examples of contingency measures that could be implemented where required are discussed in Section 11.3 of the supporting document and in Chapter 14: Environmental Management Framework.

11.2.3 Do you require financial assurance for this activity at this location?

No

11.2.4 Summarise the proposed amount and type of financial assurance.

Not applicable

11.2.5 Summarise the profitability of the activity, investment at the site and likelihood of the site being abandoned.

Not applicable

11.2.6 Summarise the nature and costs of clean up for the activity.

Not applicable

12.0 Supporting evidence

12.1 Attachments

Upload your application and supporting evidence including commercial in confidence or sensitive information

12.2 Declarations

12.2.1 I declare that I have made all necessary enquiries and the information provided in this application (including any attachments) is true and correct. I understand that it is an offence to intentionally or negligently provide incorrect or misleading

information to the Environment Protection Authority or to conceal information from the Authority.

I agree

12.2.2 I declare that I will perform my activity in accordance to the general environmental duty.

I agree

12.2.3 I declare that I will perform my activity to ensure that all substances are handled, stored, used or transported in a manner that minimises risks of harm to human health and the environment from pollution and waste.

I agree

EPA VICTORIA

VICTORIA State Government

ENVIRONMENT PROTECTION ACT 1970
SECTION 31D(5)

ANNUAL PERFORMANCE STATEMENT

VIVA ENERGY REFINING PTY LTD

HOLDER OF LICENCE: 46555
ACN: 004 303 842
REGISTERED ADDRESS: LEVEL 16 720 BOURKE ST
DOCKLANDS VIC 3008
PREMISES ADDRESS: 90 REFINERY RD
CORIO VIC 3214

STATEMENT SUMMARY

Statement Period: 01-Jul-2020 To 30-Jun-2021

Total Number of Conditions on Licence:	20
Number of Conditions - Complied:	13
Number of Conditions - Non-Complied:	7

DECLARATION

I, Scott Wyatt declare that the information in this Annual Performance Statement is true and correct. I have made all necessary enquiries, and no matters of significance have been withheld from the EPA

Name: Scott Wyatt Position: Chief Executive Officer

Signed: Date: 30/09/2021

The most senior Australian-based officer of your organisation for this licence must sign this statement and it must be scanned and uploaded along with this completed APS form via the EPA web portal by 01 October 2021.

In the event this is not possible, the signed statement must be faxed to (03) 8677 9063 by 01 October 2021. In both instances the statement must also be e-certified on the web portal by 01 October 2021.

1. Under Section 31D(5) of the Environment Protection Act 1970, it is an offence to provide false or misleading information in an Annual Performance Statement or conceal any relevant information or document from the Authority. Contravention of subsection (5) is an indictable offence that carries a penalty of 2400 penalty units or imprisonment for two years, or both.

STATEMENT OF COMPLIANCE

Premises Address: 90 REFINERY RD, CORIO VIC 3214

Licensed Activities: The licence-holder refines crude oil to produce a range of petroleum products. This licence allows for discharges to air and discharges of wastewater to Corio Bay.

Scheduled Categories: G03 Oil and Gas Refining

Analysis of performance against environmental Performance Conditions

Condition Area	Condition Reference	Condition Description	Condition Complied with?
General	LI_G1	Waste from the premises must not be discharged to the environment except in accordance with this licence.	No
General	LI_G2	You must immediately notify EPA of non-compliance with any condition of this licence.	Yes
General	LI_G3	By 30 September each year you must submit an annual performance statement to EPA for the previous financial year in accordance with the Annual Performance Statement Guidelines (EPA Publication 1320).	Yes
General	LI_G4	Documents and monitoring records used for preparation of the annual performance statement must be retained at the premises for seven years from the date of each statement.	Yes
General	LI_G5	You must implement a monitoring program that enables you and EPA to determine compliance with this licence.	Yes
General	LI_G5.1	You must implement a program to assess performance against the intervention level in Schedule B of the State environment protection policy (Air Quality Management) for sulfur dioxide, benzene and particles as PM10.	Yes
General	LI_G5.4	You must implement a program to assess annually: (a) Performance against the Design Criteria in Schedule A of the State environment protection policy (Air Quality Management) for fluoride; and (b) Within a 1500 metre radius of the premises boundary: (i) any visible injury to vegetation; and (ii) fluoride levels in samples of forage (dry tissue, unwashed) against an annual mean of 40 µg/g and a maximum of 80 µg/g.	Yes
Amenity	LI_A1	Offensive odours must not be discharged beyond the boundaries of the premises.	Yes
Amenity	LI_A2	Unacceptable noise (including vibration) must not be emitted beyond the boundaries of the premises.	No
Amenity	LI_A3	Nuisance dust must not be discharged beyond the boundaries of the premises.	Yes

Condition Area	Condition Reference	Condition Description	Condition Complied with?
Air	LI_DA1	Discharge of waste to air must be in accordance with the 'Discharge to Air' Table.	Yes
Air	LI_DA1.12	Air emissions from all discharge points combined must not exceed 12,900 grams per minute of sulfur dioxide.	No
Air	LI_DA1.13	Air emissions of sulfur dioxide must not exceed : (a) 5,100 grams per minute from all boilers and heaters combined being the sum of DP's 4, 5, 9, 10, 11, 12, 21 and 23; (b) 2,000 grams per minute from Discharge Point 25; and (c) 10,300 grams per minute from Discharge Point 26.	No
Air	LI_DA2.1	Visible emissions to air other than steam must not be discharged from the premises, except in accordance with condition LI_DA1.	No
Water	LI_DW1	Stormwater discharged from the premises must not be contaminated with waste.	No
Water	LI_DW2	Discharge of waste to surface waters must be in accordance with the 'Discharge to Water' Table.	No
Water	LI_DW2.5	Discharge of wastewater must not contain visible floating oil.	Yes
Water	LI_DW3.1.1	The mixing zones, as shown in Schedule 1, extend for (a) a radius of 500 metres from discharge point W1, (b) a radius of 100 metres from discharge point W3, (c) a radius of 80 metres from discharge point W4, and (d) a radius of 120 metres from discharge point W5.	Yes
Water	LI_DW4	You must install and maintain signage showing the (a) extent of the mixing zone, (b) your name, (c) EPA licence number and (d) discharge point number.	Yes
Land	LI_DL1	You must not contaminate land or groundwater.	Yes

NON-COMPLIANCE DETAIL

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_G1 Waste from the premises must not be discharged to the environment except in accordance with this licence.

a) Date(s) when the non-compliance occurred (If applicable)

14/07/2020

13/09/2020

22/10/2020

23/03/2021

b) Summary of particulars of non-compliance

14/07/2020, Product leak from YP192 into pipetrack and soil between jetty and SWI
13/09/2020, Small amount of hydrocarbon leaked from YP59 flange on jetty pipeline
22/10/2020, Black particulate matter discharged via W1 outfall
23/03/2021, Discharge of PFAS impacted stormwater to W1 Outfall

c) What is your assessment of environmental impact as a result of non-compliance

14/07/2020, Hydrocarbon impacts to soil and groundwater
13/09/2020, No hydrocarbon detected in Corio Bay or on the adjoining beach area. No impact marine or plant life.
22/10/2020, No coloured water detected in Corio Bay beyond the outfall or on the adjoining beach area. No impact marine or plant life. No hydrocarbon was observed.
23/03/2021, No elevated detection above background in Corio Bay. No impact marine or plant life.

d) Cause of non-compliance

14/07/2020, Corrosion at gusset arrangement, condition of pipetrack allowed dirt to accumulate, pipetrack inspection did not include gusset.
13/09/2020, Small amount of product seep from flange YP59 while loading at Jetty 1/2, caused by thermal expansion due to product temperature.
22/10/2020, Investigations inconclusive, suspect drop in operational level of tank reduced settling time and may have permitted overflow of particles from cleaning activities.
23/03/2021, Valve failure on foam pod.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

14/07/2020, Impacted soil removed, Active recovery of groundwater and LNAPL, ongoing gauging of groundwater wells in the vicinity. 13/09/2020, Loading ceased and flange retorqued. 22/10/2020, additional absorbent boom placed at creek, industrial cleaner engaged to remove accumulation at booms, rate of feed through DAF1 reduced to increase settling time. 23/03/2021, Temporary quarantining of impacted stormwater in Tank 7. Reduce flow rate through DAF to increase settling time of solids, increased skimming off DAF, ongoing monitoring of upstream, outfall and Corio Bay outside mixing zone.

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

14/07/2020, Inspection procedure to include gusset arrangements, Implement proactive pipetrack remediation program, Jetty Pipeline Procedure updated. Pipetrack lined to protect soil. 13/09/2020, YP59 flange repaired, limits placed on product temperatures allowed in YP59. 22/10/2020, Note to operators to maintain minimum operational level in Tank 7. 23/03/2021, Replaced failed pipe fitting on foam pod, proactive change out of second pod fitting in same service. Assess and implement secondary spill containment for the refinery’s bulk foam inventory. Update Refinery Training Guides and procedures with more specific instruction on foam containment and spill control protocols.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_A2 Unacceptable noise (including vibration) must not be emitted beyond the boundaries of the premises.

a) Date(s) when the non-compliance occurred (If applicable)

05/10/2020

20/11/2020

b) Summary of particulars of non-compliance

05/10/2020, A community member complained about noise from the flare being detected beyond the boundary.
20/11/2020, Two community members complained about noise from the flare being detected beyond the boundary.

c) What is your assessment of environmental impact as a result of non-compliance

05/10/2020, Noise could be heard outside the Refinery boundary by a residential neighbour.
20/11/2020, Noise could be heard outside the Refinery boundary by a residential neighbour.

d) Cause of non-compliance

05/10/2020, Steaming activity caused loud high pitched noise that could be heard outside of the boundary.
20/11/2020, Instrument wear caused Wet Gas Compressor trip on the residual cracker unit (RCCU), resulting in the large flare.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

05/10/2020, The rate of steaming was reduced, returning noise to acceptable levels.
20/11/2020, The feed rate was reduced and removed from the RCCU, allowing air supply line repair and restart.

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

05/10/2020, The procedure for the activity has been altered to specify the desired steaming rate. Notification of neighbours for the potential for noise during this activity has been included in the procedure.
20/11/2020, Instrument repair added to next maintenance scope to prevent trip.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DA1.12 Air emissions from all discharge points combined must not exceed 12,900 grams per minute of sulfur dioxide.

a) Date(s) when the non-compliance occurred (If applicable)

09/05/2021

b) Summary of particulars of non-compliance

09/05/2021, SO2 bubble limit was exceeded when a feed change was made.

c) What is your assessment of environmental impact as a result of non-compliance

09/05/2021, No SO2 detected at boundary or AAQM station, no off site odour or calls from community.

d) Cause of non-compliance

09/05/2021, A temporary loss of amine when switching between ARU1 and ARU2 caused a large compositional swing in SRU3. The subsequent shift in temperature within the SRU2 incinerator when amine rates were restored caused both units to trip.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

09/05/2021, Restart procedure was recommenced to restore unit and emission levels returned to levels below limits.

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

09/05/2021, Return sulphur processing units to service.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DA1.13 Air emissions of sulfur dioxide must not exceed :

(a) 5,100 grams per minute from all boilers and heaters combined being the sum of DP's 4, 5, 9, 10, 11, 12, 21 and 23;

(b) 2,000 grams per minute from Discharge Point 25; and

(c) 10,300 grams per minute from Discharge Point 26.

a) Date(s) when the non-compliance occurred (If applicable)

25/02/2021

02/05/2021

09/04/2021

20/05/2021

b) Summary of particulars of non-compliance

25/02/2021, SO2 emissions at Discharge Point (DP) 25 were above licence limits:S30a #236609 was in place for SRU and SCOT restart after COVID shutdown event in 2020.
02/05/2021, SO2 emissions at DP25 were above licence limits: when a feed change was made.
09/04/2021, SO2 emissions at DP25 were above licence limits: when Sour Water Treater (SWT) gas was withdrawn from SRU3, S30A #246972 obtained for the re-introduction of secondary feed into SRU3.
20/05/2021, SO2 emissions at DP25 were above licence limits: when a feed change was made. S30A #250631 was in place for SCOT unit restart.

c) What is your assessment of environmental impact as a result of non-compliance

25/02/2021, SO2 detected at Ambient Air Quality Measurement (AAQM) station remained well below SEPP, Bubble limit was not exceeded, no off site odour or calls from community.
02/05/2021, No changes to SO2 detected at AAQM station, Bubble limit was not exceeded, no off site odour or calls from community.
09/04/2021, SO2 detected at AAQM station remained well below SEPP, Bubble limit was not exceeded, no off site odour or calls from community.
20/05/2021, SO2 detected at AAQM station remained well below SEPP, Bubble limit was not exceeded, no off site odour or calls from community.

d) Cause of non-compliance

25/02/2021, During restart of SRU3 after repairs, feed redirected back from to SRU2, fuel gas adjustments could not be achieved at the same rate causing excess air to react with H2S resulting in SO2 exceeding the licence limit, but was below the limit prescribed in S30A #236609. 02/05/2021, A temporary loss of amine from HDS1 to ARU1 resulted in a rapid change in SRU3 feed flow and composition causing a unit upset and exceedance of licence limit. 09/04/2021, During withdrawal of SWT gas feed from SRU3 due to SO2 emissions approaching DP25 licence limit, could not maintain fuel gas ratio to within control limits. 20/05/2021, Flow disturbance when preparing to take the blower offline as part of the restart process caused SCOT to trip.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

25/02/2021, Not applicable because limits were below those prescribed in S30a #236609. 02/05/2021 Operators altered feed rates and composition and emission levels returned to levels below limits within 1 hour. 09/04/2021, Not applicable because limits were below those prescribed in S30a #246972. 20/05/2021, Start-up procedure was recommenced, unit successfully restored and emission returned to below limits.

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

25/02/2021, Return sulphur processing units to service. 02/05/2021, Return sulphur processing units to service. 09/04/2021, Return sulphur processing units to service. 20/05/2021, Return sulphur processing units to service.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DA2.1 Visible emissions to air other than steam must not be discharged from the premises, except in accordance with condition LI_DA1.

a) Date(s) when the non-compliance occurred (If applicable)

07/02/2021

b) Summary of particulars of non-compliance

At 4am, Viva Energy self-reported a visible white/blue plume from the DP25 stack that lasted for about 35 minutes. S30a #236609 was in place for SRU and SCOT restart after COVID shutdown event.

c) What is your assessment of environmental impact as a result of non-compliance

No SO2 emissions exceeded licence limits, no ambient air impacts, no off site noise, odour or calls from community.

d) Cause of non-compliance

During SRU3 start-up, a tail gas analyser fault forced a rapid shutdown of the unit to prevent potential process safety issue, excess air used to reduce temperatures in the reactor generated SO3 causing a visible white/blue plume.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

Once it was determined that the reactor temperatures were within normal operating levels the air was gradually reduced and the plume dissipated.

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

Tail gas analyser was repaired the following day.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DW1 Stormwater discharged from the premises must not be contaminated with waste.

a) Date(s) when the non-compliance occurred (If applicable)

19/07/2020

23/11/2020

22/12/2020

29/01/2021

b) Summary of particulars of non-compliance

19/07/2020, A small amount of hydrocarbon was discharged from W3 outfall
23/11/2020, Hydrocarbon spotting was observed at W1 and W5 Outfalls
22/12/2020, Hydrocarbon spotting was observed at W5 Outfall
29/01/2021, Hydrocarbon spotting was observed at W5 Outfall

c) What is your assessment of environmental impact as a result of non-compliance

19/07/2021, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. The was no impact marine or plant life.
23/11/2020, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. The was no impact marine or plant life.
22/12/2020, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. The was no impact marine or plant life.
29/01/2021, Minimal hydrocarbon was detected in the water discharged at the outfall. There was no impact on the surrounding beach area. The was no impact marine or plant life.

d) Cause of non-compliance

19/07/2021, YP192 pipe leak impacted seaweed was drawn into the Salt Water Intake and discharged via W3 Outfall.
23/11/2020, Heavy rain in short period that caused CDF7 and CDF10 to overflow taking a small amount of hydrocarbon entrained in the water.
22/12/2020, Heavy rain in short period that caused CDF10 to overflow taking a small amount of hydrocarbon entrained in the water.
29/01/2021, Heavy rain in short period that caused CDF10 to overflow taking a small amount of hydrocarbon entrained in the water.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

19/07/2021, Booms deployed to capture hydrocarbon, source seaweed removed, daily logs maintained until hydrocarbon observed to have subsided. 23/11/2020, Industrial cleaners deployed to remove hydrocarbons from the water in the CDFs 22/12/2020, Industrial cleaners deployed to remove hydrocarbons from the water in CDF10 29/01/2021, Industrial cleaners deployed to remove hydrocarbons from the water in CDF10

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

19/07/2021, Update procedure for jetty pipeline inspections to include external gussets. 23/11/2020, CDF10 basin design modifications identified and assessment completed. Civil works to commence in 2021 and extend into 2022. 22/12/2020, CDF10 basin design modifications identified and assessment completed. Civil works to commence in 2021 and extend into 2022. 29/01/2021, CDF10 basin design modifications identified and assessment completed. Civil works to commence in 2021 and extend into 2022.

Premises Address: 90 REFINERY RD, CORIO VIC 3214

DETAILS OF NON COMPLIANCE WITH LICENCE CONDITION

Condition: LI_DW2 Discharge of waste to surface waters must be in accordance with the 'Discharge to Water' Table.

a) Date(s) when the non-compliance occurred (If applicable)

06/04/2021

b) Summary of particulars of non-compliance

06/04/2021, BTEX in the W5 Outfall exceeded the EPA licence limit

c) What is your assessment of environmental impact as a result of non-compliance

06/04/2021, There was no hydrocarbon odour or sheen observed at the outfall. There was no impact to marine or plant life observed. There were no community complaints received.

d) Cause of non-compliance

06/04/2021, Heat Exchanger (E2553) Leak caused by biota foulling tubes and accelerating corrosion.

e) Action taken or that will be taken to mitigate any adverse effects of the non-compliance

06/04/2021, Isolation of exchanger. Hydro-test on 132 exchanger tubes identified a single leaking tube, which was cut and plugged, anodes replaced on all tubes.

f) Action taken or that will be taken to prevent reoccurence of the non-compliance

06/04/2021, Exchanger scheduled for maintenance repair (re-tube) at next outtage, frequency of preventative maintenance increased, feasibility assessments of tube materials and chlorine injection to reduce foulling by biota.

AIR ADDITIONAL INFORMATION

Premises Address: 90 REFINERY RD, CORIO VIC 3214

AIR - MONITORING METHODS

Indicator	Monitoring Method	Number of Samples Q1 (Jul-Sep)	Q2 (Oct-Dec)	Q3 (Jan-Mar)	Q4 (Apr-Jun)	Total	% Downtime	NATA Accredited
Benzene	Emissions estimations	0	0	0	0	0		NO
Carbon monoxide	Emissions estimations	0	0	1	0	1		NO
Fluorine compounds (as HF)	Stack test	0	0	3	2	5		YES
Oxides of nitrogen (as NO2)	Stack test	0	0	1	0	1		YES
Particles	Stack test	0	0	1	0	1		YES
Particles (as PM10)	Stack test	0	0	1	0	1		YES
Sulfur dioxide	Stack test	0	0	0	0	0		YES
Total volatile organic compounds	Emissions estimations	0	0	1	0	1		NO

AIR - RECORDED VALUES

Discharge Point Number	Indicator	Units	Licence Limit		Maximum Recorded Value	90th Percentile Value	Primary Proxy Indicator	Secondary Proxy Indicator
DP10	Fluorine compounds (as HF)	g/min	140	=	100.000		No Proxy Indicator Used	No Proxy Indicator Used
DP26	Particles	g/min	1,400	=	290.000		No Proxy Indicator Used	No Proxy Indicator Used
DP26	Particles (as PM10)	g/min	1,000	=	200.000		No Proxy Indicator Used	No Proxy Indicator Used
TANKS	Total volatile organic compounds	to/year	450	=	189.650		No Proxy Indicator Used	No Proxy Indicator Used
*BUBBLE	Benzene	to/year	4.500	=	1.403			

Discharge Point Number	Indicator	Units	Licence Limit		Maximum Recorded Value	90th Percentile Value	Primary Proxy Indicator	Secondary Proxy Indicator
*BUBBLE	Carbon monoxide	g/min	2,900	=	321.798			
*BUBBLE	Oxides of nitrogen (as NO2)	g/min	8,800	=	307.482			
*BUBBLE	Sulfur dioxide	to/year	4,475	=	291.236			

* Indicates a bubble limit

WATER ADDITIONAL INFORMATION

Premises Address: 90 REFINERY RD, CORIO VIC 3214

WATER - RECORDED VALUES

Discharge Point Number	Indicator	Recorded Value Required?	Collected?	Units	Limit Type	Licence Limit		Recorded Value
W1	Dissolved oxygen as mg/L	Required	Yes	mg/l	Minimum	5	=	6.700
W3	Dissolved oxygen as mg/L	Required	Yes	mg/l	Minimum	5	=	7.700
W5	Dissolved oxygen as mg/L	Required	Yes	mg/l	Minimum	5	=	6.800
W1	Suspended solids	Required	Yes	mg/l	Above Ambient	5	=	5.000
W3	Suspended solids	Required	Yes	mg/l	Above Ambient	5	=	10.000
W4	Suspended solids	Required	Yes	mg/l	Above Ambient	5	=	2.000
W5	Suspended solids	Required	Yes	mg/l	Above Ambient	5	=	5.000
W1	Temperature	Required	Yes	Degree	Maximum	35	=	31.000
W3	Temperature	Required	Yes	Degree	Maximum	35	=	24.000
W4	Temperature	Required	Yes	Degree	Maximum	35	=	34.000
W5	Temperature	Required	Yes	Degree	Maximum	35	=	34.000
W1	Benzene, toluene, ethylbenzene, and xyle	Required	Yes	mg/l	Maximum	0.7	<	0.080
W5	Benzene, toluene, ethylbenzene, and xyle	Required	Yes	mg/l	Maximum	0.7	=	2.384
W1	Benzene, toluene, ethylbenzene, and xyle	Required	Yes	mg/l	Annual Median	0.01	=	0.003
W5	Benzene, toluene, ethylbenzene, and xyle	Required	Yes	mg/l	Annual Median	0.01	=	0.003
W1	Copper	Required	Yes	mg/l	Maximum	0.1	=	0.005
W5	Copper	Required	Yes	mg/l	Maximum	0.1	=	0.015
W1	Copper	Required	Yes	mg/l	Annual Median	0.006	=	0.003
W5	Copper	Required	Yes	mg/l	Annual Median	0.006	=	0.003

Discharge Point Number	Indicator	Recorded Value Required?	Collected?	Units	Limit Type	Licence Limit		Recorded Value
W1	Nickel	Required	Yes	mg/l	Maximum	0.2	=	0.005
W5	Nickel	Required	Yes	mg/l	Maximum	0.2	=	0.002
W1	Nickel	Required	Yes	mg/l	Annual Median	0.07	=	0.003
W5	Nickel	Required	Yes	mg/l	Annual Median	0.07	=	0.001
W1	Zinc	Required	Yes	mg/l	Maximum	0.5	=	0.052
W5	Zinc	Required	Yes	mg/l	Maximum	0.5	=	0.022
W1	Zinc	Required	Yes	mg/l	Annual Median	0.02	=	0.205
W5	Zinc	Required	Yes	mg/l	Annual Median	0.02	=	0.012
W1	Total residual chlorine	Required	Yes	mg/l	Maximum	0.1	=	0.100
W3	Total residual chlorine	Required	Yes	mg/l	Maximum	0.2	=	0.200
W4	Total residual chlorine	Required	Yes	mg/l	Maximum	0.2	=	0.100
W5	Total residual chlorine	Required	Yes	mg/l	Maximum	0.1	=	0.100
W1	Total organic carbon	Required	Yes	mg/l	Above Ambient	10	=	5.000
W3	Total organic carbon	Required	Yes	mg/l	Above Ambient	10	=	10.000
W4	Total organic carbon	Required	Yes	mg/l	Above Ambient	10	=	4.000
W5	Total organic carbon	Required	Yes	mg/l	Above Ambient	10	=	8.000
W1	Total organic carbon	Required	Yes	mg/l	Annual Median	2	=	2.000
W3	Total organic carbon	Required	Yes	mg/l	Annual Median	2	=	2.000
W4	Total organic carbon	Required	Yes	mg/l	Annual Median	2	=	2.000
W5	Total organic carbon	Required	Yes	mg/l	Annual Median	2	=	2.000
W1	Temperature above ambient	Required	Yes	Degree	Above Ambient	12	=	10.000
W3	Temperature above ambient	Required	Yes	Degree	Above Ambient	12	=	1.000
W4	Temperature above ambient	Required	Yes	Degree	Above Ambient	12	=	10.000
W5	Temperature above ambient	Required	Yes	Degree	Above Ambient	12	=	11.000
W1	Dissolved oxygen as mg/L	Optional	No	mg/l	Annual Median		=	

Discharge Point Number	Indicator	Recorded Value Required?	Collected?	Units	Limit Type	Licence Limit	Recorded Value
W3	Dissolved oxygen as mg/L	Optional	No	mg/l	Annual Median	=	
W5	Dissolved oxygen as mg/L	Optional	No	mg/l	Annual Median	=	
W1	Suspended solids	Optional	No	mg/l	90th Percentile	=	
W1	Suspended solids	Optional	No	mg/l	Annual Median	=	
W1	Suspended solids	Optional	No	mg/l	Maximum	=	
W3	Suspended solids	Optional	Yes	mg/l	90th Percentile	=	17.000
W3	Suspended solids	Optional	Yes	mg/l	Annual Median	=	6.000
W3	Suspended solids	Optional	Yes	mg/l	Maximum	=	19.000
W4	Suspended solids	Optional	No	mg/l	90th Percentile	=	
W4	Suspended solids	Optional	No	mg/l	Annual Median	=	
W4	Suspended solids	Optional	No	mg/l	Maximum	=	
W5	Suspended solids	Optional	No	mg/l	90th Percentile	=	
W5	Suspended solids	Optional	No	mg/l	Annual Median	=	
W5	Suspended solids	Optional	No	mg/l	Maximum	=	
W1	Temperature	Optional	No	Degree	Annual Median	=	
W1	Temperature	Optional	No	Degree	Minimum	=	
W3	Temperature	Optional	No	Degree	Annual Median	=	
W3	Temperature	Optional	No	Degree	Minimum	=	
W4	Temperature	Optional	No	Degree	Annual Median	=	
W4	Temperature	Optional	No	Degree	Minimum	=	
W5	Temperature	Optional	No	Degree	Annual Median	=	
W5	Temperature	Optional	No	Degree	Minimum	=	
W1	Benzene, toluene, ethylbenzene, xylene	Optional	No	mg/l	Minimum	=	
W5	Benzene, toluene, ethylbenzene, xylene	Optional	No	mg/l	Minimum	=	
W1	Benzene, toluene, ethylbenzene, xylene	Optional	No	mg/l	Minimum	=	

Discharge Point Number	Indicator	Recorded Value Required?	Collected?	Units	Limit Type	Licence Limit	Recorded Value
W5	Benzene, toluene, ethylbenzene, xylene	Optional	No	mg/l	Minimum		=
W1	Copper	Optional	No	mg/l	90th Percentile		=
W5	Copper	Optional	No	mg/l	90th Percentile		=
W1	Copper	Optional	No	mg/l	90th Percentile		=
W5	Copper	Optional	No	mg/l	90th Percentile		=
W1	Nickel	Optional	No	mg/l	90th Percentile		=
W5	Nickel	Optional	No	mg/l	90th Percentile		=
W1	Nickel	Optional	No	mg/l	90th Percentile		=
W5	Nickel	Optional	No	mg/l	90th Percentile		=
W1	Zinc	Optional	No	mg/l	90th Percentile		=
W5	Zinc	Optional	No	mg/l	90th Percentile		=
W1	Zinc	Optional	No	mg/l	90th Percentile		=
W5	Zinc	Optional	No	mg/l	90th Percentile		=
W1	Total residual chlorine	Optional	No	mg/l	Annual Median		=
W1	Total residual chlorine	Optional	No	mg/l	Minimum		=
W3	Total residual chlorine	Optional	No	mg/l	Annual Median		=
W3	Total residual chlorine	Optional	No	mg/l	Minimum		=
W4	Total residual chlorine	Optional	No	mg/l	Annual Median		=
W4	Total residual chlorine	Optional	No	mg/l	Minimum		=
W5	Total residual chlorine	Optional	No	mg/l	Annual Median		=
W5	Total residual chlorine	Optional	No	mg/l	Minimum		=
W1	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W3	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W4	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W5	Total organic carbon	Optional	No	mg/l	90th Percentile		=

Discharge Point Number	Indicator	Recorded Value Required?	Collected?	Units	Limit Type	Licence Limit	Recorded Value
W1	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W3	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W4	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W5	Total organic carbon	Optional	No	mg/l	90th Percentile		=
W1	Temperature above ambient	Optional	No	Degree	Annual Median		=
W1	Temperature above ambient	Optional	No	Degree	Maximum		=
W1	Temperature above ambient	Optional	No	Degree	Minimum		=
W3	Temperature above ambient	Optional	No	Degree	Annual Median		=
W3	Temperature above ambient	Optional	No	Degree	Maximum		=
W3	Temperature above ambient	Optional	No	Degree	Minimum		=
W4	Temperature above ambient	Optional	No	Degree	Annual Median		=
W4	Temperature above ambient	Optional	No	Degree	Maximum		=
W4	Temperature above ambient	Optional	No	Degree	Minimum		=
W5	Temperature above ambient	Optional	No	Degree	Annual Median		=
W5	Temperature above ambient	Optional	No	Degree	Maximum		=
W5	Temperature above ambient	Optional	No	Degree	Minimum		=

WATER - SAMPLING RECORD AND FLOW

Number of Samples

Q1 (Jul - Sep)	Q2 (Oct - Dec)	Q3 (Jan - Mar)	Q4 (Apr - Jun)	Total
774	847	831	829	3,281

Discharge (ML)

Q1 (Jul - Sep)	Q2 (Oct - Dec)	Q3 (Jan - Mar)	Q4 (Apr - Jun)	Total
27,783.00000	26,180.00000	27,727.00000	28,629.00000	110,319

Sanctions Summary

Viva Energy Refining Pty Ltd, was subject to the following sanctions, orders, infringements, enforceable undertakings and/or prosecutions pursuant to the *Environment Protection Act 2017*, *Environment Protection Act 1970*, the Regulations in the past 10 years:

Sanction Date	Breach Date & Description	Sanction type	Regulatory Body/Court	Notice number
10 September 2015	28 May 2015 Breach of Environmental Licence - Site-wide SO2 emissions exceeded licence limit	Penalty Infringement Notice for $7,381.00.	EPA Victoria	491484
13 April 2016	23 November 2015 Breach of Environmental Licence - Fluorine emissions above EP licence stack limits in monthly stack testing	Penalty Infringement Notice for $7,584.00.	EPA Victoria	499872
12 January 2018	01 November 2017 Failure to immediately notify EPA of oil-to-creek overflow event	Penalty Infringement Notice for $7,929.00.	EPA Victoria	542412
23 November 2018	7 and 21 December 2015, 15 February and 15 March 2016 Breach of Environmental Licence - fluoride emissions exceeding the licence limit	Publication order pursuant to s67AC of the Act. Without conviction, fined $21,000 as part of an aggregate order. Viva Energy ordered to pay costs in the amount of $10,870.27.	EPA Victoria Geelong Magistrates' Court Case No. J10941363	No notices were issued
7 October 2021	6 and 8 April 2021 Breach of Environmental Licence - discharge BTEX waste above limit to surface waters DP no. W5 Area North Outfall	Infringement notice penalty for $8,261.00	EPA Victoria	605581

Fit and proper person questionnaire

Environment Protection Act 2017

F1017

About this form

The *Environment Protection Act 2017* (the Act) requires that persons have been assessed as being fit and proper to conduct certain activities regulated by the Environment Protection Authority Victoria (EPA, the Authority).

This fit and proper person (F&PP) questionnaire sets out the principal factors that will be considered by EPA in assessing a person's status as a 'fit and proper person'. This form should be read in conjunction with the *Fit and proper person policy* (publication 1938).

Section 66 of the Act defines what EPA must consider when determining whether a person is a fit and proper person, including their:

- environmental compliance
- financial capacity to comply
- prescribed criteria
- status as a prohibited person (PP).

Note: EPA will consider an applicant's status as a PP when it makes its determination of a F&PP assessment. This form must also be accompanied by a completed PP questionnaire.

Who must complete this form

You are required to complete an individual copy of this form if you are **the person or persons directly responsible for the ownership, administration or management of the activity**. For example, this may include:

- you – as a natural person
- a body corporate
- executive officers, directors and secretaries – as a company or other body corporate
- partners or trustees – as a partnership or trustee
- the directors and company secretaries of the partner or trustee – as a partner or trustee of a body corporate
- equivalent responsible company employee or employees directly responsible for the overall activity management or premises – as appropriate.

In instances where multiple persons are responsible for the activity, they may be nominated in this form as an associate and each person will then be assessed. An individual's fit and proper person determination may be impacted by the conduct and history of their associates. EPA relies on the applicant to nominate and make all reasonable enquiries of relevant associates.

However, we may conduct verification audits of the checks you have undertaken.

It is important any person completing the questionnaire has the authority to submit on behalf of the company.

Documents you must include with this form

Each section of the questionnaire provides an outline of what you must provide. Any supporting information must be current, accurate and directly relevant to informing EPA's assessment. You may also be required to submit additional justification, documents or evidence to enable EPA to make its final determination.

More information

For more information about fit and proper persons, please refer to EPA's website (https://www.epa.vic.gov.au/for-business/fit-and-proper-person-and-the-new-laws) or contact EPA by email contact@epa.vic.gov.au or telephone **1300 372 842 (1300 EPA VIC)**.

Fit and proper person questionnaire

Environment Protection Act 2017

Details of person, company or other body corporate subject to fit and proper person determination

1. APPLICANT DETAILS Please provide your personal contact details.				
Family name	[redacted]			
Given name/s				
Previous name/**s** *(Provide up to two most recent names you have been known by, if applicable)*	1. Click or tap here to enter text. 2. Click or tap here to enter text.			
Role title	Project Manager: Viva Energy Gas Terminal Project			
Company/business name	Viva Energy Gas Australia Pty Ltd			
ABN or ACN	ABN	35 645 450 059	ACN	645 450 059
Company/business address (registered)	Level 16, 720 Bourke Street, Docklands			
	State	Victoria	Post code	3008
Company/business address (postal)	Level 16, 720 Bourke Street, Docklands			
	State	Victoria	Post code	3008
Contact telephone	[redacted]			
Contact mobile				
Contact email	[redacted]			
Application made as a	☐ Natural person ☒ Company ☐ Body corporate			

Fit and proper person questionnaire

Environment Protection Act 2017

Details of associates for fit and proper person determination

2. ASSOCIATES* Please nominate any other parties involved in the activity that are an associate to you, the applicant (for example other executive officer, director, secretary, partner, trustee, manager). *Note: This section does not need to be completed for accredited consigner applicants.	
ASSOCIATE 1	
Family name	[redacted]
Given name	
Role title	Director
ASSOCIATE 2	
Family name	[redacted]
Given name	
Role title	Director
ASSOCIATE 3	
Family name	[redacted]
Given name	
Role title	Company Secretary

Fit and proper person questionnaire

Environment Protection Act 2017

Environmental compliance

Please respond 'yes' or 'no' to the following questions numbered 3 to 7 and attach relevant information, as requested.
3. Have you (or an associate of yours) been found in breach of compliance with the *Environment Protection Act 2017*, *Environment Protection Act 1970*, the Regulations and environment protection legislation of the Commonwealth, another state or territory? **Important:** This includes any sanctions, orders, infringements, enforceable undertakings and/or prosecutions.
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.
4. Are you (or an associate of yours) currently under investigation for a breach of compliance with the *Environment Protection Act 2017*, *Environment Protection Act 1970*, the Regulations and environment protection legislation of the Commonwealth, another state or territory? **Important:** This includes any open, continuing and/or unresolved investigations for a breach of compliance.
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form. **For example:** *What is the nature of the breach? When and where was the breach committed? What are the circumstances that led to the breach? When and how did those circumstances arise that led to the breach?*

5. Do you (or an associate of yours) currently have any matters relevant to environment protection legislation or Regulations, before any Court or Tribunal of Victoria, the Commonwealth, another state, or territory? **Important:** This includes any open, continuing and/or unresolved matters.

Select your answer:

YES ☐

NO ☒

If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.

6. Have you (or an associate of yours) ever been found not to be a fit and proper person under any equivalent environment protection legislation of Victoria, the Commonwealth, another state, or territory?

Select your answer:

YES ☐

NO ☒

If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.

For example: *When and where was the finding made? What was the basis for the finding? What were the implications, obligations, or requirements of the finding?*

7. Is there any matter or conduct relevant to your (or an associate of yours) professional history, professional reputation or professional character that would be relevant as a consideration during a fit and proper person assessment?

Important: This matter or conduct would be considered relevant if it relates to your ability to exercise any rights and responsibilities in accordance with the Act's purpose, objectives, and principles.

Select your answer:

YES ☐

NO ☒

If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.

For example: What are the circumstances that led to the situation? When did those circumstances arise?

Fit and proper person questionnaire

Environment Protection Act 2017

Financial capacity

Please respond 'yes' or 'no' to the following questions and requests numbered 8 to 12. Attach relevant information, as requested.
8. Have you previously been involved with the management of a company that has been insolvent, bankrupt, under administration or receivership?
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.
9. Are you currently involved with the management of a company that is insolvent, bankrupt, under administration or receivership?
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.
10. Are you currently involved with the management of a company that has an outstanding debt or payment to the Commonwealth or any state or territory?
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form.
11. Provide a copy (or digital access to a copy) of a report detailing your company credit check or score from a relevant reporting agency. **Important:** Provide requested information to be considered by the Authority at the end of this form. Information that is commercially sensitive must be clearly identified or marked.
Viva Energy Gas Australia Pty Ltd is part of the Viva Energy Australia group, the ultimate holding company of which is Viva Energy Group Limited, an ASX listed company. For financial information on the Viva Energy group, please refer to the attached 2020 Annual Report. **YES** ☒ By checking 'yes', I confirm that the required information is attached for consideration by the Authority.

12. Provide a forward projection of the estimated annual operating cost to perform the activity*. **Important:** Provide requested information to be considered by the Authority at the end of this form. Information that is commercially sensitive must be clearly identified or marked. *This question does not need to be completed by accredited consigner applicants.
Check to confirm: **YES** ☒ By checking 'yes', I confirm that the required information is attached for consideration by the Authority. The attached information is commercially sensitive. NOT APPLICABLE ☐

Fit and proper person questionnaire

Environment Protection Act 2017

Prescribed matters

At the time of publishing this form, there are no prescribed matters that must be taken into consideration as part of EPA's fit and proper determination. This may be subject to change and EPA will request any details relevant to a prescribed matter when performing its F&PP assessment.

Prohibited person

The following questions are directly informed by the completion of the *Prohibited person questionnaire.* A complete PP questionnaire must accompany this form.

Please respond 'yes' or 'no' to the following questions numbered 13 and 14 and attach relevant information, as requested.
13. In completing the *Prohibited person questionnaire*, was a matter identified that may cause a person(s) to be considered prohibited, for the purposes of section 88 of the *Environment Protection Act 2017*? **Note:** Responding 'yes' to any question in the PP questionnaire indicates a relevant matter.
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form. **For example:** What criteria makes you a prohibited person under section 88 of the *Environment Protection Act 2017*? When were you considered a prohibited person?
14. Are you seeking the Authority assess whether, as a prohibited person, it is not contrary to the public interest that you may be found to be a fit and proper person and hold a permission for this activity?
Select your answer: **YES** ☐ **NO** ☒ If you answered 'yes', please provide any relevant information you believe should be considered by the Authority as an attachment at the end of this form. **For example:** *Why it is not contrary to the public interest to determine, as a prohibited person, you can be found to be a fit and proper person for this activity?*

Fit and proper person questionnaire

Environment Protection Act 2017

List all relevant information attached by you, the applicant, to be considered by the Authority

All documents/information must be attached, and each box checked.		
	Questions 1 & 2	Supporting information not requested
☐	Question 3	Attachments:<file/document name>
☐	Question 4	Attachment: <file/document name>
☐	Question 5	Attachment: <file/document name>
☐	Question 6	Attachment: <file/document name>
☐	Question 7	Attachment: <file/document name>
☐	Question 8	Attachment: <file/document name>
☐	Question 9	Attachment: <file/document name>
☐	Question 10	Attachment: <file/document name>
☒	Question 11	Attachment: 1017Q11 Viva Energy 2020 Annual Report
☒	Question 12	Attachment: 1017Q12 Confidential FSRU annual operating estimate 220202
☐	Question 13	Attachment: <file/document name>
☐	Question 14	Attachment: <file/document name>

Fit and proper person questionnaire

Environment Protection Act 2017

Declaration

Important: Applicants should be aware that it is an offence under the Act to intentionally or negligently provide incorrect or misleading information to EPA, or to conceal information.

Before you sign the declaration, ensure that:

- you have answered every question
- you have attached any required supporting documentation
- all the information you have given is true and correct to the best of your knowledge
- you hold or been given the necessary authorisation to sign this declaration.

I declare to the best of my knowledge that the information provided in this form and any attachments are true and correct.			
Full Name	[redacted]		
Company Position	Project Manager: Viva Energy Gas Terminal Project Viva Energy Gas Australia Pty Ltd		
Signature	[redacted]	Declared at:	[redacted]
		Date	04/02/2022

The personal information on this form and any correspondence, notice or other document issued after processing of this information will be stored and used by EPA for the purpose of administering the *Environment Protection Act 2017* and the Environment Protection Regulations 2021 You may access this information by contacting the EPA Privacy Information Officer. This information may be disclosed to another Government organisation, tribunal or court, where required for administering or enforcing the above Act and Regulations or any other relevant laws.

You have the right to access this information by contacting the Environment Protection Authority at 200 Victoria Street, Carlton VIC 3053, or by email **contact@epa.vic.gov.au**, or telephone **1300 372 842 (1300 EPA VIC)**.

16 March 2021

The Manager
Market Announcements Office
Australian Securities Exchange

Electronic lodgment

2020 Annual Report

The attached document has been authorised for release by the Board of Viva Energy Group Limited.

Julia Kagan
Company Secretary

Annual Report 2020

VIVA Energy Australia

Helping people reach their destination

Our purpose

Helping people reach their destination

Who we are

Viva Energy is a leading energy company with more than 110 years of operations in Australia. We make, import, blend and deliver fuels, lubricants, solvents and bitumen through our extensive national and international supply chains. We are the exclusive supplier of Shell fuels and lubricants in Australia and in 2020, we supplied approximately a quarter of Australia's liquid fuel requirements to a national network of retail sites and directly to our commercial customers. We also operate a nationwide fuel supply chain, including the strategically located Geelong Refinery, an extensive import, storage and distribution infrastructure network, including a presence at over 50 airports and airfields.

Our values

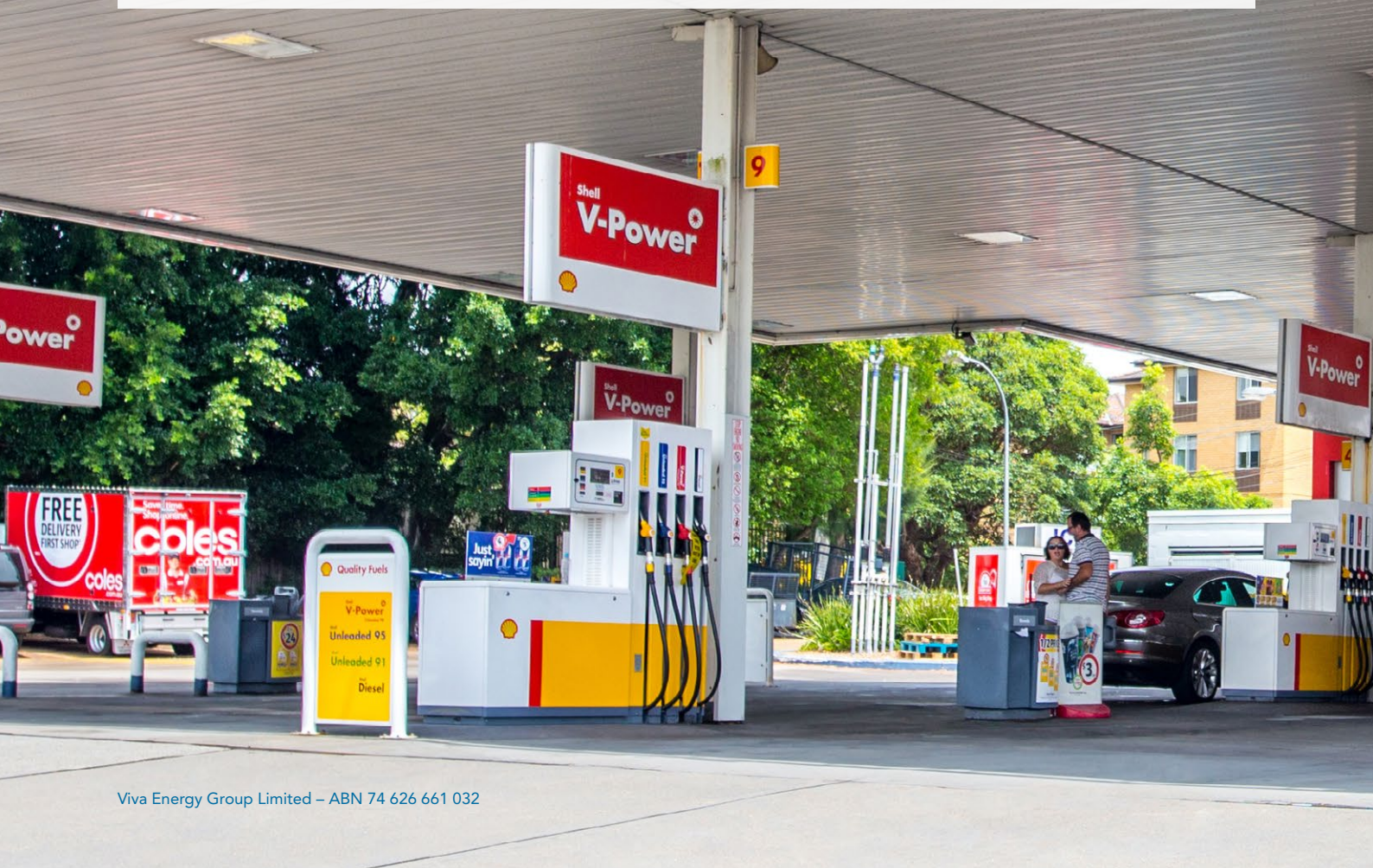
Integrity
The right thing always

Responsibility
Safety, environment, our communities

Curiosity
Be open, learn, shape our future

Commitment
Accountable and results focused

Respect
Inclusiveness, diversity, people




Shell
V-Power
7
coles
express
Quality Fuels
Shell V-Power
Shell Unleaded 95
Shell Unleaded E10
Shell Unleaded 91
Shell Diesel
NEW
SPECIALS
Just sayin'

Contents

Title: Wa-ngal yalinguth, yalingbu, yirramboi
Created by: Dixon Patten, Yorta Yorta and Gunnai, Bayila Creative

Acknowledgement

Viva Energy acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples. We particularly pay respects to the Traditional Custodians of the land, across the nation where we conduct business.

We also acknowledge our gratitude that we share this land today, our sorrow for the costs of that sharing and our hope and belief that we can move to a place of equity, justice and partnership together.

About this Annual Report

This Annual Report contains information on the operations, activities and performance of the 'Viva Energy Group' for the year ended 31 December 2020 (unless otherwise stated) and its financial position as at 31 December 2020. The Viva Energy Group comprises Viva Energy Group Limited (ACN 626 661 032) (the 'Company') and its controlled entities.

In this Annual Report, references to 'we', 'us', 'our', and 'Group' are references to the Viva Energy Group.

Printed copies of this Annual Report will be posted to those shareholders who have requested to receive a printed copy. Otherwise, shareholders are notified when the Annual Report becomes available and provided details of where the report can be accessed electronically.

Corporate Governance Statement

You can find our 2020 Corporate Governance Statement on the Investor Centre section of our website at www.vivaenergy.com.au.

See the rest of our 2020 annual reporting suite at www.vivaenergy.com.au

- Annual Report 2020
- Taxes Paid Report 2020
- Modern Slavery Statement 2020
- Corporate Governance Statement 2020

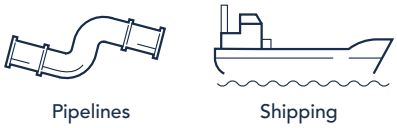
About us

Our operations

We source crude oil (domestic and international) for domestic refining, and refined products from international refineries.

We refine crude oil into usable products – including petrol, diesel, jet fuel and specialty products.

We transport refined product to bulk storage fuel terminals by pipe or ship.



1. Procurement/Supply
2. Domestic Refining
3. Primary Distribution

Our year at a glance

People and community

1,419
Employees

41%
of senior leaders are women

70%
Employee engagement score

$550K
Contributions to the national bushfire relief

Safety and environment*

3.61
Total recordable injury frequency rate (per million hours worked)
FY2019: 4.55

1.14
Lost time injury frequency rate (per million hours worked)
FY2019: 1.41

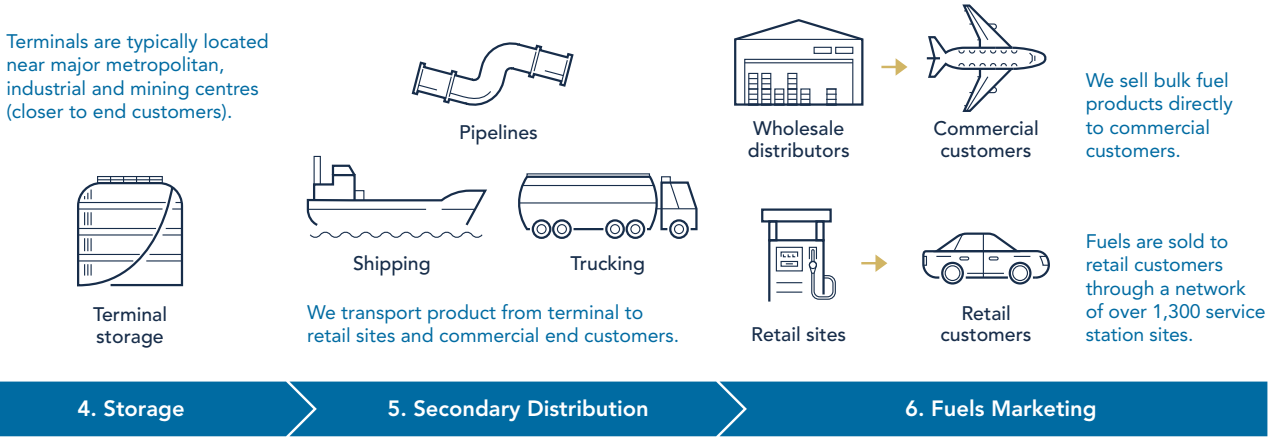
34%
Reduction in LOPCs>100kg from 2019

Process Safety Events

1
API Tier 1 Events
FY2019: 0

2
API Tier 2 Events
FY2019: 2

* Excludes performance of Liberty Oil Holdings.



Financial performance

Financial performance

$614.5M

Non-Refining Underlying EBITDA (RC)

Up 16.5% on FY2019

($95.1)M

Refining Underlying EBITDA (RC)

Down $212.1M on FY2019

($35.9)M

Underlying NPAT (RC)

Down $171.7M on FY2019

Balance sheet and working capital

$104.2M

Net Debt

Down from Net Cash of $480.9M as at 30 June 2020

$87.1M

Underlying FCF (RC)

$89.9M

Working Capital

Down from $162.5M as at 30 June 2020

Capital management

0.8¢

Dividend per share[1]

No final FY2020 dividend declared

~$580.0M

Returned via Capital Management program[2] with $100M of Waypoint REIT sale proceeds remaining to be returned

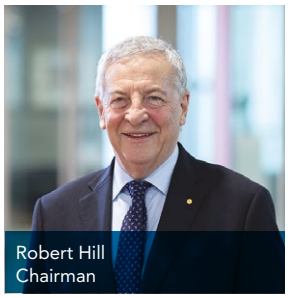
$158.5M

FY2020 capex[3]

Reduced from original guidance range of $250M–$300M

1. Excluding the special dividend of 5.94¢ per share.
2. Capital Management program of ~$580M includes Capital return ~$415M, Share buy-back ~$50M and Special Dividend ~$115M.
3. Includes major maintenance capital expenditure.

Chairman and Chief Executive Officer's report



Robert Hill
Chairman

Scott Wyatt
Chief Executive Officer

Despite the reduction in fuel demand, the Company delivered strong underlying performance in our Retail, Fuels and Marketing (the non-refining) business, reporting non-refining Underlying EBITDA (RC) of $614.5M in 2020, up 16.5% on 2019.

Performance

The COVID-19 pandemic has been a defining event for the Australian and global economy and society during 2020. Our priority has been the health and safety of our people and ensuring that we continued to operate safely and reliably to serve our customers and the broader community through one of the most challenging years in Viva Energy's history.

Our teams moved swiftly in early 2020 to implement effective health and operating measures to protect our people and operations from exposure to COVID-19, and achieved a 20% reduction* in the number of recordable injuries compared to 2019. We achieved a 34% reduction in incidents involving loss of primary containment greater than 100kg*, and safely completed significant maintenance work on the Residual Catalytic Cracker Unit despite the challenges associated with management of COVID-19.

While total demand for transport fuel fell 16% from 2019, the Company achieved growth in diesel sales, improved our premium fuels penetration and maintained total fuel market share in our key markets. The Company took the decision to bring forward and extend the major maintenance program so that the refinery was able to reduce production and manage the impacts of substantially lower demand in Victoria as a result of the extended stay at home restrictions in place at that time.

Despite the reduction in fuel demand, the Company delivered strong underlying performance in our Retail, Fuels and Marketing (the non-refining) business, reporting non-refining Underlying EBITDA (RC) of $614.5M in 2020, up 16.5% on 2019. This performance was driven by strong diesel sales, improved retail fuel margins and a robust performance in our broader commercial specialty businesses.

Our group results were, however, heavily impacted by performance in our refining business. Weak regional refining margins due to the substantial decline in global oil demand coupled with substantial short term reductions in domestic demand due to extended lockdown restrictions in Victoria led to an Underlying Refining EBITDA (RC) loss of $95.1M for the year. At a group level, we recorded a Group Underlying EBITDA (RC) of $519.4M (down 19.4% on 2019) and a Net Profit After Tax (RC) loss of $35.9M (down from a profit of $135.8M in 2019).

While this is a disappointing outcome given the strong performance of the broader non-refining business, the Company took appropriate steps to mitigate the COVID-19 related impacts that were largely out of our control and refining performance has improved since returning to full production at the end of 2020. While the outlook for refining remains challenging, the Company has also taken steps towards improving long term sustainability by working closely with the Federal Government to develop a framework that can provide critical assistance for the refining sector. This has led to an interim production payment that will apply for the first six months of 2021, and we expect a longer term package to follow once this concludes.

During the year, the Company also made significant progress on a number of strategic priorities, including divesting the Company's stake in Viva Energy REIT (now Waypoint REIT), returning the majority of these proceeds to shareholders, and announced plans to establish an Energy Hub at Geelong.

* Performance excludes Liberty Oil Holdings.

We have made significant progress with our consortium partners on the development of the proposed Gas Terminal Project, and recently announced an alliance with HYZON Motors to work together on the development of hydrogen for heavy vehicle applications. These projects and others aim to leverage the position and capability at Geelong and more generally support our development of new energy opportunities.

Capital management

We entered the crisis in a strong net cash position as a result of strong financial discipline and the earlier divestment of our stake in Waypoint REIT. The majority of these proceeds were returned to shareholders by way of a $115M special dividend, a $415M capital return, and $50M of on-market buy-back, with the Company finishing the year with a low net debt of just over $100M. We remain committed to returning the remaining $100M of the proceeds of the Viva Energy REIT divestment in 2021.

The Company declared an interim dividend of $15.5M for the first half of 2020, but with a Distributable NPAT loss of $1.5M in the second half of 2020, the Board did not declare a final dividend for the six months ended 31 December 2020. It is a key priority for the Company to return to a positive distributable NPAT in the first half 2021.

Sustainability

During 2020 we have further considered the risks and opportunities associated with climate change and how this impacts our businesses strategy. In particular, we have developed a range of climate change scenarios and assessed impacts in accordance with recommendations of the Taskforce on Climate-related Financial Disclosures (TCFD). These will guide the development of our business strategies and ensure long term sustainability of our business.

Last year we announced plans to transform our refining business at Geelong into an Energy Hub which can support a range of new energy projects which provide potential future earnings and assist the Company's transition to lower carbon energies. We have made good progress on the development of an LNG Regasification Terminal to support an emerging shortfall in Victorian gas supply and announced alliances with a range of high-quality partners to develop this and other projects such as Hydrogen manufacturing and refuelling capability. We are adding battery electric vehicle recharging stations to several retail service stations, and actively pursuing other opportunities to build our understanding of new energies and technologies.

We present an update on our sustainability program as part of this Annual Report.

Our people

More so than any other year we relied on our people to safely maintain critical business operations throughout the pandemic and ensure our customers had access to the products and services they needed without disruption in the interests of the Company, our shareholders and the broader community. The Board would like to thank our people for their significant contribution.

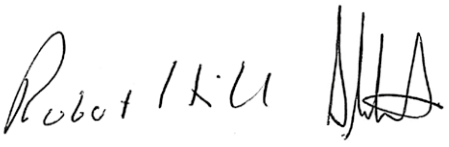
In 2020, we welcomed Dale Cooper as EGM Refining. Dale brings over 30 years' experience in the refining sector. We also announced that Thys Heyns has made the decision to retire from the Company in March 2021. Thys joined Viva Energy shortly after the business was acquired from Shell, initially leading the refining business and more recently in the role of Chief Operating Officer. The Board extend their appreciation to Thys for his significant contribution to the business over his six years with the Company. With Thys' departure, Jevan Bouzo will be appointed to the expanded role of Chief Operating and Financial Officer, assuming responsibility for supply Chain operations in addition to his existing accountabilities.

Looking forward

We have launched a business recovery plan to deliver sustained improvement in performance through 2021 and beyond.

Disciplined capital and cost management has preserved cash and helped us enter 2021 with a strong balance sheet and capacity for recovery and growth. In 2021, we will continue to develop our core retail channels, position the business to capture recovery in commercial segments impacted by COVID-19, and will progress opportunities to strengthen our supply chain as the industry adjusts to Australian refinery closures. We are working to return the Refining business to positive earnings in the short term and, over the longer term, aim to return refining to delivering reliable and material cash contributions to our business. We expect to further develop the Geelong Energy Hub projects, and maintain the strong capital discipline that has served us well over the last year.

The Board would like to thank our shareholders for your continued support.



Robert Hill
Chairman

Scott Wyatt
Chief Executive Officer
and Executive Director

Board of Directors

Robert Hill

Independent Non-Executive Director and Chairman

LLB, BA, LLD(Hon), LLM, DPolSc(Hon)

Term of office

Appointed to the Board on 18 June 2018. Formerly an Independent Non-Executive Director of Viva Energy Holding Pty Limited (5 February 2015 to 17 July 2018).

Skills and experience

The Hon. Robert Hill is a former barrister and solicitor who specialised in corporate and taxation law and who now consults in the area of international political risk. He has had extensive experience serving on boards and as chairman of public and private institutions, particularly in the environment and defence sectors.

Robert Hill was previously Australia's Minister for Defence, Minister for the Environment and Leader of the Government in the Senate during his time as a Senator for South Australia. He served as Australia's Ambassador and Permanent Representative to the United Nations in New York. Robert is a former Chancellor of the University of Adelaide. In 2012, he was made a Companion of the Order of Australia for services to government and the parliament.

Robert is currently Chairman of Re Group Pty Limited and a former Chairman of the NSW Biodiversity Conservation Trust.

Board Committee memberships

- Chair of the Remuneration and Nomination Committee
- Member of the Sustainability Committee
- Member of the Investment Committee

Scott Wyatt

Chief Executive Officer and Executive Director

BCA

Term of office

Appointed as CEO on 13 August 2014. Appointed to the Board on 7 June 2018.

Skills and experience

Scott Wyatt has more than 30 years' experience in the oil and gas sector and has held various leadership roles within Viva Energy's downstream oil and gas business (formerly Shell) including strategy, marketing (consumer and commercial) and supply and distribution.

After a long career with Shell in New Zealand, Australia and Singapore, Scott was appointed as CEO in August 2014.

Scott serves as Chairman of the Australian Institute of Petroleum (since January 2020) and is a former Board member of Viva Energy REIT (now Waypoint REIT) (2016 to 2019).

Board Committee memberships

- Member of the Investment Committee

Arnoud De Meyer

Independent Non-Executive Director

MSc.E, MSc.BA, PhD Management, Hon Phd

Term of office

Appointed to the Board on 18 June 2018.

Skills and experience

Arnoud De Meyer is a former President of Singapore Management University (SMU) and was previously a Professor in Management Studies at the University of Cambridge and Director of Judge Business School. Arnoud was also associated with INSEAD as a professor for 23 years, and was the founding Dean of INSEAD's Asia Campus in Singapore. Currently he is part-time University Professor at SMU.

Arnoud currently serves on the boards of Banyan Tree Holdings, Singapore Symphonia Company, INSEAD and the Ghent University Global Campus and he is the Chair of Temasek's Stewardship Asia Centre. He was previously an Independent Director of Dassault Systèmes (2005 to 2019) and served as an independent director for the Department for Business Enterprise and Regulatory Reform (UK) and the Singapore Economic Review Committee. Arnoud also served on the boards of Singapore International Chamber of Commerce and Temasek Management Services.

Board Committee memberships

- Chair of the Investment Committee
- Member of the Remuneration and Nomination Committee

Jane McAloon

Independent Non-Executive Director

BEc(Hons), LLB, GDip CorpGov, FAICD

Term of office

Appointed to the Board on 18 June 2018.

Skills and experience

Jane McAloon has over 25 years of business, government and regulatory experience at senior executive and board levels across the energy, infrastructure and natural resources sectors.

Jane was an executive at BHP Billiton and AGL. Prior to this, she held positions in government in energy, rail and natural resources.

Jane is currently a Non-Executive Director of Energy Australia (since 2012), Home Consortium (since 2019), United Malt (since 2020) and Allianz Australia (since 2020). She is a former board member of Healthscope Limited (2016 to 2019), Cogstate Limited (2017 to 2019), Civil Aviation Safety Authority (2018 to 2019), Port of Melbourne (2018 to 2020) and GrainCorp (2019 to 2020). Jane is also a board member of the Allens Advisory Board.

Board Committee memberships

- Chair of the Sustainability Committee
- Member of the Audit and Risk Committee
- Member of the Investment Committee

Sarah Ryan

Independent Non-Executive Director

PhD (Petroleum Geology and Geophysics), BSc (Geophysics) (Hons 1), BSc (Geology), FTSE

Term of office
Appointed to the Board on 18 June 2018.

Skills and experience
Sarah Ryan has over 30 years of international experience in the energy industry, ranging from technical, operational and leadership roles at a number of oil and gas and oilfield services companies, to a decade of experience as an equity analyst covering natural resources.

Sarah is a Fellow of the Australian Academy of Technological Sciences and Engineering (ATSE), a Fellow of the Australian Institute of Energy, a Member of the Australian Institute of Company Directors, a Member of Women Corporate Directors and a Member of Chief Executive Women. She serves as a member of ASIC's Director Advisory Panel, as non-executive director of the Future Battery Industries Cooperative Research Centre, and is Deputy Chair of the ATSE Energy Forum.

Sarah is currently a Non-Executive Director of Woodside Petroleum Limited (since 2012), Aurizon Holdings Limited (since 2019), Akastor ASA, a company listed on the Oslo Stock Exchange (since 2014), and MPC Kinetic Pty Ltd (since 2016). She is a former director of Central Petroleum Limited (2017 to 2018) and Aker Solutions ASA (2010 to 2014). Sarah is also a member of the ASIC Corporate Governance Consultative Panel.

Board Committee memberships
- Chair of the Audit and Risk Committee
- Member of the Sustainability Committee
- Member of the Investment Committee

Dat Duong

Non-Executive Director

BBA, CFA

Term of office
Appointed to the Board on 7 June 2018. Formerly a Non-Executive Director of Viva Energy Holding Pty Limited (1 January 2017 to 17 July 2018).

Skills and experience
Dat Duong is the Head of Investments for Vitol in Asia Pacific.

Dat joined Vitol in 2010, prior to which he was an Associate Partner at Leopard Capital, an investment fund focused on Asia's frontier and emerging markets.

Dat has extensive international investment banking experience, including with Merrill Lynch in the Global Energy and Power Investment Banking Group in both Hong Kong and Canada, where he led multiple landmark downstream oil transactions.

Dat commenced his career at Esso Imperial Oil in Canada as a business analyst.

Board Committee memberships
- Member of the Audit and Risk Committee
- Member of the Remuneration and Nomination Committee
- Member of the Investment Committee

Michael Muller

Non-Executive Director

BA (Econ.Geography)

Term of office
Appointed to the Board on 1 October 2020.

Skills and experience
Mike Muller joined Vitol in London in 2018 and moved to Singapore in 2019 where he took on the role of Head of Vitol Asia Pte Ltd on 1 October 2020.

Prior to Vitol, Mr Muller was an executive with Shell in the UK, Australia and Singapore. A member of Shell's Global Trading Leadership since 1999, he coordinated global supply of chemical feedstocks and led various oil trading desks both physical and derivatives. In 2013, Mr Muller was appointed Vice President, Global Crude Oil Trading and Supply. In this role he was a Director of Shell Trading International Ltd, Chairman of Shell Western Supply & Trading Ltd and of Shell Trading Russia BV, and a member of global Trading Risk, Credit and Compliance committees.

Mike is currently a Director of Boustead Petroleum Marketing Sdn. Bhd. (formerly BP Malaysia) and a Director of Arq Limited (UK).

Board Committee memberships
- Member of the Sustainability Committee
- Member of the Investment Committee

Former Director

Hui Meng Kho

Former Non-Executive Director

BSc (Chemical Engineering) (Hons)

Term of office
18 June 2018, resigned with effect on 1 October 2020

Hui Meng Kho served as a non-executive director on the Board and a member of the Remuneration and Nomination Committee and the Investment Committee until his resignation, effective on 1 October 2020. Up until that time, Hui Meng was the President and CEO of Vitol Asia Pte Ltd and a member of the Vitol Group Board of Directors. Hui Meng joined Vitol in 1987 and had been the head of Vitol Asia since 1999. Prior to joining Vitol, Hui Meng was with Esso Singapore, involved in logistics, planning, trading and refinery operations.

Executive Leadership Team

Scott Wyatt
Chief Executive Officer

Scott Wyatt has more than 30 years' experience in the oil and gas sector and has held various leadership roles within Viva Energy's downstream oil and gas business (formerly Shell) including strategy, marketing (consumer and commercial) and supply and distribution.

After a long career with Shell in New Zealand, Australia and Singapore, Scott was appointed as CEO in August 2014.

Scott holds a Bachelor of Commerce and Administration from Victoria University of Wellington.

Jevan Bouzo
Chief Financial Officer

Prior to joining Viva Energy, Jevan Bouzo worked at Ernst & Young in assurance and business services, where he led assurance and business improvement projects for clients in the energy and retail sectors as well as a number of ASX-listed companies. Since joining Viva Energy, Jevan has overseen corporate finance, business finance and credit, treasury and a number of strategic projects culminating in his appointment as Chief Financial Officer.

Jevan is a Chartered Accountant and holds a Bachelor of Commerce (majoring in Accounting and Finance) from Monash University.

From the end of March 2021, Jevan will assume the role of Chief Operating and Financial Officer.

Thys Heyns
Chief Operating Officer

Thys Heyns has more than 30 years' experience in the oil and gas industry. Prior to joining Viva Energy in 2015, Thys was with BP for 28 years in an international career across four continents that covered Supply Chain, Oil Trading and Refining.

Thys is an experienced Refining executive with his most recent roles including Executive General Manager of the 120kb/d Geelong Refinery, General Manager of the 400kb/d BP Rotterdam Refinery and the 140kb/d BP Kwinana Refinery in Western Australia. Prior to that, Thys was the Commercial General Manager for BP's global refining portfolio.

Thys holds a Master in Business Administration and a Bachelor of Commerce (Hons) in Accounting and Economics. Thys has attended executive education programs at Stanford University, Cambridge University and Massachusetts Institute of Technology (MIT). He has held leadership roles in various industry associations and is currently a Director of the Geelong Manufacturing Council.

Dale Cooper
Executive General Manager, Refining

Dale Cooper has over 35 years' experience in the oil and gas, refining and transportation industries. Dale spent over 20 years with Irving Oil in Canada where he has held refining and commercial roles, most recently as General Manager of the 320 kb/d Saint John Refinery. Prior to this, Dale held roles as General Manager, Mid-Continent Crude and leadership roles in Rail Logistics, Supply Chain Operations, Refinery Operations and Project Management. Prior to joining Irving Oil, Dale held operational and engineering roles with Saudi Aramco and Esso Petroleum Canada.

Dale holds a Bachelor of Science, Chemical Engineering from the University of New Brunswick and a Masters of Business Administration from the University of New Brunswick. He has attended executive education programs at Harvard Business School, Queen's University and Babson College.

Executive changes

Dale Cooper joined the team in 2020 as Executive General Manager, Refining and brings over 30 years' experience in the refining sector. Dale succeeded Thys Heyns, who took on the role of Chief Operating Officer in June 2020.

Viva Energy announced the following executive leadership changes that will take effect from the end of March 2021.

After a long and successful career, Thys Heyns has made the decision to retire from the Company. Thys joined Viva Energy shortly after the business was acquired from Shell, initially leading the refining business and more recently in the role of Chief Operating Officer. The Board extends its appreciation to Thys for his significant contribution to the business over the past six years and wishes him well in his next endeavours.

Jevan Bouzo will be appointed to an expanded role of Chief Operating and Financial Officer, assuming responsibility for supply chain operations in addition to his existing accountabilities. Bringing together finance and operations will help drive stronger financial and commercial focus across our Supply, Corporate and Overheads segments.

Lachlan Pfeiffer will be appointed to an expanded role of Chief Business Development and Sustainability Officer. In this role he will continue to be responsible for assurance functions, which support good governance, but will also lead the broader business development opportunities and our sustainability strategy and associated initiatives.

Amanda Fleming

Chief People and Technology Officer

Amanda Fleming has over 20 years of experience across Retail, Fast Food and FMCG leading business-wide transformations, as well as Human Resources, Merchandise, Operations and Commercial functions.

Prior to Viva Energy, Amanda was the Chief Transformation Officer (CTO) and Managing Director, Commercial, for Super Retail Group, the owners of Super Cheap Auto, Rebel, Boating, Camping, Fishing (BCF) and MacPac. Previously Amanda has held executive roles including Director of Human Resources for Coles Group in the Wesfarmers organisation, Chief Operations Officer and Chief People Officer for Pizza Hut USA, and Human Resources Director for Mars in Australia (where she also served as European Organisational Development Manager for Mars in the UK and Europe).

Amanda holds a Masters of Organisational Change from Hult International Business School and a Bachelor of Business from Deakin University.

Megan Foster

Executive General Manager, Retail

Megan Foster has over 30 years' experience in retail across FMCG, Grocery, Specialty, Food, and general Retail. Megan brings with her extensive senior executive experience across Marketing and Brand, Digital, Sales, Property and Development, Operations, Merchandise and M&A.

Prior to joining Viva Energy, she led the Retail division for QIC, responsible for the retail product strategy across Australia and its 22 Australian assets. Previously she has held general management positions with Myer and Sass and Bide after an earlier career with Woolworths and Unilever, and running a highly successful retail consultancy.

Megan holds a Bachelor of Commerce from University of Western Sydney.

Lachlan Pfeiffer

Executive General Manager, Legal and External Affairs

Lachlan joined the business in 2014, and has held roles with the Group including as General Counsel. From 2018 to 2020, he also served as a Non-Executive Director of Viva Energy REIT (now Waypoint REIT). Prior to joining Viva Energy, Lachlan Pfeiffer worked in mergers and acquisitions for Skadden, Arps, Slate, Meagher and Flom (UK) LLP, based in London for seven years. Lachlan started his career in Melbourne working for Norton Rose Fulbright (Australia).

Lachlan is a legal practitioner and holds a Bachelor of Commerce from Melbourne University and a Bachelor of Laws (Hons) from Monash University. He is also a member of the Australian Institute of Company Directors.

From the end of March 2021, Lachlan will assume the role of Chief Business Development and Sustainability Officer

Denis Urtizberea

Executive General Manager, Commercial

Denis Urtizberea joined Viva Energy Australia in 2015, bringing 25 years of experience in the oil and gas industry. He developed a passion for customer centricity through a number of diverse sales and marketing leadership positions, primarily in the business to business arena.

Starting his career in a small subsidiary of Total, moving then to BP/Castrol Group before joining Puma Energy and finally Vivo Energy and Viva Energy Australia, Denis has had the opportunity to build a strong international culture through negotiating deals in more than 100 countries across the globe.

Denis holds a qualification in engineering (Physics and Chemistry).

Operating and financial review

Company overview

Viva Energy is one of Australia's leading energy companies. In 2020, Viva Energy supplied over 11 billion litres of petroleum products (approximately one-quarter of Australia's liquid fuel requirements) through a national network of retail service stations and directly to commercial customers. The Group owns and operates an oil refinery in Victoria together with an extensive import, storage and distribution infrastructure network, including a presence at over 50 airports and airfields across the country. Crude oil and refined products are procured and imported by Vitol, one of the world's largest independent energy commodity trading companies.

Retail, Fuels and Marketing – Retail

Viva Energy supplies and markets quality fuel products through a national network of over 1,300 Shell and Liberty branded retail service stations with over 700 of the sites being operated by Coles Express under the Coles Alliance. Viva Energy also supplies other retail operators and wholesalers.

Retail, Fuels and Marketing – Commercial

Viva Energy is a significant supplier of fuel, lubricants and specialty hydrocarbon products to commercial customers in the aviation, marine, transport, resources, construction, agriculture and manufacturing industries. Viva Energy's strong position across many segments is underpinned by national infrastructure and long-standing customer relationships.

Refining

Viva Energy owns and operates the country's second largest and most complex refinery in Australia, located at Geelong in Victoria. Refineries play an important role in processing

Viva Energy is a significant supplier of fuel, lubricants and specialty hydrocarbon products to commercial customers in the aviation, marine, transport, resources, construction, agriculture and manufacturing industries.

Australian and imported crude oil into petroleum products which meet Australian specifications and help to enhance fuel supply security for the country. Geelong Refinery supplies more than 10% of Australia's total fuel requirements (more than 50% of Victoria's fuel demand) and is the only manufacturer of bitumen, Avgas for use in piston engine aircraft, and hydrocarbon solvents.

Supply, Corporate and Overheads

Viva Energy owns or contracts access to a national infrastructure network comprising import terminals, storage tanks, depots and pipelines positioned across metropolitan and regional Australia in all states. The Group operates barges which provide marine fuels to cruise and container shipping industries in Sydney and Melbourne, and also contracts with a number of fuel transport companies to distribute fuels to customers throughout the country. Through its wholly owned subsidiary, Liberty Wholesale, Viva Energy also operates it's own fuel delivery fleet of over 80 vehicles.

Operating and financial review continued

Our strategy

As a large and diverse country, Australians rely on affordable energy to move around, transport products to every corner of the country and beyond our shores, and produce the goods and services that drive the economy. Petrol, diesel, jet and fuel oils have provided this energy for more than 110 years and remain an important part of every Australian's daily life. Through our extensive retail network, commercial business, national terminal and pipeline infrastructure position and strategically located refinery in Geelong, Victoria, Viva Energy supplies approximately 23% of Australia's liquid fuel requirements.

During 2020, the business was impacted by the global response to the COVID-19 pandemic with Retail, Aviation and Refining most affected. Retail fuel demand has recovered as stay at home restrictions have been relaxed, and we expect domestic aviation demand to recover as domestic borders are opened. International travel is not expected to resume in any material way until international borders are open around the world. The Refining business has been heavily impacted by the decline in global oil demand affecting refining margins, and the short term fall in local demand impacting production during 2020. Significant losses were incurred in the refining sector and the permanent closure of two refineries in Australia have been announced.

We believe that the refining industry plays a vital role in Australia's economy, and are working closely with the Australian Federal Government to implement a long term Fuel Security Package which will provide important support to the refining sector. We are also progressing a number of projects at Geelong which have potential to transform the site into a strategic Energy Hub and support the Company's longer term aspirations to expand into other forms of energy such as natural gas, hydrogen and renewable electricity. These have potential to diversify earnings in this part of our business, and together with the benefits expected from the Fuel Security package, help improve the long term sustainability of the refining business.

As we look further ahead, we expect to see accelerating changes in the energy markets as Australia and the world move toward a lower-carbon economy. This transition will progress at differing rates in different sectors, and presents both risks and opportunities to our Company. Our strategy is to remain a key player in the energy sector, and particularly energy for transport. While this energy transition will present new opportunities for investment and encourage new products and services which will drive future growth, hydrocarbon derived fuels will also continue to be a very important part of the energy mix. As a leading energy company with significant presence across all geographies and sectors, Viva Energy can play a very important role in meeting these changing customer needs and benefiting from the new opportunities that emerge.

Viva Energy's strategy is to remain focused on our core business and outperform our competitors while at the same time develop opportunities for new growth in emerging products and services, and explore new horizons for growth in new markets and aligned businesses.

In support of these key strategies, we aim to maintain a lower capital operating model and minimise exposure to high levels of fixed costs and volatility where this is possible. For example, our retail business operates under a leasehold model to reduce capital allocated to real estate, but at the same time shares the fixed lease costs with our partner Coles under the Alliance agreement. Our partnership with Vitol provides access to a competitive supply of crude oils and refined products while more effectively managing traditional risks associated with procuring significant volumes on the open market.

Most importantly, we maintain a strong commitment to safe and reliable operations. We believe every incident is preventable and are committed to pursuing the goal of no harm to people and protecting the environment. We call this 'Goal Zero'. To achieve this we manage safety in a systematic way and we believe that providing a safe workplace and ensuring safe outcomes is an ethical responsibility. We seek to achieve this through effective management of both personal and process safety, as well as focused asset integrity management and proactive health and wellness initiatives.

2020 business performance summary

During 2020 the response to the COVID-19 pandemic had a significant impact on our business and our customers. As always, our priority has been the health and safety of our people and ensuring that we continue to operate safely and reliably to serve our customers and the broader community.

While fuel sales were impacted by the 'stay at home' and border restrictions that were in place around the country at various times in 2020, our Non-Refining Underlying EBITDA (RC) increased by approximately 16.5% over the prior year. This result was particularly supported by resilience in diesel sales through both retail and commercial channels (2.5%), improved retail fuel margins, and a strong Specialty business performance.

Retail sales volumes are recovering as the country settles into a 'covid-normal' state, and while aviation sales volumes remain down 66.0% in December 2020, compared to December 2019, our regional aviation business and other commercial businesses have continued to perform well.

The Refining business has been heavily impacted by the substantial decline in both domestic and global oil demand. The Company made the decision to bring down some processing units in late April 2020 to reduce production and bring forward the planned major maintenance work which was completed in November 2020. All processing units have been restarted, and with the recovery in Victorian fuel demand following the relaxation of 'stay at home' restrictions the refinery has returned to full production.

While Geelong Refining Margins have improved over the final quarter of 2020 with the increase in production, the refining outlook remains challenging given the longer-term impact to global oil demand from the pandemic. The Fuel Security Package announced by the Federal Government in September 2020, and the commencement of the six month interim Refinery Production Payment from 1st January 2021, provides important support to the refining business. The Company continues to work closely with the Federal Government on the design and implementation of the longer-term Fuel Security Package beyond the conclusion of the interim Refinery Production Payment.

Overall, the Group has performed well during 2020 given the difficult trading conditions. The Non-Refining businesses have delivered significant growth over the prior year, and while the Group results have been impacted heavily by the global weakness in the refining sector, we have taken steps to minimise the cash impacts from this event. We continue to work closely with Government to improve the longer-term outlook for this part of the business. The Group has returned the bulk of proceeds from the divestment in Viva Energy REIT to shareholders and retains a strong balance sheet to pursue market growth as it potentially returns in 2021.

Our personal safety performance improved on the previous year, with a more than 20%* improvement in recordable injury frequency compared to the injury frequency recorded in 2019, including a 50% reduction in recordable injuries across both the logistics and facilities operations. The business recorded three API Tier 1 / 2 process safety events* during 2020 compared with two process safety events in 2019.

* Performance excludes Liberty Oil Holdings.

Our personal safety performance improved on the previous year, with a more than 20%* improvement in recordable injury frequency compared to the injury frequency recorded in 2019.

Overall there was a significant reduction in large spills or loss of containment events, with a 34% reduction* in loss of containment incidents greater than 100kg compared to 2019. In 2021 the focus will be on implementing enhanced programs to manage the integrity of our assets as effectively as possible and drive reductions in loss of containment events, given the process safety, environmental and reputational implications of such events.

Viva Energy Consolidated Results for the Full Year ended 31 December 2020

The Group Net Loss After Tax on a historical cost basis (HC) for FY2020 was -$36.2 million (M). After adjusting for significant one-off items and net inventory gain/(loss), Underlying Net Loss After Tax on a replacement cost basis for the period was -$35.9M. A reconciliation from Statutory Loss After Tax (HC) to Underlying Net Loss After Tax (RC) is summarised in the table below.

Reconciliation of Statutory Loss After Tax to Underlying Net Loss After Tax (RC)	(A$M)
Statutory Loss After Tax	(36.2)
Add: Significant one-off items net of tax	(179.3)
Add: Net inventory loss net of tax	179.6
Underlying Net Loss After Tax (RC)	(35.9)

The Underlying Net Loss After Tax (RC) result is in line with the guidance update provided to the market on 18 December 2020.

Historical cost is calculated in accordance with IFRS and shows the cost of goods sold at the actual prices paid by the business using a first in, first out (FIFO) accounting methodology. As such, HC accounting includes gains and losses resulting from timing differences between purchases and sales of inventory and the rise and fall of oil and product prices during that time. Gains and losses arising from the rise and fall of oil and product prices are typically offset by a change in working capital because of the higher or lower cost to replenish inventory. Replacement cost is a non-IFRS measure under which the cost of goods sold is calculated on the basis of theoretical new purchases of inventory instead of the historical cost of inventory. As a result, it removes the effect of timing differences to enable users of the financial information to more consistently assess the underlying performance of the business.

Operating and financial review continued

Summary Statement of Profit and Loss

	(A$M)	31 December 2020	31 December 2019	Variance
	Revenue	**12,409.9**	16,541.6	(4,131.7)
	Cost of goods sold (RC)	**(11,082.9)**	(15,025.8)	3,942.9
	Gross Profit (RC)	**1,327.0**	**1,515.8**	**(188.8)**
	Retail, Fuels & Marketing			
	Retail	**828.2**	688.5	139.7
	Commercial	**449.0**	545.8	(96.8)
	Refining	**50.3**	299.8	(249.5)
	Supply, Corporate and Overheads	**(0.5)**	(18.3)	17.8
1.	**Total Underlying EBITDA (RC)**	**519.4**	**644.5**	**(125.1)**
	Retail, Fuels & Marketing			
	Retail	**670.8**	564.3	106.5
	Commercial	**238.3**	296.5	(58.2)
	Refining	**(95.1)**	117.0	(212.1)
	Supply, Corporate and Overheads	**(294.6)**	(333.3)	38.7
2.	Share of profit from associates	**10.6**	60.2	(49.6)
	Net gain/(loss) on other disposal of assets	**(1.9)**	(1.9)	(0.0)
3.	Revaluation gain on FX and oil derivatives	**2.4**	43.1	(40.7)
4.	Depreciation and amortisation	**(388.8)**	(355.7)	(33.1)
	Profit before interest and tax (RC)	**141.7**	**390.2**	**(248.5)**
5.	Net finance costs	**(185.5)**	(188.2)	2.7
	Profit before tax (RC)	**(43.8)**	**202.0**	**(245.8)**
6.	Income tax benefit/(expense)	**7.9**	(66.2)	74.1
7.	**Underlying Net (Loss)/Profit After Tax (RC)**	**(35.9)**	**135.8**	**(171.7)**
8.	Significant one-off items (net of tax)	**179.3**	4.0	175.3
	One-off deferred tax benefit including tax consolidation	**-**	8.2	(8.2)
	Net Profit After Tax (RC)	**143.4**	**148.0**	**(4.6)**
9.	Net inventory loss	**(256.6)**	(49.5)	(207.1)
6.	Net inventory loss tax benefit	**77.0**	14.8	62.2
	Net (Loss)/Profit After Tax (HC)	**(36.2)**	**113.3**	**(149.5)**
	Statutory earnings per share (HC)	**(1.9)**	5.8	(7.7)
	Underlying earnings per share (RC)	**(1.9)**	7.0	(8.9)

Summary Statement of Profit and Loss analysis

1. Underlying EBITDA (RC)

Retail

The Retail segment comprises a national network of over 1,300 retail fuel and convenience sites which are operated through various channels such as Coles Express under a long term alliance ('the Alliance'), Liberty Convenience, and sites operated by independent dealer owners. Retail also includes sales to wholesalers and independent retail operators.

During the year the Group acquired the remaining 50% interest of Westside Petroleum Pty Ltd (Westside) and continues to hold a 50% interest in Liberty Oil's retail business (Liberty Convenience).

Petrol sales volumes were heavily impacted during 2020 following the 'stay at home' restrictions, with sales volumes down approximately 12% on 2019. Retail fuel sales have recovered as restrictions have been relaxed across Australia, with weekly fuel sales in the retail Alliance channel reaching an average of 59 million litres per week in the final quarter of 2020, up 13% on the quarter ended 30 September 2020.

Improved Retail fuel margins have more than offset the decline in retail sales volumes, with Retail Underlying EBITDA (RC) of $670.8M up $106.5M when compared with $564.3M achieved in 2019. The Company continues to grow and enhance its retail network, with the total branded network (including independently owned and operated) now exceeding 1,300 service stations.

Commercial

Commercial consists of the supply of fuel, lubricants and specialty products to commercial customers in the aviation, marine, bulk transport, resources, government, construction and manufacturing industries.

Commercial sales volumes for 2020, excluding Aviation, remained resilient with total volumes down approximately 4% on 2019. Aviation sales volumes were down approximately 57% compared to 2019 as a result of border restrictions in place since the start of the pandemic, and Aviation volumes are expected to continue to be impacted by domestic and international travel restrictions. Lower supply chain costs reflective of the lower sales volumes and actions to reduce fixed costs have helped to mitigate the impact on the Group's EBITDA. The Aviation business received $5.8M by way of the Government JobKeeper grant.

Marine business profitability remained strong and in line with 2019 despite the temporary cessation of cruises to Australia. The Group has taken steps to retire two of the barges that were dedicated to this work and is preparing to reinstate capacity when activity recovers. Despite some weaker demand from the coal sector, sales of fuel and lubricants to the broader resources sector held up well during the year. The Group worked closely with its customers to successfully manage credit exposure and has not experienced any material loss.

Overall, Commercial achieved an Underlying EBITDA (RC) of $238.3M down $58.2M when compared with $296.5M achieved in 2019, which reflects the robustness of the diverse portfolio of our business to business activities.

Refining

Refining relates to the earnings from the refinery located in Geelong, Victoria ('The Geelong Refinery') which is owned and operated by the Group and converts imported and locally sourced crude oil into petroleum products including gasoline, diesel, jet fuel, aviation gasoline, gas, solvents, bitumen and other specialty products.

Refinery operations during the year were very challenging, with oil markets exceptionally weak due to three major global events occurring in the past twelve months – the International Maritime Organisation (IMO) 2020 marine fuel specification change, OPEC moving from an initial supply war to production discipline and the unprecedented COVID-19 oil demand destruction.

Early in the year the transition to IMO2020 initially led to a sharp increase in sweet crude premia which weighed heavily on refining margins as diesel margins failed to increase and compensate as expected. The oversupply of crude caused initially by increased OPEC production, and further impacted by refinery run cuts due to COVID-19 demand destruction, then led to a substantial reduction in these premia.

The outbreak of COVID-19 had immediate impacts on the refinery, with local demand for gasoline and jet products significantly reduced and weaker regional refining margins due to lower global demand. In response to this environment, refinery production was reduced and the refinery operated in a hydro-skimming mode with its Residual Catalytic Cracking Unit (RCCU) unit shut down between May 2020 and November 2020. This enabled the refinery to feasibly manage gasoline and jet production, and reduce exposure to weak jet and gasoline margins. As a result of the change in operating mode, intake was reduced to 34.8.MBBLS for the year compared to 42.0MBBLS in 2019.

Since the processing units were restarted in November 2020, Geelong Refining Margin (GRM) has improved, with November 2020 achieving US$5.0/Barrel (BBL) on refining intake of 2.8MBBLs and December 2020 US$4.9/BBL on refining intake of 3.2.MBBLs. Overall for the 12 month period, GRM was US$3.1/BBL on intake of 34.8MBBLs.

Despite lower production, costs were broadly in line with last year with the refinery largely operating with a full workforce. The Refinery also received $19.1M by way of the Government JobKeeper grant. For the 2020 financial year, the Refinery delivered an Underlying EBITDA (RC) of ($95.1M), lower than the FY2019 Underlying EBITDA (RC) of $117.0M. Operational availability (taking into account the above-mentioned shutdowns) in 2020 was 91.9%, an identical result to the 91.9% achieved in 2019.

The RCCU maintenance project commenced in July 2020 was completed over 128 days compared to the original 55-day plan. This approach was undertaken to best manage workforce risks associated with COVID-19 and to reduce event costs. An associated maintenance project on the Hydrofluoric Acid Alkylation unit has been deferred for planned completion during the second half of 2021. Total capital expenditure for the RCCU project in 2020 was $92.3M, within the forecast range of $85.0M–$100.0M.

Summary Statement of Profit and Loss analysis continued

1. Underlying EBITDA (RC) continued

Supply, Corporate and Overheads

Supply, Corporate and Overheads consists of Viva Energy's integrated supply chain of terminals, facilities, depots, pipelines and distribution assets located across Australia, as well as site maintenance costs and all head office costs.

Supply, Corporate and Overheads delivered an Underlying EBITDA (RC) of ($294.6M) in FY2020, an improvement of $38.7M compared with ($333.3M) achieved in 2019. Supply chain costs reduced relative to 2019, reflective of lower sales volumes, reductions in non-essential maintenance costs and improvements in demurrage and ocean freight costs. Corporate cost reductions and overall savings were achieved from lower site maintenance and an internal focus on cost management across all parts of the business, offsetting increased insurance costs.

2. Share of profit from associates

Share of profit from associates includes two months share of profit from Viva Energy REIT (now called Waypoint REIT) compared to 12months in the prior comparable period as the Group sold its security holding in this investment at the end of February 2020. Also included in this line item is the Group's 50% share of profit/(loss) from Liberty Convenience (12 months) and Westside (eight months to the end of August 2020, being the timing of the acquisition of the remaining share of Westside).

3. Revaluation gain on FX and oil derivatives

Revaluation gain/(loss) on FX and oil derivatives is impacted by realised and unrealised foreign exchange and associated hedges, flat oil price hedges and refinery margin hedging. During the year a gain of $2.4M was recognised primarily as a result of favourable oil price hedges taken out over the course of the year, offset by the impact of the increase in the US / AUD exchange rate, particularly in the second half of the year.

4. Depreciation and amortisation

Depreciation and amortisation includes $216.2M of depreciation on the Group's right of use assets (increased by $17.1M compared to 2019), $140.2M of depreciation on property, plant and equipment (increased by $12.1M) and $32.4M of amortisation expense (increased by $3.9M).

Supply, Corporate and Overheads delivered an Underlying EBITDA (RC) of ($294.6M) in FY2020, an improvement of $38.7M compared with ($333.3M) achieved in 2019.

The increase in depreciation on right of use assets is driven by the inclusion of a full year of Liberty Wholesale results (acquired on 1 December 2019), the inclusion of Westside Petroleum results since acquisition on 31 August 2020 and the impact of new sites entered into part way through 2019 and in 2020.

Depreciation on property, plant and equipment increased year-on-year primarily as a result of the impact of a full 12 months of charges from the large number of assets under construction capitalised during the course of 2019. Amortisation charges have increased primarily due to an additional two months of amortisation relative to the prior comparative period from the one off payment of $137.0M made to Coles Express upon extending the Alliance agreement (effective 1 March 2019). Amortisation of brand and customer contract intangibles recognised on acquisition of Liberty Oil Holdings has also contributed to the period on period increase.

5. Net finance costs

Net finance costs of $185.5M were $2.7M lower than the prior comparative period and consisted of interest income of $4.4M, interest expense on borrowings, amortised transaction costs and fees associated with trade finance instruments of $12.5M, finance costs associated with leases of $171.0M and the unwinding of discount on balance sheet provisions of $6.4M.

The decrease of $2.7M is due primarily to the Group being in a net cash position for most of the period following the sale of the Group's investment in Viva Energy REIT (now called Waypoint REIT). Offsetting the reduction in net cash related finance costs is an increase in lease related charges reflecting the additional leases forming part the acquisition of Liberty Oil Holdings on 1 December 2019 and Westside on 31 August 2020.

6. Income tax benefit

Viva Energy is subject to income tax expense on the basis of historical cost earnings (NPAT HC) rather than replacement cost earnings (NPAT RC).

The underlying income tax benefit of $84.9M ($7.9M before tax on net inventory loss/gain) for the period represents an effective tax rate of 28.3%. This does not include the impact of tax relating to significant one-off items (refer to section 8 below).

7. Underlying Net (Loss)/Profit After Tax (RC)

The Underlying Net Loss After Tax (RC) of -$35.9M (compared to a $135.8M profit in FY2019) is a reflection of the difficult conditions the Refinery operated in during the year combined with the impact of the significant reduction in aviation activity. Offsetting these reduction in part are the improved result for Retail and for Supply, Corporate and Overheads. Below EBITDA, reduced share of profit from associates due to the sale of the Group's investment in Viva Energy REIT (now called Waypoint REIT), lower gains on revaluation of FX and oil derivatives and higher depreciation and amortisation due to the inclusion of full year of Liberty Wholesale's results also negatively impacted the Group's underlying Net Loss After Tax for the year.

The Underlying Net Loss After Tax (RC) result is in line with the guidance update provided to the market on 18 December 2020.

8. Significant one-off items (net of tax)

In February 2020 the Group sold its 35.5% security holding (276,060,625 stapled securities) in Viva Energy REIT (now called Waypoint REIT) for an average of $2.66 per security by way of a fully underwritten block trade, and a sale to each of Charter Hall Group and the Charter Hall Long Wale REIT.

The significant one-off gain of $179.3M relates to this sale, reflecting the pre-tax gain of $113.9M and a favourable write-back of the $112.3M associated deferred tax liability, partially offset by the tax expense associated with the sale of $46.9M.

The deferred tax liability of $112.3M was based on the expected tax outcomes relating to the continued holding of the securities. Once the securities were sold, the deferred tax balance could be released.

9. Net inventory loss

Net inventory loss relates to the effect of movements in oil price and foreign exchange on inventory recorded at historical cost using the first in, first out (FIFO) principle of accounting.

The loss of $179.7M (net of tax) recorded for 2020 reflects the decrease in oil prices experienced during the period, with the largest, most significant falls experienced during March 2020 with global macroeconomic factors affecting oil prices.

Summary Statement of Financial Position

(A$M)	31 December 2020	31 December 2019	Variance
1. Working capital	**89.9**	197.4	(107.5)
2. Property, plant and equipment	**1,478.1**	1,474.8	3.3
3. Right-of-use assets	**2,321.5**	2,328.1	(6.6)
4. Intangible assets	**646.7**	657.0	(10.3)
5. Investment in associates	**15.4**	641.8	(626.4)
6. Net cash / (debt)	**(104.2)**	(137.4)	33.2
7. Lease liability	**(2,534.3)**	(2,448.3)	(86.0)
8. Long-term provisions, other assets and liabilities	**(181.8)**	(155.5)	(26.3)
9. Net deferred tax asset	**325.8**	166.0	159.8
10. **Total equity**	**2,057.1**	**2,723.9**	**(666.8)**

Operating and financial review continued

Summary Statement of Financial Position Loss analysis

1. Working capital

Working capital decreased primarily as a result of a reduction in average benchmark crude and refined product prices of A$31.2/BBL between December 2019 and December 2020.

2. Property, plant and equipment (PP&E)

Property, plant and equipment relates to freehold terminal property, leasehold retail and terminal improvements, plant and infrastructure such as tanks and pipelines held at terminals, airports and retail sites and the Geelong Refinery land and equipment.

Property, plant and equipment (PP&E) increased year-on-year primarily due to the acquisition of Westside Petroleum during the year, with non-essential capital expenditure deferred or re-assessed. The most significant project undertaken during the year was the major maintenance of the refinery's Residual Catalytic Cracking Unit (RCCU). The planned maintenance of the Hydrofluoric Acid Alkylation unit which was scheduled to be completed at the same time has been deferred for potential completion during the second half of 2021.

The increase of $3.3M represents additions of $165.4M being capital expenditure of $157.4M, asset retirement obligation additions of $1.2M and land purchased for resale of $6.8M. Also, leading to an increase in PP&E is the impact of a change in the discount rate used to value Asset retirement obligations of $4.5M and PP&E acquired through the acquisition for the remaining 50% of Westside Petroleum of $6.0M. Offsetting these increases were depreciation of $140.2M, disposals of $17.1M, transfers of completed software projects to intangibles and leased assets to Right of Use assets of $15.3M. A breakdown of capital expenditure by segment is outlined below.

(A$M)	FY2020	FY2019	Variance
a. Retail, Fuels and Marketing	**18.6**	18.4	0.2
b. Refining			
Major Maintenance	**92.3**	49.5	42.8
Other Refining	**25.0**	39.0	(14.0)
c. Supply, Corporate and Overheads	**21.5**	54.8	(33.3)
Capital Expenditure	**157.4**	161.7	(4.3)

a. Retail, Fuels and Marketing

Retail, Fuels and Marketing capital expenditure of $18.6M increased slightly on FY2019 spend of $18.4M. Expenditure during the year was focused on essential projects required to ensure asset integrity, branding of new sites acquired during the period, opening of new sites to the network and the transition of sites previously operated by the Group into the Alliance network.

The most significant project undertaken during the year was the major maintenance of the refinery's Residual Catalytic Cracking Unit.

b. Refining

Major Maintenance

The Group incurred $92.3M of capital expenditure in relation to the Major Maintenance of the refinery's RCCU. This work was undertaken in line with the unit's maintenance cycle (four yearly major maintenance). Major maintenance work undertaken in the prior year related to the refinery's sulphur recovery units.

Other refining capital expenditure

Other refinery capital expenditure of $25.0M relates to the finalisation of the Distributed Controls Systems project (upgrading the computerised controls system for automated processes at the refinery) and of the Bitumen Manufacturing Complex project (to improve the efficiency of the bitumen plant and deliver the full benefits of the Bitumen Import/Export facility). Other work undertaken included a catalyst change to hydrogen sulphide unit (HDS2) and general essential tank and asset integrity projects.

c. Supply, Corporate and Overheads

Supply Chain and Corporate capital expenditure of $21.5M was lower than FY2019 predominantly due to deferral and re-assessment of planned projects. Expenditure during the year was focused on essential projects required to ensure asset integrity including works undertaken at the Gore Bay facility to upgrade wharf piles and fenders and work maintaining the terminals tanks and equipment.

3. Right-of-use assets

The right-of-use assets balance at year-end was $2,321.5M, a decrease of $6.6M from the prior comparative period. Impacting this balance during the year were lease extensions, new leases and the impact of lease payment escalations totalling $122.2M (net of the impact of terminations), additional leases due to the acquisition of Westside Petroleum of $76.5M and reclassifications from PP&E of $10.9M. Depreciation charges of $216.2M were recognised during the year.

4. Intangible assets

Intangible assets decreased by $10.3M during the year primarily due to amortisation charges of $32.4M offset in part by the recognition of Goodwill ($19.2M) on acquisition of the remaining 50% of Westside Petroleum. Also contributing to the year-on-year movement is the capitalisation of software projects (+$4.5M), additions of ($1.1M) and a reduction in Goodwill recognised on the 2019 acquisition of Liberty Wholesale (-$2.8M).

5. Investment in associates

Investments in associates decreased by $626.4M during the period primarily due to the sale of the Group's 35.5% security holding in Viva Energy REIT (now called Waypoint REIT) in February 2020.

Also impacting this balance is the recognition of the Group's 50% of profit/(loss) from Liberty Convenience and Westside. Share of profit/(loss) from associates is recorded against this investment offset by distributions or dividends received.

6. Net debt

Net debt relates to Viva Energy's Revolving Credit Facility (RCF) which is used as a working capital facility to fund fluctuations in working capital, net of cash at bank. Viva Energy does not hold any long term structural debt. Net debt drawn for the full year was close to nil driven primarily by the change in working capital and the management of stock levels throughout the second half of the year.

7. Lease liability

The lease liability balance at year-end was $2,534.3M, an increase of $86.0M from the prior comparative period with lease extensions, new leases and lease escalations of $122.2M, additional leases due to the acquisition of Westside Petroleum of $85.3M and reclassifications from trade payables of $3.3M. Payments of lease principal totalling $124.8M were made during the year.

8. Long-term provisions, other assets and liabilities

Long-term provisions, other assets and liabilities predominantly relate to: (i) long-term provisions associated with asset retirement obligations required by accounting standards and (ii) long-term environmental provisions.

The increase in the net liability of $26.3M during the year primarily represents a decrease in post-employment benefits, the unwinding of the discounting on the Group's long-term payable and the elimination of the loan to Westside Petroleum due to the acquisition of the remaining 50% of the associated during the year.

9. Net deferred tax asset

Net deferred tax assets relate to the tax effected difference between the carrying value of assets and liabilities recorded for accounting purposes, and those recorded for tax purposes.

The increase in net deferred tax assets of $159.8M was primarily due to adjustments in the current period connected with the Group's sale of its 35.5% security holding in Viva Energy REIT (now called Waypoint REIT) along with recognition of the tax loss generated during the year.

Prior to the sale of its security holding in Viva Energy REIT, the Group held a deferred tax liability of $112.3M based on the expected tax outcomes of the Group continuing to hold the securities. Once the securities were sold, the deferred tax balance could be released.

Given the significant impact on the Group's business resulting from the COVID-19 pandemic, the Group generated a tax loss with a tax effect of $70.8M in the 2020 year. That loss is available to be carried forward and it is considered probable that future taxable profit will be available against which the tax loss can be utilised.

Also impacting the balance during the period are the typical movements in deferred tax due to origination or reversal of temporary differences between taxable income and profit during the year, along with movements posted directly to equity or other comprehensive income.

10. Total equity

Total equity decreased by $668.8M primarily due to the Capital Management activities undertaken during the year being a capital return of $414.4M, a Special Dividend of $114.4M[1], and the Share Buy-Back program ($50.3M). Also impacting equity during the year was the net loss after tax of $36.2M, the payment of dividends ($66.1M)[1] and other transactions relating to: the Group's share-based incentive plans, the recycling of the fair value of cash flow hedges, tax adjustments relating to the IPO transaction costs and the purchase of treasury shares.

1. Net of the impact of treasury shares.

Operating and financial review continued

Summary Statement of Cash Flows

	(A$M)	31 December 2020	31 December 2019	Variance
	Profit before interest, tax, depreciation and amortisation (HC) before significant items	**273.9**	696.4	(422.5)
	(Increase)/decrease in trade and other receivables	**456.3**	(8.1)	464.4
	(Increase)/decrease in inventories	**497.9**	(172.9)	670.8
	(Increase)/decrease in prepayments	**9.0**	5.9	3.1
	(Decrease)/Increase in trade and other payables	**(859.6)**	162.1	(1,021.7)
	(Decrease)/increase in provisions	**(6.9)**	(19.9)	13.0
1.	Changes in working capital	**96.7**	(32.9)	129.6
2.	Non-cash items in profit before interest, tax, depreciation and amortisation	**5.5**	(54.5)	60.0
	Operating free cash flow before capital expenditure	**376.1**	**609.0**	**(232.9)**
	Payments for PP&E and intangibles	**(158.5)**	(161.7)	3.2
	Proceeds from sale of PP&E	**15.0**	0.3	14.7
	Coles Express Alliance payment	**-**	(137.0)	137.0
3.	Proceeds from sale of investments	**730.1**	-	730.1
4.	Payment for treasury shares (net of contributions)	**(8.8)**	(20.0)	11.2
5.	Share buy-back	**(50.3)**	-	(50.3)
6.	Dividends received from associates	**19.8**	40.8	(21.0)
	Net free cash flow before financing, tax and dividends	**923.4**	**331.4**	**592.0**
	Loan to Westside Petroleum	**-**	4.1	(4.1)
	Finance costs	**(177.6)**	(180.3)	2.7
	Net cash consideration paid for step acquisition of associate	**(1.0)**	(24.8)	23.8
7.	Net Income tax refund/(payments)	**11.8**	(26.2)	38.0
8.	Dividends paid	**(180.5)**	(134.2)	(46.3)
9.	Capital return	**(414.4)**	-	(414.4)
	Repayment of lease liability	**(124.8)**	(106.2)	(18.6)
	Net cash flow before borrowings	**36.9**	**(136.2)**	**173.1**
	Net (repayment)/drawings of borrowings	**(107.2)**	147.1	(254.3)
	Net cash flow	**(70.3)**	**10.9**	**(81.2)**
	Opening net debt	**(137.4)**	**0.2**	**(137.6)**
	Net debt acquired – Westside Petroleum	**(2.2)**	-	(2.2)
	Amortisation of borrowing costs	**(1.4)**	(1.4)	-
	Reclassification of borrowing costs	**(0.1)**	-	(0.1)
	Closing net debt	**(104.2)**	**(137.4)**	**33.2**
	Change in net debt	**36.9**	**(136.2)**	**173.1**

Summary Statement of Cash Flows analysis

1. Changes in working capital

Inventory decreased as a result of a decrease in average benchmark crude and refined product prices of A$31.2/BBL offset in part by increased closing stock levels.

2. Non-cash items

Profit before interest, tax, depreciation and amortisation (HC) before significant items includes certain non-cash items, comprising share of profit in associates of $10.6M, profit on sale of assets of $5.5M, offset by unrealised losses on foreign exchange and derivatives of -$10.8M, a non-cash adjustment on the Westside step-acquisition (-$7.4M) and transactions relating to employee share-based payments and other minor amounts.

3. Proceeds from sale of investments

In February 2020, the Group sold its 35.5% security holding (276,060,625 stapled securities) in Viva Energy REIT (now called Waypoint REIT) for an average of $2.66 per security by way of a fully underwritten block trade, and a sale to each of Charter Hall Group and the Charter Hall Long Wale REIT. Total proceeds of $734.3M were received and $4.2M of transaction costs were incurred which resulted in net proceeds of $730.1M.

4. Payment for treasury shares (net of contributions and capital returns)

During the year 6,545,012 shares were purchased at an average price of $1.43 per share ($9.3M) and received purchase contributions from employees of $0.5M.

5. Share buy-back

As announced on 18 March 2020, the Company commenced an on-market buy-back program during the period. Purchasing of shares under the buy-back program commenced on 18 June 2020 with 27,397,847 shares purchased by 31 December 2020 at an average price across the period of $1.8250 per share. Transaction costs of $0.3M were also incurred.

6. Dividends received from associates

The Group received payment of Viva Energy REIT's (now called Waypoint REIT) 2019 final dividend prior to the sale of its investment in the company.

7. Net Income tax refund/payments

The net income tax cash refund of $11.8M for the year represents a $41.1M tax refund received in August 2020 from the ATO post-lodgement of the Group's 2019 financial year income tax return (whereby instalments paid during the prior year exceeded the Group's final tax liability), tax instalments of $23.9M paid by the Group in the current year to the ATO, and tax payments of $5.4M by the Group on behalf of its Singapore tax resident entity (Viva Energy S.G. Pte Ltd) to the Singapore tax authority.

8. Dividends paid

On 15 April 2020 the Company paid a fully-franked dividend of 2.6 cents in relation to the six months ended 31 December 2019 ($50.6M) and on 16 September 2020 paid a fully-franked dividend of 0.8 cents in relation to the six months ended 30 June 2020 ($15.5M). In addition, the Company paid a special dividend of 5.94 cents per share on 13 October 2020 as part of the Group's capital management program totalling $114.9M. Included in the $181.0M of dividends determined and paid during the year was $0.5M in dividends relating to treasury shares on hand.

9. Capital return

On 13 October 2020, the Company returned $415.1M to shareholders by way of a capital return of 21.46 cents per share as part of the Group's capital management program. Of this payment, $1.0M related to the Group's treasury share holding at the time of payment. Transaction costs of $0.3M were incurred.

Risk management

Our growth and success depends on our ability to understand and respond to the challenges of an uncertain and changing environment. This uncertainty generates risk, with the potential to be a source of both opportunities and threats. By understanding and managing risk, we provide greater certainty and confidence for all our stakeholders.

Our Enterprise Risk Management (ERM) Framework and related risk management policies and procedures are designed to identify, assess, monitor and manage risk and where appropriate, keep relevant stakeholders informed of material changes to the Group's risk profile.

The Board considers risk management fundamental and pertinent to the success of the Group and takes ultimate responsibility for its oversight and stewardship. Notwithstanding, risk oversight and management is a responsibility shared by all in the Group.

The Group articulates its tolerance levels for risk that it is prepared to accept in the execution of its strategic and business objectives. Management regularly demonstrates to the Board that the Company is operating with due regard to its risk appetite.

We identify:

- Those risks, being operational, financial and regulatory that have the capability of impacting achievement of the Group's strategy and goals (strategic risks).
- Those risks that have the capability to cause harm to people, the environment, assets or our reputation as a result of Viva Energy undertaking its operations (Health, Safety, Security and Environment (HSSE) risks).

Some risks are both strategic and HSSE in nature.

Executive management and the Board regularly review the risks identified, challenge how they are mitigated and assess the assurance activities directed toward the key controls over each of the risks.

Operating and financial review continued

Risk management continued

Strategic risk	Our response
Compliance and regulatory risk	
Compliance Viva Energy is subject to a wide range of legislative and regulatory obligations and we operate a number of facilities under various permits, licences and approvals (Regulatory Approvals) including facilities designated as Major Hazard Facilities. Failure to comply with legislative requirements or the conditions of Regulatory Approvals may cause damage to our brand and reputation. It could also result in fines and penalties and/or loss of applicable Regulatory Approvals, which would adversely impact Total Shareholder Return (TSR). **Action by governments and regulators** Changes in laws or the conditions of Regulatory Approvals could also materially impact our strategic objectives, operations and TSR.	**Compliance** • Our compliance program incorporates Business Principles and Code of Conduct, policies and procedures, staff compliance training and audits. • We have detailed operating procedures, standards, training, audit and assurance programs. • We have the specialised knowledge we need in our teams and from external consultants and we involve subject matter experts to minimise the risk of non-compliance with permits, legislation and regulation. • We monitor existing regulatory requirements. • We have a robust licence renewal submission process to ensure that the business is not subject to onerous additional conditions. **Action by governments and regulators** • We monitor political activity and proposed changes to the law. • We work with select industry bodies to influence on issues that may affect our industry. • We engage with regulatory bodies and lawmakers both directly and through industry bodies on issues that may affect our industry.
Commodity price exposure	
Viva Energy is exposed to the risk of movements in global hydrocarbon pricing, particularly in respect of the refining margin earned by the Geelong Refinery. Fluctuation in the refinery margin can impact TSR.	• We manage commodity price exposure through active monitoring of commodity price exposure, hedging and the purchase or sale of swap contracts up to 24 months forward.

Strategic risk	Our response
Operational and supply chain risks	
Our operations and supply chain can be disrupted by events such as extreme weather, accidents, breakdown or failure of infrastructure, and interruption of power supply. Disruption to any part of Viva Energy's supply chain could impact our operations and TSR. The Geelong Refinery may be disrupted by mechanical failures, equipment shutdowns, major accidents and other events that disrupt operations. Any such event may have a material adverse impact on refining capacity and revenues. The continuing threat of further outbreaks from the COVID-19 pandemic may have a material impact on operations or financial results should government imposed restrictions cause a decline in demand for our products, or affect the credit position of our customers (amongst other matters). In early 2021, ExxonMobil announced the closure of its Altona refinery to take effect in 2021. LyondellBasell Australia operates a polypropylene manufacturing plant (the 'LBA Plant') that is adjacent and connected to the Geelong Refinery. The LBA Plant takes product generated from refining activities at the Geelong Refinery and the Altona refinery and uses such product as feedstock to its own plant. With the closure of the Altona refinery, operations at the LBA Plant may be impacted, which may in turn have an adverse impact on the operations of the Geelong Refinery.	**Supply chain** • We maintain minimum stock levels. • We conduct due diligence assessments on shipping and road transport providers. • We also manage this risk through alternative supply options. • We maintain insurance coverage for major events and supply interruptions. **Refinery** • The Geelong Refinery has a proactive monitoring, inspection and preventative maintenance program to manage the risk of HSSE incidents and unplanned plant outages. • In line with better practice and industry standards, unit turnarounds are undertaken every four to six years. • The business has emergency and crisis management plans in place and regularly undertakes simulated response exercises to test the effectiveness of these plans. These exercises often include the relevant community and emergency response authorities. • We invest in utility infrastructure to minimise the impact of disruptions to externally provided resources such as gas, electricity or water. • We maintain sufficient finished product stock levels to ensure adequate buffer to cover typical potential unplanned outages. • To address the risk of COVID-19 directly impacting our ability to operate the refinery, various measures were put in place to reduce/limit the impact of COVID-19 infiltrating the workplace, for example minimising the number of staff on site and the use of temperature checks. • We continue to monitor and vet international shipping and procurement activities, and provide regular updates to all employees, including current advice from the Department of Heath. • We continue to work with LBA on the implications of the closure of the Altona Refinery and assessing mitigating options to address the risk for the Geelong Refinery.
HSSE risks	
Processing, transportation and storage of crude oil and petroleum products, and the operation of the Geelong Refinery and fuel storage facilities, include inherently hazardous and dangerous activities. A major incident could result in injury or fatality and/or damage to the environment. This could also negatively impact our brand and reputation, and TSR. There is also a risk of smaller spills and leaks of petroleum and crude oil to the environment, which would give rise to liabilities for clean-up and remediation costs.	• We have in place a comprehensive HSSE control framework and management system. • Our HSSE Management System is supported by a number of policies, procedures and standards designed to ensure that HSSE risks are either eliminated or reduced so far as reasonably practicable. • We provide appropriate information, instruction, training and supervision to our people to drive safe operations at all levels. • We have a risk-based audit and assurance program, which reviews facilities and critical activities against the HSSE Management System, legislative requirements and industry best practice in order to identify continuous improvement opportunities. • Significant and high potential events are investigated to identify root causes, with corrective actions put in place and learnings shared across our operations. • HSSE performance is one of our key performance indicators that is actively measured and reported to the Board.

Risk management continued

Strategic risk	Our response
Key strategic relationships and third party branding	
We have a number of key business and operational relationships, including with Coles Express, Shell and Vitol. A material deterioration in the nature of Viva Energy's arrangements with these parties or a material decline in the performance of these parties or their reputation or brand has the potential to negatively impact our brand and reputations as well as TSR.	• We manage this risk through our contractual rights. • We carry out assurance activities at Coles sites, which address key operational performance. • We have established a crisis management team and we undertake an annual crisis management training exercise jointly with Shell. • We have regular engagement with representatives of all third parties.
Climate change	
Climate change risk has both transitional and physical elements. Transitional risk is the risk flowing from a transition to a lower-carbon economy that may affect the Group's business model in the future. Physical risk is the risk flowing from acute events or chronic longer-term shifts in climate patterns resulting from climate change that may require mitigation and adaptation actions. The risk to our business includes: • decline in demand for our products due to government policy, technology or market changes in response to climate change; • increased operating costs arising from regulatory responses to reduce greenhouse gas emissions (such as a price on carbon); • increased reputational impacts affecting our ability to attract investment and talent; and • physical impacts on our assets and supply chains from increased frequency and severity of extreme weather and rising sea level events.	• We seek to understand our performance in a range of future demand scenarios, including by assessing the potential impacts of transitional risks on the performance of our business units. • We have adopted the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) as a framework for our climate risk assessment and disclosures. • We actively monitor industry forecasts and technological developments to understand where the industry and energy markets are heading. • Our strategy focuses on our core business as well as identifying new adjacent areas for growth and new opportunities in the energy sector that we see developing from the transition to a lower-carbon economy, such as our vision for the Geelong Energy Hub. • We are incorporating climate-related issues into our financial planning process – for example, in 2021 we plan to adopt shadow carbon prices to be applied in our investment evaluation and capital allocation process. • We consider physical climate risks when developing significant projects such as the Gas Terminal Project. • We are a member of energy forums, industry groups and peak advocacy bodies and see value in joint industry action on climate change in order to promote sustainable industry development. • We also monitor potential regulatory change and participate in consultation processes either directly or through industry associations to shape policy in the area of climate change, and we maintain a policy dialogue with all levels of government on climate change issues.
Liquidity and financing	
Viva Energy has substantial working capital requirements due to the need to purchase large shipments of crude oil and refined products. We rely on banks and supply and trade financing arrangements to provide working capital funding. Adverse changes in our relationship with providers of funding or in financial markets, which reduce our access to, or increase the cost of, funding, could adversely impact our financial position.	• Our treasury function operates within a fit for purpose Board-approved Treasury Policy. The Policy requires maintenance of sufficient cash reserves and ensures robust reporting of our cash position to management and the Board. • We have access to working capital funding sources through a syndicated financing facility and a range of trade finance facilities. • Our credit risk management function ensures credit is provided within our desired risk parameters. • We actively monitor cash flow through the proactive management of accounts receivable and accounts payable, and we have insurance cover in the event of a major incident to supplement loss of income (cash receipts). • We have insurance cover in place in the event of a major incident to supplement loss of income (cash receipts).

Strategic risk	Our response
Refining margin exposure	
The Geelong Refining Margin (GRM) is based on the difference between the value of the refined products that the Geelong Refinery produces and the cost of the crude oil and feedstock it consumes to do so. Refining margins are affected by a range of factors including a decline in regional demand for refined products, increased refining capacity, international freight costs and exchange rate fluctuations. A low GRM can materially impact earnings of the Geelong Refinery.	• We undertake regular assessment of the economic viability of maintaining refining activities. This includes rigorous economic justification for capital projects and turnarounds as well as the ability to shut down unprofitable individual processing units, logical groups of units or the complete refinery. • We utilise dynamic inventory planning to optimise refining margin performance. • We have programs to improve operational availability and reliability. • We have in place a fit for purpose refinery margin hedging policy. • Refining margin movements as a result of regional market forces are inherent in the refining business and the activities outlined above are not designed to completely eliminate this exposure.
Exchange rate	
Viva Energy purchases crude oil, feedstock and finished products in US dollars and sells its products predominantly in Australian dollars. Fluctuations in the AUD/USD exchange rate may negatively impact our earnings and cash flow.	• We operate a hedging program that is designed to manage the impact of exchange rate fluctuations.
Credit risk	
Credit risk is the risk that a customer or counterparty fails to meet its contractual payment obligations. Such a default could impact our revenue and cash flow.	• We undertake credit risk assessments on customers. • We establish credit limits. • We manage exposure to individual entities.
Material decline in demand for our products	
A number of external factors, including a decline in economic activity, the entry of new competitors into the business segments in which we operate, a change in government policies/regulation and changes in technology, have the potential to negatively impact demand for our products. The current COVID-19 pandemic highlights the risk that further outbreaks could have an impact on demand for our product, particularly if there is a significant and prolonged period of reduced travel and other related changes in consumer mobility behaviour. If there is a significant decline in demand for our products, this could materially impact TSR.	• We operate in a range of business segments and with a range of product offerings. • We seek to understand our performance in a range of future demand scenarios. • We actively monitor industry forecasts and technological developments to understand where the industry and energy markets are heading. • Our strategy is to optimise performance of our core business as well as to identify new adjacent areas for growth and new opportunities in the energy sector.

Operating and financial review continued

Risk management continued

Strategic risk	Our response
Labour costs and industrial disputes	
Viva Energy's operations are affected by availability and costs of labour and the health of our working relationships with employees and labour unions. A major dispute with one or more unions representing our (or our major contractors') employees could disrupt operations at one or more of our facilities and materially impact TSR. Similarly, a material increase in the cost of labour could impact production costs and profit margin.	We proactively manage the relationship with our employees. We have in place employee agreements. We conduct regular benchmarking to ensure that wages and other benefits offered to employees remain competitive. In the event that a risk of employee or third party industrial activity is heightened, we develop contingency plans to mitigate potential impacts on our operations.
Cyber security	
A cyber security breach could cause operational, reputational or financial damage or loss to Viva Energy. The public profile and importance of cyber security has visibly lifted and has prompted a statement by the Prime Minister that Australia was seeing an increase in the intensity of attacks. COVID-19 restrictions have resulted in an increase in the number of people working remotely and connecting to our environment.	Viva Energy has a range of user access controls that restricts and contains the ability for a user to have wide-ranging access. We have robust user education and training as the frontline defence mechanism to phishing and malware attacks. We operate a third party Security Operations Centre which monitors and analyses Viva Energy's security posture. We utilise extensive technology based controls and undertake independent technology controls testing and validation. Viva Energy is engaged with agencies/bodies that monitor and provide intelligence to corporates regarding cyber attack insights. These include the Critical Infrastructure Centre, the Australian Security Intelligence Organisation – Business & Government Liaison Unit and the Australian Cyber Security Centre.

Sustainability

2020 Highlights

TCFD climate scenario analysis and risk assessment undertaken

Total Recordable Injury Frequency Rate (TRIFR)*

3.61

FY2019: 4.55

Process Safety Events*

1

API Tier 1 Events

FY2019: 0

2

API Tier 2 Events

FY2019: 2

70%

Employee engagement score

COVID-19 Safe planning and risk management

Geelong Energy Hub launch setting out a strategic vision to support the evolving energy mix

$550K

Contributions to the national bushfire relief

34%

Reduction in LOPCs>100kg*

41%

of senior leaders are women

Developed and launched Viva Ways of Working

90%

RAP deliverables completed

Modern slavery risk assessment completed and first statement issued in FY2021

* Excludes performance of Liberty Oil Holdings.

Sustainability continued

Our approach to sustainability

Viva Energy is one of Australia's leading energy companies and supplies approximately a quarter of the country's liquid fuel requirements. We are the exclusive supplier of high-quality Shell fuels and lubricants in Australia through an extensive network of more than 1,300 service stations across the country. We own and operate the strategically located Geelong Refinery in Victoria, and operate bulk fuels, aviation, bitumen, marine, chemicals and lubricants businesses supported by 24 fuel import terminals, 22 depots and 55 airports and airfields.

Our Purpose is to help people reach their destination by supplying the energy our customers and business partners need to go about their daily lives or run their businesses, and providing rewarding and fulfilling roles for our employees. We aim to achieve this in a way that contributes to positive sustainability outcomes, and is aligned with our values: Integrity, Responsibility, Curiosity, Commitment and Respect.

The Health and Safety of our people, contractors, customers and community members is our number one priority, more so than ever as we navigate the unprecedented challenges arising from the COVID-19 pandemic. To help support our people through these difficult times, we implemented a mental health and wellbeing framework, we listened to our people and adapted the way we worked. We understand the benefits of a truly inclusive and diverse workplace and this remains a strong focus across our business.

We recognise that a transition to lower carbon energies is necessary to mitigate climate change impacts. We are committed to being part of the lower carbon energy future, and are actively pursuing opportunities in the energy transition such as the range of projects contemplated at our Geelong Energy Hub. At the same time, we are determined to maintain safe and reliable liquid fuel supply and local manufacturing capability, both essential to a prosperous Australian economy. We strive to do this with continued focus on energy efficiency and decarbonisation of our assets, where practical.

Our community programs and our environmental management systems support and protect the communities and environments we operate in, and our robust governance ensures we manage our risks and conduct our business in an ethical and transparent way.

Our Purpose is to help people reach their destination, including our employees, customers, business partners and investors.

Sustainability Framework

Our Sustainability Framework is guided by our values which determine how we approach safety, our environmental and community responsibilities, and our quest for new opportunities. They also guide our conduct, behaviours and the way we treat people.

Our sustainability focus areas are reviewed annually by completing a materiality assessment, ensuring we identify and focus on the environmental, social and governance (ESG) risks and opportunities facing our business now and in the future. Across the business, risks identified as having significant impact on the business performance are regularly reviewed through our Enterprise Risk Management Framework, which is further discussed on page 26. Our Group policies outline our commitments and approach which are implemented through our management systems. Where possible, we assign annual targets and tangible commitments to ensure we focus on what matters and strive for continuous improvement. This report provides an overview of the progress we made during FY2020.

Sustainability governance

To provide effective direction and oversight of our sustainability program and the work of the Board's Sustainability Committee we have established three Management Sustainability Committees in FY2021 covering Climate Change and Emissions; Health and Safety; and People and Culture with Executive team participation. Further detail on our sustainability governance, with a particular focus on climate change, is provided on page 41.

Board

Provides strategic guidance and oversight of management performance in implementing our business strategies, plans and values

Audit and Risk Committee

Assists the Board for oversight in relation to the effectiveness of the Company's Risk Management Framework

Sustainability Committee

Assists the Board in fulfilling its responsibilities for oversight in relation to all sustainability matters

Executive Leadership Team

Provides strategic direction through Sustainability Management Committees.

Sustainability Management Committees

- Climate Change and Emissions
- Health and Safety
- People and Culture

External assurance

PwC has conducted limited assurance over our key sustainability performance indicators including:

- Total Lost Time Injuries / Frequency Rate
- Total Recordable Injuries Frequency Rate
- Total Tier 1 / Tier 2 Process Safety Events
- Significant spills
- Total Employees
- Gender Split (Male / Female) (%)
- Senior Leadership Group (Male / Female) (%)
- Total greenhouse gas emissions (Scope 1 and 2)
- Total energy consumed

A copy of PwC's limited assurance statement is available on page 76.

About our reporting

This report sets out our sustainability focus areas and performance, covering assets owned and operated by the Viva Energy Group for the period 1 January to 31 December 2020 (unless otherwise stated). A summary of our sustainability performance data is included on pages 69 to 71 of this Annual Report.

This report has been prepared with reference to the Global Reporting Initiative Standards (GRI Standards) and supplementary Oil and Gas Sector disclosures. The GRI Standards define material topics as those that reflect significant economic, environmental and social impacts and/or substantively influence stakeholders' assessments of the organisation's sustainability performance in the reporting period. For a full list of the disclosures included in this report against GRI Standards, refer to the GRI content index on pages 72 to 75. In addition, we have mapped the UN Sustainable Development Goals (SDGs) that align with our focus areas throughout this report.

We have aligned our approach to climate change assessment and reporting with the Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

In FY2020, we completed assessments in accordance with the *Australian Modern Slavery Act 2018* (Cth) and issued our inaugural annual Modern Slavery Statement in FY2021. We also report to the Workplace Gender Equality Agency (WGEA). Both reports can be found online at investor.vivaenergy.com.au/investor-centre.

We participate in third party sustainability performance benchmarking initiatives and assessments. These are selected based on applicability to our industry sector and recognition by our stakeholders. Throughout FY2020, we responded to or participated in ISS (Governance, Environmental & Social Disclosure Quality Score), MSCI, and Sustainalytics.

We also continued to respond to individual requests for information on our sustainability approach and performance from investors, proxy advisors, government agencies, and customers. We welcome engagement and feedback on our sustainability program and this report. Please visit the Contact Us page on our website to provide your feedback vivaenergy.com.au/contact-us.

Sustainability continued

Aligning with Sustainable Development Goals

To highlight how the Group is supporting the achievement of the UN Sustainable Development Goals (SDGs) we have mapped relevant goals with our sustainability focus areas throughout this report.

We believe that our business has the opportunity to contribute to these goals, either by enhancing our positive contributions or by avoiding or mitigating negative impacts. Overall, our business can contribute to sustainable development in a number of ways including providing access to affordable energy; opportunities for decent employment; business and skills development; investment in our communities; substantial tax contributions; improved energy and transport infrastructure; managing the impacts of our operations by emphasising environmental protection, health and safety, and human rights. We also recognise that our industry has contributed to some of the challenges that the SDGs seek to address such as climate change.

Our focus areas

Our key stakeholders are our shareholders and the wider investment community, our business partners, customers, employees and contractors, suppliers, regulators, non-government organisations, and the communities in which we operate.

In FY2020, we conducted a materiality assessment to identify and understand our stakeholders' perspectives on the most important sustainability issues associated with our operations and business strategy. We also reviewed the impacts and our response to emerging trends and challenges, including those related to the COVID-19 pandemic throughout FY2020 and the 2019/2020 Australian bushfires. Additionally, we have provided our position on relevant standards and regulatory requirements for the reporting year.

The material sustainability matters we identified through our assessment were grouped into sustainability focus areas, which we use in our approach and make up the sections of this report. These have been summarised on pages 33 to 34 including for each area, our key stakeholders and the progress we made in FY2020.

1. **Identify Issues of Significance**
   We identified our internal and external stakeholders and the sustainability matters of concern.

2. **Identify Sustainability Matters**
   We compiled a list of sustainability matters based on:
   - economic, environmental and social positive and negative impacts and the risks associated along our value chain;
   - current and emerging global trends in sustainability; and
   - future challenges for our sector.

3. **Prioritise the Sustainability Matters**
   We then prioritised the sustainability matters based on how they:
   - substantively influence the assessments and decisions of stakeholders; and
   - reflect the Group's significant economic, environmental, and social impacts.

4. **Define Focus Areas**
   We defined the key sustainability matters and mapped these to the GRI Standards and UN SDGs. We then clustered these priority topics into focus areas, which we use in our sustainability approach and reporting.

FY2020 focus areas and progress

Focus areas	Key matters	Description	Stakeholders	Key highlights FY2020
Health and safety	Personal safety Process safety Compliance Emergency response Health and wellness Community safety	The health, safety and wellbeing of our employees are fundamental to our business. Stakeholders expect consistent performance and the disclosures of any exceptions.	Employees Contractors Customers Communities Business partners Governments	Total Recordable Injury Frequency Rate (TRIFR) 3.61* Lost Time Injury Frequency Rate (LTIFR) 1.14* 34% reduction in loss of containment incidents greater than 100kg* Major Hazard Facility (MHF) Safety case update (NSW) COVID-19 Safe planning and risk management Keeping our people safe and well throughout the COVID-19 pandemic
Making the lower carbon energy transition	Climate risks and opportunities Greenhouse gas emissions Energy efficiency Future fuels and new energy Sustainability of our business model	Addressing the greenhouse gas and energy intensity of our own operations, supporting our customers achieving their carbon reduction aspirations, and positioning for the lower carbon energy transition.	Communities Employees Customers Governments Shareholders Business partners Industry associations NGOs	Announcement of plans to develop an Energy Hub at Geelong comprising a range of new energy projects that support the company's energy transition Agreement to install our first 350kW ultra-fast electric vehicle charging stations at selected retail service station sites Board strategy day to consider new energies opportunities and the evolution of the fuel and convenience sector, in the context of transition to lower carbon energy In early 2021, entered a strategic alliance with HYZON Motors to pursue hydrogen fuel for transport opportunities Climate scenario analysis and risk assessment aligned with the Taskforce on Climate-related Financial Disclosures (TCFD) recommendations Founding member of the Climate Leaders Coalition Geelong Refinery Energy Masterplan development
Environment	Spill prevention Emissions Contaminated land management Waste and circular economy Water consumption Biodiversity	The protection of the natural environment and resources through continual improvement of our environmental performance.	Communities Shareholders Customers Employees Governments NGOs	Zero environmental non-compliance sanctions Progressive transition of firefighting foams and infrastructure in Queensland and South Australia Remediation of the former Clyde Refinery land in Sydney commenced Australian Packaging Covenant plan refreshed Awarded ecoBiz Star Partner for the Pinkenba Terminal in Brisbane
Our people	Flexible working Diversity and inclusion Engagement Training and development	Our ability to attract, motivate and develop high calibre people enables us to deliver outstanding business results today and into the future.	Employees Communities Customers Governments	70% Employee engagement score 41% of senior leaders are women Launched The Viva Way business values and behaviours Workplace Gender Equality Agency (WGEA) Employer of Choice for Gender Equality Enhanced the Family and Domestic Violence Support policy Developed and launched Viva Ways of Working

* Excludes performance of Liberty Oil Holdings.

Sustainability continued

Focus areas	Key matters	Description	Stakeholders	Key highlights FY2020
Our community	Local community engagement Licence to operate Community partnerships Indigenous participation and reconciliation Employee participation	Our community programs are dedicated to making positive social impact, and community engagement that reduces and manages any negative impacts from our operations.	Communities Employees Governments Customers NGOs	National bushfire relief effort and recovery including $550K donations to charity and support services 90% of Reconciliation Action Plan deliverables completed Delivery of virtual National Reconciliation Week and NAIDOC Week engagements Launch of Cultural Awareness Training online eLearning module Team Fundraising contributing over $261,847 to charity Re-awarded Low Aromatic Fuel (LAF) supply contract through to mid-2023
Ethical conduct and transparency	Human rights and modern slavery Responsible procurement Code of conduct Anti-corruption and bribery Governance Cyber security	Maintaining strong corporate governance and transparency and respecting human rights in accordance with our values and Code of Conduct. Being accountable to our stakeholders for our financial and sustainability performance.	Employees Customers Contractors Shareholders Governments Communities Business partners	Modern slavery risk assessment completed and first statement issued in FY2021 Human rights policy adopted Procurement policy revised to align with our commitment to human rights, gender diversity and RAP objectives
Economic contribution	Revenue and taxes paid Local wages and hiring Local manufacturing Energy security Business resilience	The significant economic contribution through the products we supply, the employment we generate, the local suppliers we support, the returns we provide to investors and the taxes we pay. We are a key contributor to Australia's energy security and underpin every sector of the economy.	Shareholders Employees Contractors Governments Communities	Maintained safe and reliable fuel supply during COVID-19 and bushfire impacts Working towards long-term fuel energy security Major maintenance completed at the Geelong Refinery $5.07B tax contribution

Health and safety

We are committed to managing health, safety, security and environmental risks to so far as reasonably practicable (SFARP), and to seek continuous improvement in pursuit of our aspiration for Goal Zero.

In FY2020, the COVID-19 pandemic presented a significant health and safety challenge for our employees and operations. We were well prepared as our strategic planning for FY2020 already identified potential psychosocial risks across our organisation and targeted programs to foster improved mental health and wellbeing outcomes were in already place. We're proud of the way our people rose to this challenge and demonstrated an ability to lead, learn, adapt, deliver and care throughout the shifting challenge of continuing to operate our business safely during the pandemic.

2020 Highlights

- Total Recordable Injury Frequency Rate (TRIFR) 3.61*
- Lost Time Injury Frequency Rate (LTIFR) 1.14*
- Keeping our people safe and well throughout the COVID-19 pandemic
- 34% reduction in loss of containment incidents greater than 100kg*
- Major Hazard Facility Safety Case update (NSW)
- COVID-19 Safe planning and risk management

2021 Priorities

- Maintaining our mental health and wellbeing framework and support structures across the organisation
- Implement the Advanced Error Reduction Organisation (AERO) program at Geelong Refinery and the Goal Zero and Beyond program in our Supply Chain operations
- Implement Enhanced Loss Prevention Strategy at the Geelong Refinery to support asset integrity management and reduce loss of primary containment events

Our commitment to HSSE

Our commitment to Health, Safety, Security and Environment (HSSE Policy) sets out how we conduct our operations safely and responsibly. We also measure and assess our performance against established benchmarks, and study outcomes for continual improvement. View a copy of our HSSE Policy here vivaenergy.com.au/HSSE.

Our HSSE Management System

To help guide our people in meeting the objectives and expectations set out in our HSSE Policy, we have a comprehensive Health, Safety, Security, and Environment Management System (HSSE MS). The HSSE MS defines our approach and key controls for managing all HSSE risks across all our business operations, and applies to all employees, contractors and visitors alike. We review this annually to ensure continuous improvement.

To ensure the highest levels of integrity and transparency, a dedicated team that is independent of our business operations reports and tracks our performance across a range of industry specific leading and lagging indicators.

To strengthen our safety performance, we investigate incidents and near misses, implement corrective actions and verify effectiveness of controls. We continually aim to improve our performance by sharing lessons amongst our employees and contractors. Our senior executives and managers empower our employees and contractors to maintain safe, responsible and sustainable working environments and to perform their work without harm to ourselves, the environment, or others at all times.

Our HSSE strategy in FY2021 will focus on becoming more learning centred by further developing a culture where we learn through improved performance monitoring and investigation, and sharing these insights and improvements effectively. Further building our people's understanding of our risk management processes and the critical controls and critical activities will be fundamental to this strategy.

FY2020 employee engagement results

93%
of participating employees feel empowered to intervene on unsafe acts

95%
of participating employees agree their team is committed to always operating safely

98%
of participating employees understand the health and safety risks relevant to their roles

* Excludes performance of Liberty Oil Holdings.

Health and wellness

A significant challenge in our COVID-19 response was keeping up to date with the required new health protocols and communicating them to our employees. In January 2020, we updated our Pandemic Response Plan previously developed in response to the 2009 swine flu epidemic. We were able to adjust this to make it fit for purpose in anticipation that COVID-19 had the potential to escalate to pandemic status. Taking this prompt action allowed us to be thinking in crisis response mode and generate strategies to respond to the developing pandemic response.

In March 2020, significant work was undertaken to develop the required health management protocols relevant to the COVID-19 pandemic and in line with government directions, including isolation requirements, return to work protocols, workplace cleaning and disinfection protocols, visitor and travel restrictions. This required significant effort in a short period of time from in-house subject matter experts within our Health, Security and Safety teams, with support from key operational personnel.

Throughout FY2020, our Health team was critical in managing health assessments of returned travellers, particularly prior to the Australian Government closing borders and restricting travel. During April 2020, the team also delivered our annual flu vaccination program to 70% of our employees in operational roles.

Our office-based workforce responded and adapted quickly to the challenge of working from home. Our operations workforce also showed great commitment to pulling together and rapidly implementing the changes required to manage COVID-19 health risks. These changes included isolating designated workforce areas, changing workgroup interfaces and reducing opportunities for contamination, such as modifying work permit issuing and document sign off practices, and cleaning down shared equipment.

A priority was the proactive management of the psychosocial risks posed by having large tranches of our workforce suddenly working remotely (from home), whilst facing a range of work and personal life stressors presented by the pandemic. This was particularly important through the extended lockdown experienced by our Melbourne and Geelong based teams. In response, we held regular People Connect engagement sessions to support our employees and introduced an online mental health and wellbeing application called Uprise.

In FY2021 the mental health and wellbeing of our workforce will remain a focus for us, particularly with the ongoing impacts of the COVID-19 pandemic. Our overarching HSSE strategy continues to include a proactive approach to psychosocial risk identification and management through our existing framework and support structures.

Case study: UPRISE and People Connect

We sought out new and innovative ways to stay in touch with our workforce that had been thrust into remote working situations, with all the challenges this presented in terms of their ability to perform, feel engaged, connected and supported. We introduced a mental health and wellbeing application called Uprise, through which users can undertake wellness checks and complete simple modules aimed at building mental fitness and resilience. The release of this application was timed to coincide with a substantial proportion of our workforce being affected by the difficult Stage 4 restrictions imposed in Victoria. This was a time when there was concern that our people were feeling challenged by the demands of working virtually, or may have been experiencing other psychosocial stressors, such as concerns about job security, financial stress or COVID-19 related health impacts. The Uprise app provides content specifically aimed at providing users with tools to manage or cope with such stressors.

During this period the company also hosted virtual weekly 'People Connect' sessions, often featuring trained psychologists talking about coping with the stresses of COVID-19, changing workplaces and ways of working, home schooling and other lockdown related pressures. These sessions were very well attended across our workforce nationally and provided a platform for our employees to raise concerns, ask questions and receive trained and insightful support on how to maintain their mental health and wellbeing during this challenging time. The People Connect sessions are set to continue into FY2021 as we continue to navigate the ongoing challenges of COVID-19 for our people and our business.

Personal safety

Personal safety focuses on the prevention of injuries to our employees, contractors and anyone who could be impacted by our operations. It involves maintaining safe workplaces, robust operating procedures and a strong safety culture.

Our leaders encourage their teams to maintain a safe workplace, assess jobs for potential risks before commencing and during tasks, intervene to stop unsafe practices, and innovate to improve safe working practices. This is supported by regular mandatory training for all our people across the business.

Our personal safety performance again demonstrated a marked improvement on the previous year, with a 20%* reduction in the recordable injury frequency from 4.55 in FY2019 to 3.61* in FY2020. We have also had a reduction in the lost time injury frequency rate compared to the previous year, with a rate of 1.14* in FY2020 compared to a rate of 1.41* in FY2019. We tracked the performance of Liberty Oil Holdings separately in FY2020, with the business experiencing six lost time injuries and a total of ten recordable injuries.

In some areas of our business, we experienced significantly less activity as a result of COVID-19 impacts, particularly in our Aviation operations, with a correlating reduction in safety incidents. However, the performance also materially improved in road transport and our Supply Chain business in general, with a 50% reduction in recordable injuries across these operations.

In FY2021, our personal safety improvement initiatives will be focused on learning from and improving our ways of working through the Advanced Error Reduction Organisation (AERO) program at Geelong Refinery and the Goal Zero and Beyond program in our Supply Chain operations.

Personal safety performance[1]

	FY2020	FY2019
Viva Energy (excluding Liberty Oil Holdings)		
Total Exposure Hours (million)	5.27	6.38
Total Lost Time Injuries	6	9
Employees	3	5
Contractor	3	4
Total Lost Time Injury Frequency Rate (per million hours)	1.14	1.41
Total Recordable Injuries	19	29
Employee	7	13
Contractor	12	16
Total Recordable Injury Frequency Rate (per million hours)	3.61	4.55
Liberty Oil Holdings		
Total Lost Time Injuries	6	NR
Total Recordable Injuries	10	NR

1. Definitions for safety performance are included within the Sustainability Performance Data on pages 69 and 71.

* Excludes performance of Liberty Oil Holdings.

Viva Energy Life Saving Rules

We have 12 clear and simple Life Saving Rules that directly address dangerous and potentially fatal behaviours. These rules are clearly communicated and must be followed by our people and contractors. All breaches are investigated and tracked to identify trends and improvements. In FY2020, we rolled out our Life Saving Rules to both Liberty Oil Holdings and Westside Petroleum and will begin to track their performance in FY2021.

Process safety

Process safety focuses on the safe storage, processing and transportation of hydrocarbon products to minimise the risk of leaks, spills and flammable conditions. Critical to reducing the potential for process safety incidents are our asset integrity programs and operating procedures, which we have in place for all of our facilities. To manage process safety, we apply the Hazards and Effects Management Process (HEMP) across all our operations. HEMP risk assessments identify Safety Critical Equipment (SCE) that acts as a barrier to prevent the uncontrolled release of a hazard, which may lead to high consequence incident scenarios with the potential to harm assets, people or the environment. Monthly management review of leading and lagging SCE performance indicators allows for the assessment of the effectiveness of SCE performance and completion of maintenance and inspection plans.

Process safety performance[1]

	FY2020	FY2019
Viva Energy (excluding Liberty Oil Holdings)		
Tier 1 Process Safety Events	**1**	0
Tier 2 Process Safety Events	**2**	2
Liberty Oil Holdings		
Tier 1 Process Safety Events	**0**	0
Tier 2 Process Safety Events	**0**	0

1. Definitions for safety performance are included within the Sustainability Performance Data on pages 69 and 71.

Our larger facilities are classified by relevant safety regulators as Major Hazard Facilities (MHF) and are subject to operating licences which set out the parameters and conditions under which we are required to operate these facilities. Renewal of these licences typically follows a comprehensive review of the facility's Safety Case by the relevant regulator and also considers past performance and overall safety commitment of the Company. During FY2020, we updated the Safety Case at our Clyde Terminal in Sydney and submitted it to SafeWork NSW as part of our MHF licence renewal. This process will continue in early FY2021 when the re-issue of the site's MHF licence is due to occur.

Overall, in FY2020 we recorded a significant reduction in large spills and loss of containment events, with a 34% reduction in loss of containment incidents greater than 100kg for Viva Energy (excluding Liberty Oil Holdings) and a 40% reduction of these incidents for Liberty Oil Holdings, compared to FY2019. Disappointingly we experienced our first significant process safety incident in more than three years, with an API Tier 1* process safety event involving the loss of more than 1,000kg of alkylate from buried piping at our Geelong Refinery. In this event, the product released was contained in the surrounding soil and recovered to the extent practicable, with no injury or lasting environmental impact. We also experienced two API Tier 2* events at the Geelong Refinery, with no offsite or environmental impacts

Overall, in FY2020 we recorded a significant reduction in large spills and loss of containment events, with a 34% reduction in loss of containment incidents greater than 100kg for Viva Energy and a 40% reduction of these incidents for Liberty Oil Holdings, compared to FY2019.

resulting from these incidents. For more information on loss of containment events and spills, refer to the Environment section on page 52.

In FY2021 our focus will be on analysing and developing improved strategies to manage the integrity of our assets as effectively as possible and drive reductions in loss of containment events, given the process safety, environmental and reputational implications of such events. Whist this is relevant to all our operations, we will concentrate our efforts at the Geelong Refinery through the implementation of an Enhanced Loss Prevention Strategy.

Emergency and crisis management preparedness

A timely and effective response to an incident, based on robust emergency planning, is the most important factor in limiting injury, potential impact to the environment, our assets, and our licence to operate. We regularly engage and consult with emergency services organisations, the local community and other stakeholders with respect to our emergency response planning, including by running practical exercises with their involvement. Our facilities have emergency response plans and resources in place, and all relevant personnel are trained in dealing with an emergency. Our transport contractors also have emergency response capability in place to cover any incidents that may occur when transporting our products.

Crisis management planning has been crucial to our effective response to the COVID-19 pandemic, and prior to that during the 2019/2020 bushfires that impacted New South Wales and Victoria. In FY2020 we successfully operated through the COVID-19 pandemic while ensuring the health and safety of our people, customers, suppliers and communities. For more information on our response to COVID-19 during FY2020, refer to www.vivaenergy.com.au/COVID19-response.

Throughout the 2019/2020 bushfires, we supported fuel deliveries into impacted areas and quarantine fuel at our service stations for emergency services. We also provided direct support to customers that were experiencing difficulties as a result of the disaster. For more information on our bushfire response, refer to the Our Community section on page 63.

* Tier 1 and Tier 2 Process Safety Events are defined as per API RP 754.

Case study: Communicating with our retail customers

To reach and engage with our retail customers, we maintain regular communications through a number of platforms including our customer database. This enables us to connect with our customers on latest offers, competitions, site updates, car maintenance and road trip related articles, and health and safety messages.

In FY2020, we used these platforms to communicate our COVID-19 safety messages across our Shell branded and Shell Coles Express service station network. This included reassurance to the community that essential services were being maintained by keeping our sites and our supply chain operational to ensure ongoing fuel supply. In line with the advice from Government and health experts, changes to work and cleaning practices were implemented by our partners Coles Express and Independent dealers to ensure the health and hygiene of our customers, their families and the thousands of team members who operate the sites. These measures ensured our sites remained safe and comfortable environments for everyone and in line with the COVID-19 guidelines provided by the Commonwealth Department of Health.

Case study: Viva Energy wins Best HSSE Program in Shell's Global Licensed Markets for fostering a mentally healthy workplace

Weipa Servicentre was the proud recipient of the award for Best HSSE Program in Shell's Global Licensed Markets in FY2020. Weipa is an isolated and remote mining town on the coast of Cape York in northern Queensland. Aboriginal and Torres Strait Islander people make up 19.5% of the population of approximately 3,900 people[1]. Research reveals remote Australians die from suicide at twice the average rate of city-based people, yet are only able to access mental health services at a fifth of the rate of city-based people[2]. It also identifies farmers and Aboriginal and Torres Strait Islander people as among those most at risk of suicide. The team at Weipa Servicentre tragically had personal experience with this, having lost two team members to suicide in recent years.

The team adopted a targeted approach to foster a mentally healthy workplace, including offering Mental Health First Aid training to staff, liaising with Weipa Community Health, and implementing check-ins with site staff and safe zones promoting cultural awareness and exchange. Three staff members also participated in the Conquer the Corrugations Cape York Mental Health Awareness Walk, a huge community event, supported by local businesses, including Weipa Servicentre. Participants in the event walked 42km over the course of two days to raise awareness of the issues surrounding life's 'corrugations' in Cape York, to support and remember those affected, and to remove the stigma that surrounds mental health.

"We wanted to share our story to inspire others to act and make mental illness a priority in their business."

— Maddison Reinhardt, Weipa Servicentre Site Manager

Case study: Crisis prevention exercise supporting the Australian Defence Force

In late 2019, Viva Energy was handed operational control of the HMAS Cairns Defence Fuel Installation (DFI) facility as part of a commercialisation project conducted under the Defence Fuel Transformation Program. The DFI is situated adjacent to the HMAS Cairns base, which the DFI services. Recognising the close links between the base and the DFI teams, Defence and Viva Energy undertook a major joint emergency response exercise in October 2020 that tested each party's capacity to manage a spill to water emergency, as well as the coordination between the two parties and with the responding agencies. The scenario tested on the day simulated a significant diesel spill from a failed ship's hose during discharge operations. Enacting the onsite response to this scenario included physically assembling spill response equipment and working with Ports North, Maritime Safety Queensland and Defence personnel on how the active response would be managed. This exercise served as an excellent opportunity to work together and identify improvement opportunities for lines of communication and escalations during a potential crisis.

1. According to 2016 Census undertaken by the Australian Bureau of Statistics (ABS).
2. Bishop, L., Ransom, A., Laverty, M., & Gale, L. (2017). Mental health in remote and rural communities. Canberra: Royal Flying Doctor Service of Australia.

Making the lower carbon energy transition

We recognise that human impacts are contributing to climate change, and we support policies and action that will help Australia meet its carbon reduction commitments in a sustainable way, including support for Australia's commitment to the Paris Agreement. We are equally committed to improving energy efficiency in our own company's operations, and supporting the development of lower carbon and renewable energies, as part of the wider energy transition.

FY2020 Highlights

- Geelong Energy Hub launch setting out a strategic vision to support the evolving energy mix
- Board strategy day to consider new energies opportunities and the evolution of the fuel and convenience sector, in the context of transition to lower carbon energy
- Agreement to install our first 350kW ultra-fast electric vehicle charging stations at selected retail service station sites
- In early 2021, entered into a strategic alliance with HYZON Motors to pursue hydrogen fuel for transport opportunities
- Climate scenario analysis and risk assessment aligned with the Taskforce on Climate-related Financial Disclosures (TCFD) recommendations
- Founding member of the Climate Leaders Coalition
- Geelong Refinery Energy Masterplan development

FY2021 Priorities

- Progress Geelong Energy Hub energy transition initiatives, such as the Gas Terminal Project and Solar Energy Farm
- Launch our ultra-fast electric vehicle charging stations pilot to learn more about this technology and consumer uptake
- Progress our strategic alliance with HYZON Motors to pursue hydrogen fuel for transport opportunities
- Implement shadow carbon pricing as a risk assessment tool in our investment decision making
- Detailed feasibility assessment of energy projects at the Geelong Refinery for future capital investment planning
- Progress our TCFD adoption program
- Enhanced climate change and emissions focus through more dedicated roles, accountabilities and governance committees
- Actively participate and collaborate with industry peers on Climate Leaders Coalition initiatives

Lower carbon transition and business strategies

At Viva Energy, we proudly supply products and services that are vital to our economy. At its heart we supply the energy that keeps us moving, and our goal is to 'Help People Reach Their Destination'. As such, we have a unique position and opportunity to support the transition to a lower carbon energy future and expect to deliver this through a mix of traditional and emerging energies that will evolve over time.

Our business strategy is to remain focussed on the efficiency of our existing core business and outperform our competitors, to grow in adjacent and new businesses lines aligned with our traditional areas, while also capturing opportunities for new growth in emerging products, services, and new markets. We see opportunities that support the transition to a lower carbon economy, as well as growth opportunities in existing and adjacent businesses that we can pursue now and through an energy transition

In FY2020 we announced our vision to develop the site of the Geelong Refinery into an 'Energy Hub' to support the energy needs of south-east Australia and the transition to lower carbon energies. This leverages the benefits of this strategic location, positioning Geelong as a core element of energy supply for Victoria and the south-eastern states into the future. There are a number of proposals aligned to this concept, which are drawn out further in herein, and of which the Gas Terminal Project is an early priority. Differentiating the energy supply options at Geelong will help secure and grow operations at Geelong into the future.

In our Retail and Commercial fuels businesses, we continue to investigate and participate in new energies. We are commencing electric vehicle (EV) charging services at key retail fuel and convenience sites to build and understanding of this emerging and important part of our broader retail convenience offering. In addition, we are actively pursuing opportunities for the development of hydrogen within the heavy vehicle transport sector (busses and trucks) with the recent announcement of our strategic relationship with HYZON Motors. These opportunities, together with the provision of biofuels, are expanded on further below as part of the TCFD analysis of opportunities and provide potential transition pathways into the future.

3. For further discussion of these impacts, refer to page 17 of the Operating and financial review.

In both Retail and Commercial, we also see opportunities to develop and grow our non-fuels businesses. In our Retail channel, this includes the Convenience shopping retail business, both in our core Shell Coles Express offering, and through the Liberty Convenience joint venture. We expect to continue to grow and learn in the convenience business, and with developing shopping trends expect that the convenience business presents a significant future growth opportunity.

Emissions and energy efficiency strategy

We differentiate the emissions and energy profile of our existing core business into three categories: (i) Refining; (ii) Operations (non-Refining); (iii) Customers. Each category has a distinctly different profile that drives differing approaches.

Refining

We have been operating our refinery at Geelong since 1954, and it remains an asset of national importance to Australia's energy security. The refining process is inherently carbon and energy intensive, with Geelong representing 96% of our Group's overall greenhouse gas emissions, but is necessary to the production of usable fuels to the market whether that refinery is operated by us, elsewhere in Australia, or overseas.

Our approach is to operate Geelong Refinery as safely and reliably as possible, ensuring the most efficient use of energy, and mitigating greenhouse gas emissions within the constraints of the current facility configuration. We have identified opportunities to upgrade equipment and optimise processes to reduce energy use and emissions, but have not yet progressed these due to the uncertain outlook for refining in Australia. We will continue to assess these alongside other low carbon investment opportunities within our business.

Operations

Beyond the Geelong Refinery, we operate a nationwide infrastructure, import and storage network, through which we deliver our products to all parts of Australia. The energy and emissions profile of these operations is significantly less than that of our refining operations, and we see good opportunities for us to progress mitigation, reduction and offset strategies to reduce the energy and emissions footprint of this segment.

Customers

Our customers are also focussed on their energy efficiency and emissions reduction, and our products contribute to their footprint. Our goal is to provide commercial solutions and expertise to help them achieve energy efficiency outcomes. For many of our customers this is a journey, and we act as their trusted fuel partner in continuing to support their business.

Taskforce on Climate-related Financial Disclosures (TCFD) framework adoption

In FY2020, we progressed our work against the Taskforce on Climate-related Financial Disclosures (TCFD) framework and the results of this work are set out in the following section of the report. This framework is an important tool for us to assess and monitor the potential impacts of climate change on our Company and to identify emerging trends that influence our business strategy. The framework requires longer-term analysis and assessment, which necessarily requires broad assumptions into the future, however this is important analysis to ensure that we continue to maintain a critical eye to longer-term trends and that our current business model is capable of adaptation to emerging trends.

The Recommendations of the Taskforce on Climate-related Financial Disclosure (TCFD) is a voluntary framework for climate-related financial disclosures. It recommends that companies exposed to climate risk make assessments and disclose against the following core elements:

Governance: the organisation's governance around climate-related risks and opportunities.

Strategy: the actual and potential impacts of climate-related risks and opportunities on the organisation's business, strategy and financial planning.

Risk Management: the processes used by the organisation to identify, assess and manage climate-related risks.

Metrics and Targets: the metrics and targets used to assess and manage relevant climate-related risks and opportunities.

The TCFD differentiates climate impacts as:

- **Transition** risks and opportunities associated with the expected shift to a lower carbon economy.
- **Physical** risks to assets, operations and supply chains arising from changes in the physical climate. These may include acute risks, such as intense weather events, or chronic risks arising from longer-term shifts such as changes in sea levels.

We know that it is critical for the sustainability of our business to understand the opportunities and risks associated with climate change and how to incorporate these into our business strategy. To help guide our approach to this and provide transparency to stakeholders we have adopted the Recommendations of the TCFD framework.

We made significant progress on adopting the recommendations of TCFD in FY2020, particularly in the areas of scenario analysis and risk assessment. Detail on our progress against each of the core TCFD elements is provided below.

Governance

Board level

The Board of Viva Energy Group Limited (Board) holds ultimate responsibility for reviewing and monitoring the systems of risk management in the business, including climate-related risks. On climate change related matters, the Board is primarily supported in this role by the Sustainability Committee, which assists in reviewing the Group's carbon and energy efficiency performance, priorities and governance.

Our Audit and Risk Committee (ARC) overseas the Group Enterprise Risk Management Framework, which governs the management of all risks within the business. Climate risks are incorporated into this framework, and accordingly the ARC serves an important role of ensuring a consistent and centralised management approach to all risks.

In FY2020 the Board, through the Sustainability Committee and the Audit and Risk Committee, was engaged on the following climate-related matters:

- Reviewing and discussing the Group's strategy, risks and opportunities
- Reviewing the Enterprise Risk Management Framework and whether the business is performing with due regard to the risk appetite set by the Board.
- Reviewing management's carbon and energy efficiency priorities for 2020 and receiving subsequent progress update reporting.
- Receiving briefings on management's TCFD climate scenario approach and risk assessment outcomes.
- Receiving updates on the Geelong Refinery's greenhouse gas (GHG) emissions and energy performance.
- Reviewing management's proposal to implement a shadow carbon price as part of the Group's capital allocation process.

Management level

In FY2020 the Chief Operating Officer oversaw the activities of central Environment and Sustainability, and HSSE Management and Assurance teams. These teams were both led by national managers covering environmental (including climate change) related compliance, operational support, systems management and assurance.

The Group's Executive General Manager (EGM) of Legal and External Affairs oversaw the governance function of the organisation, including the impacts of climate-related regulatory and policy changes.

At an operational level, environmental and sustainability matters are included in the accountabilities of asset managers across the business, including the Executive General Manager Refining, Supply Chain Operations Manager and other key operational staff.

Throughout FY2020, a Management Sustainability Working Group met on a monthly basis under the sponsorship of the EGM of Legal and External Affairs. The working group included key personnel from across all businesses and functions of the Group, and was involved in the development and support of the Group's carbon and energy priorities, and monitoring market, technology and government policy developments.

In FY2021, we have continued to enhance the Group's climate change and energy focus, through:

- Centralising responsibility for all sustainability matters to the Chief Business Development and Sustainability Officer[4], providing executive responsibility and oversight of the Group's climate and broader Sustainability strategy, governance and engagement, and new energy strategy and developments.
- Establishing a dedicated team led by a Group Carbon and Sustainability Manager, reporting to the Chief Business Development and Sustainability Officer, to lead and coordinate our climate change and emissions strategy.
- Establishing a Climate Change and Emissions Management Committee (which will replace the Management Sustainability Working Group) comprising senior staff, including all members of the Executive Leadership Team, from across the organisation who are responsible for the monitoring of climate-related risks and opportunities, and implementation of the strategic priorities in response.

Additionally in FY2021, a shadow carbon price will be introduced into the Group's investment evaluation and capital allocation process, to provide Management and the Board with an indication of how investments may be impacted by future climate policy changes to guide business decision making.

Strategy

Scenario analysis

In FY2020, we undertook an assessment specifically focused on climate impacts, in order to deepen our understanding of climate transition pathways through the development of climate scenarios. In doing so, we evaluated the risks and opportunities associated with these scenarios, and we reviewed our business resilience and strategic response.

We developed three climate scenarios, designed to stress test the resilience of our business strategy under a range of plausible future states, using the following inputs and approaches:

- Intergovernmental Panel on Climate Change (IPCC) physical scenarios.[5]
- International Energy Agency (IEA) transitional scenarios.[6]
- Shared Socioeconomic Pathways (SSPs).[7]
- TCFD requirements for scenarios to be plausible, distinctive, consistent, relevant, and challenging.

The three climate scenarios adopted represent three distinct levels of global decarbonisation: **Limited Mitigation**; **Disorganised Mitigation**; and **Aggressive Mitigation**. The Aggressive Mitigation scenario represents a 'lower than 2°C' scenario specified by the TCFD and is oriented toward a 1.5°C climate outcome.

4. The Chief Business Development and Sustainability Officer, Lachlan Pfeiffer, was formerly the group's EGM Legal and External Affairs.
5. IPCC (2014): Fifth Assessment Report of the Intergovernmental Panel on Climate Change, https://www.ipcc.ch/report/assessment-report/ar5.
6. IEA (2020): World Energy Outlook 2020, IEA, Paris, https://www.iea.org/reports/world-energy-outlook-2020.
7. Riahi et al. (2017): The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview, Global Environmental Change, Volume 42, Pages 153-168, https://doi.org/10.1016/j.gloenvcha.2016.05.009.

The climate scenarios we have selected represent plausible development paths to future climate states, as described by societal, technology and policy characteristics, and are backed by internationally recognised climate scenarios. It is important to note; however, that these scenarios are not forecasts of our business, nor are they intended to represent a comprehensive description of the future. Rather they are designed to highlight the potential impacts of, specifically, climate change at different timeframes in the future. It is also noted that there are many other factors beyond climate change that could, and will, impact Viva Energy's business over time. These include impacts, risks and challenges that we face now, as well as those that may develop over time.

The key characteristics of each of the Viva Energy climate scenarios are summarised in the table below.

Viva Energy TCFD climate scenario	Global warming state	IPCC physical scenarios	IEA transition scenarios	Description
Limited Mitigation	> 4°C	RCP8.5	Not applicable as transition impacts not considered significant in this scenario	• 'Business as usual' approach to climate change with continued growth in GHG emissions. • Limited government intervention and industry-led initiatives. • UN Agreement Nationally Determined Contributions (NDCs) not achieved. • Significant physical risks, and much less prominent transition impacts.
Disorganised Mitigation	~ 3°C	RCP6 RCP4.5	Stated policies	• Gradual approach to reducing GHG emissions in the long term driven by technology with some support by policy. • Limited government intervention, with technocratic-driven leadership from business. • NDCs achieved. • Transition and physical impacts both prominent.
Aggressive Mitigation	< 2°C	RCP2.6	Sustainable development – Net Zero by 2050	• Progressive government policy that sets a pathway for a rapid and orderly transition. • Quicker response sees GHG emissions begin to reduce in the near term as governments and their communities embrace the vision of a decarbonised future. • NDCs exceeded. • Significant transition impacts, and some but far less prominent physical impacts.

The time horizons we adopted for our climate scenarios assessment and the bases for their selection include:

- **Short Term – 2023:** reflects near term policy and technology certainty, aligned with our business operational planning cycle.
- **Medium Term – 2030:** aligned with our strategic planning timeframe, and consistent with market approach.
- **Long Term – 2050:** consistent with industry practice, aligned with typical 'net zero' emissions target timeframes, and to more fully consider physical climate impacts.

Following scenario development, we undertook a process to identify climate-related risks and opportunities and assessed these against the selected climate scenarios and time horizons. The process we followed to identify climate-related risks involved our external advisor EY completing internal document and policy reviews, external desktop research and a peer benchmarking exercise. It also involved conducting interviews with key internal stakeholders to gain insights.

A series of workshops were then held with relevant internal stakeholders to validate the identified risks and opportunities and assess their rating across the various climate scenario and time horizon combinations. Note, transition risks and opportunities were assessed as unlikely to be significant for the Limited Mitigation scenario. Similarly, Physical risks are not expected to be significant in the Aggressive Mitigation scenario.

The risk assessment process was aligned with our Group Enterprise Risk Management Framework (ERM) in terms of consequence and likelihood scales, and these were combined to determine an overall risk rating using the Group's ERM risk matrix.

The risk analysis was conducted on a qualitative basis. While all reasonable care has been taken in its preparation, considering industry, market, societal and governmental changes over any length of time, particularly in the longer term, necessarily involves a high degree of uncertainty and the application of broad assumptions. Many of these assumptions are informed by the work and content of the underpinning scenarios, but these scenarios are typically compiled on global or regional bases, whereas our business depends on many local Australian factors.

Further, as we have noted above, these risks and opportunities relate only to matters directly related to the impacts of climate change (whether those are physical or transitional impacts). In order to understand the risks well, these risks are presented on an 'unmitigated' or 'inherent risk' basis before any strategies or risk treatment plans are applied which would or could reduce the severity or likelihood of the risk to a 'residual risk' basis.

The table below outlines the potentially significant climate-related risks and opportunities identified through this process, as well as the key strategies we are implementing in response.

Risk/ opportunity type	Description	Relevant scenarios and time horizons	Our strategic response
Transition Risk – Policy	Future climate policies that establish a price on carbon emissions or mandate emissions performance requirements – resulting in additional costs for our emission-intensive operations such as the Geelong Refinery.	Potential to be significant in the medium term in **Aggressive Mitigation** and, to a lesser degree, **Disorderly Mitigation**, with impact increasing in the longer term.	• We monitor Government climate policy developments, actively engage in policy consultation process, and evaluate how potential changes will affect us. • We advocate the importance of local refining capability for national fuel security, and for recognition of emissions-intensive trade exposed businesses in climate policy. • We have developed an Energy Masterplan for our Geelong Refinery to help reduce its GHG emissions intensity. • We will apply a shadow carbon price in our investment evaluation and capital allocation to assess potential future carbon price exposure. • We have announced our vision for the Geelong Energy Hub to diversify our refinery revenue streams to lower carbon energy transition opportunities.
Transition Risk – Policy/ Market/ Technology	Climate policies aimed at increasing electric vehicle (EV) or other low carbon alternative fuels uptake; technological improvements in internal combustion engine (ICE) energy efficiency; shifts in consumer mobility preferences and patterns away from privately owned ICE vehicles – resulting in reduced consumer fuel demand and lower revenue in our Retail business.	Potential to be significant in the medium term in **Aggressive Mitigation** and, to a lesser degree, **Disorderly Mitigation**, with impact increasing in the longer term.	• We monitor Government policy developments, technology advancements and consumer trends, and factor these into our future business planning. • We are partnering with new technology providers and introducing new technologies on a test-and-learn basis, such as the EV charger rollout at selected retail service sites with a third party. • We are involved in new technology forums and industry groups in order to continue our focus on these potential shifts. • Our business units also capture earnings not directly related to fuels, and we see opportunities to grow these over time in both our Commercial and Retail channels.
Transition Risk – Technology	Technology advancements leading to increased alternative/advanced fuel or renewable energy use in Commercial business segments (e.g. mining, aviation or others) – resulting in reduced revenue for our Commercial business.	Potential to be significant in the medium term in **Aggressive Mitigation** and **Disorderly Mitigation**, with impact increasing in the longer term, particularly in **Aggressive Mitigation**.	We supply a diverse portfolio of products to a wide range of customer/industry segments which are expected to have different transition rates and pathways, reflecting a general resilience in our business. We are collaborating with others and piloting emerging alternative fuels and energies to position for adoption where feasible. This includes work in biofuels, hydrogen and other alternative fuels. We are working with our Commercial customers to understand their low carbon transition strategies, and how we can support these.
Transition Risk – Market/ Reputation	Increased investor scrutiny, increased lender stigmatisation, shareholder resolutions and negative screening on emissions intensive industries due to increased uncertainty around future earnings.	Potential to be significant in the medium term in **Aggressive Mitigation** and **Disorderly Mitigation**, with impact increasing in the longer term, particularly in **Aggressive Mitigation**.	We have adopted the TCFD recommendations for disclosure to provide transparency and demonstrate to stakeholders our understanding of climate risk and linkages to our business strategy. We conduct shareholder and proxy advisor engagements to exchange perspectives in relation to ESG matters, including climate change.

Risk/ opportunity type	Description	Relevant scenarios and time horizons	Our strategic response
Transition Risk – Reputation	Inability to attract or retain talent due to increased reputational damage and volatility in emissions intensive industries.	Potential to be significant in the medium to long term in **Aggressive Mitigation**, and in the long term in **Disorderly Mitigation**.	• We are positioning the Group to be an active participant in the transition to a lower carbon economy over time. Initiatives such as the Geelong Energy Hub will provide significant opportunities for our present and future employees, including the Gas Terminal Project, which is currently providing opportunities for highly skilled roles.
Physical Risk – Chronic	Increased frequency of flooding associated with rising sea levels at the Geelong Refinery and coastal fuel terminals – resulting in asset damage (increased costs) and disrupted operations (decreased revenue).	Potential to be significant for the refinery in the medium to long term in **Limited Mitigation** and **Disorderly Mitigation**, and in the longer term in **Limited Mitigation** for coastal terminals.	• We have Emergency Response plans in place for each of our facilities, and Business Continuity Plans for our overall operations and supply chains. • We continuously assess and renew our asset integrity programs, including to adapt to changed circumstance, to ensure reliable and continuous supply. • We consider physical climate risks when developing significant projects such as the Gas Terminal project at Geelong.
Physical Risk – Acute	Increase in frequency and severity of extreme weather events (storms, cyclones, floods, heatwaves) resulting in: • supply chain delays, power outages, asset damage; • increased stormwater management requirements at the refinery and terminals; and • increased employee health impacts and reduced accessibility to the workplace/customers.	Potential to be significant for the refinery, and to a lesser extent our fuel terminals, in the short, medium and long term in **Limited Mitigation** and **Disorderly Mitigation**, with impact increasing in the longer term.	• We undertake, review and assess our asset integrity programs to maintain their resilience to changing environment and circumstances. Where appropriate, we have redundancy and back-up systems to maintain continued operations. • We periodically review our stormwater management procedures and the effectiveness of our stormwater management infrastructure, and implement upgrade projects where necessary.
Opportunity	Increased demand for infrastructure to distribute low emissions fuels such as EVs (via charging infrastructure) and hydrogen, and for grid stability systems in response to the uptake of small-scale renewables, creating new revenue streams for our Retail network.	Potential to be significant in the medium term in **Aggressive Mitigation** and **Disorderly Mitigation**, with opportunity increasing in the longer term.	• We are involved in a pilot to install EV charging stations at selected retail sites, to gain experience in the logistical and commercial aspects of deploying EV charging technology, and insights into customer uptake trends and behaviours. • We are involved in a number of hydrogen R&D and advocacy forums, including the Australian Hydrogen Council.

Risk/ opportunity type	Description	Relevant scenarios and time horizons	Our strategic response
Opportunity	Increased demand for low emission or advanced fuels such as biodiesel, hydrogen or sustainable aviation fuel (SAF) in our Commercial segments, creating new revenue streams.	Potential to be very significant in the medium to long term in **Aggressive Mitigation** and **Disorderly Mitigation**.	• We are closely monitoring developments across key future fuel areas, and maintaining a presence on energy forums, industry groups and peak advocacy bodies. • We have formed a strategic alliance with hydrogen fuel cell OEM HYZON Motors to collaborate in developing a complete hydrogen transport solution, focused on the heavy transport sector. • We have signed a Heads of Agreement with Gevo to collaborate on the technical and commercial feasibility of converting biomass into renewable hydrocarbons, including sustainable aviation fuel (SAF). • We continue to supply ethanol E10 blended fuel via our retail network where mandated and investigate options for the delivery of biodiesel or renewable diesel into the market.
Opportunity	Increased affordability of renewable electricity (self-generated or via PPA), and to a lesser extent increased affordability of energy efficient technology, for use in our refinery, resulting in reduced costs.	Potential to be significant in the medium to long term in **Aggressive Mitigation** and **Disorderly Mitigation**, with some opportunity in the short term for renewable electricity.	• In 2019, we commenced a Power Purchase Agreement (PPA) with Acciona, the operator of the Mt Gellibrand Wind Farm, 65km west of Geelong. The PPA is a financial arrangement that guarantees pricing of electricity representing approximately a third of the Geelong Refinery's annual electricity needs. • We are investigating the feasibility of a solar energy farm at the Geelong Refinery.
Opportunity	Increased demand for lower emissions energy sources resulting in potential growth opportunities for the Geelong Energy Hub, including specifically the planned gas terminal to import liquefied natural gas (LNG) as a transitional fuel.	Potential to be significant in the medium to long term in **Aggressive Mitigation** and **Disorderly Mitigation**, although less opportunity for LNG in **Aggressive Mitigation**.	• We have set out our strategic vision for the Geelong Energy Hub to support a lower carbon energy transition, while underpinning the future of the Geelong Refinery. • We are progressing the cornerstone Gas Terminal project through front-end design and approvals, with a target commissioning date of 2024 when south-east Australia is forecast to be short on gas.

Risk discussion

The primary transition risks identified in the assessment above relate to demand substitution for our existing product suite, whether that substitution is driven by government regulation, technological advancement or consumer preference. In the short term, none of these have been assessed to be significant. As we look out over extended time horizons, we do see the potential for increased impacts. The scale and speed of any substitution is expected to vary significantly between both product type and market sector. Accordingly, as we consider strategies to address these risks, we develop them in a manner that responds to the relevant product line, the rate of expected change, and our customers' needs.

Transition risks also give rise to the potential for increased operating costs arising from regulatory responses to reduce GHG emissions. These risks are likely to be relatively uniform for market participants, and to be sector-wide.

The physical risks identified most likely arise in the Limited Mitigation scenario, and to a lesser extent, over time in the Disorderly Mitigation scenario – that is, where less is achieved to address an increase in global temperatures, resulting in more frequent and severe weather event impacts on assets and facilities. In our retail network, this is less likely to be significant, given the large number and wide distribution of the service station network. In our supply chain and refining operations, the risks predominantly relate to unreliable supply driven by unplanned downtime, and increased costs in mitigating or responding to weather events. We operate substantial asset management and maintenance programs, including site-level Emergency Response Management Plans and Group-level Business Continuity Plans to mitigate these generally localised impacts, and these will need to adapt over time, should these risks eventuate.

Opportunities and strategic response

Correspondingly, we see opportunities from an energy transition to diversify our business revenue streams as demand for lower carbon energy and fuels increases, particularly in the Disorderly Mitigation and Aggressive Mitigation scenarios in the medium to long term.

Similarly with the time horizon for the associated risks, the opportunities for our business are more limited in the short-term time horizon. Again, mirroring the risk profile, the opportunities for alternative fuels will vary depending on product type and market segment. Many of the new technologies are in the nascent stage of technological development (e.g. sustainable aviation fuel (SAF)), currently have limited penetration in Australia (e.g. electric charging), or require reductions in their associated cost base to become commercially competitive (e.g. hydrogen mobility) – or a combination of all of these.

We see a key existing opportunity in LNG imports into the south-eastern Australian market through our Geelong facility. LNG is a well-understood and mature market supported by proven technology, and is a key transitional fuel in an energy transition. Accordingly, we have materially progressed our Gas Terminal Project and are currently working through the Front-End Engineering Design (FEED) stage to bring the project to a Final Investment Decision in 2022, with the opportunity for gas supply in 2024.

As we look to the medium and longer-term time horizons, alternative fuels provide materially positive opportunities. Accordingly, our strategy is to develop our businesses and capability in the early stages of these industries, in order to participate in the opportunities as they mature. Some more of these strategies are elaborated in the discussion below.

In FY2020, we announced our vision for the Geelong Energy Hub, a business and energy diversification strategy centred on our key asset in Geelong. Through this vision, we expect to explore opportunities for transition fuels (such as LNG imports), alternative fuels (e.g. biofuels and hydrogen) and energy and emission reduction projects (e.g. a solar energy farm). Further details on the Geelong Energy Hub can be found on page 50.

We see a key existing opportunity in LNG imports into the south-eastern Australian market through our Geelong facility. LNG is a well-understood and mature market supported by proven technology, and is a key transitional fuel in an energy transition.

As noted earlier, some of the more specific opportunities we are currently pursing include:

- **Battery Electric Vehicle (BEV):** In FY2020 we signed contracts to install our first 350kW ultra-fast electric vehicle charging stations at selected retail service station sites with a third party. We look forward to the construction and launch of these sites in the first half of FY2021, with this pilot enabling us to further monitor and support the development of charging infrastructure and understand customer uptake trends and behaviour.
- **Biofuels:** We continue to blend up to 10% ethanol with ULP91 to make E10 and distribute this across our retail service station network in NSW (86% of retail sites) and Queensland (66% of retail sites) with additional sites planned for FY2021. In FY2020 we entered into a Heads of Agreement (HoA) with Gevo to work collaboratively on activities in Australia to establish the technical and commercial feasibility of converting biomass into SAF and renewable gasoline from regionally sourced renewable resources using Gevo's patented technology. We continue to investigate options for the delivery of biodiesel or renewable diesel into the Australian market despite availability and economic challenges.
- **Hydrogen:** We recently announced a strategic alliance with HYZON Motors, a global supplier of hydrogen fuel cell powered commercial vehicles. With an initial focus on leveraging the Geelong Energy Hub to offer hydrogen for transport, our alliance allows us to move past traditional roadblocks to establishing a hydrogen refuelling network, by working with an OEM to get hydrogen fuel cell vehicles on the road to create the demand.

Critical to securing opportunities that will enable us to have a key role in the future energy mix is in establishing and maintaining strong collaboration and partnerships across the entire value chain for a range of new energies. We are closely monitoring progress in all future fuel areas with a presence in Australian energy forums, industry groups and membership of peak advocacy bodies. We are members of Bioenergy Australia, Australian Industry Greenhouse Network (AIGN), continue both our membership and Board position on the Australian Hydrogen Council, and advise as an industry representative on Deakin University's Hycel's External Advisory Board. We participated in the Bioenergy Roadmap Review Reference Group, initiated by the Federal Government in 2020.

Risk management

Our Enterprise Risk Management (ERM) Framework and related risk management policies and procedures used to identify, assess, monitor and manage risk within our organisation are discussed in our Operating and Financial Review (refer to page 26). Under this Framework we maintain a Strategic Risk Register which captures risks that can affect the achievement of the Group's strategy and goals.

Climate risk was previously addressed in the 'Emerging Risks' section of our Strategic Risk Register. As a result of the significant climate scenario and risk assessment work undertaken in FY2020, we now have a separate Climate Risk Register supplementary to the Strategic Risk Register, which captures all transitional and physical climate change risks identified for monitoring over the longer term.

Climate risks are not duplicated in the Strategic Risk Register unless a specific risk meets the definition of a strategic risk, i.e., is assessed as having the capability of affecting the achievement of the Group's strategy and goals, in which case it would be escalated to the Strategic Risk Register.

Currently one climate-related strategic risk, collapse in fuel demand due to change in consumer mobility, is included in the Strategic Risk Register. However, changes in consumer mobility are also impacted by non-climate related matters, with the changes driven by COVID-19 being an example of this.

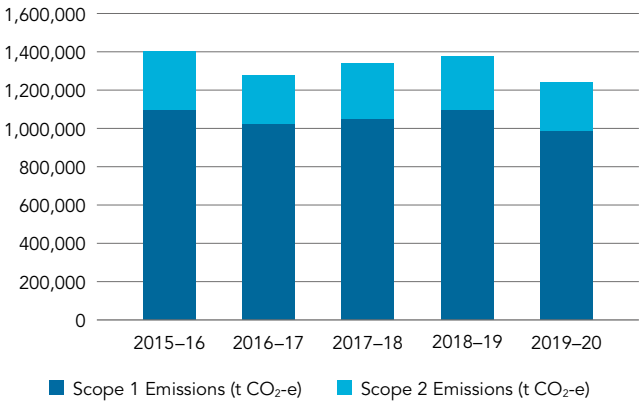
We identify and monitor our strategic risks through a twice annual process of consultation across each business unit and validation with the Group's Executive team, with reporting to the Board Audit and Risk Committee. As part of this process, the Climate Risk Register will be reviewed to determine if there are any material changes to climate risk ratings, including whether elevation of any climate risks to the Strategic Risk Register is warranted.

Metrics and targets

We report annually on our greenhouse gas (GHG) emissions, and energy consumption and production under the Australian Government's National Greenhouse and Energy Reporting (NGER) Scheme. The data we report is published each year on the Clean Energy Regulator website cleanenergyregulator.gov.au and includes:

- **Scope 1 (direct) emissions** arising from our operations such as from fuel combustion, fugitive emissions and other minor emission sources; and
- **Scope 2 (indirect) emissions** associated with the generation of electricity we purchase for our operations.

Viva Energy Group operational greenhouse gas emissions



Our emissions reported include the facilities and activities of all Viva Energy Group subsidiaries and contractors within our operational control and is reported for the 12 months ended 30 June.

For the 2019-20 NGER reporting period we reported Scope 1 emissions of 1,000,445 tonnes CO2-e and Scope 2 emissions of 282,152 tonnes CO2-e. Scope 1 and 2 emissions from the Geelong Refinery account for 96% of our total operational greenhouse gas emissions. The Geelong Refinery's Scope 1 emissions were well below the statutory Safeguard Mechanism emission baseline for the facility of 1,160,938 tonnes CO2-e set by the Clean Energy Regulator.

Our overall Group operational GHG emissions in 2019-20 were 10.4% lower than the previous reporting period. This reduction is attributed to COVID-19 impacts on the Geelong Refinery in the final quarter of the NGER reporting period. Fuel demand reduction led to the shutdown of a major process unit for extended maintenance, and the refinery operating in a lower production 'hydro skimming' mode.

In FY2020, we developed our approach for implementing shadow carbon pricing into our financial planning and capital allocation process. This is intended to provide a risk assessment tool to evaluate investments, understand carbon price impact sensitivity, and guide investment decisions. The shadow carbon prices adopted are a low-case 'current day' price, and high-case price representative of a medium term 'Aggressive Mitigation' scenario. These carbon prices are derived from publicly available carbon price benchmarks and will be updated annually.

Case study: Climate Leaders Coalition

To support our strategy to pursue opportunities and contribute to Australia's transition to lower carbon energies, in FY2020 we joined with other leading businesses to become one of the founding members of the Climate Leaders Coalition (CLC), an initiative of the B Team Australasia. The B Team is an initiative co-founded by Sir Richard Branson, which brings together global leaders from business, civil society and government to catalyse better ways of doing business (a Plan B) that prioritises the wellbeing of people and the planet.

The CLC is focused on collaboration and joint problem solving in respect of decarbonisation challenges, with an aim to support Australia's low carbon future while also ensuring long-term economic sustainability. Other CLC Founding Members include the CEOs of some of Australia's largest resources and industrial companies, along with leading companies from the property, consumer goods, finance, technology, research, civil society and advisory sectors. CLC members support the Paris Agreement and Australia's commitment to it. For further information visit climateleaders.org.au.

"I am excited about the opportunity to work together with the CEOs of these companies to share learnings, collaborate on opportunities and potentially work together on specific projects. Many of these businesses are significant carbon emitters or are responsible for significant emissions through the products they sell, and therefore share many of the same challenges as we do. By working together, we believe that we can be more effective in developing our respective strategies to reduce emissions and demonstrate how business is committed to the transition towards a low carbon economy."

— Scott Wyatt, CEO

Geelong Refinery energy performance

Petroleum refining is inherently energy and GHG emission intensive. Notwithstanding this, we remain focused on improving and addressing the energy performance of the Geelong Refinery.

With the Geelong Refinery more energy efficient (and less energy intensive) when operating at high throughput and high unit utilisation, the shut-down of units and operational mode changes in FY2020 due to COVID-19 resulted in a significant reduction in refinery utilisation, which resulted in a significant increase in energy intensity to 123.9[8] compared with 112.4 in FY2019.

Due to the financial impacts on refining in FY2020, capital allocation at the Geelong Refinery was prioritised to safety critical and asset integrity projects, with planned energy projects deferred. Despite this, the refinery's energy performance remained a focus through daily operational meetings and the implementation of new workflow processes to capture operational energy improvements. In FY2020 we progressed our Energy Masterplan including the detailed feasibility of a number of energy efficiency opportunities.

In FY2021 our focus will be on progressing the Energy Masterplan by further developing key energy projects to ensure they are ready to be executed once more favourable operational and capital conditions return.

Supply Chain energy efficiency program

Our two fuel terminals in Sydney, at Clyde and Gore Bay, are the highest energy consumers in our Supply Chain fuel storage and distribution network.

The energy consumption of the Clyde and Gore Bay facilities has reduced significantly in recent years, as we transitioned from refining operations into import terminal facilities. Operational consolidation has improved the energy efficiency of the Clyde facility, which has allowed for optimisation of product movements.

In FY2020, electricity sub-metering was installed across both the Clyde and Gore Bay facilities, and in FY2021 we will be assessing the data arising from this to identify operational optimisation opportunities and potential energy efficiency projects.

At the bitumen plant located at our Pinkenba terminal in Queensland, we transitioned operations to an import and blending facility, with limited processing. By limiting the processing of bitumen, we have significantly optimised the plant heating requirements and have a projected 20% saving on gas consumption. Additionally, the transition away from processing has reduced the air and water (from steam condensate) emissions. We will continue to complete additional energy optimisation trials at the bitumen plant throughout FY2021.

8. Using the Solomon Associates global refinery benchmarking Energy Intensity Index (EII) methodology.

Sustainability continued

Geelong Energy Hub

To support Australia's energy future, in June 2020 we shared our strategic vision for the Geelong Energy Hub. The Geelong Energy Hub looks to support the evolving energy mix while underpinning the future viability of our refinery, with several potential projects to support alternative energies such as renewables and hydrogen, generating new jobs and economic development for the region. Key to this vision is the plan to develop a gas terminal.

The Geelong Refinery will continue to play a significant role in liquid fuel manufacture and supply security – providing the fuels that Victoria needs in the transport, aviation, industrial and marine sectors. Even as technology and Australia's energy needs continue to evolve, refined fuels will still be needed for many years to come.

Our vision is to build a sustainable operation so that we can continue local manufacturing, provide employment and supply existing and future products to meet the needs of our customers and the economy.

Why is the Energy Hub important?

- A Gas Terminal can cost effectively bring gas from where it is produced to where it is needed.
- A Solar Energy Farm could help power the refinery – reducing our carbon footprint.
- Support the development of alternative lower emission energy sources such as liquid fuels from lower carbon feedstocks, and hydrogen.
- Diversifies the Geelong refinery site, protecting local jobs and generating new jobs and skills.

Gas Terminal Project

Viva Energy has plans to develop a Gas Terminal at the Geelong Refinery. The Gas Terminal would bring natural gas from various locations in Australia and overseas, to help meet the projected gas shortage in south-east Australia.

The Gas Terminal Project includes:

- Continuous mooring of a Floating Storage and Regasification Unit (FSRU) which stores and converts Liquefied Natural Gas (LNG) back into natural gas.
- A Refinery Pier extension. To accommodate the visiting LNG ships and house the floating vessel, the existing Refinery Pier will be extended by approximately 570m.
- Gas-blending facilities. Prior to supplying the market and to meet Australian specification standards, all the gas will be treated in a gas-blending facility within the refinery boundary.
- A pipeline approximately 6.5km will be constructed to get the gas to where it is needed. About 2.5km of the pipeline will be above ground and about 4km underground within existing pipeline corridors. About half of this pipeline will be on Viva Energy's land.

The Project is expected to provide 150+ jobs during the two-year construction period and create around 50–100 ongoing local jobs.

Solar energy farm

As part of the Energy Hub we are investigating a proposal to build a solar energy farm alongside the Geelong Refinery. A solar energy farm could power about 20% of the refinery's electricity needs and reduce our carbon footprint.

We own 41 hectares of vacant land immediately north of the refinery, which would allow the installation of enough photovoltaic (PV) panels with the capacity to generate around 25MW of clean energy.

The solar energy farm would complement Viva Energy's support for the renewables transition, following entering into a Power Purchase Agreement (PPA) with Acciona, which owns and runs the Mt Gellibrand wind farm near Colac. The PPA has secured pricing for Viva Energy on approximately 100GWh per annum of electricity, which represents around a third of our Geelong Refinery's annual electricity needs.

Strategic fuel supply and storage

Alongside the current refinery storage, the Energy Hub includes the potential to develop additional diesel storage to support the Federal Government's Fuel Security Package.

In September 2020, the Australian Federal Government released its Fuel Security Package, which included a plan to support the development of additional diesel storage. A Request for Tender process commenced in early 2021 and Viva Energy participated. For more information on the Fuel Security Package refer to page 67.

The Geelong site is well positioned to take advantage of any future strategic storage opportunities as and when these arise.

Hydrogen and alternative fuels

Our vision for the Energy Hub includes exploring alternative energy sources, and a natural next step for us is the hydrogen industry. The refinery is already a significant producer and consumer of hydrogen as part of existing processing activities. The opportunity exists for us to extend existing hydrogen production facilities into production of grey or green hydrogen for transport and other needs.

The Council of Australian Governments (COAG) Energy Council has established a working group to deliver on elements of the National Hydrogen Strategy supporting the development of a clean, innovative and competitive hydrogen industry that will benefit all Australians. As a member of the Australian Hydrogen Council, we participated in the development of this strategy.

The flexibility of hydrogen to store energy in gas or liquid form, its high energy density and ability to be transported by trucks, ships or pipelines enables it to be used as a fuel for a variety of applications. This makes it a low emission energy source of great value, in particular for the heavy vehicle sector. There remain challenges in matching infrastructure requirements with vehicles, and our strategic alliance with HYZON Motors will help us to offer a refuelling, supply and vehicle solution for our customers and the industry. The alliance aligns with our collaborative approach, and fits with our intent to explore different energy options as part of the Energy Hub.

We see this and the development of other possible alternative energy sources as longer-term opportunities that we are keen to explore.

Community consultation and regulatory approvals

The Gas Terminal Project will require an Environmental Effects Statement (EES) under the *Environment Effects Act 1978*. The Project is also considered a 'controlled action' and will require assessment and approval under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The EES will be the accredited assessment process for the purpose of the EPBC Act under a Bilateral Assessment Agreement between the Commonwealth and Victorian governments.

Community engagement and consultation is an important part of our Project and we will be engaging with the community and key stakeholders throughout the Project seeking views, feedback and comments. Opportunities for comment include draft scoping requirements and the final EES. For the latest updates visit vivaenergy.com.au/gas-terminal.

Sustainability continued

Environment

We are committed to protecting the environment and minimising any potential environmental impacts arising from our operations or our products. Our HSSE Policy outlines our commitment to operating in an environmentally responsible manner. The environmental aspects of our operations are governed by environmental regulations, which are managed in accordance with our HSSE Management System (HSSE MS).

At the facility level, our operations have Environmental Management Manuals which underpin the HSSE MS and include important local controls to manage environmental risks and compliance. All environmental incidents and near misses are recorded and reported through our incident reporting system. A range of industry specific key performance indicators such as spills, environmental non-compliance records, emissions and waste metrics is used to measure the effectiveness of our management systems.

For our major facilities, including the Geelong Refinery and the Clyde and Gore Bay Terminals, we publicly report on our environmental licence compliance and performance monitoring results. For up-to-date information visit vivaenergy.com.au/environment.

In FY2020, we did not receive any environmental non-compliance sanctions. For a further overview on our FY2020 environmental performance, refer to page 104 of the Directors' Report.

FY2020 Highlights

- Progressive transition of firefighting foams and infrastructure throughout Queensland and South Australia
- Remediation of the former Clyde refinery land in Sydney commenced
- Australian Packaging Covenant (APC) plan refreshed
- Zero environmental non-compliance sanctions
- Awarded ecoBiz Star Partner at the Pinkenba Terminal in Brisbane

FY2021 Priorities

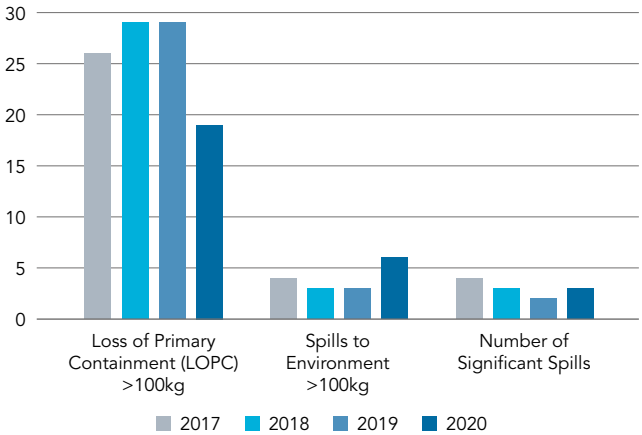
- Implement our foam transition program, with a focus on meeting Queensland and South Australian compliance obligations by 2022
- Complete remediation at the former Newcastle terminal and significantly progress remediation of the former Clyde refinery and the former North Fremantle terminal
- Implement our refreshed Australian Packaging Covenant plan

Spill prevention

Our aim is to ensure that we do not have any uncontrolled release of hydrocarbon products to the environment. We call this 'No Product to Ground' and we refreshed this message in FY2020. To meet this objective, we implement spill prevention and control measures across all our operations, including operational procedures, routine surveillance, risk-based inspection programs, and utilising leak detection technology. For marine spills, we work with the Australia Maritime Safety Authority (AMSA) to maintain a national spill contingency plan. We are also a significant participating member of Australian Marine Oil Spill Centre (AMOSC), for which we have responsibilities to contribute trained personnel and equipment under mutual aid arrangements and in accordance with the National Plan for Maritime Environmental Emergencies.

We measure our performance by tracking loss of primary containment (LOPC) incidents that occur within the operational boundary of our facilities and road transport operations. A LOPC means that hydrocarbon products have leaked or been spilled from the primary containment (tanks or pipes) that are designed to safely hold our products. In many cases we have secondary containment measures (such as tank bunds) to provide additional protection against the products entering the environment. Whilst the number of larger (100kg) LOPCs have reduced, we did have three significant spills (spills greater than 1000kg that reached the environment) in FY2020. Two of the incidents related to process safety incidents at the Geelong Refinery with the third relating to the loss of fuel from an underground storage tank at one of our retail service station sites in Victoria. All of these incidents have been investigated and remedial measures implemented.

No product to ground peformance*



* Excludes performance of Liberty Oil Holdings.

Contaminated land remediation

Across our portfolio, we adopt a risk-based approach to contaminated land remediation which is consistent with national standards and undertaken in consultation with environmental regulators where required. In FY2020 we progressed the land remediation of several large, closed facilities, including the former Newcastle (Hamilton) terminal, the former Clyde refinery land, and the former North Fremantle terminal. These works are being overseen by a regulator-accredited Environmental Auditor who will prepare a site suitability statement or reclassification recommendation consistent with proposed future land use, for regulatory approval.

In FY2021 we plan to complete remediation at the former Newcastle terminal and significantly progress with remediation of the former Clyde refinery and the former North Fremantle terminal.

Air emissions

The manufacturing, storage, supply and use of our fuels cause air emissions such as Volatile Organic Compounds, greenhouse gases (GHG), sulphur oxides (SOx) and nitrogen oxides (NOx). We monitor the air emissions from our facilities according to each site's licence conditions and report annually to the National Pollutant Inventory (NPI). Refer to the NPI website for our latest data npi.gov.au/npi-data.

The main sulphur processing units at the Geelong Refinery continued to experience unreliable operation early in FY2020. With the substantial drop in demand for fuel during the COVID-19 restrictions in Victoria, many of the refinery's processing units, including the sulphur processing units, were shut down for major maintenance. With production rates significantly reduced through much of FY2020, air emissions were well below levels of previous years with the exception of SOx. Units were returned to service at the end of November FY2020 without any breach of our environmental licence conditions.

Fuel standards

We continue to support updates to fuels standards in Australia, including the requirement to reduce the sulphur limit in gasoline to 10ppm. Significant capital investment would be required to achieve these standards, which come into force from mid-2027. We will continue the planning and assessments on the capability and viability of manufacturing these fuels at the Geelong Refinery.

PFAS and firefighting foam

Per- and poly-fluoroalkyl substances (PFAS) are manufactured chemicals that have been used for more than 50 years in a range of products including firefighting foams, pesticides, waterproofing and stain repellents. Like all industries responsible for flammable fuel storage, we have a history of storing and using PFAS-containing firefighting foams as these have been the recommended best practice and most effective for combatting flammable fuel fires. While the health and ecological effects of PFAS compounds are the subject of ongoing research, we acknowledge the potential risk they pose and the precautionary approach to PFAS management adopted by environmental regulators across Australia.

For managing our existing firefighting foams and associated infrastructure, we follow a risk-based approach in determining foam system upgrade projects for transitioning our infrastructure to C6-purity compliant foams; and transitioning to fluorine free foam for shallow pool fires and fuel spills. However, the effectiveness of fluorine free foams is not yet demonstrated for the unlikely event of a large tank fire. In FY2020, we focused on progressing the transition of firefighting foams and infrastructure throughout our Queensland and South Australian facilities. We agreed transitional compliance plans with environmental regulators in these states and will continue to focus on meeting these obligations by 2022.

We continue to engage with foam suppliers and industry research and development organisations such as LASTFIRE to understand the capabilities and limitations of fluorine free foams. Whilst it is not currently widely accepted by industry, it is anticipated that a suitable fluorine free foam for large tank application will be identified over the next few years.

For managing legacy impacts of PFAS to soil and groundwater, we have a due diligence program which is aligned with the PFAS National Environmental Management Plan (NEMP) approach endorsed by all environmental regulators in Australia. As a result, we have progressed with the investigations of PFAS impact at several Queensland sites, Newport terminal and Geelong Refinery in Victoria, the former North Fremantle terminal in Western Australia and the Port Lincoln terminal in South Australia. We continue to work with our environmental regulators on further assessments and suitable mitigation or remediation where required.

Sustainability continued

Resource efficiency and engaging in the circular economy

The demand from our customers, industry and government for circular economy thinking to reduce waste continues to be an important area for us. We demonstrate our commitment to the circular economy in the following ways:

- Waste recovery practices at the Geelong Refinery ensure most of our wastes are reused onsite, recycled or reused in other industries.
- Continued signatory to the Australian Packaging Covenant.
- Exploring opportunities to develop, distribute and promote products that include repurposed waste materials.

The performance of our waste recovery practices at the Geelong Refinery remained strong in FY2020 with 90% of hazardous waste (excluding wastewater) diverted from landfill and 100% of wastewater sent to the Northern Water Plant (operated by Barwon Water) for recycling. The recycled water received back from the Northern Water Plant accounts for approximately 80% of the refinery's water consumption (excluding seawater).

The Australian Packaging Covenant ('the Covenant') is a national regulatory framework under the National Environment Protection (Used Packaging Materials) Measure 2011 (NEPM) that sets out how governments and businesses across Australia share the responsibility for managing the environmental impacts of packaging. We continue to be a signatory to the Covenant and in late FY2020 we refreshed our action plan which focuses on our packaged and bulk lubricant products. The two key goals of our plan include:

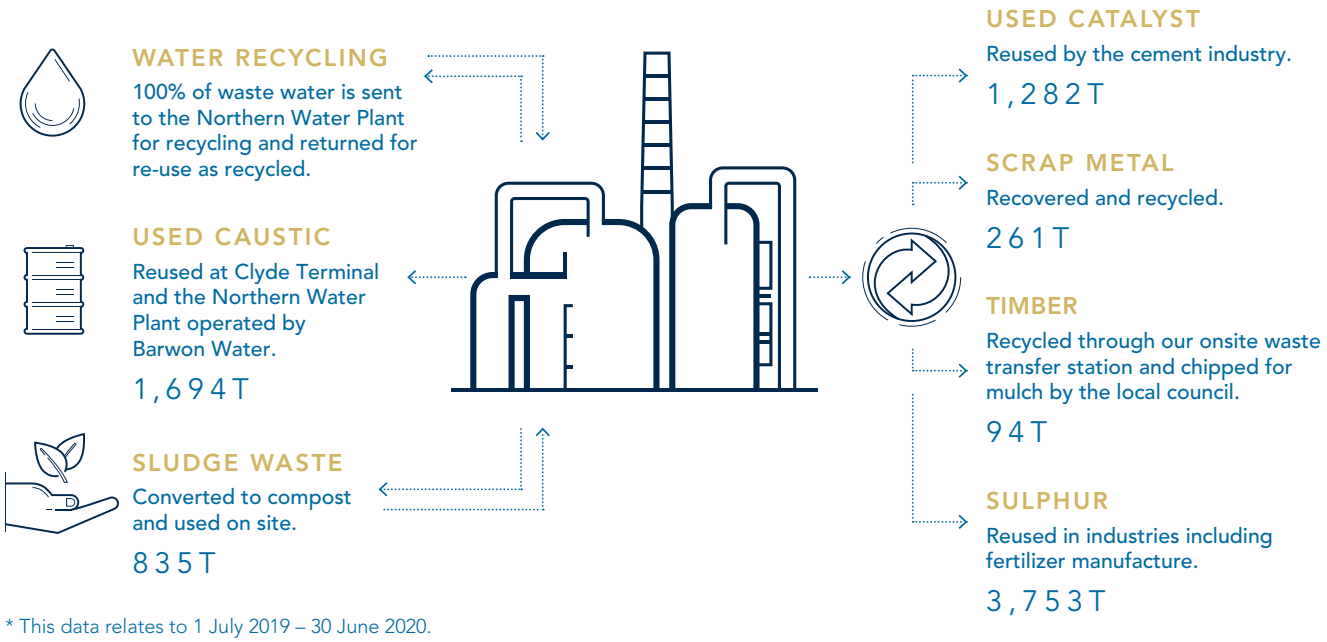
- optimising resource recovery in our supply chain; and
- minimise environmental impact of fugitive packaging through innovative solutions.

At our bulk lubricant facilities, we continue to review opportunities for optimising waste diversion and recycling with our waste recovery providers. For more on this, refer to our case study on Pinkenba – an ecoBiz star partner. For our packaged products, our ambition to collaborate with our retail and trade customers on promoting closed loop solutions for oily containers in FY2020 was unfortunately delayed due to COVID-19 restrictions. We remain committed to this initiative and will progress further in FY2021.

Our main supplier of lubricant products, Shell, has developed a global packaging strategy of 'Reduce. Reuse. Recycle'. Whilst a number of actions have already been implemented into our supply chain (including use of reconditioned IBCs), we continue to work with Shell on exploring innovative and sustainable packaging opportunities. This includes using post-consumer recycled plastic in packaging, and alternative packaging options including Eco Boxes which reduce landfill waste compared to equivalent rigid plastic packaging.

In FY2021, we will continue to work through the actions set out in our refreshed action plan. For our latest annual performance report, visit vivaenergy.com.au/environment.

Geelong Refinery waste recovery efforts in 2020*



* This data relates to 1 July 2019 – 30 June 2020.

Case study: Paving the way for recycled roads

As a major supplier of bitumen to the road transport industry, we continue to look for opportunities to improve the sustainability of our road-surfacing products. While the bitumen products we supply can be perpetually recycled, the industry is moving towards the promotion and facilitation of a circular economy through the use of other recycled materials in road construction. The use of crumbed rubber in roads is now well established in Australia. Crumbed rubber comes from recycling truck tyres, which have a naturally high rubber content. Opportunities for this rubber into roads continues to increase, particularly through Australian specifications and through our customers pursuing increased recycled content to meet their own sustainability targets.

Currently, our bitumen operations supply modified crumbed rubber binders to customers for spray sealing roads across the Australian east coast and South Australia. In addition to providing a solution to the mounting waste issue, the crumbed rubber enhances the road surface by improving its engineering properties and durability, meaning better performance and less maintenance.

We continue to work with the Australian Asphalt Pavement Association (AAPA) and industry partners on the expanded use of crumbed rubber in asphalt applications, and other recycled waste applications in bitumen blended pavements.

Case study: Continuous improvement at Clyde

Clyde Refinery in Western Sydney ceased operation in 2012 and since then the site has progressively been converted into a fuel import terminal. As part of the conversion of the site, several initiatives have been implemented in recent years to improve the environmental performance of the facility, including addressing water discharge quality, air emissions, energy efficiency and the biodiversity of the adjoining wetland.

The demolition of redundant refining infrastructure, the installation of quick flush tanks for the controlled drainage of fuel storage tanks, a program of drain and retention basin cleaning, and improvement in stormwater management practices have resulted in reduced flow and improved quality of water discharges. A number of air emissions reduction initiatives have also been implemented, including maintenance on floating tank covers and associated vapour sealing systems for gasoline storage, resulting in reduced Volatile Organic Compound (VOC) emissions by 35% since 2016.

The facility has also been made more energy efficient by consolidating operations to the central part of the site, allowing for optimisation of product movement. In FY2020, electricity sub-metering was installed across the site and will be utilised to identify further operational optimisation and energy efficiency projects in FY2021.

As part of our ongoing efforts to protect the Green and Golden Bell Frog (classified as vulnerable under the Environment Protection and Biodiversity Act) we recently completed the construction of purpose designed breeding ponds. We continue to monitor the frogs and restore their habitat at our Clyde facility and surrounding wetland areas, with encouraging results from our ongoing surveillance.

Case study: Pinkenba – an ecoBiz star partner

We were recognised in FY2020 with an ecoBiz Star Partner award for our waste and energy reductions in 2019/2020 across our supply chain, lubricants and bitumen operations at our Pinkenba Terminal in Queensland. The ecoBiz Star Partnership accreditation is reserved for businesses that can demonstrate at least a 10% reduction in their resource intensity. Our terminal site and bitumen plant both achieved an impressive 13.1% reduction in energy intensity; and our lubricants warehouse achieved a reduction in waste to landfill and a 20.4% reduction in waste intensity. This was achieved through measures including specialised recycling of oil, oily filters, steel, cardboard, and hard and soft plastics. In addition, while hazardous waste intensity has reduced with improved oil extraction, the site continues to investigate alternative recovery opportunities for this type of waste.

Sustainability continued

Our people

Our ability to attract, motivate and develop high calibre people enables us to deliver outstanding business results today and into the future.

FY2020 Highlights

- 70% employee engagement score
- 41% of senior leaders are women
- Launched The Viva Way business values and behaviours
- WGEA Employer of Choice for Gender Equality
- Enhanced the Family and Domestic Violence Support policy
- Developed and launched Viva Ways of Working

FY2021 Priorities

- Advance our Diversity and Inclusion Strategy including a focus on reaching our gender diversity targets
- Embed the new Viva Ways of Working
- Organisation-wide family and domestic violence training

The Viva Way

In FY2020 we launched a new set of Company values – The Viva Way. The Viva Way connects our purpose, values and behaviours together to support our culture and create the 'way' we work. Our Values set the standard, guiding our actions and decision making. These Values reflect who we are today as well as who we aspire to be.

The Viva Way was created from the inside out, whereby a working group of senior leaders gathered input from team members across all areas of our business to ensure The Viva Way is uniquely and authentically ours. The Viva Way was launched in FY2020, followed by small group discussions about what it means for individuals and teams, and how they will bring it to life. In FY2021 we will continue to embed and promote The Viva Way across our business.

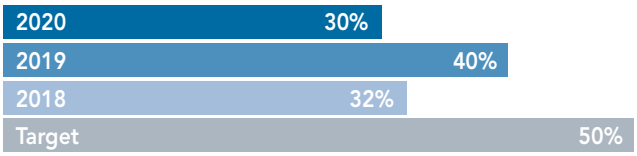
Diversity and inclusion

We are committed to ensuring we provide an inclusive and diverse workplace where our people feel valued, included, respected and able to develop and contribute to their full potential. In our experience, diversity and inclusion promotes different views and ways of doing things, enhanced decision making, improved safety outcomes, increased productivity, more effective teamwork and better wellbeing.

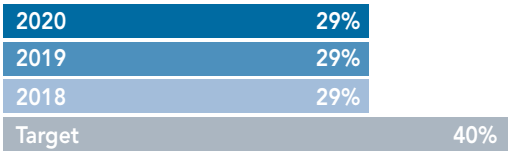
Our strategy is to continue to strengthen our diverse and inclusive workplace. This includes a strong focus on gender diversity, Indigenous employment and offering flexible work practices. To view our Diversity Policy, visit vivaenergy.com.au/diversity-inclusion.

Female representation in the Senior Leadership Group

Female new hires

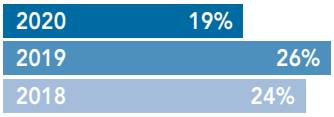


Female representation on the Board



Overall female representation

Female promotions



In FY2021 we plan to advance our Diversity and Inclusion Strategy, with a focus on reaching our gender diversity targets through a number of initiatives including improving our employer brand, by externally promoting our leadership in diversity and flexibility. Additionally, we plan to work with our Senior Leadership Group to co-design and co-deliver inclusive leadership interventions. Complementing our current approach, these engagements will assist our senior leaders in accelerating their leadership commitment to creating a workplace environment where all employees feel comfortable, included, accepted, and supported. As part of advancing our Diversity and Inclusion strategy, we also plan to formalise and support a Pride Committee with sponsorship from our executive team.

Gender diversity

Our objective is to improve the representation of women in all roles and levels in our business and to ensure that they are paid equally with their male counterparts, as measured by total remuneration. We measure, track and report progress against gender diversity targets, and report to the Workplace Gender Equality Agency (WGEA) on an annual basis.

For the 2019-20 reporting year the WGEA Competitor Analysis Benchmark Report for Viva Energy demonstrates our performance against a number of gender equality metrics, as well as comparing our Company performance to that of our peers and Australian industry overall. This includes the total remuneration pay gap (expressed as a percentage) which measures the difference between the average earnings of women and men in the workforce. For the 2019-20 reporting year, the pay gap for the Group (excluding Westside Petroleum) was 7.6%. For all our latest and previously reported results, refer to wgea.gov.au.

Due to the challenges of COVID-19 in FY2020, there were fewer opportunities to progress our gender diversity initiatives. Overall, there were fewer external recruitment opportunities, including programs that have historically targeted women such as our Graduate program and female operator intakes. There was also less internal movement which has resulted in fewer opportunities to promote women across the business. We continued to support a Women in Leadership development program throughout the year, and plan to build and support our existing female leadership program alumni network.

To help us reach our gender targets in FY2021, we will be focusing on the following initiatives:

- Improve external female employee attraction through targeted review and promotion of our employer brand.
- Examine any bias that may exist in our internal recruitment selection processes and remove any biases.
- Continue to produce gender balanced shortlists for all management roles.
- A deep dive into non-traditional working environments and understanding how they can be improved to be more inclusive particularly for females in operational roles.
- Inclusive leadership training and development for all Senior Leadership Group members.
- Set gender recruitment targets for Senior Leadership Group members to help build collective accountability across the business.
- Increase the representation of females in non-traditional roles with a focus on attracting female operators within our recruitment campaign at the Geelong Refinery.
- Recommence the Graduate program for FY2022 with a target of 50% females.
- Continue to build, develop and embed our female leadership development alumni network.

WGEA Employer of Choice for Gender Equality

Our commitment to gender equality has again been nationally recognised, with Viva Energy cited by the Workplace Gender Equality Agency (WGEA) as a 2019-20 Employer of Choice for Gender Equality.

Viva Ways of Working

While COVID-19 presented a unique set of challenges during FY2020, we were able to work in new ways to meet the needs of our customers, operations, teams and families. We were determined to learn everything we could from our collective experiences. We asked team members what they thought – we listened and responded. Together, using focus groups and pulse surveys we discovered how we could best succeed in a rapidly changing world, building on our strengths, addressing the areas where we can improve and ultimately transforming everyone's ways of working to enhance flexibility and productivity.

To build on this success, and to hold on to and accelerate the changes and improvements seen, we developed and launched – Viva Ways of Working. The underlying principle is that we trust our people and empower them to choose the way they want to work. The new Viva Ways of Working is all about harnessing the transformation we have seen in our ways of working during COVID-19 and taking those learnings into the future via three streams:

Viva Flex – providing even more flexibility in the way we work

Viva Flex is about embedding the broad definition of flexibility that Viva Energy supports. It is also about supporting more remote working and providing clear expectations to help team members strike the right balance between office and remote working. As a team, we discuss individual, team, stakeholder and customer needs and agree on what is needed to make working remotely work for everyone. Our leaders support and role model our flex practices.

Viva Connect – supporting inclusive and purposeful communication

We hold virtual town halls monthly to keep our team members updated on our business performance, key priorities, strategy updates and as a forum to ask live questions of our leaders.

Our ongoing 'People Connect' sessions, held on a regular basis, are curated to provide team members with support on health, wellness and leadership. Team members use these sessions to interact with leaders, external experts and colleagues from across our business.

Viva Tech – enabling new ways of working through technology

Viva Tech is all about enabling flexibility through technology. Viva Tech is about ensuring every team member has the technology and equipment needed to do their job. All team members are supported to fully leverage our leading-edge technology via webinar training sessions, and via our curated resources hub which includes videos, webinars and 'how to' guides.

In FY2021 we will focus on embedding our Viva Ways of Working and reviewing them regularly for improvement opportunities.

Case study: How flexibility works for us

"I've been in the truly fortunate position of being able to build a career in People & Culture at Viva Energy over a number of years while job sharing and working three days a week. I have been given many distinct roles and challenges, I have managed teams, worked on business-wide projects and I am a member of the Senior Leadership Group. Never have I felt that I missed out on opportunities because I work part time and it has allowed me to balance my family responsibilities. The most important part of making this a success has been the flexibility on both sides – I change my working days or work additional hours when the business needs it, and in return, I'm grateful that I've always had committed and trusting managers who have been open to diverse ways of working and have supported me 100% in making it work."

— Miranda Boddington, Organisational Development Manager

"After having our son, my wife and I both wanted to strike a balance between maintaining our careers and spending quality time with him as he grew up. We decided that each of us working four days a week was the ideal balance, and I'm grateful that Viva Energy supported my move to four days to achieve this. I now love that my Thursdays are dedicated to Father/Son time, but I also love that transitioning to a four-day work week didn't diminish the level of influence and responsibility I have in my work. I recognise that the work/life balance I currently enjoy is made possible through the right amount of give-and-take from both myself and my manager and given the dynamic environment in which we work this balance is regularly revisited. I often hope that the success I've had with going part time encourages others, and particularly men, to try it for themselves – I'm confident they won't regret it!"

— Tom Curry, Geelong Refinery Crude Scheduler

Supporting those experiencing family and domestic violence

In FY2020 we relaunched our Family and Domestic Violence Support policy to provide significantly more support to any of our team members experiencing family and domestic violence. Under this policy we offer 10 days of paid leave, direct financial assistance of up to $2,500 to help with costs, as well as supporting changes of hours of work and work location as needed.

In support of our refreshed policy, we plan to rollout organisation-wide family and domestic violence training to all employees in FY2021.

Parental leave

At Viva Energy, we recognise the importance of supporting our employees when raising a family. We offer an online, on demand support program for our employees as they transition through pregnancy, parental leave and return to work. Our paid 'Keeping in Touch' program also ensures that employees who are on extended parental leave can maintain their connection with the business.

We also provide paid primary and secondary parental leave in addition to any Government funded leave employees may be eligible for. Additionally, we make full-time 12% superannuation payment for employees (male and female) on parental leave and during part-time work periods, for up to five years from the child's birth. This revolutionary initiative has been widely supported by our employees and implemented by other businesses since it was introduced in 2017.

Development and retention

We recognise that our success in the delivery of our strategic goals depends on our employees having the necessary skills, experiences, capabilities and opportunities to undertake their roles. We support people and their development in many ways to ensure we have the right people in the right roles with the right skills. Our employees are required to complete mandatory training to ensure their competency for their roles, and we provide a range of personal development opportunities. We measure our people development and retention progress through individual development plans, regular coaching and annual performance reviews.

For more information on the array of benefits offered to our employees visit the careers section of our website vivaenergy.com.au/careers.

Employee engagement

We regularly seek feedback from our employees as to what we are doing well and what can be improved. This is done through both structured surveys and informal engagement, where employees are encouraged to contribute their thoughts and insights at all levels of the organisation and provide honest feedback on how we are performing across a range of key areas. In FY2020 we ran an engagement survey, with 86% of our people from across our business participating. The overall engagement score for this survey was 70%. The survey again showed us that the highest scoring areas are – Safety (91%), Diversity & Inclusion (83%), and our Values (79%). We work hard to address the valuable feedback we receive, to help drive a culture where people can be their best.

Case study: Leading a high-performance team to create value for transport customers

Ash Backman joined Viva Energy in 2016 as Business Development Manager for the transport sector. Today, as Viva Energy's National Sales Manager for Transport, Ash leads a large sales team dedicated to delivering tangible benefits for Rail, Truck, Bus, Construction and Commercial Fleet customers.

"It's really dynamic," he says. *"It's a great challenge. Every day is different, which brings new and exciting opportunities."*

In his current role, Ash works closely with some of Australia's largest businesses and understands the value and importance of building customer partnerships that are mutually beneficial. *"Helping our customers do great things is central to our strategy,"* he says. *"For example, we've worked closely with customers to trial and implement Shell Diesel Extra, which offers improved engine efficiency compared to standard diesel. By trialling the product in our customers' equipment, we've been able to demonstrate that Shell Diesel Extra drives tangible value for their business by lowering fuel consumption. Improving fuel efficiency for our customers is an achievement we're really proud of."*

Ash loves the customer-obsessed culture that's embedded across Viva Energy's business. *"We're empowered to create value for our customers and partners, which is an aspect of my role I find really exciting,"* he says.

"My team spends a huge amount of time working closely with our customers to create true partnerships. This includes ensuring our supply arrangements are optimised for our customers, exploring innovation and continuous improvement opportunities, and ensuring we're as closely aligned with our customers' objectives as we can possibly be. We seek a thorough understanding of our customers' operations, because that depth of knowledge provides crucial insights that allow us to identify beneficial opportunities."

Sustainability continued

Our community

We are committed to building strong relationships and making a positive difference in local communities across our national operating footprint. We believe this is important for employee attraction and engagement, and from a broader community, stakeholder, customer and investor perspective.

In FY2020 most of our community engagements were conducted virtually due to COVID-19 related challenges. Despite this, we adapted our program to ensure the health and safety of our partners, local communities and our employees.

FY2020 Highlights

- National bushfire relief effort and recovery including $550K donations to charity and support services
- Successful completion of the first year of our inaugural Reconciliation Action Plan with 90% deliverables completed
- Delivery of virtual National Reconciliation Week and NAIDOC Week employee engagements
- Launch of Cultural Awareness Training online eLearning module
- Team Fundraising events contributing over $261,847 to charity
- Re-awarded Low Aromatic Fuel (LAF) supply contract through to mid-2023
- Virtual community meetings held for our major facilities

FY2021 Priorities

- Refresh our Community Program including review of our community partnerships for implementation in FY2022
- Continued implementation of our inaugural Reconciliation Action Plan and refresh plan for implementation from FY2022
- Community consultation for the Gas Terminal Project

Local community engagement

We strive to be a good neighbour and member of the local communities where we operate. We recognise that our operations have the potential to impact local communities, and that regular dialogue and engagement with our community stakeholders are essential to maintaining our social licence to operate and for when we need to deliver new projects. We maintain active and regular community engagements for our larger facilities, with specific community engagement activities and information on our website for Geelong Refinery, and our terminals at Newport, Clyde and Parramatta, Gore Bay and Pinkenba. Visit here for latest information and updates: vivaenergy.com.au/about-us/community-program.

We recognise that our operations have the potential to impact local communities, and that regular dialogue and engagement with our community stakeholders are essential to maintaining our social licence to operate and for when we need to deliver new projects.

In FY2020 we announced our vision to establish the Geelong Energy Hub at our refinery site and commenced community engagement and consultation on the Gas Terminal Project. This is an exciting project to diversify the use and earnings of the refinery site, provide a new gas supply for south-east Victoria and present opportunities for new energy projects while still retaining the vital role the refinery plays in Australia's energy security. For the latest information on our local community engagement for this project visit vivaenergy.com.au/gas-terminal.

Our Geelong community

The Geelong Refinery is our largest operational site, employing more than 700 people and supplying more than half of the fuel needed for Victoria. Our refinery and associated operations have been part of the local Geelong community since 1954 and inject more than $200M each year into the local economy through wages and services. We have partnerships with a range of local community organisations in Geelong including Northern Futures as well as a partnership with the Geelong Football Club – sponsoring their inaugural AFLW (women's) team, and their Next Generation Academy (NGA). We also engage social enterprise Gen U to run the refinery cafeteria and provide gardening services.

Sport plays a significant role in the Geelong region with AFL, soccer, netball and cricket being the highest participation sports. As a result, we support 10 local clubs to assist people (particularly children) participate in sport and connect them with their local community. Due to COVID-19 restrictions, we postponed our Club Legends Award in FY2020. This program celebrates the unsung sporting volunteers in the greater Geelong region.

Community program

Our community goal is to be valued by our people, local communities and customers for our genuine efforts towards positive social impact. We are committed to giving back to our local communities and in doing so, helping them reach their destination. FY2020 has provided an opportunity to review our community program and work has commenced to establish the direction for the program from 2022 onwards when our existing community partnerships conclude.

We continue to proudly partner with a range of organisations such as the Cathy Freeman Foundation (CFF), National Aboriginal Sporting Chance Academy (NASCA), Koorie Heritage Trust (KHT) and Council for Aboriginal Alcohol Program Services (CAAPS), which deliver a range of programs across the country primarily targeted at supporting young Indigenous people and improving cultural awareness and identity. Support for these programs also helps us deliver on the commitments as outlined in our RAP. While our opportunities for engagement and support were impacted due to COVID-19 restrictions across our program, we still managed to adapt and make positive progress.

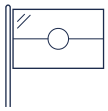
Highlights for 2020

576 Good Deeds Good Deeds completed by our employees.

Our employees raised $435,570 through Double My Donation and Team Fundraising (includes Viva Energy matching).

Third year sponsoring the Geelong Football Club's AFLW team.

437 young people supported by Viva Energy programs.



Strong delivery of our Reconciliation Action Plan which aims to foster reconciliation with Indigenous peoples through our activities, services and programs.

$550K+ donated donated to support the efforts and recovery from the devastating bushfires in early 2020.

Our people

We create simple and inspiring ways for our employees to contribute to positive social impact

Double My Donation to community partners

221 employees have donated $173,723 including Viva Energy's contribution.

Employee led

34 Community Ambassadors across the organisation to deliver our community program and offer participation opportunities for employees.

Team fundraising

$261,847 raised through team fundraising activities, including Viva Energy's contribution.

Improving Cultural Awareness

Employees were involved in a series of virtual activities to celebrate NAIDOC and National Reconciliation week and to deepen our cultural awareness and competency.

Disaster recovery

Viva Energy contributed $300K to RuralAid and $100K to BlazeAid to help with bushfire recovery as well as tripling employee donations of $43K to a range of bushfire related charities.

Role model and Indigenous grants

Grants to the value of $90,000 were issued to 10 local community organisations and two Indigenous programs – Shooting Stars and Indigenous Literacy Foundation.

Good deeds

Despite our restrictions on volunteering this year, our employees still found good deed opportunities to participate in. These included including knitting blankets for St Kilda Mums, donating blood, writing letters to farmers, and packing food hampers.

Our communities

We support local projects that foster positive role models to address significant community challenges

Cathy Freeman Foundation (CFF)

Viva Energy has a four year partnership with CFF. This year, the partnership has supported young Indigenous people to attend 'in community' Horizons camps designed to increase confidence and goal setting skills. Our employees produced videos explaining their work and study to show CFF students what is possible.

National Aboriginal Sporting Chance Academy (NASCA)

NASCA delivered 210 hours of activities, supporting 58 students in western Sydney with the support of Viva Energy's partnership.

Council for Aboriginal Alcohol Program Services (CAAPS)

The CAAPS numeracy and literacy program has supported 29 school aged residents recovering from substance misuse issues. This involved over 184 sessions of numeracy and literacy support.

Koorie Heritage Trust (KHT)

Viva Energy's funding supported the recording of oral histories, delivery of virtual school holiday programs and annual events including the Koorie Art Show and Koorie Krismas.

Northern Futures

Annual funding of $40,000 has removed some of the barriers to completing further study and getting into employment. Of the 12 students supported, seven students have completed their study, with five having moved into employment.

Support for Geelong and grass roots sports

Premier partner of the Geelong Cats AFLW side and Next Generation Academy as well as sponsorship for 10 local Geelong sports clubs.

Our business

We use our business capabilities to help create long-term positive change

Indigenous community projects

As part of our contract to supply Low Aromatic Fuel into northern Australia (renewed until at least 2023), we are committed to helping to reduce petrol sniffing and supporting Indigenous community projects.

Member of Supply Nation

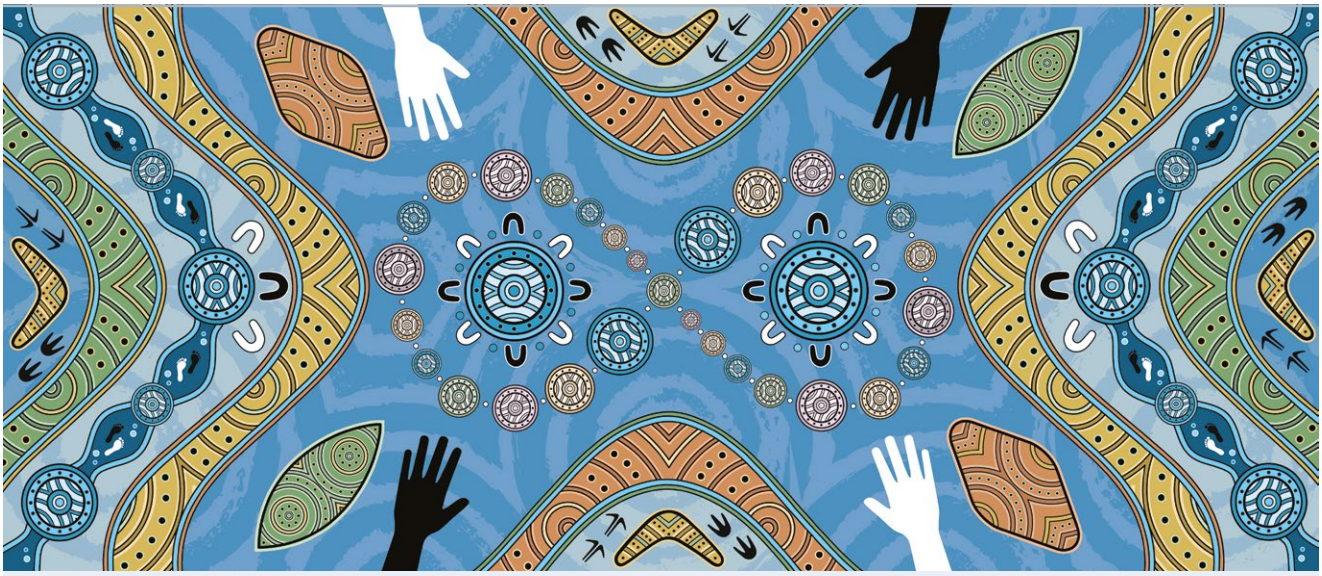
Our membership provides options to support Indigenous businesses with more than $2.5M spent on Indigenous owned and led organisations.

Indigenous employment

Developed an Indigenous employment and retention strategy which was endorsed by Reconciliation Australia.

Customers

Working collaboratively with our customers to support local communities where we both operate.



RAP update

Since launching our inaugural Reconciliation Action Plan (RAP) in late FY2019 we have made considerable progress, with over 90% of our first-year commitments achieved. In FY2020, we enhanced our Cultural Awareness training accessibility by launching an eLearning module, with many of our employees already completing the module. Additionally, we had 1,342 employees involved in activities to deepen cultural awareness and competency throughout the year. Our team developed an Indigenous Employment Strategy which includes initiatives to support out Indigenous employees and target recruitment to these groups. In late FY2020, we also reviewed and updated our Procurement Policy to consider Indigenous or Torres Straight Island owned or operated businesses and this will be managed through our RAP Hub, a dedicated intranet page. Despite a challenging year due to COVID-19, our Indigenous community partners were able to adapt and deliver programs in a different or virtual way. In FY2021 we will continue to implement our RAP commitments and work to review and refresh our RAP from FY2022.

The RAP includes the use of artwork titled 'Wa-ngal yalinguth, yalingbu, yirramboi' (Woi-wurrung language), created by artist Dixon Patten (of Bayila Creative), a proud Yorta Yorta and Gunnai man who was born and raised in Melbourne. This artwork has been endorsed by Kulin elders.

Low Aromatic Fuel

In partnership with the Australian Government National Indigenous Australians Agency, Viva Energy supplies around 35 million litres per annum of Low Aromatic Fuel (LAF) to Northern Australia. In FY2020 we were re-awarded the supply contract which will see us continue supply through to at least mid-2023.

The supply of Low Aromatic Fuel has helped to reduce petrol sniffing in regional and remote areas, with independent research[9] showing that since the introduction of low aromatic fuel, there has been a 95.2% reduction in petrol sniffing in communities that stock low aromatic fuel and that have been studied since 2007. Low Aromatic Fuel is a specially designed 91 octane unleaded petrol that complies with the Australian Fuel Quality Standards Act and can be used in all petrol engines that use regular 91 octane fuel. We proudly manufacture LAF at our Geelong Refinery.

91 Low Aromatic Supply zone

LOW AROMATIC
UNLEADED

9. https://ministers.pmc.gov.au/wyatt/2020/low-aromatic-fuel-supplies-secured-2023.

Case study: Responding to the bushfires

When several communities in which we operate were devastated by the Australian bushfire crisis during the summer of 2019-20, we provided urgent support to our customers and emergency services, and ongoing support to the devastated communities.

Throughout the disaster, we worked hard to support fuel deliveries into impacted areas and quarantine fuel at our service stations for emergency services. We also supported the Defence response and provided direct support to customers that were experiencing difficulties because of the disaster. This industry wide effort was complicated by disruptions to roads and heavy traffic and was a challenging task but working closely with our carriers, service station operators and response agencies we maintained fuel supplies to where it was most needed.

The bushfire conditions also caused potential risks to health, particularly for those who may have pre-existing respiratory conditions. We responded to this by implementing controls to mitigate any health risks to our employees and contractors, which were not limited to the physical effects, but also the mental health effects.

We are proud of our people who came together during and after this period to organise successful events and donations to support the bushfire appeal. Contributions were made to the national bushfire relief effort and recovery including monetary donations to the value of $550K. These included donations of $100K and $300K made to BlazeAid and Rural Aid respectively, and $130,114 was also donated to a range of charities by way of Viva Energy tripling employee contributions. In addition, $20,500 of in-kind support was provided in the form of fuel for aerial firefighting. As part of our broader volunteer programs, Viva Energy provides paid leave to all employees who volunteer to support firefighting and relief efforts.

Case study: Supporting the Woorabinda Horizons Camp 2020

The Cathy Freeman Foundation aims to broaden the horizons and support Indigenous students to experience their full potential in school. We are proud sponsors of the Foundation, particularly the Horizons program, which gives students a once in a lifetime opportunity to join their peers from partner communities to experience life and work in one of our major cities. This helps to broaden their 'horizons' and encourage them to continue education and engage in employment on their return. Working together with the Foundation we help build hope and aspiration.

The restrictions in place to manage COVID-19 made it difficult to run the Horizons program in FY2020, so the program was adapted to being run directly in the local community. Some of our employees created short videos where they talked about their roles at Viva Energy and their work experiences to bring some of the experience into the community in a virtual way.

"At first, when I attended the Horizon Camp at my local high school I was like, ahh yeah, just another normal day at school but with the activities and deadly music. To be honest though, it was so much fun! I have not laughed and enjoyed myself in such a long time. The reason why I haven't enjoyed myself in a while was because I recently joined the school, and I didn't feel comfortable with everyone around me because I didn't know them, and they didn't know me.

After attending the Horizon Camp, however, I got to know everyone: their name and favourite hobbies, favourite sports, colours… you name it. And till this day I am still friends with everyone. I successfully graduated with my new two best friends Jeff[10] and Barry[10]. With positivity in my mind, what this camp taught me, I can do anything I put my mind to. It all starts with education. The best thing about the camp is that CFF provided us with a view towards some career pathways. The Viva Energy videos showed me employment opportunities, local young Indigenous role models like Ivy Yoren (CFF coordinator) led the way showing us that anything was possible and that there was support within the community. I loved this. This program impacted me greatly because I was able to recognise my worth and how precious and important I am."

— Josie[10], student at the Woorabinda Horizons Camp 2020.

In FY2021 we will look to further develop a program with CFF called the Viva Energy Experience, which will aim to provide opportunities for students to spend more time in our business and provide opportunities for more significant engagement.

10. Student name changed.

Ethical conduct and transparency

We are committed to observing the highest standard of corporate practice. Our Values: Integrity, Responsibility, Curiosity, Commitment and Respect, reflect what Viva Energy stands for and underpin our business principles and behaviours.

16 PEACE, JUSTICE AND STRONG INSTITUTIONS

FY2020 Highlights

- Modern slavery risk assessment completed and first statement issued in FY2021
- Human Rights Policy adopted
- Procurement policy revised to align with our commitment to human rights, gender diversity and RAP objectives

Viva Energy has long-standing Business Principles that reflect our core values and guide the conduct and operations of our Company. We also have a Code of Conduct, which outlines how we expect our employees, officers and Directors to behave and conduct themselves in the workplace. Our Code of Conduct is supported by the following policies:

- Anti-Bribery and Corruption Policy
- Whistleblower Policy
- Securities Trading Policy
- Diversity Policy
- Disclosure Policy
- Shareholder Communications Policy

In FY2020, we adopted a Human Rights Policy based on the UN Guiding Principles on Business and Human Rights. Together with our Business Principles and Code of Conduct, this policy guides Viva Energy's commitment to conduct business in a way that contributes to sustainable development by respecting the human rights of all people, including our employees, the communities in which we operate, and customers and suppliers in our supply chains.

All employees are required to complete awareness training on these policies, with more advanced training provided depending on their role within the organisation. For more information, including copies of our policies, visit investor.vivaenergy.com.au/corporate-governance.

Modern slavery

Viva Energy supports fundamental human rights and the prevention of modern slavery and human trafficking. During FY2020, we assessed, and commenced the process of mitigating, our risks in this area and we will continue to build on this work in FY2021. We issued our inaugural statement prepared in accordance with the *Australian Modern Slavery Act 2018*. This report is available online at investor.vivaenergy.com.au/company-reports.

During FY2020, Viva Energy adopted a Human Rights Policy and we built awareness across our business of the potential risks of modern slavery. We did this through targeted briefings to our procurement teams, along with the implementation of our modern slavery training program mandated for both our senior leaders, and staff who have responsibility for managing external supplier procurement. This analysis did not identify any actual instances of modern slavery within the direct supply chains of Viva Energy, or any modern slavery allegations against any supplier.

Procurement Policy

Our Procurement Policy sets out the policy for employees, contractors, and agents engaging in any form of procurement activity on behalf of Viva Energy. Decisions relating to the purchase of goods and services are based on guiding principles which must be followed when conducting any purchasing activity. One of those guiding principles requires that all Viva Energy dealings must be fair, transparent and ethical, which therefore requires our suppliers to also adhere to high ethical standards and fairness in their own business. In FY2020 we revised this guiding principle in line with our newly adopted Human Rights Policy. This means that we actively seek to select suppliers that align with our human rights commitments by seeking suppliers that:

- do not promote discrimination on any grounds, or occurrences of modern slavery; and
- do promote fair living wages, freedom of association, equitable working conditions, employee health and safety, and working within the relevant laws of their country.

In support of our gender diversity policy and Reconciliation Action Plan (RAP) objectives, we also amended our guiding principles to:

- actively consider Indigenous or Torres Strait Island owned or operated businesses wherever they are available, and their offering meets our industry needs and is cost competitive; and
- engage suppliers who demonstrate a commitment to gender equity.

Cyber security

Cyber security is the protection of information assets by addressing threats to information processed, stored, and transported by internetworked information systems.

In FY2020, the public profile and importance of cyber security increased as a result of a number of high-profile cyber-attacks that affected government agencies and private sector companies globally and within Australia. The Australian Government also released its Cyber Security Strategy which proposed changes that saw the Government taking on a more prominent role in the oversight of critical infrastructure assets and systems of national significance. The Australian Government's critical infrastructure reform means we expect to see potential cyber security related changes that will add to the current state regulatory framework. We continue to engage with the relevant state and federal agencies that oversee critical infrastructure in this regard.

In FY2020, the public profile and importance of cyber security increased as a result of a number of high-profile cyber-attacks that affected government agencies and private sector companies globally and within Australia.

The use of information systems and operational technology is important to Viva Energy's ability to efficiently produce and distribute products to our customers. We also need to protect sensitive business and personal data related to our customers and employees. We recognise our responsibility in the supply chain and work closely with our partners, critical asset owners and customers to maintain confidentiality, integrity and availability of information. We are highly focused on ensuring that effective cyber security measures are implemented and followed to minimise any disruption to business activities and to ensure we maintain our customers' trust to help them reach their destination.

We take our obligations around cyber security seriously, operating an Information Security Management System aligned with global best practices and ensuring a continual cycle of review and improvement of our cyber security risks and controls. Our Audit and Risk Committee has oversight of the related progress, risks and governance with cyber security being a standing agenda item.

Improvements in FY2020 occurred across people, process and technology with a focus on increasing visibility of threat activity, risk management, resilience and improving user's ability to identify and handle cyber related threats. Notable enhancements included the deployment of application whitelisting, improved user awareness training and phishing testing significantly reducing the risk to our environment from malicious applications and other cyber threats. No notifiable data breaches occurred during FY2020.

We will continue to maintain and further enhance cyber security measures across the business and our supply chain in FY2021.

Sustainability continued

Economic contribution

We support the Australian economy through the national scope of our operations, the products we supply, the employment we generate, the local suppliers we support, the returns we provide to investors and the taxes we pay. We aim to maximise the benefits and minimise any negative impacts of our business operations.

FY2020 Highlights

- Maintained safe and reliable fuel supply during COVID-19 and bushfire impacts
- Worked on long-term fuel energy security
- Major maintenance completed at the Geelong Refinery
- $5.07B tax contribution

We own and operate the Geelong Refinery, which in 2021 will become one of only two refineries remaining in Australia. It supplies over 10% of Australia's fuel, and more than 50% of all the fuel used in Victoria. Employing almost 800 people and injecting more than $200M into the local economy through wages and services, the Geelong Refinery is a vital part of Australia's energy solution. The critical investments and improvements we continue to make in major maintenance,

Supporting Australia's economy

$1.3B
invested in local wages and services.

$5.07B
Total tax contribution.

Over **1,419** strong Australian workforce **41%** based in regional areas.

On average, we re-fuel
1.74M[1]
trucks, buses, cars and motorcycles every week across the Alliance network

Network of **46** fuel import terminals and depots[3] and **55** airports and airfields across Australia.

1.2B
litres of storage capacity.

Leading supplier
for lubricants and diesel in the resources market.

Viva Energy supplies:

Approximately **¼**
of Australia's fuel needs.

National network of **1,339**
retail service stations

Approximately **40%**
of the marine fuel oil market.

Approximately **35%**
of jet fuel nationally.

Geelong Energy Hub

Proudly supporting local manufacturing at the Geelong Refinery –
1 of 2[2] **refineries**
in Australia.

Major manufacturer in Australia of Avgas and bitumen, and major supplier of solvents

avgas | solvents | bitumen

Manufactures Low Aromatic Fuel for supply into NT, QLD and WA.

789+
people (employees and contractors) work at the Refinery and **286** additional contractors during major maintenance.

Supplies **90%**
of marine fuels for Victorian commercial shipping and Spirit of Tasmania.

50%+
of the Port of Geelong's trade.

1. FY2019 figures used due to FY2020 figures impacted by COVID-19.
2. In October 2020, BP announced the shutdown of the Kwinana refinery in WA; and in February 2021, ExxonMobil announced the planned shutdown of the Altona refinery in Victoria.
3. Includes 24 fuel import terminals and 22 active depots (including 17 Liberty Oil depots).

Employing almost 800 people and injecting more than $200M into the local economy through wages and services, the Geelong Refinery is a vital part of Australia's energy solution.

reliability and safety improvements, the potential to increase storage capacity along with the Federal Government's Fuel Security Package, and diversification of energy products with the launch of the Geelong Energy Hub aim to ensure our Refinery continues to provide energy security and be an important part of local manufacturing for years to come.

With the significant footprint of our operations and infrastructure, including the Refinery, our terminals and pipelines, and our supply business, we are a key contributor to the energy security position of Australia, and particularly in liquid fuels and lubricants. This security underpins every sector of the Australian economy, and we take our role in delivering a safe and reliable supply seriously.

Fuel Security Package

In late FY2020, the Federal Government announced a Temporary Refinery Production Payment of a minimum one cent per litre on production to support Australia's domestic refineries to continue operations through to the end of June 2021 while a longer-term Fuel Security Package is designed and implemented.

The proposed Fuel Security Package consists of three key elements, including a long-term Refinery Production Payment, Minimum Stockholding Obligation on petrol, diesel and jet fuel, and a $200M grants program to support the establishment of up to 780 million litres of additional diesel storage in Australia. This program is designed to bolster the country's energy security by preserving refining capacity and increasing fuel stocks for times of disruption. In addition to stocks held overseas, these measures will also help Australia meet its obligations under the International Energy Agency (IEA) Treaty.

By working to secure the long-term viability of Australian refineries, we safeguard the capability to store and process domestic crude, which provides a level of self-sufficiency, contributes significantly to the level of oil stocks held in Australia, enables us to make a range of products which are important to our unique requirements such as Avgas and Low Aromatic Fuels, and directly supports a range of other industries that rely on the products we make.

We are working closely with the Department of Industry, Science, Energy and Resources to provide input into the development of the Fuel Security Package, and we remain hopeful that this will secure the outlook for refining in Australia and in turn the long-term sustainability of the Geelong Refinery.

In addition to the Temporary Refinery Production Payment, the Federal Government has now also sought proposals as part of Boosting Australia's Diesel Storage Program, which provides up to $200M for the construction of additional diesel storage. We have submitted opportunities at our Geelong Refinery and other locations around the country to participate in this program to improve our supply chains and refining flexibility.

While the full details of the Fuel Security Package are yet to be determined, these early programs are encouraging, with other elements being progressed in early FY2021.

Tax transparency

We are committed to delivering transparency and providing communities with a clear understanding of the tax contributions we make and collect for the Australian economy. In 2016, Viva Energy adopted the Voluntary Tax Transparency Code, under which we make public disclosures of our tax position, in addition to the requirements under our financial statements. Due to the impact of the COVID-19 pandemic, taxes calculated by reference to revenue and profits were lower in FY2020. This included income tax for which no net payment was made during the year. For further information, refer to our FY2020 Taxes Paid Report available here investor.vivaenergy.com.au/company-reports.

Total tax contribution	A$M
Income tax	-
Fuel excise	4,102.2
Customs duties	19.8
Payroll tax	10.4
Fringe benefits tax	0.8
Land tax	22.9
GST	852.0
PAYG withholding	60.3
Total tax contribution	5,068.4

Case study: How the Geelong Refinery manufactures solvents to help Australian industry

While people naturally associate refineries with the production of fuels and bitumen, solvents that are required for the manufacture of a variety of everyday products are also produced at the Geelong Refinery. Senior Associate Technologist with Viva Energy's Specialties team, Andrew Duthie, explains the valuable role that solvents play in supporting Australian industries.

Responsible for quality control across all the hydrocarbon solvents that Viva Energy supplies, Andrew Duthie plays a vital role given that the solvents manufactured at the refinery are used in a diverse range of applications and products.

Andrew sees these products all around us and knows the contribution they make to a multitude of Australian industries. *"If you go down to your local hardware store, almost every aisle you walk down will contain a product made with one of our solvents,"* he says. *"That's because we supply chemicals to such a wide range of industries, from adhesives and coatings to the mining, agriculture chemistry, pharmaceutical, timber treatment and cleaning sectors.*

Paints and varnishes do more than enhance appearance. They improve durability and extend the life of the material's use. Metal components of cars and structures would rust without their protective coatings. Timber would rot without protective treatment. Our solvents are also used to produce the copper piping that carries our water supply, and the nickel and cobalt used to make rechargeable batteries. They're vital for the manufacture of many different products that we rely on every day."

Providing technical support

Andrew and his team have a strong focus on the needs of their customers. For a product manufactured with a solvent to be effective, the solvent used must have specific properties. The team at the Geelong Refinery has the resources, technical capability and skill to ensure the chemicals they manufacture and supply are fit for purpose and on-grade.

Andrew's team helps develop formulations for new applications that customers might be pursuing, and performs tests to help customers monitor their production processes. They also analyse customer product samples. This level of technical support is only possible because of the laboratory at the Geelong Refinery. *"We're set up to really analyse products in-depth, which is a huge benefit for our customers – and a major point of difference for us."*

Applying professional expertise

Andrew is driven to supply the best quality chemical products possible, and so he is meticulous when it comes to quality control at the source of manufacture.

"At the end of the day it comes back to product quality. Producing and supplying high-quality products that meet the requirements of our customers is ultimately how Viva Energy makes a positive difference to their businesses."

Andrew believes that his team's determination to find new products that meet changing customer demands will stand Viva Energy in good stead for years to come. *"In the last few years, we've seen a general transition to lower aromatic solvents, especially in wood treatment products. We've taken up that challenge and now supply VivaSol D80 for use in low odour timber treatment products."*

"I'm extremely proud of the Specialties team, but also of Viva Energy as a whole. It's great to see everyone in the company helping our customers to achieve their goals, with whatever products they're manufacturing and supplying, and succeeding in that."

Sustainability performance data*

	FY2017	FY2018	FY2019	FY2020	FY2019/ 2020 Δ#
Health and safety[1]					
Personal safety[2]					
Viva Energy (excluding Liberty Oil Holdings)					
Total Exposure Hours (million)	5.55	6.24	6.38	**5.27**	**-1.11**
Total Fatalities and Permanent Disability	0	1	0	**0**	**0**
Total Lost Time Injuries / Frequency Rate (per million hours)	5 / 0.9	7 / 1.12	9 / 1.41	**6 / 1.14**	**-3 / -0.27**
Employees	4	4	5	**3**	**-2**
Contractor	1	3	4	**3**	**-1**
Total Recordable Injuries[3] / Frequency Rate (per million hours)	25 / 4.51	36 / 5.77	29 / 4.55	**19[10] / 3.61**	**-10 / -0.94**
Employee	12	14	13	**7**	**-6**
Contractor	13	22	16	**12**	**-4**
Total High Potential Near Miss Incidents[4]	69	87	89	**87**	**-2**
Reported Total Life Saving Rule Breaches	28	32	37	**17**	**-20**
Liberty Oil Holdings					
Total Exposure Hours (million)	NR	NR	NR	**0.33**	**-**
Total Fatalities and Permanent Disability	NR	NR	NR	**0**	**-**
Total Lost Time Injuries / Frequency Rate (per million hours)	NR	NR	NR	**6 / 18.24**	**-**
Total Recordable Injuries[3] / Frequency Rate (per million hours)	NR	NR	NR	**10 / 30.40**	**-**
Total High Potential Near Miss Incidents[4]	NR	NR	NR	**0**	**-**
Process safety[5]					
Viva Energy (excluding Liberty Oil Holdings)					
Total Tier 1 / Tier 2 Process Safety Events	0 / 3	0 / 4	0 / 2	**1 / 2**	**+1 / 0**
Liberty Oil Holdings					
Total Tier 1 / Tier 2 Process Safety Events	NR	NR	NR	**0 / 0**	**-**
Environment					
Environmental Non-compliance Sanctions[6]	2	0	0	**0**	**0**
Spills					
Viva Energy (excluding Liberty Oil Holdings)					
Loss of Primary Containment (LOPC) > 100kg[7]	26	29	29	**1,910**	**-10**
Spills to Environment >100kg[8]	4	3	3	**6**	**+3**
Significant Spills[9]	4	3	2	**3**	**+1**
Liberty Oil Holdings					
Loss of Primary Containment (LOPC) > 100kg[7]	NR	NR	NR	**3**	**-**
Spills to Environment >100kg[8]	NR	NR	NR	**2**	**-**
Significant Spills[9]	NR	NR	NR	**0**	**-**
Significant air emissions – Geelong Refinery[11]					
Volatile Organic Compounds (kg)	679,438	632,076	565,700	**195,900**	**-65.4%**
NOx (kg)	546,251	542,949	472,172	**304,434**	**-35.5%**
SOx (kg)	1,685,843	1,702,719	3,164,355	**3,680,140**	**+16.3%**

Sustainability continued

	FY2017	FY2018	FY2019	FY2020	FY2019/ 2020 Δ#
Water consumption – Geelong Refinery[11]					
Potable water consumption (ML)	592	366	241	**261**	**+8.3%**
Sea water consumption (ML)	100,076	118,192	107,299	**85,296**	**-20.5%**
Recycled water consumption (ML)	1,191	1,179	1,197	**1,053**	**-12.0%**
Waste – Geelong Refinery[11]					
Total Hazardous Waste generated (Tonnes)	463,817	589,439	550,969	**566,885**	**+2.9%**
Hazardous Waste diverted from landfill (Tonnes)	463,331	588,576	550,066	**566,436**	**+2.9%**
Total Non-hazardous Waste generated (Tonnes)	1,693	2,495	680	**612**	**-10.0%**
Non-hazardous Waste diverted from landfill (Tonnes)	1,504	2,232	500	**378**	**-24.4%**
Climate change and energy					
Greenhouse Gas (GHG) Emissions[12]					
Total GHG emissions (Scope 1 and 2) (tCO2e)	1,328,985	1,392,568	1,430,837	**1,282,597**	**-10.4%**
Total Scope 1 (tCO2e)	1,032,422	1,061,632	1,113,911	**1,000,445**	**-10.2%**
Refining (tCO2e)	1,020,905	1,050,846	1,101,920	**985,025**	**-10.6%**
Other (tCO2e)	11,517	10,786	11,991	**15,420**	**+28.6%**
Total Scope 2 (tCO2e)	296,563	330,936	317,082	**282,152**	**-11.0%**
Refining (tCO2e)	258,586	290,158	276,423	**246,632**	**-10.8**
Other (tCO2e)	37,977	40,778	40,659	**35,520**	**-12.6**
Energy[12]					
Total Energy consumed (GJ)	252,921,300	257,597,649	273,422,163	**253,053,218**	**-7.5%**
Refining	252,546,619	257,229,974	273,059,170	**252,652,818**	**-7.5%**
Other	374,681	367,675	362,993	**400,400**	**+10.3%**
Energy Intensity Index[13] – Geelong Refinery	NR	NR	112.4	**123.9**	**+11.5**
Our people[14]					
Total Employees	NR	1,273	1,320	**1419**	**+99**
Gender Split (Male / Female) (%)	NR	78 / 22	76 / 24	**76 /24**	**0 / 0**
Total Employees in permanent full-time roles	NR	1,126	1,139	**1227**	**+88**
Employees in permanent full-time roles (Male / Female) (%)	NR	81 / 19	81 /19	**80 / 20**	**-1 / +1**
Total Employees in permanent part-time roles (Male / Female)	NR	100	111	**116**	**+5**
Employees in permanent part-time roles (Male / Female) (%)	NR	35 / 65	38 / 62	**41 / 59**	**+3 / -3**
Total Employees in full-time fixed term contracts	NR	22	35	**27**	**-8**
Employees in full-time fixed term contracts (Male / Female) (%)	NR	86 /14	69 / 31	**48 / 52**	**-21 / +21**
Total Employees in part-time fixed term contracts	NR	1	13	**4**	**-9**
Employees in part-time fixed term contracts (Male / Female) (%)	NR	0 / 100	0 / 100	**0 /100**	**0 / 0**
Total Employees as casuals	NR	24	22	**45**	**+23**
Employees as casuals (Male / Female) (%)	NR	100 / 0	100 / 0	**91 / 9**	**-9 / +9**
Voluntary Employee turnover (%)	NR	5	6	**5**	**-1**
Voluntary Employee turnover (Male / Female) (%)	NR	74 / 26	67 / 33	**70 / 30**	**+3 / -3**
Board of Directors (Male / Female) (%)	NR	71 / 29	71 / 29	**71 / 29**	**0 / 0**

	FY2017	FY2018	FY2019	FY2020	FY2019/ 2020 Δ#
Senior Leadership Group (Male / Female) (%)[15]	NR	59 / 41	61 / 39	**59 / 41**	**-2 / +2**
New Hires (Male / Female) (%)	NR	68 /32	60 /40	**70 / 30**	**+10 / -10**
Internal Promotions (Male / Female) (%)	NR	76 /24	74 / 26	**81 / 19**	**+7 / -7**
Total Employees who took Primary Parental Leave (Male / Female)	NR	NR	NR	**24 / 28**	**-**
Total Employees who took Secondary Parental Leave (Male / Female)	NR	NR	NR	**32 / 0**	**-**
Total Employees who did not return to work after Primary Parental Leave (Male /Female)[16]	NR	NR	NR	**0 / 1**	**-**
WGEA Pay Gap (%)[17]	NR	NR	NR	**7.6**	**-**
Total Employees (Westside Petroleum only)	NR	NR	NR	**12**	**-**
Gender Split (Westside Petroleum only) (Male / Female) (%)	NR	NR	NR	**58 / 42**	**-**
Our community					
Good Deeds Completed	NR	1054	1018	**576**	**-43%**

* All data prior to FY2020 excludes Liberty Oil Holdings and Westside Petroleum.

\# For selected Environment and Greenhouse Gas and Energy metrics, variation in performance between FY2019 and FY2020 is expressed as a percentage to facilitate the comparison of data.

1. All data for Viva Energy FY2020 includes Westside Petroleum for the period post acquisition (September 2020 onwards). Totals used include both employees and contractors. Liberty Oil Holdings is reported separately for FY2020.
2. Personal Safety criteria definitions used are in line with US OSHA guidelines.
3. Incidents that include Medical Treatment Case, Restricted Work Case, Lost Time Injuries and Fatalities.
4. Incidents that can result in injury, illness, damage to assets, the environment or company reputation, or it can be a near miss. This can also include Life Saving Rule breaches where the potential consequence of major injury or greater was highly likely, or First Aid Cases that could have been a Total Recordable Injury in slightly different conditions.
5. Tier 1 and Tier 2 Process Safety Events are defined as per API RP 754.
6. Number of environmental non-compliance sanctions, which occurred in the reporting year and resulted in the issue of a fine, prosecution, enforceable undertaking or impact on licence to operate. This number does not include any pending proceedings.
7. Incidents resulting in the uncontrolled or unplanned release of material from a process or storage that serves as primary containment. This number also includes Spills to the environment > 100kg, and Significant Spills.
8. Number of incidents resulting in the release of material to the environment without secondary containment. All spills are also counted as LOPC incidents.
9. Number of incidents for the uncontrolled or unplanned release of material greater than 1,000kg to the natural environment without secondary containment.
10. One of the 19 reported incidents occurred in late 2019; however, due to further assessment this incident was classified in FY2020 and is therefore included in FY2020 data.
11. Geelong Refinery accounts for the majority of our significant environmental emissions for the Group. The data is aligned with the NPI reporting period 1 July – 30 June for the reported year. All emission data for the Group is submitted to the National Pollutant Inventory and available at npi.gov.au/npi-data.
12. Scope 1 and Scope 2 GHG emission and Total Energy Consumed estimates are prepared in accordance with the National Greenhouse and Energy Report Act (NGER) for the reporting period 1 July – 30 June. 'Other' includes data for all non-refining operations including Commercial, Retail Fuels and Marketing, Supply, Corporate Functions and Overheads. The reporting period excludes Westside Petroleum due to the full acquisition of the business completed outside of the NGER reporting period.
13. Based on the Solomon Associates global refinery benchmarking Energy Intensity Index (EII) methodology. This data relates to the calendar year ended 31st December 2020.
14. All data excludes Westside Petroleum unless otherwise stated.
15. The Senior Leader Group is selected senior, critical roles as defined by the executive team, and excludes members of the executive team.
16. Number of employees who did not return to work after primary parental leave (i.e. due to voluntary or involuntary termination).
17. The WGEA reported gender pay gap measures the difference between the average earnings of women and men in the workforce. The total remuneration pay gap (expressed as a percentage) represents the total remuneration pay gap for the Group (excluding Westside Petroleum due to the full acquisition of the business completed outside of the WGEA reporting period) for the 2019/2020 WGEA reporting period.

GRI content index

GRI Standard	Disclosure	Reference
General disclosures		
Organisational profile		
102-1	Name of the organisation	Viva Energy Group Limited
102-2	Activities, brands, products, and services	Operating and financial review – Annual Report (page 12)
102-3	Location of headquarters	Level 16, 720 Bourke Street, Docklands Vic 3008
102-4	Location of operations	About us – Annual Report (page 4)
102-5	Ownership and legal form	About us – Annual Report (page 3)
102-6	Markets served	About us – Annual Report (page 4)
102-7	Scale of the organisation	About us – Annual Report (page 4)
102-8	Information on employees and other workers	Our people – Annual Report (page 56) Sustainability performance data – Annual Report (pages 69 to 71)
102-9	Supply chain	About us – Annual Report (page 4)
102-10	Significant changes to the organisation and its supply chain	Operating and financial review – Annual Report (page 12)
102-11	Precautionary Principle or approach	2020 Corporate Governance Statement – investor.vivaenergy.com.au/investor-centre
102-12	External initiatives	Viva Energy has used the Global Reporting Initiative Reporting framework for sustainability reporting guidance
102-13	Membership of associations	Viva Energy participates in and engages with a number of local, national and global organisations including Reconciliation Australia, Workplace Gender Equality Agency, Australian Hydrogen Council, Bioenergy Australia, Australian Industry Greenhouse Network, Australian Institute of Petroleum, Cooperative Research Centre Care, LastFire, Maritime Industry Australia Limited, Climate Leaders Coalition, IChemE
Strategy		
102-14	Statement from senior decision-maker	Chairman and CEO's report – Annual Report (pages 6 to 7)
Governance		
102-16	Values, principles, standards, and norms of behaviour	Our approach to sustainability – Annual Report (page 30) 2020 Corporate Governance Statement – investor.vivaenergy.com.au/investor-centre
102-18	Governance structure	Our approach to sustainability – Annual Report (page 30) 2020 Corporate Governance Statement – investor.vivaenergy.com.au/investor-centre
Stakeholder engagement		
102-40	List of stakeholder groups	Our approach to sustainability – Annual Report (page 30)
102-42	Identifying and selecting stakeholders	Our approach to sustainability – Annual Report (page 30)
102-43	Approach to stakeholder engagement	Our approach to sustainability – Annual Report (page 30)
102-44	Key topics and concerns raised	Our approach to sustainability – Annual Report (page 30)
102-45	Entities included in the consolidated financial statements	Our approach to sustainability – Annual Report (page 30)
102-46	Defining report content and topic Boundaries	Our approach to sustainability – Annual Report (page 30)
102-47	List of material topics	Our approach to sustainability – Annual Report (pages 33 to 34)

GRI Standard		Disclosure	Reference
102-48		Restatements of information	The FY2019 non-hazardous waste volume for the Geelong Refinery has been revised based on reassessment of waste classifications. This change has been reflected in the Sustainability performance data (on page 70)
102-49		Changes in reporting	About our reporting – Annual Report (page 31)
102-50		Reporting period	Unless otherwise indicated, all disclosures are for 1 January 2020 to 31 December 2020
102-51		Date of most recent report	18 March 2020
102-52		Reporting cycle	Annual
102-53		Contact point for questions regarding the report	Corporate directory – Annual Report (page 177)
102-54		Claims of reporting in accordance with the GRI Standards	About our reporting – Annual Report (page 31)
102-55		GRI content index	GRI content index - Annual Report (page 72)
102-56		External assurance	Limited assurance statement – Annual Report (page 76)
Standard disclosures			
Health and safety			
GRI 103: Management Approach	103-1 103-2 103-3	General management approach	Health and safety – Annual Report (page 35)
GRI 403: Occupational Health and Safety (2018)	403-1	Occupational health and safety management system	Health and safety – Annual Report (page 35)
	403-2	Hazard identification, risk assessment, and incident investigation	Health and safety – Annual Report (page 35)
	403-3	Occupational health services	Health and safety – Annual Report (page 35)
	403-4	Worker participation, consultation, and communication on occupational health and safety	Health and safety – Annual Report (page 35)
	403-5	Worker training on occupational health and safety	Health and safety – Annual Report (page 35)
	403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	Health and safety – Annual Report (page 35)
	403-8	Workers covered by an occupational health and safety management system	Health and safety – Annual Report (page 35)
	403-9	Work-related injuries	Health and safety – Annual Report (page 37); Sustainability performance data – Annual Report (pages 69 to 71)
Sector specific disclosures	G4-OG13	Number of process safety events by business activity	Health and safety – Annual Report (page 38); Sustainability performance data – Annual Report (pages 69 to 71)
	G4-DMA	Emergency Preparedness	Health and safety – Annual Report (page 38)

Sustainability continued

GRI Standard		Disclosures	Reference
Lower carbon energy transition			
GRI 103: Management Approach	103-1 103-2 103-3	General management approach	Making the lower carbon transition – Annual Report (page 40)
GRI 302: Energy	302-1	Energy consumption within the organisation	Making the lower carbon transition – Annual Report (page 40); Sustainability performance data – Annual Report (pages 69 to 71)
GRI 305: Emissions (2016)	305-1	Direct (Scope 1) GHG emissions	Making the lower carbon transition – Annual Report (page 40); Sustainability performance data – Annual Report (pages 69 to 71)
	305-2	Energy indirect (Scope 2) GHG emissions	Making the lower carbon transition – Annual Report (page 40); Sustainability performance data – Annual Report (pages 69 to 71)
Environment			
GRI 103: Management Approach	103-1 103-2 103-3	General management approach	Environment – Annual Report (page 52);
GRI 303: Water and effluents (2018)	303-1	Water withdrawal by source	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
	303-2	Water sources significantly affected by withdrawal of water	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
	303-3	Water recycled and reused	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
GRI 304: Biodiversity (2016)	304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	Environment – Annual Report (page 55);
GRI 305: Emissions (2016)	305-7	Nitrogen oxides (NOx), sulfur oxides (SOx), and other significant air emissions	Environment – Annual Report (page 53); Sustainability performance data – Annual Report (pages 69 to 71)
GRI 306: Waste (2020)	306-2	Management of waste-related impacts	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
	306-3	Waste generated	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
	306-4	Waste diverted from disposal	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
	306-5	Waste directed to disposal	Environment – Annual Report (page 54); Sustainability performance data – Annual Report (pages 69 to 71)
Sector specific disclosure	G4-EN24	Significant spills	Environment – Annual Report (page 52); Sustainability performance data – Annual Report (pages 69 to 71)
GRI 307: Environmental compliance (2016)	307-1	Non-compliance with environmental laws and regulations	Environment – Annual Report (page 52); Sustainability performance data – Annual Report (pages 69 to 71) Directors' report – Annual Report (page 104)

GRI Standard		Disclosures	Reference
Our people			
GRI 103: Management Approach	103-1 103-2 103-3	General management approach	Our people – Annual Report (page 56)
GRI 401: Employment (2016)	401-1	New employee hires and employee turnover	Our people – Annual Report (page 56); Sustainability performance data – Annual Report (pages 69 to 71)
	401-3	Parental leave	Our people – Annual Report (page 59); Sustainability performance data – Annual Report (pages 69 to 71)
GRI 404: Training and education (2016)	404-2	Programs for upgrading employee skills and transition assistance programs	Our people – Annual Report (page 59)
GRI 405: Diversity and equal opportunity (2016)	405-1	Diversity of governance bodies and employees	Our people – Annual Report (page 57); Sustainability performance data – Annual Report (pages 69 to 71)
	405-2	Ration of basic salary and remuneration of women to men	Our people – Annual Report (page 57); Sustainability performance data – Annual Report (pages 69 to 71)
Our community			
GRI 103: Management Approach	103-1 103-2 103-3	General management approach	Our community – Annual Report (page 60)
GRI 413: Local Communities (2016)	413-1	Operations with local community engagement, impact assessments, and development programs	Our community – Annual Report (page 60)
Economic contribution			
GRI 103: Management approach	GRI 103-1 GRI 103-2 GRI 103-3	General management approach	Economic contribution – Annual Report (page 66)
GRI 201: Economic Performance (2016)	201-1	Direct economic value generated and distributed	Operating and financial review – Annual Report (pages 12 to 28)
	201-2	Financial implications and other risks and opportunities due to climate change	Making the lower carbon transition – Annual Report (page 41)
GRI 204: Procurement practices (2016)	204-1	Proportion of spending on local suppliers	Economic contribution – Annual Report (page 66)
GRI 207: Tax (2019)	207-1	Tax reporting	Economic contribution – Annual Report (page 67) Taxes paid report – investor.vivaenergy.com.au/investor-centre
Ethical conduct and transparency			
GRI 103: Management Approach	GRI 103-1 GRI 103-2 GRI 103-3	General management approach	Ethical conduct and transparency – Annual Report (page 64) Corporate Governance Statement – investor.vivaenergy.com.au/investor-centre
GRI 205: Anti-corruption (2016)	205-2	Communication and training about anti-corruption policies and procedures	Ethical conduct and transparency – Annual Report (page 64) Corporate Governance Statement – investor.vivaenergy.com.au/investor-centre
GRI 412: Human rights assessment (2016)	412-2	Policy and employee training on human rights	Ethical conduct and transparency – Annual Report (page 64) Corporate Governance Statement – investor.vivaenergy.com.au/investor-centre

Independent assurance statement

Independent Limited Assurance Report to the Directors of Viva Energy Group Limited

What we found

Based on the work described below, nothing has come to our attention that causes us to believe that the selected subject matter within the Viva Energy Australia Annual Report 2020 has not been prepared, in all material respects, in accordance with the Reporting Criteria. This conclusion is to be read in the context of what we say in the remainder of our report.

What we did

Viva Energy Group Limited (**the Company**) and its controlled entities (together **the Group**) engaged us to perform a limited assurance engagement on the selected subject matter within the Viva Energy Australia Annual Report 2020.

Subject matter

The scope of our work was limited to assurance over the selected subject matter within the Viva Energy Australia Annual Report 2020. The selected subject matter and the reporting criteria against which it was assessed is summarised below. Our assurance does not extend to information in respect of earlier periods or to any other information included in the Viva Energy Australia Annual Report 2020.

Entity (consolidated)	Performance Indicator (for the year ended 31 December 2020 unless otherwise stated)
Viva Energy Group Limited	• Total Employees • Gender Split (Male / Female) (%) • Senior Leadership Group (Male / Female) (%) • Total Greenhouse Gas (GHG) Emissions (Scope 1 and 2) for the year ended 30 June 2020 • Total energy consumed for the year ended 30 June 2020
Viva Energy Group Limited (excluding Liberty Oil Holdings Pty Limited)	• Total Lost Time Injuries • Total Lost Time Injuries Frequency Rate (per million hours) • Total Recordable Injuries Frequency Rate (per million hours) • Tier 1 Process Safety Events • Tier 2 Process Safety Events • Significant spills
Liberty Oil Holdings Pty Limited	• Total Lost Time Injuries • Total Lost Time Injuries Frequency Rate (per milllion hours) • Total Recordable Injuries Frequency Rate (per million hours) • Tier 1 Process Safety Events • Tier 2 Process Safety Events • Significant spills

Reporting Criteria

The Selected subject matter needs to be read and understood together with the Reporting Criteria, being the boundaries, definitions and methodologies disclosed within the Viva Energy Australia Annual Report 2020, which the Group is solely responsible for selecting and applying. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Our Independence and Quality Control

We have complied with relevant ethical requirements related to assurance engagements, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Auditing Standard ASQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Reports and Other Financial Information, Other Assurance Engagements and Related Services Engagements and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Responsibilities

PricewaterhouseCoopers

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected subject matter is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to the Directors of Viva Energy Group Limited.

Viva Energy Group Limited

The Group's management are responsible for:

- preparing the Selected subject matter as well as the Viva Energy Australia Annual Report 2020 in its entirety;
- the prevention and detection of fraud and error in relation to the Selected subject matter;
- the design and operation of controls to ensure the completeness and accuracy of information within the Viva Energy Australia Annual Report 2020, including but not limited to the Selected subject matter; and
- Determining suitable reporting criteria for reporting the Selected subject matter within the Viva Energy Australia Annual Report 2020 and publishing those criteria such that they are available to expected users of the report.

What our work involved

We conducted our work in accordance with the *Australian Standard on Assurance Engagements (ASAE) 3000 Assurance Engagements Other than Audits or Reviews of Historical Financial Information (Revised)* and ASAE 3410 *Assurance Engagements on Greenhouse Gas Statements*. These Standards require that we comply with independence and ethical requirements and plan the engagement so that it will be performed effectively.

Main procedures performed

We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected subject matter. In doing so, we:

- Enquiring of relevant management of the Group regarding the processes and controls for capturing, collating, calculating and reporting the Selected subject matter, and evaluating the design and operational effectiveness of selected controls;
- Testing the classification of incidents included within the calculation of the Selected subject matter, on a sample basis, to relevant underlying records including incident reports;
- Testing the exposure hours used within the calculation of the Selected subject matter, on a sample basis, to relevant underlying contractor and swipe card data;
- Testing the arithmetic accuracy of a sample of calculations of the Selected subject matter;
- Assessing the appropriateness of the greenhouse gas emission factors and methodologies applied in calculating the Selected subject matter;
- Agreeing the Selected subject matter to underlying data sources and calculations; and
- Undertaking analytical procedures over the performance data utilised within the calculations and preparation of the Selected subject matter.

We believe that the information we have obtained is sufficient and appropriate to provide a basis for our conclusion.

John Tomac PricewaterhouseCoopers

John Tomac
Partner
15 March 2021

PricewaterhouseCoopers
Sydney

pwc

Inherent limitations

Inherent limitations exist in all assurance engagements due to the selective testing of the information being examined. Therefore fraud, error or non-compliance may occur and not be detected. Additionally, non-financial data may be subject to more inherent limitations than financial data, given both its nature and the methods used for determining, calculating and sampling or estimating such data.

Restriction on use

This report, including our conclusions, has been prepared solely for the Board of Directors of the Group in accordance with the agreement between us, to assist the Directors in reporting the Group's sustainability performance and activities. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Board of Directors and the Group for our work or this report except where terms are expressly agreed between us in writing.

We permit this report to be disclosed in the Viva Energy Australia Annual Report 2020 to assist the Directors in responding to their governance responsibilities by obtaining an independent assurance report in connection with the Selected subject matter.

Limited assurance

This engagement is aimed at obtaining limited assurance for our conclusions. As a limited assurance engagement is restricted primarily to enquiries and analytical procedures and the work is substantially less detailed than that undertaken for a reasonable assurance engagement, the level of assurance is lower than would be obtained in a reasonable assurance engagement.

Professional standards require us to use negative wording in the conclusion of a limited assurance report

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Remuneration report

Letter from the Remuneration and Nomination Committee Chair – Robert Hill

Dear Shareholders,

On behalf of the Board, I am pleased to present Viva Energy's 2020 Remuneration report.

Our performance

The response to the COVID-19 pandemic has naturally had a significant impact on our business and our customers. As always, our priority has been the health and safety of our people and ensuring that we continue to operate safely and reliably to serve our customers and the broader community. The Board is proud of the way our people responded to the crisis and the sound results delivered under the circumstances, including:

- The Company's Non-Refining Underlying EBITDA (RC) increased by approximately 16.5% over the prior year. Although fuel sales were impacted by the 'stay at home' order and border restrictions that were in place around the country, robust diesel sales through both retail and commercial channels, improved retail fuel margins and strong cost and capital management offset the direct impact from declining sales demonstrating the resilience of our sales and marketing businesses. A contributing factor to this strong result was the renegotiation of the Alliance agreement in 2019, which gave the Company control over retail fuel pricing allowing the Company to better manage the sales/margin mix and more successfully navigate the challenges presented by the pandemic, as well as to continue to drive sales growth in the year ahead. Retail sales volumes are progressively recovering towards pre COVID-19 levels, and while Aviation sales volumes remain impacted by border closures, there are some early signs of recovery following an increase in domestic air travel.
- Management delivered on some important strategic initiatives, including divesting the Company's stake in Viva Energy REIT (now Waypoint REIT), and returning $580 million of the proceeds of the divestment to our shareholders, with a commitment to return the remaining $100 million. Strong progress was also made on the development of the Geelong Energy Hub, and the Company has entered into an MOU with two high quality consortium partners for the development of a Gas Terminal at Geelong. The Company also carried out a strategic review of the refining business and made progress to build stronger foundation for continued refining operations.
- The Refining business was impacted by lower refining margins due to the decline in both domestic and global oil demand, recording a Refining Underlying EBITDA (RC) loss of $95.1 million for the year. The Company made the decision to bring down some processing units in April 2020 to reduce production and bring forward the planned major maintenance work, which has now been completed. The refinery has since returned to full production, which has led to an improvement in refining margins. While the refining outlook remains challenging, the Fuel Security Package announced by the Federal Government in September 2020 and the commencement of the interim Refinery Production Payment from 1 January 2021 demonstrate an ongoing commitment to strengthening Australia's refining industry.
- The Company reported a Group Underlying EBITDA (RC) result of $519.4 million, finishing 2020 in a strong position with a relatively low level of net debt at $104.2 million, emerging sales recovery in parts of our business that were most affected by the pandemic, and with the prospects of a stronger foundation in our Refining segment.

The Board is very pleased with the way that management led the business through one of the most challenging periods in its history and looks forward to the year ahead.

2020 Remuneration

Fixed remuneration

No adjustments were made to the remuneration of Executive KMP or the Non-Executive Director fees in 2020, with the exception of the CFO who, as disclosed in the 2019 Remuneration Report, received an increase to his fixed remuneration from $600,000 to $650,000 effective 1 March 2020.

2020 Short Term Incentive (STI)

The Executive KMP earned 26.25% of their maximum STI opportunity in 2020. This result was determined as follows:

- despite achieving the 'at target' level of Group Normalised Underlying EBITDA (RC) and a 'stretch' level of Underlying Supply Chain EBITDA (RC), the Board exercised discretion to reduce the financial component of the STI scorecard (which comprises 60% of the scorecard for the Executive KMP) to zero. A number of factors contributed to this decision, including the fall in regional refining margins which led to the Company receiving JobKeeper payments and recording substantial losses in our Refining business, which in turn impacted dividends paid to shareholders in 2020;
- the Executive KMP achieved stretch outcomes against the STI scorecard strategic measures and between threshold and target outcomes in relation to the safety, environment and people performance measures. This reflects the momentum maintained by management on the important strategic initiatives outlined above, as well as the fact that management improved safety performance, maintained strong employee engagement through a challenging period, and successfully protected employees and operations from the potential threat of COVID-19 infection in our workplace.

The Board considers the adjusted outcome to be a fair outcome, which reflects the experience of our shareholders and the broader societal expectations during this global pandemic, while also appropriately rewarding the management team for delivering a strong underlying result in the circumstances and making significant progress on major initiatives in 2020.

2018-2020 Long Term Incentive (LTI)

The 2018-2020 LTI, which comprises performance conditions relative Total Shareholder Return (rTSR) (50%), Return on Capital Employed (ROCE) (25%) and cumulative Free Cash Flow (FCF) (25%), reached the end of its three-year performance period on 31 December 2020.

While the TSR and ROCE conditions were not met, the Company's FCF performance over the three year period was above stretch, reflecting the Company's strong focus on cash and capital management programs.

The final 2018-2020 LTI outcome approved by the Board was 25% of maximum opportunity.

Looking ahead – 2021 remuneration

Executive KMP remuneration

The Board completed a review of the fixed and variable remuneration arrangements for our Executive KMP in early 2021.

As has been flagged previously, our CEO's remuneration package was set materially below market median rates at the time of our IPO. This was done recognising the strong retention focus and significant value tied to the legacy LTI structure put in place under the previous ownership. The legacy LTI arrangements have now expired for the CEO. In the interests of ensuring we retain and motivate our CEO appropriately, the Board has committed to address this issue and will make an adjustment to the CEO's remuneration in 2021, which will go some way to addressing the matter.

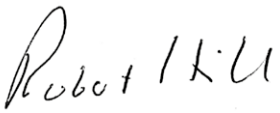
In addition, as our Chief Operating Officer is retiring from the Company this year, our Chief Financial Officer will take on an expanded role and responsibilities. As a result, the Board will also increase his remuneration during 2021 to reflect this greater responsibility.

The Board has also approved some modifications to our Long Term Incentive Plan going forward to better align performance measures with our expectations of corporate performance going forward.

While these changes do not form part of the remuneration arrangements for 2020, in the interests of transparency, the Board has provided information in section 10 for shareholders to consider.

I hope you find this Remuneration Report informative and, as always, we welcome your feedback.

Yours faithfully,



Robert Hill

Remuneration report – contents

1. 2020 at a glance

This section provides a high-level summary of the remuneration outcomes for 2020 for the Executive Key Management Personnel (**KMP**). Further detail is provided in the remaining sections of this report.

Highlights

- Swift and effective health response to the COVID-19 crisis, with the business operating safely and reliably throughout the year without disruption to customers.
- Non-Refining EBITDA (RC) of $614.5 million, up 16.5% on last year driven by very strong Retail performance, robust Diesel sales, strong Specialities performance and disciplined cost and capital management.
- Underlying Group EBITDA (RC) of $519.4 million, down 19.4% on last year on a non-normalised basis, reflecting the substantial impacts experienced in the Refining segment, which recorded losses of $95.1 million. On a normalised basis, Underlying Group EBITDA (RC) was $734 million[1] (excluding JobKeeper payments).
- Successful completion of the major maintenance event at the Refinery at a reduced capital spend.
- Reduced capital expenditure from the original forecast range of $250–$300 million to $158.5 million.
- Material progress on the Gas Terminal Project at Geelong, with the signing of an MOU with two high quality consortium partners in relation to the development of the project and the related capacity of the terminal. The project has now progressed through to the Front End Engineering Design stage.
- Successful divestment of the Viva Energy REIT (now Waypoint REIT) stake and return of $580 million of the proceeds to shareholders, with a commitment to return the remaining $100 million.
- The Executive KMP earned 26.25% of their maximum STI opportunity in 2020. Despite achieving the 'at target' level of Group Normalised Underlying EBITDA (RC) and a 'stretch' level of Underlying Supply Chain EBITDA (RC), the Board exercised discretion to reduce the financial component of the STI scorecard (which comprises 60% of the scorecard for the Executive KMP) to zero. A number of factors contributed to this decision, including the fall in regional refining margins, which led to the Company receiving JobKeeper payments and recording substantial losses in our Refining business, which in turn impacted dividends paid to shareholders in 2020.
- While the TSR and ROCE conditions were not met, the Company's FCF performance over the three year performance period was above stretch, reflecting the Company's strong focus on cash and capital management programs. The final 2018-2020 LTI outcome approved by the Board was 25% of maximum opportunity.

1. To calculate the Group Normalised Underlying EBITDA (RC), actual performance is restated applying available margin and exchange rate assumptions used to set the targets at the beginning of the performance period.

1.1 Remuneration outcomes and COVID-19 related adjustments

Remuneration decisions were made this year in the context of the global COVID-19 pandemic. The Board, with the assistance of the Remuneration and Nomination Committee, carried out a thorough review process examining the appropriateness of remuneration outcomes in light of the impact of the pandemic on the business and stakeholders at large. This process included:

- agreeing the factors that should be taken into account in remuneration decisions and considering a number of scenarios based around these factors;
- examining guidance on remuneration matters released by external stakeholders and the corporate regulator; and
- discussing and agreeing the principles that would guide remuneration decisions in the pandemic year. This included balancing pay for performance, rewarding the significant effort of the executive team in successfully navigating the business through the COVID-19 crisis, attracting and retaining key executives and appropriately reflecting the experience of our shareholders and other stakeholders during the year.

The final outcomes approved by the Board are shown below.

2020 STI outcome

Executive KMP	Adjusted STI outcome (% of maximum opportunity)	Total STI award	STI award provided in cash	STI award provided in Share Rights[1]
Scott Wyatt	26.25%	$315,000	$157,500	$157,500
Jevan Bouzo	26.25%	$170,625	$85,312	$85,312
Thys Heyns[2]	26.25%	$157,500	$157,500	-

1. Share Rights are planned to be granted in March 2021 and will vest into shares in two equal tranches, on 1 January 2022 and 1 January 2023, subject to conditions as set out in section 5.2. The number of Share Rights granted to each Executive KMP is determined by dividing the dollar value of the STI award to be provided in Share Rights by $1.6959, being the weighted average share price of the Company's shares over the performance period 1 January 2020 to 31 December 2020.
2. Due to Thys Heyns' retirement from the Company, with anticipated effect at the end of March 2021, his STI will be paid 100% in cash (no deferral component).

2018-2020 LTI outcome

	Number of 2018 PR granted	% of 2018 PR vested	Number of 2018 PR vested	Value of 2018* PR vested	Number of 2018 PR lapsed	% of 2018 PR lapsed
Executive KMP						
Scott Wyatt	480,000	25%	120,000	$198,000	360,000	75%
Jevan Bouzo	192,000	25%	48,000	$79,680	144,000	75%
Thys Heyns	240,000	25%	60,000	$99,600	180,000	75%
Former Executive KMP						
Daniel Ridgway**	240,000		-	-	240,000	100%

* Calculated based on share price of $1.66, being the closing share price on the date of vesting on 23 February 2021.

** Unvested 2018 PR held by Daniel Ridgway lapsed upon his resignation on 29 May 2020.

2. Overview

2.1 Introduction

This report has been prepared in accordance with the *Corporations Act 2001* and the Corporations Regulations 2001. The content in this report has been audited by PricewaterhouseCoopers, the Company's external auditor.

The Company is required to prepare a remuneration report in respect of KMP, being those people that have responsibility and authority for planning, directing and controlling the activities of Viva Energy, either directly or indirectly. In 2020, the KMP were the Non-Executive Directors and designated executives.

The Company was incorporated on 7 June 2018 and it listed on the ASX on 13 July 2018. This report describes the Company's remuneration arrangements for 2020. To provide shareholders with a complete overview of those remuneration arrangements, information on the Legacy LTI arrangements that were put in place prior to the Company's listing and that impacted Executive KMP remuneration during 2020 are also disclosed.

2. Overview continued

2.2 Details of KMP

The following individuals were KMP of the Company in 2020.

Name	Title	Term as KMP
Non-Executive Directors		
Robert Hill	Chairman and Independent Non-Executive Director	18 June 2018 – current
Arnoud De Meyer	Independent Non-Executive Director	18 June 2018 – current
Dat Duong	Non-Executive Director	7 June 2018 – current
Jane McAloon	Independent Non-Executive Director	18 June 2018 – current
Michael Muller	Non-Executive Director	1 October 2020 – current
Sarah Ryan	Independent Non-Executive Director	18 June 2018 – current
Former Non-Executive Directors		
Hui Meng Kho	Non-Executive Director	18 June 2018 – 30 September 2020
Executive KMP		
Scott Wyatt	Chief Executive Officer and Managing Director	7 June 2018 – current
Jevan Bouzo	Chief Financial Officer	7 June 2018 – current
Thys Heyns	Chief Operating Officer	1 June 2020 – current
Former Executive KMP		
Daniel Ridgway	Chief Operating Officer	1 January 2019 – 29 May 2020

3. Executive remuneration – overview

3.1 Executive remuneration objectives

The overall objectives of executive remuneration at Viva Energy are to:

- drive sustainable value creation for our shareholders;
- drive appropriate behaviours and culture;
- attract and retain high-calibre talent; and
- ensure remuneration is well understood and transparent.

To achieve these objectives, the Board seeks to set executive remuneration at levels that are competitive in the market (for ASX-listed companies comparable in terms of size, complexity and industry to the Company), and also to appropriately reward the leadership team for achieving long-term sustainable growth. The Board reviews the executive remuneration objectives and levels on an annual basis.

3.2 2020 Executive remuneration framework – overview

The 2020 executive remuneration framework is summarised below.

2020 Executive remuneration framework				
Component	**Delivery vehicle**		**Performance measures**	**Link to strategy**
Fixed Annual Remuneration (FAR)	Base salary and superannuation		FAR that is appropriate in order to enable Viva Energy to motivate, engage and retain the calibre of executives that can execute the Company's strategy and continue to deliver value to shareholders. As at the date of this report, the final tranche of the legacy LTI awards has now vested for all Executive KMP with the exception of the CFO. As foreshadowed in prior remuneration reports, as the legacy arrangements expire, the Board intends to set FAR at a market competitive level with regard to the size, complexity and accountabilities associated with a particular role and the level of skills and experience required to perform the role.	
Short Term Incentive (STI) – reward for performance against annual objectives	50% paid in cash	50% deferred into Share Rights	Reward is based on performance against a balanced scorecard of performance measures focused on financial (60%), individual personal objectives aligned with the Company's strategic goals (30%) and safety, environment and people outcomes (10%).	Rewards execution on annual performance objectives. A balanced scorecard of measures ensures targets are achieved in a sustainable manner with a strong emphasis on the delivery of financial outcomes. STI deferral creates further alignment with shareholders and acts as a retention instrument.
Long Term Incentive (LTI) – rewards long-term performance and value creation for shareholders	Performance Rights are allocated at face value at the beginning of the three-year performance period. Subject to performance conditions being met, some or all of the Performance Rights may vest into shares.		Vesting of the Performance Rights is conditional on achieving against a scorecard of performance conditions over a three-year performance period, focused on relative Total Shareholder Return (50%), Free Cash Flow (25%) and Return on Capital Employed (25%).	Drives the delivery of Viva Energy's long-term objectives in a sustainable manner, provides alignment with the interests of shareholders, and encourages long-term value creation.

Prior to the Company's listing on the ASX in 2018, the previous owners put in place an incentive plan referred to in this report as the Legacy LTI. The program previously acted to motivate executives to transform and grow the value of the business through to a potential exit event (such as listing on the ASX). The last of the Legacy LTI tranches of options vested for the CEO and COO in January 2020 and they no longer hold any Legacy LTI options. As at the date of this report, the CFO is the only Executive KMP with outstanding Legacy LTI options (see section 4.5 for more information). The program continues to provide retention value for the CFO as any unvested options will be forfeited on resignation. No further grants will be made under the Legacy LTI.

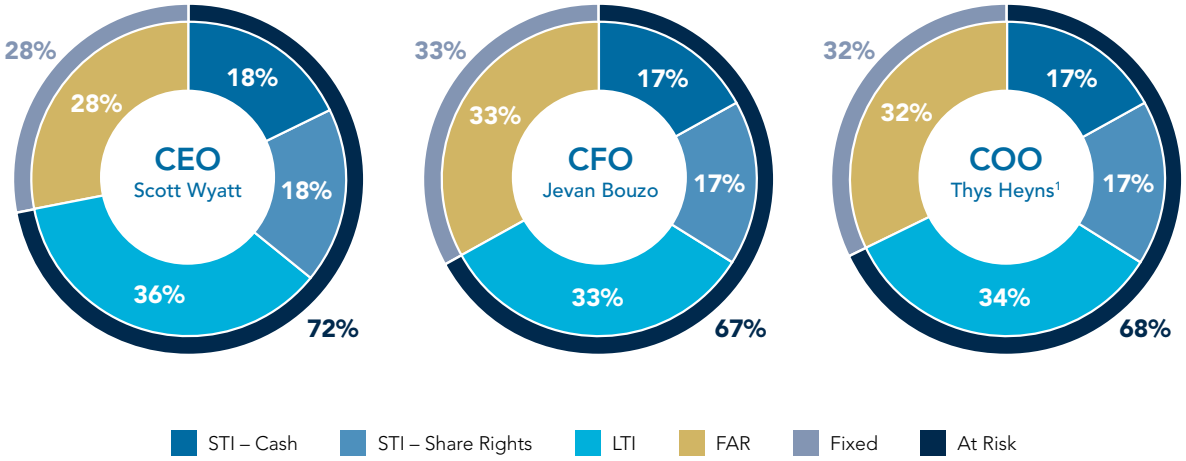
3.3 Minimum Shareholding Policy

The Board has adopted a minimum shareholding policy which requires each member of the KMP (other than Non-Independent, Non-Executive Directors) to accumulate a minimum shareholding equivalent to 100% of their Fixed Annual Remuneration within five years of the date on which they became KMP, and to maintain such minimum shareholding for so long as they remain KMP. Our KMP either already meet or are on track to meet this requirement.

3. Executive remuneration – overview continued

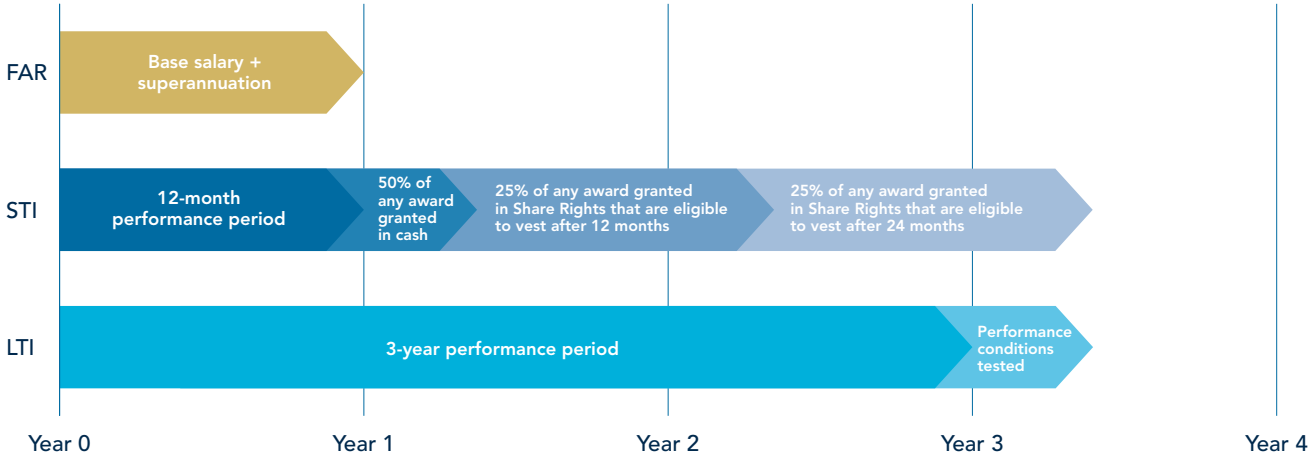
3.4 2020 Executive remuneration mix

The weighting of each remuneration component of an executive's total remuneration opportunity in 2020 was aligned to the objectives of the executive remuneration framework outlined in section 3.1, in particular driving sustainable value for the Company. The following diagrams set out the weighting of each remuneration component for the CEO, CFO and COO based on their maximum potential STI and LTI opportunities and does not represent actual remuneration received for 2020.



1. Daniel Ridgway held the position of COO until his resignation on 29 May 2020. Under the terms of his resignation, Mr Ridgway was not eligible to participate in the 2020 STI and LTI.

3.5 Executive remuneration delivery timeline – 2020 awards



4. 2020 Executive remuneration framework – in more detail

The components of the 2020 executive remuneration framework are explained in detail below.

4.1 Fixed Annual Remuneration (FAR)

FAR is comprised of base salary and superannuation.

4.2 2020 Short Term Incentive (STI)

Viva Energy established an STI Plan to reward Executive KMP and other members of the executive team for strong performance levels and contributions to the Company over a 12-month performance period.

STI performance is assessed against a balanced scorecard comprised of a robust set of performance measures, which drive the Company's short-term financial, strategic and operational objectives and set the platform for long-term success. The Board retains overall discretion to adjust outcomes as appropriate.

Further information about the 2020 STI Plan is set out below. Please refer to section 5.2.1 for STI performance outcomes for 2020.

Opportunity

CEO (Scott Wyatt)	CFO (Jevan Bouzo)	COO (Thys Heyns)[1]
• Target: 67% of FAR	• Target: 50% of FAR	• Target: 54% of FAR
• Maximum: 134% of FAR	• Maximum: 100% of FAR	• Maximum: 107% of FAR

Performance period

Performance was assessed over a 12-month performance period from 1 January 2020 to 31 December 2020

Performance measures

Achievement of individual targets was used to determine the proportion of potential STI granted. For 2020, the following performance measures and weightings applied.

		Weighting		
Category	**Measure**	**CEO**	**CFO**	**COO**
Financial	• Underlying Group EBITDA (RC) – normalised	60%	60%	30%
	• Underlying EBITDA (RC) – Supply Chain	-	-	30%
Strategic priorities	• A mix of individual and group objectives	30%	30%	30%
Safety, environment and people	• TRIF (Total Recordable Injuries/Frequency Rate)[2] • API Tier 1 and 2 incidents[2] • LOPCs > 100kg[3] • Employee engagement • Women in management and leadership	10%	10%	10%
Total		100%	100%	100%

2020 target and maximum opportunity

The maximum stretch opportunity for each performance measure was set at 200% of target. For each performance measure, a threshold level of performance was also set. This level had to be met to receive any STI.

Governance and approval process

The CEO's STI outcome was recommended by the RNC based on his performance, and any other relevant considerations, and was approved by the Board.

The STI outcome for the other Executive KMP was recommended by the CEO to the RNC based on each executive's performance and any other relevant considerations, and was approved by the Board.

The Board had the ability to apply discretion in determining the STI outcomes to ensure they were appropriate. For information on how discretion was applied to the 2020 STI outcomes, see section 5.2.2.

Delivery

STI award is provided as a mix of cash and deferred equity as follows:

- 50% in cash; and
- 50% in Share Rights, with 50% of those Share Rights eligible to vest on 1 January 2022 and the other 50% eligible to vest on 1 January 2023. A Share Right entitles the participant to receive one ordinary share for nil consideration if the Share Right vests.

Voting and dividends entitlements

Unvested Share Rights do not carry dividend or voting rights.

For each Share Right that vests, the participant will receive a cash payment equivalent to the dividends paid by the Company on a share during the period between 1 January 2021 and the relevant vesting date.

4. 2020 Executive Remuneration framework – in more detail continued

4.2 2020 Short Term Incentive (STI) continued

Restrictions on dealing	Holders of Share Rights must not sell, transfer, encumber or otherwise deal with Share Rights unless the Board allows it or the dealing is required by law. Additionally, in no circumstances will a holder of Share Rights be able to hedge or otherwise affect their economic exposure to the Share Rights before they vest. Holders of Share Rights will be free to deal with the ordinary shares allocated on exercise of Share Rights, subject to the requirements of Viva Energy's Securities Trading Policy.
Cessation of employment	If a participant ceases to be employed and is considered to be a Good Leaver, any unvested Share Rights that have been granted as part of the 2020 STI will remain on foot, unless the Board determines otherwise in its absolute discretion. If the participant ceases to be employed and is not a Good Leaver, any unvested Share Rights granted as part of the 2020 STI will lapse. Generally, a participant will be a Good Leaver unless their employment is terminated for cause or the participant resigns.
Change of control	The Board may determine in its absolute discretion that all or a specified number of a participant's Share Rights will vest on a change of control.

1. Daniel Ridgway held the position of COO until his resignation on 29 May 2020. Under the terms of his resignation, Mr Ridgway was not eligible to participate in the 2020 STI.
2. TRIF and API Tier 1 and 2 measures are industry standard safety performance metrics that reflect personal safety and process safety performance (respectively).
3. Loss of Primary Containment. This measures the incidents resulting in the uncontrolled or unplanned release of material from a process or storage that serves as primary containment.

4.3 2020-2022 Long Term Incentive (LTI)

Viva Energy has established an LTI Plan to assist in the attraction, motivation, retention and reward of the Executive KMP and other members of the executive leadership team.

The LTI Plan is designed to reward long-term performance, provide alignment with the interests of shareholders, and encourage long-term value creation.

We use a combination of performance conditions, which reflect our long-term financial, strategic and operational objectives and focus on sustainable, long-term performance.

Further information on the 2020-2022 LTI Plan is set out below.

Opportunity	**CEO (Scott Wyatt)** • Maximum: 134% of FAR	**CFO (Jevan Bouzo)** • Maximum: 100% of FAR	**COO (Thys Heyns)**[1] • Maximum: 107% of FAR
Instrument	Performance Rights. A Performance Right entitles the participant to acquire one ordinary share for nil consideration at the end of the performance period, subject to satisfaction of the performance conditions. The Board retains discretion to make a cash payment to participants on vesting of Performance Rights in lieu of an allocation of shares.		
Grant value	Performance Rights were granted using face value methodology.		

	Condition	Weighting	Measure	Objective
Performance conditions	Relative Total Shareholder Return (rTSR)	50%	Total Shareholder Return over the period, relative to the ASX100 (Comparator Group).	To create strong alignment between LTI outcomes and the experience of shareholders.
	Cumulative Free Cash Flow (RC) (FCF) over the performance period	25%	Cumulative FCF is calculated based on Underlying EBITDA (RC), normalised for market movements in AUD refining margins and adding/subtracting (as appropriate) maintenance capital expenditure, realised FX and derivative movements, dividends received from associated entities, interest and taxes paid.	This measure rewards strong cost and capital management with positive conversion of underlying earnings to cash flow to maximise cash that the Company has available to fund growth opportunities, pay dividends and repay debts.
	Average Return on Capital Employed (RC) (ROCE) for each year of the performance period	25%	Underlying EBIT (RC) divided by average capital employed (total shareholder's equity plus net debt) for each year.	This measure rewards executives for prudent management of capital to maintain positive returns on capital employed over the performance period.

Replacement cost (RC) methodology is used in calculating both the FCF and ROCE outcomes, in order to provide a truer reflection of underlying performance. This approach removes the impact of net inventory gain/(loss) caused by fluctuations in crude oil prices and foreign currency exchange rates.

The Board considers that the use of RC methodology in setting FCF and ROCE targets within the LTI is appropriate, and provides a suitable balance with the relative TSR measure.

Performance period and exercise

Performance will be assessed over a 36-month period from 1 January 2020 to 31 December 2022. Vested Performance Rights may be exercised during exercise periods aligned to the share trading windows outlined in the Company's share trading policy for up to three years after vesting.

There will be no re-testing of any of the performance conditions, and Performance Rights that do not vest after the performance conditions are tested will lapse (and expire).

4. 2020 Executive Remuneration framework – in more detail continued

4.3 2020-2022 Long Term Incentive (LTI) continued

Components

rTSR component

The percentage of Performance Rights comprising the relative TSR component that vest, if any, will be based on the Company's TSR ranking relative to the Comparator Group over the performance period, as set out in the following vesting schedule.

TSR ranking relative to the Comparator Group	% of Performance Rights that vest
Less than 50th percentile	Nil
At 50th percentile	50%
Between 50th and 75th percentile	Straight-line pro rata vesting between 50% and 100%
At 75th percentile or above	100%

FCF component

The percentage of Performance Rights comprising the FCF component that vest, if any, will be determined over the performance period by reference to the following vesting schedule:

Cumulative FCF over the performance period	% of Performance Rights that vest
Less than target FCF performance	Nil
Equal to target FCF performance	50%
Between target and stretch FCF performance	Straight-line pro rata vesting between 50% and 100%
At or above stretch FCF performance	100%

ROCE component

The percentage of Performance Rights comprising the ROCE component that vest, if any, will be determined over the performance period by reference to the following vesting schedule:

Average ROCE over each year of the performance period	% of Performance Rights that vest
Less than target ROCE performance	Nil
Equal to target ROCE performance	50%
Between target and stretch ROCE performance	Straight-line pro rata vesting between 50% and 100%
At or above stretch FCF performance	100%

Disclosure of FCF and ROCE targets

The Board considers that the FCF and ROCE targets are commercially sensitive as disclosure of those targets can potentially indicate the Group's margins and, as such, jeopardise Viva Energy's competitive position.

Therefore, those targets will not be disclosed during the performance period.

However, the Board will provide full details of the vesting outcomes in connection with each component of the LTI, including the levels at which the targets were set at the beginning of the performance period, following completion of the performance period. The targets and the vesting outcomes will be detailed in the Remuneration report for the year in which the LTI will be tested.

Information on the 2018-2020 LTI targets is set out in section 5.3.

Other features

Performance Rights have the same voting and dividend entitlements, restrictions on dealing, treatment on cessation of employment, and change of control provisions as the Share Rights described in section 4.2 above. For completeness, it is noted that there is no dividend equivalent payment that applies to Performance Rights.

1. Daniel Ridgway held the position of COO until his resignation on 29 May 2020. Under the terms of his resignation Mr Ridgway was not eligible to participate in the 2020 LTI.

4.4 Claw back and preventing inappropriate benefits

Under the rules governing the STI and LTI Plans, the Board has power to 'claw back' incentives that it may exercise if, among other things:

- a participant has acted fraudulently or dishonestly, is in material breach of their obligations to the Viva Energy Group, has engaged in negligence or gross misconduct, brought a member of the Viva Energy Group into disrepute, been convicted of an offence, or has a judgment entered against them in connection with the affairs of the Viva Energy Group;
- Viva Energy is required by or entitled under law or under the principal's employment contract to reclaim remuneration from the participant;
- a participant has made a material misstatement on behalf of a member of the Viva Energy Group or there is a material misstatement or omission in the financial statements of the Viva Energy Group; or
- a participant's entitlements vest or may vest as a result of the fraud, dishonesty, negligence or breach of obligations of any other person and the Board is of the opinion that the entitlement would not have otherwise vested.

The claw back regime applies to cash STI, Share Rights granted under the STI Plan and Performance Rights granted under the LTI Plan.

4.5 Legacy LTI

Section 10.4.3 of the Prospectus described the Legacy LTI arrangements introduced by Viva Energy Holding Pty Limited (**VEH**) in 2015, which involved an issue of options. The Legacy LTI was introduced in order to assist in the motivation and retention of key executives, and to provide alignment with the interests of the previous shareholders. This was a key component of VEH's remuneration framework. All offers under the Legacy LTI were made in the years prior to the Company's listing on ASX and no further offers will be made under this plan.

Jevan Bouzo, CFO, is the only member of the Executive KMP that has outstanding options issued under the Legacy LTI arrangements as at the date of this report. The last tranche of the Legacy LTI options held by the CEO and COO vested and were exercised on 2 January 2020. The remaining Legacy LTI options held by the CFO will expire at 5.00pm on 1 January 2022 unless exercised earlier.

Number held as at 31 December 2020	1,538,095 options held by the CFO
Grant date	25 October 2017
Exercise price	A$1.21 per option
Vesting schedule and expiry	• 1,153,571 options have vested and remain unexercised as at the date of this report. • 384,524 options are scheduled to vest on 1 January 2022, subject to continued employment with Viva Energy and the terms of the Legacy LTI.
Voting and dividend entitlements	Legacy LTI options do not carry dividend or voting right entitlements.
Restrictions on dealing	Legacy LTI option holders must not sell, transfer, encumber or otherwise deal with their options unless the Board allows it or the dealing is required by law. Additionally, in no circumstances will Legacy LTI holders be able to hedge or otherwise affect their economic exposure to the options before they vest. Legacy LTI option holders will be free to deal with the ordinary shares allocated on exercise of their options, subject to the requirements of Viva Energy's Securities Trading Policy.
Cessation of employment	If a Legacy LTI option holder ceases employment due to special circumstances (including death, terminal illness or disablement), a pro-rata portion of their unvested Legacy LTI options (based on the proportion of the performance period that has elapsed) will remain on foot and subject to the original performance conditions, and the remainder will lapse unless the Board exercises a discretion to treat them otherwise. In all other circumstances (including due to a participant's resignation or termination), unless the Board exercises its discretion to treat them otherwise and subject to applicable law, unvested Legacy LTI options will automatically lapse.
Change of control and claw back	Legacy LTI options have the same change of control provisions as the Share Rights described in section 4.2, and the same claw back provisions as described in section 4.4.

4. 2020 Executive Remuneration framework – in more detail continued

4.6 Executive service agreements

The CEO, CFO and COO have open-ended employment contracts. The key terms of the contracts are as follows:

- Employment may be terminated by either the Company or the executive upon providing 12 months' written notice.
- Viva Energy may elect to pay the executive in lieu of all or part of such notice period with any such payment to be based on the executive's FAR over the relevant period. The executive may also be required to serve out the whole or part of the notice period on an active or passive basis at the Board's discretion.
- Any payments made to the executive upon termination of employment will be limited to the maximum amount permitted by the Corporations Act.
- The executive's employment may be terminated by Viva Energy without notice in certain circumstances such as un-remediated material breach of their contract, serious misconduct (including dishonesty, fraud or wilful breach of duty), bankruptcy, failure to comply with a reasonable direction from the Board, and if a personal profit is made at the expense of the Viva Energy Group to which they are not entitled.

4.7 Loans and other transactions with KMP

4.7.1 Loans to Key Management Personnel

There were no loans made to the KMP of the Company, including their personally related entities, during the year.

4.7.2 Other transactions with Key Management Personnel

There were no other transactions (as contemplated by the Corporations Regulations 2001) with the KMP during the year.

5. Group performance and 2020 remuneration outcomes

5.1 Company performance and remuneration outcomes – 2020 and historical

COVID-19 presented significant challenge and disruptions to the business in 2020. First and foremost, it was a health emergency and the crisis was unique in the speed at which it evolved and the broad impact it had on our business both domestically and internationally. This year, more so than any other, we relied heavily on our company values and the capability of our people to drive decisions and keep the business operating safely and reliably throughout the year without disruption to our customers. The precautions we took both as a company and collectively as individuals kept our business operating and progressed several major initiatives, including the successful completion of the major maintenance event at the Refinery, material progress on the Gas Terminal Project at Geelong, and the successful divestment of our Viva Energy REIT (now Waypoint REIT) stake. We have since returned the majority of the proceeds of the divestment to our shareholders – $580 million – despite the challenges of the pandemic, and are committed to returning the remaining $100 million.

Our non-Refining EBITDA (RC) was $614.5 million, up 16.5% on last year. This was driven by strong Retail performance, robust Diesel sales in both the Retail and Commercial segments and disciplined cost and capital management. The performance of our commercial business was also resilient, notwithstanding the loss of domestic and international aviation this year, which reflects the diverse segments in which we operate and the quality customers which make up our portfolio. The crisis placed significant challenges on our supply chain as we adjusted plans to accommodate reductions in demand, especially Jet and Gasoline. Further work across the supply chain and with our suppliers helped to reduce supply chain costs to accommodate a lower sales environment without impacting reliable supply to our various markets. Overall the management of our supply chain and operating costs provided some important insulation from the worst of the pandemic impacts.

Underlying Group EBITDA (RC) of $519.4 million was down 19.4% on last year on a non-normalised basis, reflecting the substantial impacts we experienced in the refining part of our business. The Company minimised impacts through reduced operating and capital spend and effective operational decisions in response to reduced demands. The Board made a decision last year to normalise Underlying EBITDA (RC) results for movements in available refining margins and foreign exchange, both of which are outside of management's ability to influence. Normalising the result ensures that management are neither advantaged nor disadvantaged by factors which are outside of their influence and provides a more accurate reflection of management performance during the year. The table below outlines the Company's performance for the years 2018 to 2020.

	2018		2019	2020
	Actual[1]	Pro forma[2]	Actual[3]	Actual[3]
Underlying Group EBITDA (RC)	$528.9M	$774.6M	$644.5M	**$519.4M**
Underlying EBITDA (RC) – Retail, Fuels and Marketing: Retail	$608.8M	$608.8M	$564.3M	**$670.8M**
Underlying EBITDA (RC) – Retail, Fuels and Marketing: Commercial	$323.8M	$329.0M	$296.5M	**$238.3M**
Underlying EBITDA (RC) – Refining	$124.5M	$124.5M	$117.0M	**($95.1)M**
Underlying EBITDA (RC) – Supply, Corporate and Overheads	($528.2)M	($287.7)M	($333.3)M	**($294.6)M**
TRIF (Total Recordable Injuries/Frequency Rate)[4]	36/5.77	-	29/4.55[5]	**19/3.6[5]**
Share price – high	$2.51	$2.51	$2.58	**$2.12**
Share price – low	$1.66	$1.66	$1.72	**$1.13**
Share price – close	$1.80	$1.80	$1.92	**$1.91**
Dividend per share (fully franked)	4.8 cents	4.8 cents[6]	4.7 cents	**0.8 cents**
Special dividend (unfranked)	-	-	-	**5.94 cents**
Capital return	-	-	-	**21.46 cents**
Statutory earnings per share basic/diluted	29.8/29.4 cents	26.6/26.2 cents	5.8/5.7 cents	**(1.9)/(1.9) cents**
Underlying earnings per share	15.1 cents	11.9 cents	7.0 cents	**(1.9) cents**
STI Outcomes – % of maximum	N/A	0%	0%	**26.25%**
LTI Outcomes – % of maximum	N/A	N/A	N/A	**25%**

1. Actual results achieved – reported based on AASB 117, the old lease accounting standard.
2. This shows the historical period as if accounting standard AASB 16 (the current lease accounting standard) was in effect for the 2018 financial year.
3. Actual results achieved – reported based on AASB 16.
4. TRIF are industry standard safety performance metrics that reflect personal safety and process safety performance (respectively).
5. Excludes performance by Liberty Oil Holdings, which was acquired in December 2019 and did not form part of the safety and environment hurdles set under the 2019 and 2020 STI scorecard.
6. This is the final dividend for the six months ended 31 December 2018. No interim dividend was paid in 2018.

5.2 2020 STI outcomes

This section discusses:

- performance against the 2020 STI scorecard – see section 5.2.1; and
- information about how the Board exercised discretion to adjust the scorecard outcome – see section 5.2.2.

5.2.1 Performance against the 2020 STI scorecard

The table below details performance against the 2020 STI scorecard by the Executive KMP. Overall, the scorecard result for each Executive KMP on an unadjusted basis was slightly higher than target.

5. Group performance and 2020 remuneration outcomes continued

5.2 2020 STI outcomes continued

5.2.1 Performance against the 2020 STI scorecard continued

Performance against 2020 STI scorecard[1]

Category	Objective	Weighting	Performance against target range (Below threshold / Threshold / Target / Stretch)	Performance against the performance measure
Safety, environment and people[2]	Build a generative safety culture and a highly engaged workforce focused on delivering high quality results	10%		• TRIF 3.61 (4.55 in 2019)[2,3] • Two Tier 2 incidents and one Tier 1 incident (two Tier 2 incidents in 2019)[2,3] • 19 LOPC > 100kg (29 LOPC > 100kg in 2019)[2,4] • Engagement score 70% (68% in 2019)[2] • Protection of health and operations throughout COVID-19
Financial	Deliver sustainable shareholder returns and consistent operating cash flows	60%		• Group Normalised Underlying EBITDA (RC) of $734M[6,7] • Retail Underlying EBITDA (RC) of $671M • Commercial Underlying EBITDA (RC) of $233M[7] • Supply Chain Underlying EBITDA (RC) of ($155M) • Refining Normalised Underlying EBITDA (RC) of $125M[7]
Strategic objectives	Progress key strategic initiatives that deliver long term growth and position the company for future success	30%		• Material progress on the Gas Terminal Project within the Geelong Energy Hub • Successful divestment of stake in Viva Energy REIT (now Waypoint REIT) • Return of $580M to shareholders by way of special dividend, capital return and on-market buy-back • Successful execution of major maintenance event at Geelong • Progress with the Federal Government to build a stronger foundation for continued refining operations • Carried out strategic review of the refining business and made progress to build stronger foundation for continued refining operations

1. For Safety, Environment and People, the same group metrics apply to all Executive KMP. For the Strategic objectives, in 2020 group strategic goals were applied because of the integrated effort of the executive team to respond to the COVID-19 crisis and deliver on the strategic milestones.
2. Excludes performance by Liberty Oil Holdings, which was acquired in December 2019 and did not form part of the safety, environment and people hurdles set under the 2020 STI.
3. TRIF and API Tier 1 and 2 measures are industry standard safety performance metrics that reflect personal safety and process safety performance (respectively).
4. Loss of Primary Containment. This measure measures the incidents resulting in the uncontrolled or unplanned release of material from a process or storage that serves as primary containment.
5. This shows performance for the CEO and CFO, for whom Group Normalised EBITDA (RC) formed 60% of the scorecard. Performance for the COO was slightly higher than for the CEO and CFO reflecting the different composition of the COO's financial measures – 30% Group Normalised EBITDA (RC) and 30% Supply Chain Underlying EBITDA (RC).
6. Actual performance is restated applying available margin and exchange rate assumptions used to set the targets at the beginning of the performance period.
7. Results excluding JobKeeper payments.

5.2.2 COVID-19 adjustment to the 2020 STI raw score

The Board considered whether the calculated raw STI scorecard result was appropriate in the circumstances. In doing so, the Board considered the COVID-19 impacts on the group financial performance, reduced dividends to shareholders and the broader societal expectations during a global pandemic. After careful consideration, despite at-target achievement against the financial metric for the CEO and CFO, and a slightly higher than target achievement for the COO, the Board resolved to exercise discretion to reduce the financial component of the STI, which made up 60% of the scorecard, to zero. Accordingly, only the strategic, safety, environment and people performance measures (together, 40% of the STI scorecard) were considered in determining the outcome. As a result, the final 2020 STI outcome approved by the Board for the Executive KMP was 26.25% of maximum opportunity.

The Board considers that the remuneration outcomes are fair in the way they balance stakeholder interests while appropriately rewarding executives for delivering a strong underlying result in the circumstances and making significant progress on major initiatives in 2020.

Final 2020 STI outcome

Executive KMP	Adjusted STI outcome (% of maximum opportunity)	Adjusted STI outcome (% of target)	Maximum STI foregone	Total STI award	STI award provided in cash	STI award provided in Share Rights[1]
Scott Wyatt	26.25%	52.5%	$885,000	$315,000	$157,500	$157,500
Jevan Bouzo	26.25%	52.5%	$479,375	$170,625	$85,312	$85,312
Thys Heyns[2]	26.25%	52.5%	$442,500	$157,500	$157,500	-

1. Share Rights are planned to be granted in March 2021 and will vest into shares in two equal tranches, on 1 January 2022 and 1 January 2023, subject to conditions as set out in section 4.2. The number of Share Rights granted to each Executive KMP is determined by dividing the dollar value of the STI award to be provided in Share Rights by $1.6959, being the weighted average share price of the Company's shares over the performance period 1 January 2020 to 31 December 2020.
2. Due to Thys Heyns' retirement from the Company, with anticipated effect at the end of March 2021, his STI will be paid 100% in cash (no deferral component).

5.3 2018-2020 Long Term Incentive outcome

The three year performance period of the 2018-2020 LTI grant ended on 31 December 2020. The 2018-2020 LTI performance conditions along with the outcome against the maximum opportunity under the grant are shown in the table below.

In assessing the outcome, the FCF measure was normalised for movements in refining margins and foreign exchange (both on an after-tax basis) as these factors are outside of management's ability to influence. The Board excluded the impact of the Jobkeeper payment and adjusted for the Viva Energy REIT (now Waypoint REIT) dividend foregone as part of the sale of the investment and return of proceeds. As a result of these collective adjustments, FCF target was adjusted up from the normalised target of $410 million (stretch of $460 million) to $520 million (stretch of $570 million).

2018-2020 LTI measures, hurdles and outcome

Measure	Weighting	Vesting schedule	Minimum (0% vesting)	Maximum (100% vesting)	Actual performance	Vesting (% of maximum)
Cumulative FCF over the performance period	25%	Straight-line pro-rata vesting between 50-100% for performance between target and stretch hurdles	Less than adjusted target performance of $520M	Stretch adjusted performance of $570M	$611M	100%
Average ROCE for each year of the performance period	25%		Less than target performance of 15%	Stretch performance of 23%	9.8%	0%
TSR relative to the ASX100 Comparator Group	50%	Straight-line pro-rata vesting between 50% and 100% for performance between 50th percentile and 75th percentile	Less than 50th percentile	At 75th percentile or above	30th percentile	0%
Total	**100%**					**25% vesting**

The average ROCE over the 2018-2020 LTI performance period was 9.8%, which was below target performance. The ROCE measure under the 2018-2020 LTI Plan is not normalised for movements in available refining margins. The deteriorated refining margins since 2018, when the targets were set, have significantly impacted performance against this measure.

5. Group performance and 2020 remuneration outcomes continued

5.3 2018-2020 Long Term Incentive Outcome continued

2018-2020 LTI measures, hurdles and outcome continued

The outcome for each Executive KMP under the 2018-2020 LTI is shown in the table below.

Executive KMP	Date 2018 PR[1] granted	Number of 2018 PR granted	Value at grant date[2]	% of 2018 PR vested	Number of 2018 PR vested	Value of 2018 PR vested[3]	% of 2018 PR lapsed	Number of 2018 PR lapsed
Scott Wyatt	23 July 2018	480,000	$878,400	25%	120,000	$199,200	75%	360,000
Jevan Bouzo	23 July 2018	192,000	$351,360	25%	48,000	$79,680	75%	144,000
Thys Heyns	23 July 2018	240,000	$439,200	25%	60,000	$99,600	75%	180,000
Daniel Ridgway[4]	23 July 2018	240,000	$439,200	-	-	-	100%	240,000

1. 2018-2020 LTI Performance Rights.
2. The values of the Performance Rights granted are based on the total grant date fair value. Refer to section 9.1 for further details on the fair value of the Performance Rights.
3. Calculated based on share price of $1.66, being the closing share price on the date of vesting on 23 February 2021.
4. Unvested 2018 LTI Performance Rights held by Daniel Ridgway lapsed upon his resignation on 29 May 2020.

6. Remuneration governance

6.1 Role of the Board

The Board, with the guidance of the Remuneration and Nomination Committee (RNC), is responsible for:

- approving the remuneration of the Non-Executive Directors and Executive KMP;
- ensuring the Company's remuneration framework is aligned with the Company's purpose, values, strategic objectives and risk appetite;
- evaluating the performance of the CEO and other members of the Executive Leadership Team (ELT); and
- approving incentive plans and engaging external remuneration consultants as appropriate.

6.2 Role of the Remuneration and Nomination Committee

The Board has established the RNC to assist the Board in fulfilling its responsibilities for governance and oversight of remuneration and board composition related matters.

The RNC is comprised of three Non-Executive Directors, a majority of whom are independent:

- Robert Hill (Chair)
- Arnoud De Meyer
- Hui Meng Kho (resigned as a member with effect from 1 October 2020)
- Dat Duong (commenced as a member with effect from 1 October 2020)

The RNC's responsibilities include board composition and governance-related matters as well as making recommendations to the Board in relation to:

- remuneration policies that will be designed to support the execution of the Company's strategy and plans, and set remuneration and rewards at levels to attract and retain the best people;
- the remuneration of the Non-Executive Directors;
- the remuneration packages (including Fixed Annual Remuneration, incentive plans and any other benefits or arrangements) of the CEO and other members of the ELT; and
- the administration and operation of equity and incentive plans and assessing the effectiveness and implementation of such plans.

A copy of the RNC Charter is available on our website at www.vivaenergy.com.au.

6.3 Use of remuneration consultants

The RNC seeks external remuneration advice to ensure that it is fully informed when making decisions, including on recent market trends and practices and other remuneration-related matters.

In 2020, no remuneration recommendations were received from remuneration consultants as defined under the *Corporations Act 2001*.

7. Executive statutory remuneration

The table below has been prepared in accordance with the requirements on the *Corporations Act 2001* and the relevant Australian Accounting Standards. The amounts provided under the 'STI share-based payment' and 'LTI share-based payment' columns are based on accounting values and do not reflect actual payments received in 2020.

		Short-term benefits			Post-employment		Long-term benefits			
		Salary and fees $	2020 STI $	Non-monetary benefits $	Annual leave $	Super-annuation $	Long service leave $	STI share-based payment $	LTI share-based payment $	Total $
				1			2	3	4	
Executive KMP										
Scott Wyatt	**2020**	**875,646[5]**	**157,500**	**5,055**	**30,264**	**21,354**	**(2,243)**	**65,625**	**737,248**	**1,890,449**
	2019	875,228	-	6,826	47,114	20,772	(83,012)	-	629,699	1,496,627
Jevan Bouzo	**2020**	**621,313[5,6]**	**85,312**	**4,132**	**(4,833)**	**21,354**	**10,471**	**35,547**	**374,049**	**1,147,345**
	2019	545,585	-	2,297	11,134	29,082	9,649	-	311,739	909,486
Thys Heyns[7]	**2020**	**521,379[5]**	**157,500**	**3,478**	**(11,442)**	**39,622**	**8,971**	**-**	**397,417**	**1,116,925**
	2019	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Former Executive KMP										
Daniel Ridgway[8]	**2020**	**224,578**	**-**	**1,425**	**68,599[9]**	**8,755**	**152,119[10]**	**-**	**(363,142)**	**92,334**
	2019	539,228	-	3,320	11,069	20,772	(22,113)	-	321,158	873,434
Total	**2020**	**2,242,916**	**400,312**	**14,090**	**82,588**	**91,085**	**169,318**	**101,172**	**1,145,572**	**4,247,053**
	2019	1,960,041	-	12,443	69,317	70,626	(95,476)	-	1,262,596	3,279,547

1. Non-monetary benefits represent the Viva Energy fuel discount benefit received, the payment of premiums for death and total and permanent disability insurance cover, the payment of plan management fees for the Viva Energy Superannuation Plan, and payments made with respect to mobile phone use.
2. Negative balances are as a result of the leave taken being greater than the leave accrued in the relevant financial year.
3. STI share-based payment represents the fair value of Deferred Share Rights granted under the 2020 STI, calculated in accordance with accounting standards.
4. LTI share-based payment represents fair value of Performance Rights granted under the 2020, 2019 and 2018 LTI and the statutory expense recorded in the income statement for the value of Legacy LTI options vesting across the period, calculated in accordance with accounting standards.
5. 2020 salary and fees include a $1,000 working from home payment received by all eligible employees.
6. Jevan Bouzo's total fixed annual remuneration (inclusive of base salary and superannuation) was increased from $600,000 to $650,000 from 1 March 2020. Actual base salary received was adjusted as required to account for changes to the maximum superannuation contributions base.
7. 2020 remuneration for Thys Heyns is shown for the full year; however, he was only considered KMP from 1 June 2020.
8. 2020 remuneration for Daniel Ridgway is shown from 1 January 2020 until he ceased as KMP on 29 May 2020.
9. Includes annual leave payment of $90,829 upon termination.
10. Includes long service leave payment of $148,379 upon termination.

8. Non-Executive Director remuneration

8.1 Non-Executive Director fees

Non-Executive Directors are paid annual fees. With the exception of the Chairman, each Non-Executive Director who is a chair or a member of a Board Committee receives Committee fees in recognition of the additional responsibilities, time and commitment required. Non-Executive Directors do not receive any performance-related remuneration.

The table below sets out Non-Executive Director remuneration, inclusive of statutory superannuation.

	Description	Fees
Board	Chair	$400,000[1]
	Director	$165,000
Committee fees[2]	Chair	$35,000
	Member	$17,500

1. The Board Chair does not receive any additional fees for being the Chair or member of any Board Committees.
2. Standing Board Committees comprise: Audit and Risk; Remuneration and Nomination; Sustainability; and Investment.

Under the ASX Listing Rules and Viva Energy's Constitution, the total amount paid to all Non-Executive Directors must not exceed in aggregate in any year the amount fixed by Viva Energy in a general meeting for that purpose. As disclosed in the Prospectus, this amount has been fixed by the Company at $1.9 million per annum. Non-Executive Director fees paid in 2020 were within this cap.

8.2 2020 Non-Executive Director fees

The fees paid to the Non-Executive Directors in 2020 are set out in the table below:

		Short-term benefits		Post-employment benefits	Other long-term benefits	
		Salary and fees $	Non-monetary benefits $	Super-annuation $	Other $	Total $
Non-Executive Directors						
Robert Hill (Chairman)	**2020**	**378,646**	**-**	**21,354**	**-**	**400,000**
	2019	379,228	-	20,772	-	400,000
Arnoud De Meyer	**2020**	**217,500**	**-**	**-**	**-**	**217,500**
	2019	217,500	-	-	-	217,500
Dat Duong[1]	**2020**	**-**	**-**	**-**	**-**	**-**
	2019	-	-	-	-	-
Jane McAloon	**2020**	**214,612**	**-**	**20,388**	**-**	**235,000**
	2019	214,612	-	20,406	-	235,018
Michael Muller[1]	**2020**	**-**	**-**	**-**	**-**	**-**
	2019	-	-	-	-	-
Sarah Ryan[2]	**2020**	**235,000**	**-**	**-**	**-**	**235,000**
	2019	214,612	-	20,424	-	235,036
Former Non-Executive Directors						
Hui Meng Kho[1,3]	**2020**	**-**	**-**	**-**	**-**	**-**
	2019	-	-	-	-	-
Total	**2020**	**1,045,758**	**-**	**41,742**	**-**	**1,087,500**
	2019	1,025,952	-	61,602	-	1,087,554

1. Dat Duong, Michael Muller and Hui Meng Kho have agreed to not receive any remuneration for their positions as Non-Executive Directors.
2. Sarah Ryan did not receive superannuation in 2020 pursuant to an exemption granted by the ATO under section 19AA of the *Superannuation Guarantee (Administration) Act 1992*. Accordingly, Dr Ryan's 2020 fee includes the amount that would otherwise have been contributed as superannuation.
3. Hui Meng Kho resigned as a Non-Executive Director with effect on 1 October 2020.

9. Equity interests

9.1 Performance Rights and Legacy LTI option holdings – KMP

Abbreviations used in the following table:

2018 PR – 2018-2020 LTI Performance Rights | **2019 PR** – 2019-2021 LTI Performance Rights | **2020 PR** – 2020-2022 LTI Performance Rights | **Options** – Legacy LTI options

	Type	Exercise price ($)	Held at 1 January 2020 Vested	Held at 1 January 2020 Un-vested	Granted[1] Number	Granted[1] Value ($)	Lapsed	Exercised Number	Exercised Value ($)[3]	Held at 31[2] December 2020 Vested	Held at 31[2] December 2020 Un-vested
Executive KMP[4]											
Scott Wyatt	**2020 PR**	**-**	**-**	**-**	**556,121**	**692,371**	**-**	**-**	**-**	**-**	**556,121**
	2019 PR	-	-	541,198	-	-	-	-	-	-	541,198
	2018 PR	-	-	480,000	-	-	-	-	-	-	480,000
	Options[5]	0.82	2,883,928	-	-	-	-	2,883,928	3,172,321	-	-
Jevan Bouzo	**2020 PR**	**-**	**-**	**-**	**301,232**	**295,207**	**-**	**-**	**-**	**-**	**301,232**
	2019 PR	-	-	270,599	-	-	-	-	-	-	270,599
	2018 PR	-	-	192,000	-	-	-	-	-	-	192,000
	Options[5]	1.21	769,047	769,048	-	-	-	-	-	769,047	769,048
Thys Heyns	**2020 PR**	**-**	**-**	**-**	**278,060**	**272,499**	**-**	**-**	**-**	**-**	**278,060**
	2019 PR	-	-	270,599	-	-	-	-	-	-	270,599
	2018 PR	-	-	240,000	-	-	-	-	-	-	240,000
	Options[5]	0.82	1,538,095	-	-	-	-	1,538,095	1,691,905	-	-
Former Executive KMP											
Daniel Ridgway	**2020 PR[6]**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
	2019 PR[7]	-	-	270,599	-	-	270,599	-	-	-	-
	2018 PR[7]	-	-	240,000	-	-	240,000	-	-	-	-
	Options[5]	0.82	1,345,834	-	-	-	-	1,345,834	1,480,417	-	-

1. The 2020 LTI Performance Rights were awarded to Jevan Bouzo and Thys Heyns on 18 February 2020 and Scott Wyatt on 6 July 2020. The number of Performance Rights were calculated by dividing the dollar value of their maximum LTI opportunity by $2.1578, being the volume weighted average price of the Company's shares on the ASX over the period from 1 January 2019 to 31 December 2019. The value of the Performance Rights granted in 2020 is based on the total grant date fair value.
2. Of the 2018 PRs held by Scott Wyatt, Jevan Bouzo and Thys Heyns, 25% have vested and the remaining 75% have lapsed since 31 December 2020.
3. The value of Options exercised represents the number of Options exercised multiplied by the difference between Viva Energy's closing share price on the date of exercise ($1.92) and the exercise price of the Option ($0.82 for each of Scott Wyatt, Thys Heyns and Daniel Ridgway).
4. No other members of KMP held Performance Rights or Options during the year.
5. The Legacy LTI Plan was put in place prior to the Company's listing in 2018 and no further grants have been made since the listing, nor will be made under this plan going forward.
6. Daniel Ridgway retired as COO and ceased being a KMP on 29 May 2020. Mr Ridgway did not participate in the 2020-2022 LTI.
7. Unvested 2018 and 2019 LTI Performance Rights held by Daniel Ridgway lapsed upon his resignation on 29 May 2020.

9. Equity Interests continued

9.1 Performance Rights and Legacy LTI option holdings – KMP continued

Further details of each grant of Performance Rights and Legacy LTI options to Executive KMPs outstanding at the end of 2020 are set out below:

Type	Grant date	Fair value at grant date	Vesting date
2020 PR	18 February 2020 6 July 2020	$0.47 – $1.73 $0.91 – $1.58	As notified by the Company to the participant after 31 December 2022
2019 PR	19 March 2019 23 May 2019	$1.73 – $2.23 $1.31 – $1.97	The date when all vesting conditions have been satisfied or waived (performance period ends 31 December 2021)
2018 PR	23 July 2018	$1.39 – $2.27	The date when all vesting conditions have been satisfied or waived (performance period ends 31 December 2020)
Options	Refer to section 4.5 Legacy LTI		

9.2 Shareholdings – KMP

The number of shares in the capital of the Company held directly and indirectly by each KMP are set out below:

	Balance as at 1 January 2020	Acquired in 2020	Acquired through exercise of options	Disposed in 2020	Other[1]	Balance as at 31 December 2020[2]
Non-Executive Directors						
Robert Hill	40,000	40,000	-	-	(12,800)	67,200
Dat Duong	-	-	-	-	-	-
Arnoud De Meyer	68,900	55,500	-	-	(19,904)	104,496
Jane McAloon	47,692	36,630	-	-	(13,491)	70,831
Mike Muller[3]	N/A	-	-	-	-	-
Sarah Ryan	73,291	20,000	-	-	(13,326)	79,965
Former Non-Executive Directors						
Hui Meng Kho[4]	-	-	-	-	-	N/A
Executive KMP						
Scott Wyatt	8,074,992	-	2,883,928[5]	-	(1,747,027)	9,171,893
Jevan Bouzo	154,210	786[6]	-	-	(24,798)	130,198
Thys Heyns	3,307,064	786[6]	1,538,095[5]	(413,992)	(709,111)	3,722,842
Former Executive KMP						
Daniel Ridgway[7]	3,368,330	-	1,345,834[5]	(43,989)	N/A	N/A

1. Reduction in number of shares held as a result of the share consolidation implemented on 12 October 2020.
2. Post 31 December 2020, Scott Wyatt Jevan Bouzo and Thys Heyns are due to receive 120,000, 48,000, and 60,000 ordinary shares respectively following the vesting of their 2018-2020 LTI performance rights.
3. Mike Muller became a Director on 1 October 2020. Accordingly, the disclosure covers the period after 1 October 2020.
4. Hui Meng Kho resigned as a Director with effect on 1 October 2020. Accordingly, the disclosure covers the period up to 1 October 2020.
5. Shares were acquired on 2 January 2020 following the exercise of the Legacy LTI options.
6. Acquired under the Employee Share Plan 2020 Exempt Share Award.
7. Daniel Ridgway resigned from the Company on 29 May 2020. Accordingly, the disclosure covers the period up to and including 29 May 2020.

10. 2021 Remuneration

10.1 Executive KMP remuneration

On the Company's listing in 2018, the remuneration of the CEO was intentionally set at modest levels relative to ASX listed peers. This was done recognising the strong retention focus and significant value tied to the legacy LTI structure put in place under the previous ownership.

In each remuneration report since listing, the Board has communicated its intention to re-align the CEO's pay as the Legacy LTI arrangements expired. With the last of these having expired for the CEO in January 2020, the Board believes it important to address the CEO's pay levels going forward to ensure there is sufficient engagement and retention value to secure the CEO to lead Viva Energy's business recovery and transformation agenda. In considering the CEO's remuneration, the Board considered a market cap peer group of ASX 50-150 (in which Viva Energy was around the median), which was further augmented by consideration of specific comparators of other CEO packages in the oil and gas industry. Both data sets confirmed that the CEO's remuneration was materially below market.

Accordingly, the Board has resolved to increase the CEO's Total Fixed Remuneration (TFR) from $896,000 to $1,146,000 in 2021. This is an increase of 27.9%. The Board acknowledges that this is a significant increase in fixed remuneration and will have a flow-on effect to the CEO's incentive opportunities.

In approving this increase the Board considered the CEO's current fixed remuneration is well below the 25th percentile of comparators. The CEO is a highly regarded, skilled and experienced leader and the Board believes that he has the necessary skills, experience and track record to lead Viva Energy through its next strategic plan and should be remunerated for that job. Following this increase, the CEO's TFR will still be below the median of the ASX 50–150 peer group and his total remuneration (including his incentive opportunities at maximum) will be around the median. This is an important step in re-aligning the CEO's pay to market rates. The Board will continue to review the CEO's pay annually with a view to moving the CEO's fixed remuneration to the Company's goal of above median of the peer group over time, as our business progresses through a period of recovery and transformation.

The increase in his fixed remuneration will be effected through a $100,000 (or 11%) increase in cash fixed remuneration and an annual grant of $150,000 of restricted equity (equity fixed remuneration) (Restricted Stock Units (RSU)). The RSUs will be subject to a service condition of one year and a further deferral period of one year. The Board decided to incorporate RSUs as a feature of the CEO's TFR as it wanted to address the market competitiveness of the package, but believed a combination of cash and RSUs was more appropriate than simply increasing his cash pay as it increases equity exposure of the CEO's package while also building in a retention component.

We have announced that Thys Heyns, Chief Operating Officer, will retire from the Company in 2021. Jevan Bouzo will be appointed to an expanded role of Chief Operating and Financial Officer, assuming responsibility for supply chain operations in addition to his existing accountabilities. The Board has reviewed Mr Bouzo's remuneration arrangements and decided to increase his remuneration commensurate with the additional responsibilities of the expanded role as well as recognise the breadth of skill and experience required to fulfil it. Mr Bouzo's TFR will increase from $650,000 to $800,000 in 2021. The LTI and STI opportunities remain at 100% of the TFR at maximum.

10.2 2021 LTI

The Company's long-term incentive structure was developed at the time the Company listed on the ASX in 2018 and had its first vesting opportunity this year. The Board reviewed the LTI program to ensure it remains fit for purpose, appropriately reflects the current operating landscape, focuses executive effort on long-term priorities and continues to motivate and be valued by the executives. The Board has decided to make some adjustments to two of the LTI performance measures. The adjustments and the rationale are set out below.

2020 LTI	Change for the 2021 LTI	Reason for the change
50% of the LTI is weighted to rTSR. TSR performance is measured against the ASX 100 comparator group.	rTSR will continue to form 50% of the LTI in 2021.	In reviewing this measure, the Board considered a number of options, including other indices and bespoke peer groups. The Board decided to retain a broad peer group, but made the change from ASX100 to ASX 50–150.
	The Board has made a change to the comparator group from ASX100 to ASX 50–150.	Viva Energy is not a constituent of the ASX100 index. In terms of market capitalisation, the Company has been positioned at the 'lower end' or outside the current comparator group (ASX 100) during the 2018-2020 LTI performance period. The Board considers ASX 50–150 to be a more appropriate comparator group as it more accurately reflects the companies against which Viva competes for capital.
25% of the LTI is weighted to cumulative FCF over the performance period.	FCF is retained at 25% weighting, though performance will be measured on a 'per share' basis.	The Board considers that FCF continues to be important and has adjusted the way in which FCF is considered by introducing FCF on a per share basis. This measure will be additive to the current FCF construct by focusing FCF generation on a per share basis, to take into account the possibility that the amount of shareholder's capital may vary during the period.

ROCE will continue to be retained in the LTI design, with further detail on the 2021 LTI to be disclosed in the Notice of Annual General Meeting.

Directors' report

The Directors present this report, together with the financial report of Viva Energy Group Limited (the Company) and the entities it controlled (collectively, the Group), for the financial year ended 31 December 2020.

This Directors' report has been prepared in accordance with the requirements of the *Corporations Act 2001* (Cth). The following information forms part of this report:

- Director biographies on pages 8 to 9
- Operating and financial review on pages 12 to 28
- Risk management disclosures which form part of the Operating and financial review on pages 23 to 28
- Remuneration report on pages 77 to 99
- External auditor's independence declaration on page 105
- Note 35 Auditor's remuneration on pages 163 to 164

Directors, Secretaries and meetings

The Directors of the Company at any time during the financial year ended 31 December 2020 and up until the date of this report are:

- Robert Hill – Appointed 18 June 2018
- Scott Wyatt – Appointed 7 June 2018
- Dat Duong – Appointed 7 June 2018
- Hui Meng Kho – Appointed 18 June 2018, resigned effective 1 October 2020
- Arnoud De Meyer – Appointed 18 June 2018
- Jane McAloon – Appointed 18 June 2018
- Michael Muller – Appointed 1 October 2020
- Sarah Ryan – Appointed 18 June 2018

Information on the qualifications, experience, special responsibilities and other directorships of our Directors is set out on pages 8 to 9.

Company Secretaries

Lachlan Pfeiffer

BCom, LLB (Hons), MAICD

Lachlan Pfeiffer is the Executive General Manager, Legal and External Affairs. Lachlan was appointed Company Secretary on 7 June 2018.

Prior to joining Viva Energy in October 2014, Lachlan Pfeiffer worked as a corporate lawyer for Skadden, Arps, Slate, Meagher and Flom (UK) LLP, based in London for seven years. Lachlan started his career in Melbourne working for Norton Rose Fulbright (Australia).

Lachlan is a legal practitioner and holds a Bachelor of Commerce from Melbourne University and a Bachelor of Laws (with Hons) from Monash University. He is also a member of the Australian Institute of Company Directors.

Julia Kagan

BBus (Banking and Finance), LLB (Hons), FGIA

Julia Kagan was appointed Company Secretary on 26 July 2019.

Julia joined Viva Energy in August 2018. Prior to this, Julia held governance roles at BHP and at ASX as part of the Listings Compliance team. Julia is a legal practitioner and holds a Bachelor of Business and a Bachelor of Laws (Honours) from Monash University. She is a Fellow of the Governance Institute of Australia.

Directors' meetings

Details regarding Board and Board Committee meetings held during the year and each Director's attendance at these meetings are set out below. Directors have a standing invitation to attend all standing Board Committee meetings. Attendance by Directors at meetings of committees of which they are not a member is not reflected in the table below.

All Directors receive copies of the agendas, minutes and papers of each standing Board Committee meeting, save to the extent they are subject to a relevant conflict.

	Board meetings		Independent Board Committee[1]		Audit and Risk Committee		Sustainability Committee		Remuneration and Nomination Committee		Investment Committee	
	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)	(A)	(B)
Non-Executive Directors												
Robert Hill	15	15	1	1			6	6	4	4	3	3
Arnoud De Meyer	15	15	1	1					4	4	3	3
Dat Duong[2]	15	15			7	7			2	2	3	3
Hui Meng Kho[3]	12	12							2	2	2	2
Jane McAloon	15	15	1	1	7	7	6	6			3	3
Sarah Ryan	15	15	1	1	7	7	6	6			3	3
Michael Muller[4]	3	3					2	2			1	1
Executive Director												
Scott Wyatt	15	15	1	1							3	3

(A) Number of meetings held during the period which the Director was eligible to attend.

(B) Number of meetings attended by the Director.

1. The Independent Board Committee is not a standing Board Committee. This Committee was established in 2020 to consider potential conflict matters that may arise in connection with the Gas Terminal Project. Refer to the 2020 Corporate Governance Statement for further information.
2. Dat Duong became a member of the Remuneration and Nomination Committee on 1 October 2020.
3. Hui Meng Kho retired from the Board and its Committees effective on 1 October 2020.
4. Michael Muller was appointed to the Board and joined the Sustainability Committee and the Investment Committee on 1 October 2020.

Principal activities and review of operations

Principal activities

During the year, the principal activities of the Group included the following:

- sales of fuel and specialty products through Retail and Commercial channels across Australia;
- management of a national supply, distribution and terminal network; and
- manufacturing activities at the Group's Geelong oil refinery.

State of affairs

There were no significant changes in the Group's state of affairs during the year other than as set out in the Operating and financial review, which is set out on pages 12 to 28 and in the Notes to the consolidated financial statements.

Review of operations

The Operating and financial review of the Group for the 2020 financial year is set out on pages 12 to 28 of this report.

Dividends

We paid the following dividends during the financial year ended 31 December 2020:

Dividend	Total dividend	Payment date
Final dividend of 2.6 cents per share (fully franked) for the six months ended 31 December 2019	$50.6M	15 April 2020
Interim dividend of 0.8 cents per share (fully franked) for the half year ended 30 June 2020	$15.5M	16 September 2020
Special dividend of 5.94 cents per share (unfranked)	$114.9M	13 October 2020

Matters subsequent to the end of financial year

There has not been any matter or circumstance occurring subsequent to the end of the financial year that has significantly affected, or may significantly affect, the operations of the Group, the results of those operations, or the state of affairs of the Group in future financial years.

Remuneration and share interests

Remuneration Report

The Remuneration Report is set out on pages 77 to 99.

Directors' interests in share capital

The relevant interests of each Director in the share capital of the Company as at the date of this Directors' report are set out below.

Director	Number of ordinary shares in which the Director has a relevant interest
Robert Hill	67,200
Scott Wyatt	9,171,893*
Dat Duong	-
Arnoud De Meyer	104,496
Jane McAloon	70,831
Sarah Ryan	79,965
Michael Muller	-

* The CEO will receive 120,000 ordinary shares following the vesting of the 2018 LTI Performance Rights. As at the date of this report, these shares have not yet been transferred to the CEO. See the Remuneration Report for further information.

Our Managing Director and CEO, Scott Wyatt, holds 1,097,319 Performance Rights issued under the Company's Long Term Incentive Plan.

Non-Executive Directors do not hold any rights or options over shares in the Company or any Group entity.

Rights and Options over shares in the Company

The table below details the number of Options, Performance Rights and Deferred Share Rights the Company had on issue as at the date of this report. Further information is available in the Remuneration Report.

	Number on issue as at 31 December 2019	Changes during the 2020 financial year	Number on issue as at 31 December 2020	Changes since the end of the 2020 financial year	Number on issue as at the date of this report
Options	8,651,786 Options at various exercise prices and expiry dates	7,113,691 Options exercised	1,538,095 Options exercisable at $1.21 expiring 1 January 2022	-	1,538,095 Options* exercisable at $1.21 expiring 1 January 2022
Performance Rights issued under the LTIP	3,524,041 Performance Rights	2,087,421** Performance Rights issued 510,599 Performance Rights forfeited	5,100,863 Performance Rights	308,000*** Performance Rights vested 924,000 Performance Rights lapsed	3,868,863 Performance Rights
Deferred Share Rights issue under the LTIP and STIP	213,903 Deferred Share Rights	1,987,680 Deferred Share Rights issued	2,201,583 Deferred Share Rights	329,119*** Deferred Share Rights vested	1,872,464 Deferred Share Rights

* As at the date of this report, there is only one holder of outstanding Options as set out in the Remuneration Report.

** Of these, 556,121 Performance Rights were granted to the CEO on 6 July 2020 as approved by shareholders at the 2020 AGM.

*** Each Performance Right or Deferred Share Right that vests entitles the holder to acquire one ordinary share. The shares allocated upon vesting and exercise are acquired on market and transferred to the holder.

Corporate governance

As at the date of this report, our corporate governance arrangements and practices complied with the 4th Edition of the ASX Corporate Governance Council's Corporate Governance Principles and Recommendations.

Our 2020 Corporate Governance Statement is available on the Investor Centre section of our website at www.vivaenergy.com.au.

Auditor

Our external auditor, PricewaterhouseCoopers (PwC), has provided an independence declaration in accordance with the Corporations Act. This is set out at page 105.

Non-audit services

Details of non-audit services provided by, and amounts paid to, our external auditor are set out in Note 35 Auditor's remuneration to the financial statements.

The Directors have formed the view, based on advice from the Audit and Risk Committee, that the provision of non-audit services during the 2020 financial year was compatible with, and did not compromise, the general standard of independence for auditors imposed by the *Corporations Act 2001*. The non-audit services provided did not involve the external auditor reviewing or auditing its own work or acting in a management or decision making capacity for the Company, or otherwise could reasonably be expected to compromise its independence.

No officer of the Company was a partner or director of PricewaterhouseCoopers during the financial year.

Environmental performance

The Group is subject to Federal, State and Local Government environmental regulation in respect of its land holdings, manufacturing, terminal and distribution facilities and marketing operations. Licences are held for a number of these operations issued by the relevant State environmental regulator.

The Group did not receive any fines, regulatory sanctions or prosecutions in relation to environmental issues or compliance with its licences during 2020.

The Group received a remedial notice relating to perfluoroalkyl and polyfluoroalkyl substances (PFAS) in stormwater discharges at its Newport Terminal and draft remedial notices, for discussion, from the Queensland Department of Environment & Science relating to PFAS at the Pinkenba Terminal. These notices relate to legacy PFAS contamination associated with the historical use of fluorinated fire-fighting foams at these facilities as part of the sites' fire safety systems. There is a national approach by environmental regulators across Australia to investigate and manage these legacy PFAS issues in a range of sectors that traditionally used these fire-fighting foams. At both the Newport and Pinkemba sites, these matters were voluntarily notified by Viva Energy to the relevant State regulator, and assessments and mitigation planning is underway to address these legacy issues in consultation with regulators.

Indemnities and insurance

The Company maintains a deed of access, insurance and indemnity with each Director and each Company Secretary of the Group. Under those deeds, the Company indemnifies, to the extent permitted by law, each Director and each Company Secretary against any loss that may arise from, or in connection with, any act or omission by that Director/Company Secretary in the performance of, or relating to or in connection with, their position as an officer of the Company or the execution or discharge of duties as such an officer, to the full extent permitted by law. Each deed provides that the Company must meet the full amount of any such loss, including legal costs (calculated on a full indemnity basis) that are reasonably incurred, charges and expenses.

Under the deeds, the Company must arrange and maintain a directors' and officers' insurance policy for the Directors and the Company Secretaries to the extent permitted by law, and must use reasonable endeavours to maintain such insurance for the period from the date of the deed until seven years after the Director/Company Secretary ceases to hold office. This seven-year period can be extended where certain actions or proceedings commence before the period expires.

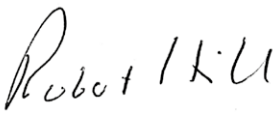
The Group has entered into insurance policies to insure the Directors and Company Secretaries. The Group has paid the premiums for those policies. In accordance with common commercial practice, the insurance policies prohibits disclosure of the nature of the liabilities insured against and the amount of the premiums.

Viva Energy Group Limited has agreed to reimburse its auditors, PricewaterhouseCoopers, for any liability (including reasonable legal costs) incurred in connection with any claim by a third party arising from Viva Energy's breach of its audit engagement agreement.

Rounding of amounts

In accordance with ASIC Corporations (Rounding in Financial/Directors' Reports) Instrument 2016/191, all amounts in this Directors' Report have been rounded to the nearest one hundred thousand dollars ($100,000), or in certain cases, to the nearest one thousand dollars ($1,000).

This Directors' Report is made in accordance with a resolution of the Board.



Robert Hill
Chairman

Scott Wyatt
CEO and Director

Date: 24 February 2021

Auditor's independence declaration

Auditor's Independence Declaration

As lead auditor for the audit of Viva Energy Group Limited for the year ended 31 December 2020, I declare that to the best of my knowledge and belief, there have been:

(a) no contraventions of the auditor independence requirements of the *Corporations Act 2001* in relation to the audit; and

(b) no contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Viva Energy Group Limited and the entities it controlled during the period.

Chris Dodd
Partner
PricewaterhouseCoopers

Melbourne
24 February 2021

PricewaterhouseCoopers, ABN 52 780 433 757
2 Riverside Quay, SOUTHBANK VIC 3006, GPO Box 1331, MELBOURNE VIC 3001
T: 61 3 8603 1000, F: 61 3 8603 1999, www.pwc.com.au

Financial report

Consolidated statement of profit or loss

For the year ended 31 December 2020

	Notes	2020 $M	2019 $M
Revenue	1	**12,409.9**	**16,541.6**
Replacement cost of goods sold		**(6,382.3)**	(10,085.1)
Net inventory loss	2	**(256.6)**	(49.5)
Sales duties, taxes and commissions		**(4,426.6)**	(4,607.5)
Import freight expenses		**(274.0)**	(333.2)
Historical cost of goods sold		**(11,339.5)**	**(15,075.3)**
Gross profit		**1,070.4**	**1,466.3**
Net gain/(loss) on other disposal of property, plant and equipment		**5.5**	(1.9)
Net profit on sale of investments	30	**106.4**	1.3
Other income	2	**24.9**	-
Other income/(loss)		**136.8**	**(0.6)**
Transportation expenses		**(236.0)**	(253.3)
Salaries and wages		**(266.3)**	(258.3)
General and administration expenses		**(147.9)**	(114.4)
Maintenance expenses		**(93.5)**	(118.2)
Lease related expenses	13	**(11.8)**	(19.4)
Sales and marketing expenses		**(81.3)**	(105.4)
		370.4	**596.7**
Interest income		**4.4**	2.8
Share of profit of associates	30	**10.6**	60.2
Realised/unrealised gain on derivatives	2	**35.3**	7.9
Net foreign exchanges (loss)/gain	2	**(28.5)**	37.3
Depreciation and amortisation expenses	2	**(388.8)**	(355.7)
Finance costs	2	**(189.9)**	(191.0)
(Loss)/profit before income tax		**(186.5)**	**158.2**
Income tax benefit/(expense)	27	**150.3**	(44.9)
(Loss)/profit after tax		**(36.2)**	**113.3**
Earnings per share		**Cents**	**Cents**
Basic earnings per share	4	**(1.9)**	5.8
Diluted earnings per share	4	**(1.9)**	5.7

The above consolidated statement of profit or loss should be read in conjunction with the accompanying notes.

Consolidated statement of comprehensive income

For the year ended 31 December 2020

	Notes	2020 $M	2019 $M
(Loss)/profit for the year		(36.2)	113.3
Other comprehensive income/(loss)			
Other comprehensive income that may be reclassified to profit or loss in subsequent years (net of tax)			
Effective portion of changes in fair value of cash flow hedges – Unrealised losses on cash flow hedges recognised by Waypoint REIT	30	-	(4.7)
Recycling of unrealised gains on cash flow hedges on disposal of investment in Viva Energy REIT (now called Waypoint REIT)	30	6.3	-
Other comprehensive income not to be reclassified to profit or loss in subsequent years (net of tax)			
Remeasurement of retirement benefit obligations	33	(2.4)	(1.7)
Net other comprehensive income/(loss)		3.9	(6.4)
Total comprehensive (loss)/income for the year (net of tax)		(32.3)	106.9

The above consolidated statement of comprehensive income should be read in conjunction with the accompanying notes.

Consolidated statement of financial position

As at 31 December 2020

	Notes	2020 $M	2019 $M
ASSETS			
Current assets			
Cash and cash equivalents	6	**49.1**	127.2
Trade and other receivables	8	**794.1**	1,247.8
Inventories	5	**698.8**	1,195.6
Assets classified as held for sale	12	**2.9**	6.7
Derivative assets	20	**-**	0.2
Prepayments	9	**27.6**	20.9
Current tax assets		**21.0**	31.2
Total current assets		**1,593.5**	**2,629.6**
Non-current assets			
Long-term receivables	14	**33.6**	38.4
Property, plant and equipment	12	**1,475.2**	1,468.1
Right-of-use assets	13	**2,321.5**	2,328.1
Goodwill and other intangible assets	16	**646.7**	657.0
Post-employment benefits	33	**0.2**	6.9
Investments accounted for using the equity method	30	**15.4**	641.8
Net deferred tax assets	27	**325.8**	166.0
Other non-current assets		**2.1**	2.1
Total non-current assets		**4,820.5**	**5,308.4**
Total assets		**6,414.0**	**7,938.0**
LIABILITIES AND EQUITY			
Current liabilities			
Trade and other payables	10	**1,329.6**	2,165.5
Provisions	17	**122.0**	127.8
Short-term lease liabilities	13, 22	**135.9**	128.0
Short-term borrowings	11	**-**	7.7
Derivative liabilities	20	**19.4**	19.0
Total current liabilities		**1,606.9**	**2,448.0**
Non-current liabilities			
Provisions	17	**104.0**	95.7
Long-term borrowings	21	**153.3**	256.9
Long-term lease liabilities	13, 22	**2,398.4**	2,320.3
Long-term payables	15	**94.3**	93.2
Total non-current liabilities		**2,750.0**	**2,766.1**
Total liabilities		**4,356.9**	**5,214.1**
Net assets		**2,057.1**	**2,723.9**
Equity			
Contributed equity	23	**4,373.9**	4,861.3
Treasury shares	23	**(6.8)**	(14.2)
Reserves	23	**(4,216.6)**	(4,246.5)
Retained earnings		**1,906.6**	2,123.3
Total equity		**2,057.1**	**2,723.9**

The above consolidated statement of financial position should be read in conjunction with the accompanying notes.

Consolidated statement of changes in equity

For the year ended 31 December 2020

	Notes	Contributed equity $M	Treasury shares $M	Reserves $M	Retained earnings $M	Total equity $M
Balance at 1 January 2019		**4,861.3**		**(4,226.4)**	**2,144.2**	**2,779.1**
Statutory profit for the year		-	-	-	113.3	113.3
Unrealised losses on cash flow hedges recognised by Waypoint REIT		-	-	(4.7)	-	(4.7)
Remeasurement of retirement benefit obligations	33	-	-	(1.7)	-	(1.7)
Total comprehensive income for the year		**-**	**-**	**(6.4)**	**113.3**	**106.9**
Dividends paid	24	-	-	-	(134.2)	(134.2)
Reserve arising from IPO		-	-	(3.5)	-	(3.5)
Share-based payment expense		-	-	(10.2)	-	(10.2)
Treasury shares		-	(14.2)	-	-	(14.2)
Balance at 31 December 2019		**4,861.3**	**(14.2)**	**(4,246.5)**	**2,123.3**	**2,723.9**
Balance at 1 January 2020		**4,861.3**	**(14.2)**	**(4,246.5)**	**2,123.3**	**2,723.9**
Statutory loss for the year		**-**	**-**	**-**	**(36.2)**	**(36.2)**
Other comprehensive income recycled on sale of investment		**-**	**-**	**6.3**	**-**	**6.3**
Remeasurement of retirement benefit obligations	33	**-**	**-**	**(2.4)**	**-**	**(2.4)**
Total comprehensive loss for the year		**-**	**-**	**3.9**	**(36.2)**	**(32.3)**
Dividends paid (net of dividends paid on treasury shares)	24	**-**	**-**	**-**	**(180.5)**	**(180.5)**
Reserve arising from IPO		**-**	**-**	**1.0**	**-**	**1.0**
Share buy-back	23a, 23c	**(72.3)**	**-**	**22.0**	**-**	**(50.3)**
Capital return to shareholders	23a	**(415.1)**	**1.0**	**(0.3)**	**-**	**(414.4)**
Share-based payment reserve movement	23c	**-**	**-**	**3.3**	**-**	**3.3**
Issue of shares to plan participants	23b	**-**	**15.7**	**-**	**-**	**15.7**
Treasury shares	23b	**-**	**(9.3)**	**-**	**-**	**(9.3)**
Balance at 31 December 2020		**4,373.9**	**(6.8)**	**(4,216.6)**	**1,906.6**	**2,057.1**

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes.

Consolidated statement of cash flows

For the year ended 31 December 2020

	Notes	2020 $M	2019 $M
Operating activities			
Receipt from trade and other debtors		15,937.0	19,050.3
Payments to suppliers and employees		(15,585.7)	(18,448.3)
JobKeeper payments received		21.8	-
Interest received		4.4	2.8
Interest paid on loans		(8.0)	(13.4)
Interest paid on lease liabilities		(171.0)	(162.5)
Net income tax refund/(paid)		11.8	(26.2)
Net cash flows from operating activities	7	210.3	402.7
Investing activities			
Purchases of property, plant and equipment		(157.4)	(161.7)
Proceeds from sale of property, plant and equipment		15.0	0.3
Purchase of land for resale		(6.8)	-
Proceeds from sale of land		6.8	-
Purchase of intangible asset		(1.1)	(0.1)
Net cash consideration paid for step acquisition of associate		(1.0)	(24.8)
Coles Express Alliance payment		-	(137.0)
Proceeds from sale of investments	30	730.1	
Share buy-back		(50.3)	-
Net purchase of employee share options		(8.8)	(20.0)
Dividends received from associates	30	19.8	40.8
Loan to associate		-	(15.9)
Loan repayment from associate		-	20.0
Net cash flows contributed/(used) in investing activities		546.3	(298.4)
Financing activities			
Drawdown of borrowings		1,120.0	4,320.0
Repayments of borrowings		(1,227.2)	(4,170.0)
Dividends paid (net of dividend paid on treasury shares held)	24	(180.5)	(134.2)
Capital return (net of return paid on treasury shares held and transaction costs)		(414.4)	-
Upfront financing cost paid and capitalised		(0.1)	(3.0)
Repayment of lease liability		(124.8)	(106.2)
Net cash flows used in financing activities		(827.0)	(93.4)
Net (decrease)/decrease in cash and cash equivalents		(70.4)	10.9
Cash and cash equivalents at the beginning of the year		119.5	108.6
Cash and cash equivalents at the end of the year	6	49.1	119.5

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes.

Notes to the consolidated financial statements

General information

Reporting entity

The consolidated financial statements of Viva Energy Group Limited ('Company') and the entities it controlled (collectively, 'Group') for the year ended 31 December 2020 were authorised for issue in accordance with a resolution of the Directors on 24 February 2021. The Company is a for-profit company limited by shares incorporated in Australia whose shares are publicly traded on the Australian Securities Exchange (ASX: VEA).

The Group is principally engaged in refining, marketing, sale, supply and distribution of fuel and related specialty products. The Group's principal place of business is 720 Bourke Street, Docklands, Australia.

Significant changes in the current reporting period

The financial position and performance of the Group was particularly affected by the following events and transactions during the reporting period:

- COVID-19 and its impact on the performance of the Group, with the Retail, Aviation and Marine businesses together with the refinery particularly impacted;
- on 21 February, the Group sold its 35.5% security holding in Viva Energy REIT (now called Waypoint REIT) (see Note 30);
- a share buy-back program was announced during the period, which to 31 December 2020 had reduced shares on issue by 27,397,847 ordinary shares (see Note 23);
- a capital return of $415.1 million and special dividend of $114.9 million paid to shareholders were undertaken in October 2020, which returned $530.0 million to shareholders, with associated share consolidation activities reducing shares on issue by 309,498,674 ordinary shares (see Note 23 and 24); and
- on 5 May 2020, the Group agreed to acquire the remaining 50% interest in Westside Petroleum Pty Ltd. Subsequent to the acquisition receiving regulatory approval, the transaction was completed on 31 August 2020 (see Note 29).

Basis of preparation

Statement of compliance

The financial report is a general purpose financial report, which has been prepared in accordance with the requirements of the *Corporations Act 2001*, Australian Accounting Standards and other authoritative pronouncements of the Australian Accounting Standards Board.

The financial report has been prepared on a going concern basis. The Directors have made this assessment on the basis that the Group has sufficient liquidity and undrawn borrowing facilities to meet its obligations and pay its debts as and when they fall due. Notwithstanding, current liabilities exceed current assets by $13.4 million as at 31 December 2020, primarily due to a decrease in working capital driven by a reduction in average benchmark crude and refined product prices between December 2019 and December 2020.

The financial report has been prepared on a historical cost basis, except for financial assets and liabilities (including derivative instruments), which have been measured at fair value.

The Group's consolidated financial statements also comply with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board.

The financial report is presented in Australian dollars. In accordance with ASIC Legislative Instrument 2016/191, all values are rounded to the nearest one hundred thousand ($100,000), or in certain cases, to the nearest one thousand ($1,000).

Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ('functional currency'). The consolidated financial statements are presented in Australian dollars, which is the Group's functional and presentation currency.

Use of estimates and judgements

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that may have a financial impact on the Group and that are believed to be reasonable under the circumstances.

The Group makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are highlighted below.

- Note 5 *Inventories* outlines the estimates and accounting policy used by the Group to value inventories.
- Information about the assumptions and the risk factors relating to impairment are described in Note 8 *Trade and other receivables* and Note 16 *Goodwill and other intangible assets*.
- Note 12 *Property, plant and equipment* describes the policy and estimation of minimum operating stock and also the process of assessing for impairment of property, plant and equipment.
- Note 13 *Leases* provides an explanation of the key assumptions used to determine the lease related right-of-use assets and lease liabilities.
- Note 16 *Goodwill and other intangible assets* outlines the key assumptions and methodology used to assess the carrying value of the Group's goodwill for impairment.
- Note 17 *Provisions* provides key sources of estimation, uncertainty and assumptions used in regards to estimation of provisions.
- Note 19 *Financial assets and liabilities* and Note 25 *Fair value of financial assets and liabilities* provide an explanation of the key assumptions used to determine the fair value of financial assets and liabilities.
- Information about the assumptions and the risk factors relating to income tax expense and deferred tax balances are described in Note 27 *Income tax and deferred tax*.
- Note 29 *Business combinations* outlines the judgements and calculations undertaken under the guidance of AASB 3 *Business combinations* to recognise goodwill as a result of the Westside Petroleum acquisition.

New and revised accounting standards

In the current year, several amendments and interpretations were issued by the Australian Accounting Standards Board. The Group has adopted all of the new amendments and interpretations issued that are relevant to its operations and effective for the current annual reporting period. These are listed below:

- AASB 2018-7 Amendments to Australian Accounting Standards – Definition of Material
- AASB 2018-6 Amendments to Australian Accounting Standards – Definition of a Business
- AASB 2019-5 Amendments to Australian Accounting Standards – Disclosure of the Effect of New IFRS Standards Not Yet Issued in Australia
- AASB 2019-1 Amendments to Australian Accounting Standards – References to the Conceptual Framework
- AASB 2020-4 Amendments to Australian Accounting Standards – COVID-19-related Rent Concessions

The adoption of these new amendments and interpretations do not have a significant impact on the consolidated financial statements of the Group in the current or future periods. Other new amendments and interpretations introduced in the current period are not applicable to the Group.

Standards issued but not yet effective as at 31 December 2020

A number of new accounting standards and interpretations have been published that are not yet effective for periods beginning 1 January 2020 and have not been early adopted by the Group. These standards and interpretations applicable from periods beginning 1 January 2021 or beyond as noted by the effective date are not expected to have a material effect on the consolidated financial statements.

Reclassification and changes in financial presentation

Where presentation and classification of items in the consolidated financial statements changes, the comparative amounts are also reclassified unless it is impractical to do so. The nature, amounts and reason for the reclassification are also disclosed. If the reclassification affects an item on the balance sheet, a third consolidated statement of financial position is also presented.

Results for the year

1. Revenue

Set out below is the disaggregation of the Group's revenue from contracts with customers:

	2020 $M	2019 $M
Revenue from contracts from customers		
Revenue from sale of goods	**12,200.8**	16,375.0
Non-fuels income	**182.3**	157.5
	12,383.1	16,532.5
Other revenue	**26.8**	9.1
Total revenue	**12,409.9**	**16,541.6**

Revenue from sale of goods

The Group primarily generates revenue from the sale of refined products in Australia directly to motor vehicle users via the Shell Coles Express Alliance network, directly or indirectly to service stations for sale to motor vehicle users, and to commercial businesses such as road transport, shipping companies, government bodies and airlines. The products that the Group sells are either refined at its own Geelong Refinery or imported into Australia as refined products.

Revenue from sale of goods is recognised at the point in time when control of the asset is transferred to the customer, generally on delivery.

On 1 March 2019, the Group assumed responsibility of retail fuel pricing and marketing across the Alliance network and from this date commenced recognising revenue upon sale of fuel to the motor vehicle user. Prior to this date, the Group recognised revenue upon delivery of fuel to the Alliance retail site.

Commercial customers have full discretion over the channel and price to sell the products, and there is no unfulfilled obligation that could affect the customer's acceptance of the products. No element of financing is deemed present as the sales are made with a credit term of typically 15 to 45 days, which is consistent with market practice.

Revenue is recognised based on the price specified in the contract, net of expected returns, trade allowances, rebates and GST collected on behalf of third parties. Total revenue includes the recovery of excise paid.

Non-fuel income

Non-fuel income is principally from the site licence payments that the Group receives under a long-term alliance with Coles Express. Other non-fuel income includes income from the use of Shell Card and the payment of royalties on convenience sales at alliance retail sites.

(i) Site licence

The Group has granted to Coles Express a licence of the premises for the conduct of its business from that site. Calculation of the site licence fee payable by Coles Express is detailed in each Site Agreement and on commercial terms that are bespoke to the Alliance Arrangements. Revenue from licence fees is recognised over the licence period.

(ii) Brand licence fees

Licence fees relate to the right to access and to market fuel under the Shell brand. The Group (i.e. licensor) holds the licence to the Shell brand and therefore retains the control over the brand. Revenue from licence fees is recognised over the licence period.

(iii) Shell Card fees

The Group offers Shell Cards that provide customers a secure and efficient way to buy quality fuels, access to an extensive national service stations network and the option to use online tools to manage fuel spending. The Group charges a monthly card fee to its customers for the use of the card. Revenue from Shell Card is recognised over a period of time. No element of financing is deemed present as the sales are made with a credit term of typically 15 to 45 days, which is consistent with market practice.

(iv) Royalties

The Group receives royalties on convenience store sales in excess of agreed sales thresholds. The amount payable to the Group is calculated on an annual basis as a percentage of any excess over a threshold amount of gross sales of certain kinds of goods and services made on certain sites. Revenue from royalties is recognised over a period of time.

Other revenue

Other income includes rental recoveries, income from sub-leases and management fees earned through the Aviation business.

Assets and liabilities related to contracts with customers

There were no assets or liabilities recognised in the balance sheet related to revenue from contracts with customers because the period of amortisation is less than one year.

Disaggregation of revenue from contracts with customers

No one customer accounts for more than 10% of revenue.

2. Other profit or loss items

	2020 $M	2019 $M
Net inventory loss	**(256.6)**	(49.5)

During the year, a net inventory loss of $256.6 million (2019: $49.5 million loss) was recorded in net inventory gain/(loss), which accounts for the net impact of movement in oil prices on inventory. Net inventory gains and losses within costs of goods sold represent the difference between the cost of goods sold calculated using the replacement cost of inventory and the cost of goods sold calculated on the FIFO method. Under the FIFO method, which is used to comply with accounting standard requirements, the cost of inventory charged to the statement of profit and loss is based on its historical cost of purchase or manufacture, rather than its replacement cost at the time of sale.

Fluctuations in foreign exchange and commodity prices (which are impacted by both the USD oil price and the foreign exchange rate) can have a distorting effect on the Group's underlying results, and the replacement cost of goods sold quantifies this impact. Replacement cost of goods sold is a non-International Financial Reporting Standards measure, and is used by management to present a clearer picture of the Group's underlying business performance before impacts from movements in oil price and foreign exchange.

Realised/unrealised gains on derivatives	2020 $M	2019 $M
Derivative contracts	**35.3**	7.9

The Group is exposed to the effect of changes in foreign exchange and commodity price movements. During the year the Group entered into derivative contracts, being principally foreign exchange currency contracts (forwards and swaps) and commodity derivative instruments for the purpose of managing the market risks arising from the Group's operations and to hedge market exposure.

Derivatives are recognised at fair value. The gain or loss on subsequent remeasurement is recognised immediately in the consolidated statement of profit or loss. For the year ended 31 December 2020 and including any open positions at balance date, gains of $35.3 million were made (2019: $7.9 million gain). The gains in the current period were the result of various commodity price movements and a weakening AUD through the year.

Foreign exchange gain/(loss)	2020 $M	2019 $M
Foreign exchange gains	**117.6**	107.7
Foreign exchange losses	**(146.1)**	(70.4)
Net foreign exchange (loss)/gain	**(28.5)**	**37.3**

Foreign currency transactions are translated into Australian dollars using the exchange rate at the date of transactions. Gains and losses resulting from the settlement of such transactions and from the translation of foreign exchange denominated monetary assets and liabilities at year end exchange rates are recognised in the consolidated statement of profit or loss. The net foreign exchange gain/(loss) primarily relates to the foreign currency movements arising from the Group's trade and other payables.

Depreciation and amortisation expense	2020 $M	2019 $M
Depreciation of property, plant and equipment	**(140.2)**	(128.1)
Depreciation charge of right-of-use assets	**(216.2)**	(199.1)
Amortisation of intangible assets	**(32.4)**	(28.5)
Total depreciation and amortisation expense	**(388.8)**	**(355.7)**

Results for the Year continued

2. Other profit or loss items continued

Finance costs	2020 $M	2019 $M
Interest on borrowings, trade finance and commitment fees	(12.5)	(22.1)
Interest on lease liabilities	(171.0)	(162.5)
Unwinding of discount on provisions	(4.0)	(4.3)
Unwinding of discount on long-term payables	(2.4)	(2.1)
Total finance costs	(189.9)	(191.0)

Other income

In 2020, the Group recorded payments of $24.9 million (2019: nil) from the Federal Government's 'JobKeeper' wage subsidy program, a measure implemented by the Federal Government in response to the impact of COVID-19. The payments provided assistance to the Group in supporting employees in the most impacted parts of the business, particularly in the aviation and refining business.

These JobKeeper payments were accounted for as government grants and recognised at their fair value upon reasonable assurance that the grant would be received and the Group has complied with all attached conditions.

3. Segment information

The Group has identified its operating segments on the basis of how the Chief Operating Decision Maker reviews internal reports about components of the Group to assess performance and determine the allocation of resources. The Group is organised into business units based on operational activities and has three reportable segments:

Retail, Fuels and Marketing

The Retail, Fuels and Marketing segment consists of both retail and commercial sales and marketing of fuel and specialty products in Australia under the Shell, Liberty, Westside Petroleum and Viva Energy brands as well as generation of substantial non-fuel income. All sales and marketing focused activities are included in this segment.

Refining

The Group's Geelong Refinery in Corio, Victoria, refines crude oil into petrol, diesel and jet fuel. The refinery also manufactures and produces specialty products such as liquid petroleum gas, bitumen, oils, and chemical products.

Supply, Corporate and Overheads

The Group owns and manages an integrated supply chain of terminals, storage facilities, depots, pipelines and distribution assets throughout Australia in order to facilitate product distribution and delivery through wholesale and retail sites. This segment also includes property expenses and corporate functions that facilitate business activity. These activities have been grouped as a segment as they largely represent the overhead base of the business and undertake all the non-sales and non-manufacturing activities within the Group.

Management monitors the operating results of its business segments separately for the purpose of making decisions about resource allocation and performance assessment. The performance of operating segments is evaluated based on segment profit and loss, and is measured consistently with profit or loss in the consolidated financial statements in accordance with the Group's accounting policies. Transfer prices between operating segments are on an arm's length basis similar to transactions with third parties.

Information about reportable segments

31 December 2020	Retail, Fuels and Marketing $M	Refining $M	Supply, Corporate and Overheads $M	Total segments $M
Segment revenue:				
Total segment revenue	12,275.3	2,854.7	10,841.8	25,971.8
Inter-segment revenue	-	(2,854.7)	(10,707.2)	(13,561.9)
External segment revenue	12,275.3	-	134.6	12,409.9
Gross profit	1,277.2	50.3	(0.5)	1,327.0
Net inventory gain/(loss)	-	-	(256.6)	(256.6)
Gross profit	1,277.2	50.3	(257.1)	1,070.4
Profit/(loss) before interest, tax, depreciation and amortisation	909.1	(95.1)	(426.2)	387.8
Interest income	0.2	-	4.2	4.4
Depreciation and amortisation expenses	(69.9)	(67.5)	(251.4)	(388.8)
Finance costs	(15.1)	-	(174.8)	(189.9)
Segment profit/(loss) before tax expense	824.3	(162.6)	(848.2)	(186.5)
Other material items:				
Share of profit of associates	-	-	10.6	10.6
Capital expenditure	18.6	117.3	21.5	157.4

31 December 2019	Retail, Fuels and Marketing $M	Refining $M	Supply, Corporate and Overheads $M	Total segments $M
Segment revenue:				
Total segment revenue	16,339.3	4,688.5	15,307.3	36,335.1
Inter-segment revenue	-	(4,688.5)	(15,105.0)	(19,793.5)
External segment revenue	16,339.3	-	202.3	16,541.6
Gross profit	1,234.3	299.8	(18.3)	1,515.8
Net inventory gain/(loss)	-	-	(49.5)	(49.5)
Gross profit	1,234.3	299.8	(67.8)	1,466.3
Profit before interest, tax, depreciation and amortisation	860.8	117.0	(275.7)	702.1
Interest income	-	-	2.8	2.8
Depreciation and amortisation expenses	(65.9)	(59.4)	(230.4)	(355.7)
Finance costs	(11.3)	-	(179.7)	(191.0)
Segment profit before tax expense	783.6	57.6	(683.0)	158.2
Other material items:				
Share of profit of associates	-	-	60.2	60.2
Capital expenditure	18.4	88.5	54.8	161.7

Geographical information

The Group's country of domicile is Australia. The Group has operations in Australia, Singapore and Papua New Guinea; however, all revenues are generated in Australia. All of the Group's non-financial non-current assets are located in Australia.

Results for the Year continued

4. Earnings per share

Basic EPS is calculated by dividing the profit for the year attributable to ordinary equity holders of the Group by the weighted average number of ordinary shares outstanding during the year. Diluted EPS is calculated by dividing the profit attributable to ordinary equity holders of the parent by the weighted average number of ordinary shares outstanding during the year plus the weighted average number of ordinary shares that would be issued on conversion of all the dilutive options into ordinary shares. In line with the requirements of AASB 133 *Earnings per Share* adjustments to the weighted average number of ordinary and diluted shares are made for events, other than the conversion of potential ordinary shares, that have changed the number of shares outstanding without a corresponding change in resources.

The following tables reflect the earnings and share data used in the basic and diluted EPS computations:

(a) Basic earnings per share

	2020 Cents	2019 Cents
Total basic earnings per share attributable to the ordinary equity holders of the Group	**(1.9)**	5.8

(b) Diluted earnings per share

	2020 Cents	2019 Cents
Total diluted earnings per share attributable to the ordinary equity holders of the Group	**(1.9)**	5.7

(c) Weighted average number of shares used as the denominator

	2020 Number	2019 Number
Weighted number of ordinary shares used as the denominator in calculating basic earnings per share	**1,865,755,543**	1,944,535,168
Adjustments for calculation of weighted diluted earnings per share:		
Options	**8,206,118**	34,034,504
Weighted number of ordinary shares and potential ordinary shares used as the denominator in calculating diluted earnings per share	**1,873,961,661**	1,978,569,672

(d) Information concerning the classification of securities

Ordinary shares

Ordinary shares at 31 December 2020 of 1,607,638,647 represent the 1,944,535,168 shares listed on the ASX as part of the IPO on 13 July 2018, adjusted for the reduction of 309,498,674 ordinary shares as a result of the share consolidation undertaken by the Group in 2020, and a further reduction of 27,397,847 ordinary shares through current year share buy-back activities.

Any profit is available for distribution to the holders of Viva Energy Group Limited ordinary shares in equal amounts per share, subject to the Group's approved dividend strategy.

Options and Rights

Options and rights granted to employees are considered to be potential ordinary shares. They have been included in the determination of diluted earnings per share if the exercise price of the options is lower than the listed share price of Group shares as at 31 December 2020 or if it is considered likely that performance conditions in relation to the rights will be achieved. The options and rights have not been included in the determination of basic earnings per share. Details relating to the options and rights are set out in Note 34 *Related party disclosures*.

Working capital and cash flow

5. Inventories

	2020 $M	2019 $M
Crude for processing	141.2	311.3
Hydrocarbon finished products	526.6	858.1
	667.8	1,169.4
Stores and spare parts	31.0	26.2
Total inventories	**698.8**	**1,195.6**

Inventories are stated at the lower of cost and net realisable value. Cost is based on the first-in, first-out ('FIFO') principle and includes the direct cost of acquisition or manufacture. The inventory management system used by the Group is based on replacement cost methodology. Certain management estimates are required to adjust replacement cost to the FIFO method in order to comply with accounting standard requirements.

Net realisable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to make the sale.

Impairment of inventories is recognised when net realisable value falls below carrying cost. This primarily occurs as a result of movements in crude oil and refined product prices between the date of purchase and balance date, and is recorded in net inventory gain/(loss) in the consolidated statement of profit or loss. No inventory impairment was recognised during the year (2019: nil).

6. Cash and cash equivalents

	2020 $M	2019 $M
Cash at bank per consolidated statement of financial position	49.1	127.2
Bank overdraft (Note 11)	-	(7.7)
Balances per consolidated statement of cash flows	**49.1**	**119.5**

Cash and cash equivalents include cash deposits held at call with financial institutions. Cash at bank earns interest at floating rates based on daily bank deposit rates during the year, and at the end of the reporting year there were no restrictions on cash (2019: nil).

Working capital and cash flow continued

7. Reconciliation of profit to net cash flows from operating activities

	2020 $M	2019 $M
Profit	(36.2)	113.3
Adjustments for:		
Net (gain)/loss on disposal of property, plant and equipment	(5.5)	1.9
Net profit on sale of investment	(113.9)	-
Depreciation and amortisation	172.6	156.6
Depreciation of right-of-use assets	216.2	199.1
Non-cash interest and amortisation on long-term loans	7.9	1.4
Non-cash loss/(gain) on remeasurement of investment	7.4	(1.3)
Unrealised loss on derivatives	0.6	33.4
Unrealised foreign exchange movements	10.2	(31.6)
Share of associate's profit not received as dividends or distributions	(10.6)	(60.2)
Non-cash employee share option taken up in reserves	10.9	2.2
Non-cash treasury shares granted to employees	1.1	-
Non-cash tax expense relating to IPO transaction cost offset against IPO reserve	1.0	(3.4)
Net cash flows from operating activities before movements in assets/liabilities	261.7	411.4
Movements in assets and liabilities:		
Working capital balances		
Decrease/(increase) in receivables	456.3	(8.1)
Decrease/(increase) in inventories	497.9	(172.9)
(Decrease)/increase in payables	(859.6)	162.3
Other		
Decrease in other assets	6.0	5.9
Increase in deferred tax assets	(158.3)	(25.3)
Decrease in post-employment benefits	3.0	2.1
Decrease in tax asset	10.2	47.2
Increase in provisions	(6.9)	(19.9)
Net cash flows from operating activities	210.3	402.7

Movements in the assets and liabilities for the year ended 31 December 2020 have been adjusted for the assets and liabilities transferred from Westside Petroleum Pty Ltd, which was acquired on 31 August 2020, as well as elimination of intercompany balances due to the acquisition. In the comparative 2019 period, adjustments for assets and liabilities transferred and intercompany eliminations also occurred to account for the Liberty Oil Holdings Pty Ltd acquisition on 1 December 2019. Refer to Note 29 *Business combinations* for further details.

8. Trade and other receivables

	2020 $M	2019 $M
Trade receivables		
Trade receivables	658.5	1,008.5
Allowance for impairment of receivables	(5.1)	(4.2)
Total trade receivables	653.4	1,004.3
Other receivables		
Receivables from related parties (Note 34)	12.3	90.4
Receivables from associates	39.5	35.9
Loan to associates	13.7	6.9
Finance lease receivables (Note 13)	1.1	-
Other debtors	74.1	110.3
Total other receivables	140.7	243.5
Total trade and other receivables	794.1	1,247.8

Trade receivables

Trade receivables are non-interest-bearing and are generally on terms of 15 to 45 days. Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. Trade receivables are recognised initially at fair value and are held with the objective to collect the contractual cash flows, and therefore subsequently measured at amortised cost using the effective interest method. Due to the short-term maturity, the carrying amount approximates the fair value. Periodically, the Group enters into factoring arrangements on specific trade receivable balances as part of its overall collections strategy. At 31 December 2020 there were no outstanding trade receivables subject to factoring (2019: nil).

The Group applies the AASB 9 *Financial instruments* simplified approach to measuring trade receivable expected credit losses, which uses a lifetime expected loss allowance for expected credit losses for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates are based on the payment profiles of sales over past periods using historical data and also using forward-looking projections of customer payment expectations. Trade receivables are often insured for events of non-payment, through third party insurance, which has also been factored into the expected loss rate calculations.

The loss allowance as at 31 December 2020 was determined as follows for trade receivables:

31 December 2020	Total $M	Current $M	Not more than 30 days past due $M	More than 30 days but not more than 60 days past due $M	More than 60 days but not more than 90 days past due $M	More than 90 days but not more than 120 days past due $M	More than 120 days past due $M
Expected loss rate		0.3%	1.0%	2.0%	5.0%	10.0%	70.0%
Gross carrying amount – trade receivables	658.5	632.8	18.8	1.7	0.8	0.2	4.2
Loss allowance	(5.1)	(1.9)	(0.2)	(0.1)	(0.0)	(0.0)	(2.9)

Working capital and cash flow continued

8. Trade and other receivables continued

Trade receivables continued

31 December 2019	Total $M	Current $M	Not more than 30 days past due $M	More than 30 days but not more than 60 days past due $M	More than 60 days but not more than 90 days past due $M	More than 90 days but not more than 120 days past due $M	More than 120 days past due $M
Expected loss rate		0.3%	1.0%	2.0%	5.0%	10.0%	15.0%
Gross carrying amount – trade receivables	1,008.5	962.5	36.9	1.4	0.6	1.0	6.1
Loss allowance	(4.2)	(2.7)	(0.4)	(0.1)	-	(0.1)	(0.9)

Movements in the allowance for impairment of receivables were as follows:

	2020 $M	2019 $M
Opening loss allowance as at 1 January	(4.2)	(4.3)
Increase in loss allowance recognised in profit or loss during the year	(1.3)	(1.3)
Receivables written off as uncollectible	0.9	2.1
Amount recognised as a result of acquisitions	(0.5)	(0.7)
Closing loss allowance at 31 December	(5.1)	(4.2)

The creation and release of loss allowances for trade receivables has been included within general and administration expense in the consolidated statement of profit or loss. Amounts charged to the allowance account are generally written off when there is no reasonable expectation of recovering additional cash.

Other receivables

Other receivables include receivables from related parties and other debtors of which the majority relates to GST receivable balances and other specific receivable balances. Other receivables are measured at amortised cost as they are held with the objective to collect contractual cash flows of principal and interest payments. Given the nature of the other receivable balances and based on both previous history of collections and future expectations of receipts, the Group believes that other receivables are fully collectable and have not applied a credit loss allowance to these balances.

Receivables and payables are stated inclusive of the amount of GST receivable or payable. The net amount of GST recoverable from, or payable to, the taxation authority is included within trade and other receivables or trade and other payables in the consolidated statement of financial position.

9. Prepayments

	2020 $M	2019 $M
Prepayments	27.6	20.9

Prepayments primarily relate to prepaid council rates, insurance and shipping related costs. In addition, as at 31 December 2020 the Group has recognised a $7.5 million (2019: nil) prepayment to the State Revenue Office relating to the stamp duty contingency outlined in Note 18 *Commitments and contingencies*.

10. Trade and other payables

	2020 $M	2019 $M
Trade payables	507.8	744.6
Amounts due to related parties	821.7	1,407.7
Amounts due to associates	0.1	13.2
Total trade and other payables	**1,329.6**	**2,165.5**

Trade payables and amounts due to related parties and associates are non-interest-bearing and are normally settled in 30 to 60 days. Amounts due to related parties are primarily for purchases of hydrocarbon. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the end of the reporting period. The carrying amounts of trade and other payables are considered to be the same as their fair values, due to their short-term nature.

11. Short-term borrowings

	2020 $M	2019 $M
Bank overdraft	-	7.7
Total short-term borrowings	**-**	**7.7**

Borrowings are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the end of the reporting period.

Long-term assets and liabilities

12. Property, plant and equipment

	Construction in progress $M	Freehold land $M	Freehold buildings $M	Leasehold buildings $M	Plant and equipment $M	Total $M
As at 1 January 2019						
Opening net book value	272.1	112.9	155.3	52.0	879.0	1,471.3
AASB 16 opening adjustment	-	-	-	(39.8)	-	(39.8)
Acquisition of Liberty Oil Holdings	-	5.1	0.4	-	16.3	21.8
Additions	160.8	-	-	-	1.3	162.1
Disposals	(4.1)	(2.1)	(0.4)	-	(2.5)	(9.1)
Depreciation	-	-	(11.3)	-	(116.8)	(128.1)
Transfers*	(257.8)	-	5.7	(12.2)	260.9	(3.4)
As at 31 December 2019	**171.0**	**115.9**	**149.7**	**-**	**1,038.2**	**1,474.8**
Cost	171.0	115.9	211.8	-	1,478.6	1,977.3
Accumulated depreciation	-	-	(62.1)	-	(440.4)	(502.5)
Balance as above	**171.0**	**115.9**	**149.7**	**-**	**1,038.2**	**1,474.8**
Assets held for sale	-	(5.9)	(0.1)	-	(0.7)	(6.7)
Property, plant and equipment	**171.0**	**110.0**	**149.6**	**-**	**1,037.5**	**1,468.1**

Long-term assets and liabilities continued

12. Property, plant and equipment continued

	Construction in progress $M	Freehold land $M	Freehold buildings $M	Leasehold buildings $M	Plant and equipment $M	Total $M
As at 1 January 2020						
Opening net book value	171.0	115.9	149.7	-	1,038.2	1,474.8
Acquisition of Westside Petroleum	-	-	-	-	6.0	6.0
Additions	155.4	6.8	-	-	3.2	165.4
Disposals	-	(7.4)	(1.5)	-	(8.2)	(17.1)
Depreciation	-	-	-	-	(140.2)	(140.2)
Change of ARO discount rate	-	-	-	-	4.5	4.5
Transfers*	(209.9)	3.5	8.3	-	182.8	(15.3)
As at 31 December 2020	116.5	118.8	156.5	-	1,086.3	1,478.1
Cost	116.5	118.8	213.8	-	1,671.6	2,120.7
Accumulated depreciation	-	-	(57.3)	-	(585.3)	(642.6)
Balance as above	116.5	118.8	156.5	-	1,086.3	1,478.1
Assets held for sale	-	(2.7)		-	(0.2)	(2.9)
Property, plant and equipment	116.5	116.1	156.5	-	1,086.1	1,475.2

* Net transfers of $15.3 million in 2020 represents $4.5 million in software transferred out from construction in progress to intangibles and assets under lease transferred to right-of-use assets.

Property, plant and equipment additions during the year includes $92.3 million in major maintenance spend undertaken at the refinery (2019: $49.5 million).

All property, plant and equipment is stated at historical cost less depreciation, with the exception of construction in progress and freehold land, which are not subject to depreciation. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Depreciation on assets is calculated using the straight-line method to allocate their cost or revalued amounts, net of their residual values, over their estimated useful lives, as follows:

- Buildings 20 years
- Plant and equipment 4 to 15 years
- Supply and refining infrastructure 20 to 30 years
- Land Not depreciated

Minimum operating stock – significant estimate

Minimum operating stock, which is the minimum level of inventories held in the entire supply chain and is necessary to operate supply and refining as a going concern, is treated as part of property, plant and equipment. It is valued at cost.

Assets held for sale

The Group has a number of in use property, plant and equipment assets that are classified as held for sale from continuing operations. These assets include retail, supply chain and aviation assets totalling $2.9 million (2019: $6.7 million) and meet the AASB 5 *Non-current Assets Held for Sale and Discontinued Operations* classification requirements.

Refining assets

Globally suppressed oil prices and refinery margins, even prior to the outbreak of COVID-19, contributed to a challenging environment for the refinery, and in light of these conditions the Group has undertaken a full impairment assessment of the refinery's $386 million fixed assets carrying value as at 31 December 2020.

Key assumptions in the value-in-use calculation

Assumption	Approach used to determining values
Cash flow	Earnings before interest, tax, depreciation and amortisation, including Government support and adjusted for working capital movement expectations and capital spend projections, based on probability weighted forecast scenarios
Long-term average growth rate	1%
Post-tax discount rate	8.2%

In testing for impairment, the recoverable amount of the refinery's assets was determined based on a value in use calculation with the key assumptions described below representing management's expectations of future trends within the industry of which the refinery operates, based on both external and internal data sources.

The cash flow projections used are based on probability weighted forecast scenarios covering a five-year period (2021 – 2025), and a post-tax discount rate of 8.2%. The refinery's cash flows beyond the five-year period are extrapolated using a 1% growth rate. The critical estimates underpinning each of the scenarios used in the testing of the refinery's carrying value are estimations of intake, refining margins, foreign exchange rates, discount rates and the level of Government support expected on the back of recent Government policy announcements.

Each of the scenario forecasts takes into account the impact of COVID-19, and reflect lower demand and a more subdued outlook on margin than included in previous year's forecasts. Intake forecasts take into account major maintenance schedules, with Crude Distillation Unit 4 scheduled for 2022 and the Residue Catalytic Cracking Unit in the first half of 2025, and reflect efficiencies expected to be achieved from prior period capital investment. Refining margin and foreign exchange forecasts have been sourced from external parties for the early years of the forecast period[1] and these align to forecasts included in the value in use calculation.

The scenarios include management's best estimate of cash flows in the form of Government support in line with recent announcements made in respect to Australia's fuel security, with key assumptions relating to the tenure of the support, with modelling including up to 10 years of support, and the payment mechanism, modelled to reflect a fixed one cent per litre of production payment.

To ascertain the sensitivity of the recoverable amount to changes in key assumptions, management stress tested each assumption individually. The results of these stress tests are shown in the table below:

Assumption	Change in key assumption over the long term that would consume headroom
Intake (MBBLs)	Reduce by 0.53 MBBL pa
Long-term refining margins (USD/bbl)	Reduce by 14.6 cents
The exchange rate (USD/AUD)	Increase by AUD 0.85 cents
Post-tax discount rate	Increase by 1.6%
Government support (cents per litre)	Reduce by 0.23 cents
Government support (tenure)	Reduction in tenure from 10 years to six years

Based on the forecasting and value in use methodology and the key assumptions described above, management considers that the carrying value of the refinery's property, plant and equipment is recoverable through the assets' continued use; however, recognises that a reasonably possible change in any individual key assumption over the longer term could result in the need to record an impairment in a future period.

1. External forecasts cover a two year horizon

Long-term assets and liabilities continued

13. Leases

This note provides information on the Group leases accounted for under AASB16 *Leases*.

(a) Amounts recognised on the consolidated statement of financial position

Right-of-use-assets	2020 $M	2019 $M
Retail sites	2,111.9	2,086.6
Supply and distribution sites	173.6	202.2
Corporate offices	35.6	38.5
Motor vehicles	0.4	0.8
Total right-of-use assets	2,321.5	2,328.1

Additions and transfers to the right-of-use assets during the year, including the acquired Westside Petroleum leases of $76.5 million at acquisition date, were $209.6 million. These additions were offset by depreciation expense of $216.2 million.

Lease liabilities	2020 $M	2019 $M
Current	135.9	128.0
Non-current	2,398.4	2,320.3
Total lease liabilities	2,534.3	2,448.3

Finance lease receivable	2020 $M	2019 $M
Current	1.1	-
Non-current	7.3	-
Total finance lease receivable	8.4	-

The Group's finance lease receivables were acquired as part of the Westside Petroleum acquisition. Note 29 *Business combinations* provides further details of the acquisition. Finance lease receivables are disclosed within Trade and other receivables in the consolidated statement of financial position.

(b) Amounts recognised on the consolidated statement of profit or loss

	2020 $M	2019 $M
Depreciation charge of right-of-use assets		
Retail sites	181.1	163.3
Supply and distribution sites	31.8	32.5
Corporate offices	2.8	2.9
Motor vehicles	0.5	0.4
Total depreciation charge for right-of-use assets	216.2	199.1
Interest expense (included within finance costs)	171.0	162.5
Expense relating to short-term leases, leases of low-value assets and variable lease related payments not included in leases above	11.8	19.4

The total cash outflow for leases for the year amounted to $295.8 million (2019: $268.6 million).

(c) The Group's leasing activities and how they are accounted for

Group as a lessee

The Group leases various service station sites, office premises, vehicles, and storage and handling facilities. Rental contracts are typically made for fixed periods of two to 15 years, but may have extension options as described below. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions.

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to profit or loss over the lease period so as to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of amounts assessed to be included as lease payments under AASB16 *Leases*.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be determined, the lessee's incremental borrowing rate is used, being the rate that the lessee would have to pay to borrow the funds necessary to obtain an asset of similar value in a similar economic environment with similar terms and conditions.

In line with accounting standard guidance, where leases have a fixed escalation rate, the fixed rate has been applied when accounting for the lease payments. No rate has been applied to leases that increase at the rate of the Consumer Price Index (CPI) or leases that have a variable escalation rate.

Right-of-use assets are measured at cost comprising the initial measurement of the lease liability and other components as required under AASB16 *Leases*.

Payments associated with short-term leases and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise computer equipment and small office related items.

Various extension and termination options are included in a number of leases across the Group. The Group has determined that the extension of the current Alliance with Coles Express to 2029 is an appropriate timeframe to base option renewals across the lease portfolio. Beyond this timeframe there is significant flexibility in terms of managing lease contracts. For the purposes of the requirements of AASB16 *Leases*, all lease extension periods that occur prior to February 2029 have been assumed to be exercised.

Group as a lessor

The Group has historically undertaken leasing activities as a lessor relating to Coles Express and Liberty service station sites and pipeline assets under non-cancellable operating leases expiring within two to 16 years, with varying terms, escalation clauses and renewal rights. On renewal, the terms of the leases are renegotiated.

In relation to the Group's historical sublease and licensing arrangements, after consideration of the underlying contracts, it has been determined that the inflows under these arrangements fall within the scope of AASB15 *Revenue from contracts with customers*.

The acquisition of Westside Petroleum during the year has added to the Group a number of additional sublease arrangements. The lease arrangements are a combination of both finance leases in accordance with AASB16 *Leases* and sublease arrangements which fall within the scope AASB15 *Revenue from contracts with customers*. As at 31 December 2020, the acquired finance leases have raised a current finance lease receivable of $1.1 million and a non-current finance lease receivable of $7.3 million, which are included in the consolidated statement of financial position under trade an other receivables and long-term receivables respectively.

Future minimum income expected to be received in relation to non-cancellable sublease and licence agreements not classified as finance leases are as follows:

	2020 $M	2019 $M
Within one year	**174.4**	147.8
After one year but not more than five years	**597.5**	527.0
More than five years	**600.1**	659.2
Total	**1,372.0**	**1,334.0**

The above amount of $1,372.0 million includes $37.7 million in future minimum sublease income expectations as a result of the Westside Petroleum Pty Ltd acquisition.

Long-term assets and liabilities continued

14. Long-term receivables

	2020 $M	2019 $M
Receivables	9.3	6.4
Loans to equity-accounted investees	17.0	32.0
Lease receivables (Note 13)	7.3	-
Total non-current receivables	**33.6**	**38.4**

15. Long-term payables

	2020 $M	2019 $M
Coles Express long-term payable	94.3	91.9
Other long-term payables	-	1.3
Total non-current payables	**94.3**	**93.2**

The Coles Express long-term payable represents the present value recognition of a payment due in the future to Coles Express in relation to the transfer of inventory at the time of the Alliance agreement amendments that took effect 1 March 2019.

16. Goodwill and other intangible assets

	Goodwill $M	Software $M	Customer contracts $M	Joint venture rights $M	Other $M	Total $M
Net book value						
As at 1 January 2019	223.1	49.5	20.0	139.9	-	432.5
Acquisition of Liberty Wholesale	97.5	-	12.1	-	2.9	112.5
Additions	-	-	0.1	-	137.0	137.1
Transfers	-	3.4	-	-	-	3.4
Amortisation for the year	-	(4.8)	(4.7)	(7.6)	(11.4)	(28.5)
As at 31 December 2019	**320.6**	**48.1**	**27.5**	**132.3**	**128.5**	**657.0**
Cost	320.6	54.3	50.1	152.1	139.9	717.0
Accumulated amortisation	-	(6.2)	(22.6)	(19.8)	(11.4)	(60.0)
As at 31 December 2019	**320.6**	**48.1**	**27.5**	**132.3**	**128.5**	**657.0**
As at 1 January 2020	320.6	48.1	27.5	132.3	128.5	657.0
Acquisition of Westside Petroleum (Note 29)	19.2	0.1	-	-	-	19.3
Additions	-	1.1	-	-	-	1.1
Transfers	-	4.5	-	-	-	4.5
Adjustment on finalisation of Liberty business combination	(2.8)	-	-	-	-	(2.8)
Amortisation for the year	-	(5.9)	(4.9)	(7.6)	(14.0)	(32.4)
As at 31 December 2020	**337.0**	**47.9**	**22.6**	**124.7**	**114.5**	**646.7**
Cost	337.0	60.0	50.0	152.1	139.9	739.0
Accumulated amortisation	-	(12.1)	(27.4)	(27.4)	(25.4)	(92.3)
As at 31 December 2020	**337.0**	**47.9**	**22.6**	**124.7**	**114.5**	**646.7**

(a) Goodwill

Goodwill arises when the fair value of the consideration paid for a business acquisition exceeds the fair value of the identifiable assets and liabilities acquired. Where consideration is less than the fair value of acquired net assets, the difference is recognised immediately in the consolidated statement of profit and loss. Goodwill is not amortised and is measured at cost less any impairment losses. In accordance with Australian accounting standard requirements, goodwill is allocated to a Cash-Generating Unit (CGU) and is tested annually for impairment. In respect of equity accounted investees, the carrying amount of goodwill is included in the carrying amount of the investment in the associate. A CGU level summary of the goodwill allocation is presented below.

	2020 $M	2019 $M
Marketing and Supply	337.0	320.6
Refining	-	-
Total goodwill recognised	**337.0**	**320.6**

Goodwill represents other intangible assets that did not meet the criteria for recognition as separately identifiable assets. Goodwill allocated to the Marketing and Supply CGU relates to the acquisition of Shell Aviation in 2017 and Liberty Oil Holdings Pty Ltd in 2019, and the current year addition of $19.2 million as a result of the acquisition of Westside Petroleum (refer to Note 29 *Business combinations*).

Goodwill is tested for impairment annually based on a value-in-use calculation. The calculation uses pre-tax cash flow projections based on financial budgets approved by management with growth rates consistent with industry expectations.

Key assumptions in the value-in-use calculation

Assumption	Approach used to determining values
Cash flow	Earnings before interest, tax, depreciation and amortisation adjusted for working capital movement expectations and capital spend projections
Estimated long-term average growth rate	2.5%
Post-tax discount rate	5.7%

The above key assumption values used in the goodwill assessment represent management's expectations of future trends within the industry of which the Marketing and Supply CGU operates, based on both external and internal data sources. The Group has considered and assessed reasonably possible changes in the key assumptions used and has not identified any instances that could cause the carrying amount of the Marketing and Supply CGU to exceed its recoverable amount.

There were no goodwill impairment losses recognised during the year ended 31 December 2020 (2019: nil).

(b) Other intangibles

The Group capitalises amounts paid for the acquisition of identifiable intangible assets, such as software, customer contracts and joint venture rights, where it is considered that they will provide benefit in future periods through revenue generation or reductions in costs. These assets, classified as finite life intangible assets, are carried in the consolidated statement of financial position at the fair value of consideration paid less accumulated amortisation and impairment losses.

Intangible assets with finite useful lives are amortised on a straight-line basis over their useful lives. Amortisation for the period is included within the depreciation and amortisation expenses in the statement of profit and loss. The estimated useful lives in the current and comparative periods are reflected by the following amortisation periods:

- Software 5 to 12 years
- Customer contracts 6 to 10 years
- Joint venture rights 20 years

(i) Software

Software primarily relates to the Group's enterprise platform, Oracle JDE, which was implemented in 2018. The Group estimates the useful life of the software to be at least 12 years based on the expected technical obsolescence of such asset. This useful life profile aligns with the written commitment to provide premier support of the platform, underpinning the asset integrity of the system until at least December 2030, not including extended support option periods generally available. The actual useful life may be shorter or longer than 12 years, depending on technical innovations.

Long-term assets and liabilities continued

16. Goodwill and other intangible assets continued

(b) Other intangibles continued

(ii) Customer contracts and joint venture rights

The customer contracts and joint venture rights were acquired as part of a business combination, namely, the Shell acquisition in 2014, the Shell Aviation acquisition in 2017 and the Liberty Oil Holdings Pty Limited acquisition in 2019. These intangible assets were recognised at their fair value at the date of acquisition and are subsequently amortised on a straight-line basis based on the timing of projected cash flows of the contracts over their estimated useful lives.

(iii) Other

On 27 February 2019, the Company announced the extension of the Alliance agreement with Coles Express through to 2029 under revised terms to create greater alignment between both parties and position the agreement for future growth. Under the revised terms, the Group paid Coles Express a one-off payment of $137.0 million to assume responsibility from 1 March 2019 for the provision of the fuel offering, including retail fuel pricing and marketing across the Alliance network. The Group has assessed the accounting treatment of this transaction under the reacquired rights guidance of the Australian Accounting Standards, and this has been recognised as an intangible asset to be amortised over the remaining life of the Alliance agreement.

17. Provisions

	Employee benefits $M	Restructuring provision $M	Asset retirement obligation $M	Environmental remediation $M	Other $M	Total $M
At 1 January 2020	73.8	0.9	94.4	40.1	14.3	223.5
Additions/(write-back)	28.6	2.0	0.6	6.1	-	37.3
Provisions acquired	0.3	0.2	0.2	-	0.1	0.8
Utilised	(31.2)	(2.3)	(1.9)	(6.9)	(1.7)	(44.0)
Unwinding	1.2	-	1.9	0.5	-	3.6
Change of discount	-	-	4.5	0.3	-	4.8
At 31 December 2020	72.7	0.8	99.7	40.1	12.7	226.0
Current	70.5	0.8	7.3	33.3	10.1	122.0
Non-current	2.2	-	92.4	6.8	2.6	104.0

	Employee benefits $M	Restructuring provision $M	Asset retirement obligation $M	Environmental remediation $M	Other $M	Total $M
At 1 January 2019	73.4	2.5	90.7	41.0	89.7	297.3
Additions/(write-back)	30.7	3.5	(9.5)	7.5	(69.7)	(37.5)
Provisions acquired	3.8	-	8.7	-	-	12.5
Utilised	(35.8)	(5.1)	(1.4)	(9.9)	(5.6)	(57.8)
Unwinding	1.7	-	5.9	1.5	(0.1)	9.0
Change of discount	-	-	-	-	-	-
At 31 December 2019	73.8	0.9	94.4	40.1	14.3	223.5
Current	71.9	0.9	9.1	34.1	11.8	127.8
Non-current	1.9	-	85.3	6.0	2.5	95.7

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. Provisions are discounted using a current pre-tax rate that reflects, when appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

(a) Employee benefits

Liabilities for wages and salaries, including annual leave and long service leave expected to be settled within 12 months of the end of the year, are measured at the amounts expected to be paid. These obligations are presented as current liabilities in the consolidated statement of financial position.

Liabilities for long service leave and annual leave that are not expected to be settled within 12 months of the end of the year are measured at present value. In determining present value, consideration is given to the expected future wage and salary levels, expectations of employee departures and periods of service. Expected future payments are adjusted for future wage and inflation movement expectations, and discounted using market yields of corporate bonds. As required by accounting standards, these obligations are presented as current liabilities in the consolidated statement of financial position if the Group does not have an unconditional right to defer settlement for at least 12 months after the reporting period, regardless of when the actual settlement is expected to occur. However, based on past experience, the Group does not expect the full $71.9 million current employee benefits liability to be taken or paid out within the next 12 months. The following amounts reflect current leave obligations that are not expected to be taken or paid in the next 12 months.

	2020 $M	2019 $M
Current employee benefits liability expected to settle after 12 months	51.5	49.9

(b) Asset retirement obligation – significant estimate

The present value of costs for the future dismantling and removal of assets, and restoration of the site on which the assets are located, is capitalised and depreciated over the useful life of the asset. Subsequent accretion to the amount of a provision due to unwinding of discounting is recognised as a finance cost.

The costs for the future dismantling and removal of assets is based upon management's best estimate using actual costs incurred in similar past projects inflated to the estimated end of useful life date and discounted using an appropriate discount rate.

The Group has recognised a provision associated with plant and equipment including tanks at retail service station sites and fuel storage terminals. In determining the provision, assumptions and estimates are made in relation to discount rates, the expected cost to dismantle and remove the assets from the site and the expected timing of those costs. The carrying amount of the provision as at 31 December 2020 was $99.7 million (2019: $94.4 million). The Group estimates that the costs would be incurred upon lease expiry and subsequent exit of the relevant site.

As disclosed in Note 13 *Leases*, the Group's rental contracts are typically for two to 15 years, but may have extension options.

(c) Environmental provision – significant estimate

Provisions for environmental remediation resulting from ongoing or past operations or events are recognised in the period in which an obligation, legal or constructive, to a third party arises and the amount can be reasonably measured. Measurement of liabilities is based on current legal requirements and existing technology.

Where environmental impact studies have been completed, the result of this is used to estimate cost. In other cases, estimates are based on management experience of remediation at similar sites. The environmental remediation work provided for is expected to be undertaken within the next three years.

(d) Other provisions

Other provisions include costs associated with the removal of contents and cleaning of tanks in preparation for demolition, and provisions against legal claims. In 2019, the movement through other provisions included an adjustment of $66.4 million relating to the adoption of AASB 16 *Leases*.

Long-term assets and liabilities continued

18. Commitments and contingencies

(a) Capital commitments

At 31 December 2020, the Group had capital expenditure contracted at the reporting date but not recognised as liabilities related to property, plant and equipment totalling $25.0 million (2019: $44.0 million). There are no capital commitments from associate companies at the end of the period, therefore the included amount from associates in the Group's overall amount is nil (2019: $13.9 million).

(b) Guarantees

As at 31 December 2020, guarantees amounting to $48.2 million (2019: $55.7 million) have been given in respect of the Group's share of workers compensation, surety for major contracts and other matters including government works.

Under the terms of the Deed of Cross Guarantee entered in accordance with ASIC Instrument 2016/785, each Australian Group entity guarantees to each creditor payment in full of any debt in accordance with the Deed. Parties to the deed are identified in Note 32 *Deed of cross guarantee*. No liabilities have been recognised in the consolidated statement of financial position in respect of financial guarantee contracts.

(c) Contingencies and other disclosures

Stamp duty – Viva Energy REIT

On 24 September 2018, Viva Energy REIT (now called Waypoint REIT) received an assessment from the Victorian State Revenue Office ('SRO') for $31.2 million. The assessment relates to the transfer of properties prior to the completion of the Viva Energy REIT IPO in August 2016. Pursuant to the arrangements between Viva Energy REIT and the Group at the time, which were disclosed in the Prospectus, any such costs are payable by the Group.

The Group lodged an objection to the assessment on 2 November 2018 considering that there was a strong prospect of having the assessment set aside. The SRO advised in a letter dated 22 November 2018 that it will not take recovery action while the objection and any appeal process are continuing.

On 12 May 2020 the Group received a determination from the SRO disallowing the objection. It was concluded that there was no new analysis raised in the determination that altered the position previously taken by the Group and, as a result, the Group advised the SRO that it was appealing the matter. The SRO referred the matter to the Supreme Court on 30 July 2020 and a directions hearing will be held by the Court on 19 March 2021, which will direct next steps in resolution of the matter.

Under an agreement with the SRO pending resolution of the matter, $7.5 million (representing approximately 25% of the duty assessed) was paid to the SRO on 27 November 2020. In line with the view that there is a strong prospect of having the assessment set aside, the $7.5 million is recognised as a prepayment.

Management continues to consider it not probable that the Group has a present obligation in relation to the assessment as at 31 December 2020, and as a result has not recorded a provision in the statement of financial position. As at 31 December 2020, the Group has contingent liabilities of $50.6 million (2019: $40.5 million), which includes the above stamp duty amount of $31.2 million.

Capital funding and financial risk management

For the purpose of the Group's capital management, capital includes issued capital and all other equity reserves. The primary objective of the Group's capital management is to maximise the shareholder value.

The Group manages its capital structure and makes adjustments in light of changes in economic conditions and the requirements of the financial covenants. To maintain or adjust the capital structure, the Group may adjust the dividend payment to shareholders, return capital to shareholders or issue new shares.

In order to achieve this overall objective, the Group's capital management, amongst other things, aims to ensure that it meets financial covenants attached to the interest-bearing loans and borrowings that define capital structure requirements. Under the terms of the major borrowing facilities, the Group is required to comply with the following financial covenants:

- the interest cover ratio must not be less than 3.0x;
- the liquidity ratio must not exceed 0.60; and
- the leverage ratio must not be more than 2.0x.

Breaches in meeting the financial covenants would permit the bank to immediately call loans and borrowings. There have been no breaches of the financial covenants of any interest-bearing loans and borrowing in the current period.

No changes were made in the objectives, policies or processes for managing capital during the years ended 31 December 2020 and 2019.

19. Financial assets and liabilities

This table provides a summary of the Group's financial instruments, how they are classified and measured, and reference to relevant disclosure notes within the financial statements.

The Group holds the following financial instruments at the end of the reporting period:

	Notes	2020 $M	2019 $M
Financial assets			
Financial assets held at amortised cost			
Trade and other receivables	8	**794.1**	1,247.8
Long-term receivables	14	**33.6**	38.4
Cash and cash equivalents	6	**49.1**	127.2
Financial assets at fair value through profit and loss			
Derivative assets	20	**-**	0.2
		876.8	1,413.6
Financial liabilities			
Financial liabilities held at amortised cost			
Trade and other payables	10	**1,329.6**	2,165.5
Short-term borrowings	11	**-**	7.7
Long-term borrowings	21	**153.3**	256.9
Lease liabilities	13, 22	**2,534.3**	2,448.3
Long-term payables	15	**94.3**	93.2
Financial liabilities at fair value through profit and loss			
Derivative liabilities	20	**19.4**	19.0
		4,130.9	4,990.6

Capital funding and financial risk management continued

19. Financial assets and liabilities continued

Financial assets

(a) Initial recognition and subsequent measurement

The Group classifies its financial assets in the following measurement categories:

- those to be measured at amortised cost; and
- those to be measured subsequently at fair value (either through other comprehensive income or through profit or loss).

The classification of financial assets at initial recognition depends on the financial assets' contractual cash flow characteristics and business model the Group uses to manage them. At initial recognition, the Group measures a financial asset at its fair value plus, in the case of a financial asset not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of the financial asset. Transaction costs of financial assets carried at fair value through profit or loss are expensed in the consolidated statement of profit or loss.

In order for a financial asset to be classified and measured at amortised cost or fair value through other comprehensive income (OCI), it needs to give rise to cash flows that are 'solely payments of principal and interest (SPPI)' on the principal amount outstanding. This assessment is referred to as the SPPI test and is performed at an instrument level.

Subsequent measurement of financial assets depends on the Group's business model for managing the asset and its associated cash flow characteristics. The Group's three measurement categories are as follows:

(i) Amortised cost

This category is the most relevant to the Group. Financial assets are measured at amortised cost if the asset is held within a business model to collect contractual cash flows where those cash flows represent solely payments of principal and interest. Financial assets at amortised cost are subsequently measured using the effective interest method and are subject to impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired. The Group's financial assets at amortised cost include trade and other receivables, long-term receivables and cash and cash equivalents.

(ii) Fair value through other comprehensive income (FVOCI)

The Group measures financial assets at FVOCI if the financial asset is held within a business model to collect contractual cash flows and for selling the financial assets, where those cash flows represent solely payments of principal and interest. Movements in the carrying amount are taken through OCI, except for the recognition of impairment gains and losses, interest income and foreign exchange gains and losses, which are recognised in the consolidated statement of profit or loss. Upon derecognition, the cumulative fair value change recognised in OCI is recycled to profit or loss. The Group currently holds no financial assets measured at FVOCI.

(iii) Fair value through profit and loss (FVPL)

Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL and include financial assets held for trading, financial assets designated upon initial recognition at FVPL, or financial assets required to be measured at fair value. Financial assets at FVPL are carried in the statement of financial position at fair value with net changes in fair value recognised in the statement of profit or loss. During the year, derivative assets were the only assets measured at FVPL.

(b) Derecognition

A financial asset is derecognised from the Group's consolidated statement of financial position when the rights to receive cash flows from the asset have expired, or the Group has transferred its rights to receive cash flows from the asset and has transferred substantially all the risks and rewards of the asset and/or control of the asset.

(c) Impairment of financial assets

The Group assesses on a forward-looking basis the expected credit losses associated with its financial assets carried at amortised cost and FVOCI. The impairment methodology applied depends on the determined risk profile of each financial asset and the future expected credit risks relating to the identified asset. For trade receivables, the Group applies a simplified approach to calculating expected credit losses as permitted by AASB 9 *Financial instruments*, recognising a loss allowance based on lifetime expected credit losses at each reporting date. The Group has established a provision matrix that is based on historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment. See Note 8 *Trade and other receivables* for further details.

Financial liabilities

(a) Initial recognition and subsequent measurement

Financial liabilities are classified, at initial recognition, as financial liabilities measured at amortised cost (which for the Group are Trade and other payables, long-term payables, lease liabilities and borrowings) or as financial liabilities at FVPL. All financial liabilities are recognised initially at fair value and, in the case of payables and borrowings, net of directly attributable transaction costs. The subsequent measurement of financial liabilities depends on their classification, as described below:

(i) Amortised cost

This is the category most relevant to the Group and includes trade and other payables, lease liabilities, borrowings and long-term payables. Trade payables and amounts due to related parties are non-interest-bearing and are normally settled in 30 to 60 days. Amounts due to related parties are primarily for purchases of hydrocarbon. Trade and other payables are presented as current liabilities unless payment is not due within 12 months after the end of the reporting period. They are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method. Due to their short-term nature, the carrying amounts of trade and other payables are considered to be the same as their fair values. Trade and other payables, lease liabilities, borrowings and long-term payables are initially recognised at fair value net of transaction costs incurred, and subsequently measured at amortised cost. Any differences between the proceeds (net of transaction costs) and the redemption amount is recognised in the statement of profit or loss over the period of the liabilities using the effective interest method.

(ii) Fair value through profit and loss (FVPL)

Derivatives are the Group's only financial liabilities that are measured at FVPL. They are classified as held for trading and are entered into by the Group to mitigate exposure to the effects of changes in foreign exchange and commodity price movements. Changes in fair value of any derivative liabilities are recognised immediately in realised/unrealised (loss)/gain on derivatives in the consolidated statement of profit or loss.

(b) Derecognition

A financial liability is derecognised when the obligation under the liability is discharged or cancelled or expires. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as the derecognition of the original liability and the recognition of a new liability. The difference in the respective carrying amounts is recognised in the statement of profit or loss.

20. Derivative assets and liabilities

Derivatives are classified as held for trading and accounted for at fair value through profit or loss. The Group has the following derivative financial instruments at the end of the reporting period:

	2020 $M	2019 $M
Derivative assets	-	0.2
Derivative liabilities	(19.4)	(19.0)

The Group has determined the fair value, which is classified as Level 2 in the fair value hierarchy, using the present value of estimated future settlements based on market quoted information.

Gains or losses arising from changes in the fair value of financial assets at fair value through profit or loss category are presented in the consolidated statement of profit or loss within other income or other expenses in the period in which they arise. Interest income from these financial assets are recognised in the consolidated statement of profit or loss.

21. Long-term borrowings

	2020 $M	2019 $M
Long-term bank loans	155.0	260.0
Net capitalised borrowing costs on long-term bank loans	(1.7)	(3.1)
Total non-current borrowings	153.3	256.9

The Group currently has a US$700 million syndicated revolving credit facility, expiring on 28 March 2022 with a one-year extension option. The facility is unsecured with terms and conditions consistent with the previous period.

At the end of the reporting period, the Group had access to the unsecured facility limit amounting to $908.9 million (2019: $999.1 million unsecured) that was in place primarily for working capital purposes. The amount drawn at 31 December 2020 is $155.0 million (2019: $260.0 million). The weighted average interest rate on long-term bank loans in 2020 was 1.47% (2019: 2.29%).

This borrowing facility is subject to covenant arrangements disclosed under Capital funding and financial risk management on page 133.

Capital funding and financial risk management continued

22. Consolidated net debt

	2020 $M	2019 $M
Net debt		
Cash and cash equivalents	49.1	127.2
Borrowings – repayable within one year	-	(7.7)
Borrowings – repayable after one year	(153.3)	(256.9)
Net debt excluding lease liabilities	(104.2)	(137.4)
Lease liabilities – repayable within one year	(135.9)	(128.0)
Lease liabilities – repayable after one year	(2,398.4)	(2,320.3)
Net debt including lease liabilities	(2,638.5)	(2,585.7)

	Other assets	Liabilities from financing activities				
Analysis of changes in consolidated net debt	**Cash/ overdrafts $M**	**Leases due within 1 year $M**	**Leases due after 1 year $M**	**Borrowings due within 1 year $M**	**Borrowings due after 1 year $M**	**Total $M**
Net debt as at 1 January 2019	108.6	(7.2)	(43.6)	-	(108.4)	(50.6)
Recognised on adoption of AASB16 *Leases* (see Note 13)	-	(105.8)	(2,278.9)	-	-	(2,384.7)
Cash flows	18.6	106.2	-	(7.7)	(147.1)	(30.0)
Other non-cash movements	-	(121.2)	2.2	-	(1.4)	(120.4)
Net debt as at 31 December 2019	127.2	(128.0)	(2,320.3)	(7.7)	(256.9)	(2,585.7)
Balances acquired on acquisition (see Note 29)	(1.0)	(3.7)	(81.6)	(2.2)	-	(88.5)
Cash flows	(77.1)	124.8	-	9.9	105.0	162.6
Other non-cash movements		(129.0)	3.5	-	(1.4)	(126.9)
Net debt as at 31 December 2020	49.1	(135.9)	(2,398.4)	-	(153.3)	(2,638.5)

23. Contributed equity and reserves

(a) Contributed equity

Ordinary shares are classified as equity. These shares entitle the holder to participate in dividends, and to share in the proceeds of winding up the Group in proportion to the number of, and amounts paid, on the shares held.

	2020 $M	2019 $M
Issued and paid up capital	4,373.9	4,861.3
Cost per share	$2.720	$2.500

Movements in ordinary share capital	**Shares**	**$M**
At 1 January 2019	1,944,535,168	4,861.3
At 31 December 2019	1,944,535,168	4,861.3
At 1 January 2020	1,944,535,168	4,861.3
Buy back of shares, net of tax	(27,397,847)	(72.3)
Capital return to shareholders	-	(415.1)
Share consolidation	(309,498,674)	-
At 31 December 2020	1,607,638,647	4,373.9

Share buy-back

During the period the Company purchased, and subsequently cancelled, 27,397,847 ordinary shares on market as part of the Company's buy-back program announced in February 2020. The cancellation of the shares has been treated as a reduction in share capital ($72.3 million as per above table), with the difference between the par value of the purchased shares and the buy-back price being recorded against the Company's capital redemption reserve ($22.0 million). The total value of the share buy-back during the period was $50.3 million.

Share consolidation

Following the divestment of the investment in Waypoint REIT on 21 February 2020, the Group's capital management initiatives included a capital return to shareholders of $415.1 million and a special dividend of $114.9 million. A share consolidation was then undertaken commensurate with the overall return to shareholders, reducing the number of ordinary shares by 309,498,674.

(b) Treasury shares

Treasury shares are shares in Viva Energy Group Limited that are held by the Viva Energy Employee Share Plan Trust for the purpose of issuing shares under various share-based incentives plans. Shares issued to employees are recognised on the first-in-first-out basis.

Movements in treasury shares	Shares	$M
At 1 January 2019	35,694	0.1
Acquisition of treasury shares (average price: $2.23 per share)	15,142,432	34.1
Transfer of shares to employees – options exercised	(7,882,734)	(20.0)
Transfer of shares to employees – employee share plan	(13,861)	-
At 31 December 2019	7,281,531	14.2
At 1 January 2020	**7,281,531**	**14.2**
Acquisition of treasury shares (average price: $1.43 per share)	**6,545,012**	**9.3**
Transfer of shares to employees – options exercised	**(7,113,691)**	**(14.2)**
Transfer of shares to employees – employee share plan	**(1,013,192)**	**(1.5)**
Capital return to shareholders	**-**	**(1.0)**
Share consolidation	**(792,000)**	**-**
At 31 December 2020	**4,907,660**	**6.8**

Capital funding and financial risk management continued

23. Contributed equity and reserves continued

(c) Reserves

The following table shows a breakdown of the reserve balances and the movements in these reserves during the year.

	Post-employment benefits reserve $M	Share-based payment reserve $M	IPO reserve $M	Cash flow hedge reserve $M	Capital Redemption Reserve $M	Total $M
At 1 January 2019	7.3	3.1	(4,235.2)	(1.6)	-	(4,226.4)
Share-based payment expenses	-	2.3	-	-	-	2.3
Contributions from employees	-	7.5	-	-	-	7.5
Issue of shares to employees	-	(20.0)	-	-	-	(20.0)
Movement in IPO reserve	-	-	(3.5)	-	-	(3.5)
Remeasurement of retirement benefit obligations	(1.7)	-	-	-	-	(1.7)
Unrealised (losses)/gains on cash flow hedges recognised by Viva Energy REIT	-	-	-	(4.7)	-	(4.7)
At 31 December 2019	5.6	(7.1)	(4,238.7)	(6.3)	-	(4,246.5)
						-
Share-based payment expenses, net of tax	-	11.0	-	-	-	11.0
Contributions from employees	-	6.5	-	-	-	6.5
Issue of shares to employees	-	(14.2)	-	-	-	(14.2)
Movement in IPO reserve	-	-	1.0	-	-	1.0
Remeasurement of retirement benefit obligations	(2.4)	-	-	-	-	(2.4)
Other comprehensive income recycled on sale of investment	-	-	-	6.3	-	6.3
Share buy-back	-	-	-	-	22.0	22.0
Capital return	-	-	-	-	(0.3)	(0.3)
At 31 December 2020	3.2	(3.8)	(4,237.7)	-	21.7	(4,216.6)

Capital Redemption Reserve

Shares purchased under the buy-back program result in a reduction in equity, with the impact to the Capital Redemption Reserve being the difference between the total amounts paid to buy back each share and the initial cost per share of $2.50. In line with accounting standard requirements, the costs associated with the share buy-back program, such as broker commission and legal fees, are also captured in the Capital redemption reserve.

24. Dividends declared and paid

Dividends determined and paid during the year	2020 $M	2019 $M
Fully franked dividend relating to the prior period	50.6	93.3
Interim fully franked dividend	15.5	40.9
Special dividend	114.9	-
Dividends determined and paid during the year	181.0	134.2

The Company paid a dividend of $50.6 million – 2.6 cents per share to shareholders on 15 April 2020 (2019 $93.3 million – 4.8 cents per share). This fully franked dividend was in relation to the six month period ended 31 December 2019.

In addition, the Company paid an interim dividend of $15.5 million – 0.8 cents per fully paid ordinary share (2019 –2.1 cents). This fully franked dividend was in relation to the six month period ended 30 June 2020.

On 13 October 2020, the Company returned $530.0 million to shareholders at $0.2740 per share. The return comprised a capital return of $415.1 million, at $0.2146 per share, and an unfranked special dividend of $114.9 million, at $0.0594 per share, as determined by the Board.

Included in the $181.0 million of dividends determined and paid during the year was $0.5 million in dividends relating to treasury shares on hand during the year. The net impact of the total dividends on retained earnings amounted to $180.5 million.

No final dividend will be paid in relation to the year ended 31 December 2020.

Dividend franking account

The balance of the franking account of the Australian consolidated tax group, headed by Viva Energy Group Limited, is $0.9 million at 31 December 2020 (2019: $44.8 million) based on a tax rate of 30%.

25. Fair value of financial assets and liabilities

The Group's accounting policies and disclosures may require the measurement of fair values for both financial and non-financial assets and liabilities. The Group has an established framework for fair value measurement. When measuring the fair value of an asset or a liability, the Group uses market observable data where available.

Fair values are categorised into different levels in a fair value hierarchy based on the following valuation techniques:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

If the inputs used to measure the fair value of an asset or a liability are categorised in different levels of the fair value hierarchy, then the fair value measurement is categorised in its entirety in the same level of the fair value hierarchy as the lowest level input that is significant to the entire measurement.

(a) Fair value measurement hierarchy for the Group

	Quoted in active markets (Level 1) $M	Significant observable inputs (Level 2) $M	Significant unobservable inputs (Level 3) $M
31 December 2020			
Derivative assets	-	-	-
Derivative liabilities	-	(19.4)	-
Total at 31 December 2020	-	(19.4)	-
31 December 2019			
Derivative assets	-	0.2	-
Derivative liabilities	-	(19.0)	-
Total at 31 December 2019	-	(18.8)	-

There were no transfers between levels during the 2020 and 2019 years.

(b) Estimation of fair values

Derivative assets and liabilities

The Group enters into derivative financial instruments with financial institutions with investment grade credit ratings. Foreign exchange forward contracts and commodity forward contracts are valued using valuation techniques, which employ the use of market observable inputs. As at 31 December 2020, the marked-to-market value of derivative asset positions is net of a credit valuation adjustment attributable to derivative counterparty default risk.

Capital funding and financial risk management continued

26. Financial risk management

The Group's principal financial liabilities, other than derivatives, comprise current and non-current borrowings and trade and other payables. The main purpose of these financial liabilities is to finance the Group's operations. The Group's principal financial assets include loans, trade and other receivables, and cash and cash equivalents that were derived directly from its operations. The Group also holds financial assets and enters into derivative transactions.

Exposure to foreign currency risk, interest rate risk, liquidity risk, commodity price risk and credit risk arises in the normal course of the Group's business. The Group's overall financial risk management strategy is to seek to ensure that the Group is able to fund its corporate objectives and meet its obligations to stakeholders. Derivative financial instruments may be used to hedge exposure to fluctuations, especially movements in foreign exchange rates.

Financial risk management is carried out by Group Treasury, while risk management activities in respect to customer credit risk are carried out by the Finance and Credit teams. The Group Treasury, Finance and Credit teams operate under policies approved by the Board. The teams identify, evaluate and monitor the financial risks in close co-operation with the Group's operating units.

(a) Foreign exchange risk

Foreign currency risk is the risk that the fair value or future cash flows of an exposure will fluctuate because of changes in foreign exchange rates. The Group is exposed to movements in foreign exchange rates in the normal course of its business primarily due to the fact that it purchases product and crude in United States Dollars ('USD') and sells in Australian Dollars ('AUD'). Any specific foreign exchange exposure that relates to borrowings is managed separately and subject to separate Board approvals.

The objective of the Group's foreign exchange program is to minimise the effect of a fluctuation in foreign exchange rates on Group earnings and its cash flows. Transactions which could be regarded as speculative are not permitted. The program of foreign exchange risk management identifies, measures, takes actions to mitigate this risk, and reports the performance of the program in a controlled and non-speculative manner. The focus is on cash flow exposures rather than just profit and loss.

The Group manages foreign currency risk by using foreign currency forward contracts to offset foreign exchange exposures. At 31 December 2020 and 2019, the Group hedged 100% of its net USD payables and this is actively managed on a daily basis through a hedge program. As at 31 December 2020, the total fair value of all outstanding foreign currency exchange forwards amounted to a $19.4 million net liability (2019: $18.8 million net liability).

The Group's exposure to foreign exchange rates for classes of financial assets and liabilities, including sensitivities to pre-tax profit of the Group, if the AUD strengthened/weakened by 10% against the USD with all other variables held constant, is set out below. The foreign exchange program outlined is undertaken to mitigate this risk.

	2020 $M	2019 $M
USD denominated trade receivables (in AUD)	122.3	138.6
USD denominated trade payables (in AUD)	(1,070.5)	(1,661.6)
Net exposure	(948.2)	(1,523.0)
Effect in pre-tax profit		
AUD strengthens against USD by 10%	94.8	152.3
AUD weakens against USD by 10%	(94.8)	(152.3)

The Group has minimal exposure to other currencies (Euro, British Pound, Singapore Dollar and Papua New Guinea kina), with total payable balances denominated in other currencies of $0.8 million at 31 December 2020 (2019: $0.7 million).

(b) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The Group's exposure to the risk of changes in market interest rates relates primarily to the Group's syndicated bank loan with floating interest rates.

The Group's exposure to interest rate risk for classes of financial assets and liabilities, including sensitivities to pre-tax profit of the Group, if interest rates had changed by -/+1% from the year end rates, with all other variables held constant, is set out as follows:

	2020 $M	2019 $M
Financial assets		
Cash and cash equivalents	**49.1**	127.2
Loan to related party	**30.7**	38.9
Total financial assets	**79.8**	**166.1**
Financial liabilities		
Short-term bank loans	**-**	7.7
Long-term bank loans	**153.3**	256.9
Total financial liabilities	**153.3**	**264.6**
Net exposure	**(73.5)**	**(98.5)**
Interest rates increase by 1%	**(0.7)**	(1.0)
Interest rates decrease by 1%	**0.7**	1.0

(c) Liquidity risk

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. Due to the dynamic nature of the underlying business, the liquidity risk policy requires maintaining sufficient cash and an adequate amount of committed credit facilities to be held above the forecast requirements of the business.

The Group manages liquidity risk centrally by monitoring cash flow forecasts, maintaining adequate cash on hand and debt facilities. The debt portfolio is periodically reviewed to ensure there is funding flexibility across an appropriate maturity profile. The table below summarises the maturity profile of the Group's financial liabilities based on contractual undiscounted payments:

Capital funding and financial risk management continued

26. Financial risk management continued

(c) Liquidity risk continued

	No more than 1 year $M	More than 1 year but no more than 5 years $M	More than 5 years $M	Total $M
31 December 2020				
Trade and other payables	1,329.6	-	-	1,329.6
Short-term bank loans	-	-	-	-
Long-term payables	-	-	114.2	114.2
Long-term bank loans	-	155.0	-	155.0
Derivative liabilities	19.4	-	-	19.4
Lease liabilities	302.9	1,230.0	2,327.7	3,860.6
Total at 31 December 2020	1,651.9	1,385.0	2,441.9	5,478.8
31 December 2019				
Trade and other payables	2,165.5	-	-	2,165.5
Short-term bank loans	7.7	-	-	7.7
Long-term payables	-	1.4	114.2	115.6
Long-term bank loans	-	260.0	-	260.0
Derivative liabilities	19.0	-	-	19.0
Lease liabilities	284.2	1,136.5	2,403.2	3,823.9
Total at 31 December 2019	2,476.4	1,397.9	2,517.4	6,391.7

The financial liabilities due within the next 12 month period amount to $1,651.9 million (2019: $2,476.4 million). The Group has current assets of $1,593.5 million (2019: $2,629.6 million) and a net current liability position of $13.4 million (2019: $181.6 million net current asset position). The Group has access to undrawn credit facilities of $753.9 million, in place primarily for working capital purposes, and is in a position to meet its financial liability obligations as and when they fall due.

(d) Commodity price risk

The Group is exposed to the effect of changes in commodity price (i.e. oil and refined product prices) in its normal course of business.

The objective of the Group's commodity price strategy is to reduce earnings volatility as a result of movements in oil and refined product prices. The Group achieves this by:

- monitoring hydrocarbon volumes priced in and out on a monthly basis and hedging up to 100% of the net exposure; and
- monitoring expected refining margins and hedging constituent components to protect refining income, hedging up to 100% of net refinery exposure.

The Group manages commodity price exposure through the purchase or sale of swap contracts up to 36 months forward. No commodity price hedges were outstanding at 31 December 2020 and 2019.

Commodity price sensitivity analysis

The Group's exposure to commodity prices risk including sensitivities to pre-tax profit if commodity prices had changed by -/+10% from the year end prices, with all other variables held constant, is set out as follows:

	2020 $M	2019 $M
Commodity prices decrease by 10%	**3.7**	4.5
Commodity prices increase by 10%	**(3.4)**	(4.1)

(e) Credit risk

Credit risk is the risk that a counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Group is exposed to credit risk from its operating activities (primarily trade receivables) and from its financing activities, including deposits with banks and financial institutions and other financial instruments.

Customer credit risk

The Group manages credit risk and the losses which could arise from default by ensuring that parties to contractual arrangements are of an appropriate credit rating, or do not show a history of defaults.

The Group applies the AASB 9 *Financial instruments* simplified approach to measuring trade receivable expected credit losses, which uses a lifetime expected loss allowance for expected credit losses for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates are based on the payment profiles of sales over past periods using historical data and also using forward-looking projections of customer payment expectations. Trade receivables are often insured for events of non-payment, through third party insurance, which has also been factored into the expected loss rate calculations. Generally, trade receivables are written off if past due for more than one year and are not subject to enforcement activity.

The aging profile of the receivable balance and expected credit loss rates are detailed in Note 8 *Trade and other receivables*.

Financial institution credit risk

Financial assets such as cash at bank and forward contracts are held with high credit quality financial institutions.

Maximum exposure to credit risk

The Group's maximum credit risk exposure at balance date in relation to each class of recognised financial assets, other than equity and derivative financial instruments, is the carrying amount of those assets as indicated in the consolidated statement of financial position.

Taxation

27. Income tax and deferred tax

(a) Reconciliation of income tax expense at Australian standard tax rate to actual income tax expense

	2020 $M	2019 $M
Accounting (loss)/profit before income tax expense	(186.5)	158.2
Tax at the Australian tax rate of 30%	56.0	(47.5)
Non-deductible transaction costs	(4.4)	(4.9)
Research and development expenditure	(0.2)	(0.3)
Sundry items	0.7	(1.1)
Adjustment relating to prior periods	0.6	8.2
Reversal of deferred tax liability on sale of REIT	112.3	-
Capital gains adjustment on sale of REIT	(12.7)	-
Non-refundable carry forward tax offsets	0.2	0.7
Step acquisition of Westside Petroleum	(2.2)	-
Income tax (expense)/benefit for the period	**150.3**	**(44.9)**

(b) Income tax benefit/(expense)

	2020 $M	2019 $M
Current tax benefit/(expense)	2.2	(68.6)
Deferred tax (expense)/benefit	160.2	15.5
Capital gains adjustment on sale of REIT	(12.7)	-
Adjustment relating to prior periods	0.6	8.2
Income tax benefit/(expense) reported in the consolidated statement of profit or loss	**150.3**	**(44.9)**
Deferred income tax benefit included in income tax benefit/(expense) comprises:		
Increase in deferred tax assets	54.8	738.8
Decrease/(increase) in deferred tax liabilities	105.4	(723.3)
Adjustment in deferred tax relating to prior periods	2.4	17.1
	162.6	32.6
Tax relating to items recognised in other comprehensive income or directly in equity rather than through the statement of profit or loss		
Deferred tax related to items recognised in other comprehensive income during the period:		
Remeasurement of defined benefit obligations	1.1	(0.7)
Unrealised losses on cash flow hedges recognised by Viva Energy REIT	-	2.0
Deferred tax related to items recognised directly to equity during the period:		
Transaction costs recognised in equity	(3.9)	(4.5)
	159.8	29.4

Total tax benefit associated with the sale for the Viva Energy REIT investment is $65.4 million being: tax expense of $34.2 million (30% tax on accounting profit) plus $12.7 million capital gains tax adjustment, offset by the reversal of the associated deferred tax liability of $112.3 million.

(c) Deferred tax

	2020 $M	2019 $M
Deferred tax assets		
The balance comprises combined temporary differences attributable to:		
Property, plant and equipment	**100.6**	123.0
Lease liabilities	**760.3**	722.4
Inventories	**81.0**	108.4
Asset retirement obligation	**27.7**	28.4
Employee benefits	**24.0**	22.4
Derivative contracts	**3.3**	0.4
Tax losses carried forward	**70.8**	-
Other	**7.5**	15.8
Total deferred tax assets	**1,075.2**	**1,020.8**
Deferred tax liabilities		
The balance comprises combined temporary differences attributable to:		
Right-of-use assets	**(699.0)**	(690.5)
Intangible assets	**(52.3)**	(53.5)
Financial assets and investments	**1.9**	(110.8)
Total deferred tax liabilities	**(749.4)**	**(854.8)**
Net deferred tax assets	**325.8**	**166.0**
Net deferred tax balances expected to be realised within 12 months	**66.3**	38.6
Net deferred tax balances expected to be realised after more than 12 months	**259.5**	127.4
	325.8	**166.0**

Taxation continued

27. Income tax and deferred tax continued

(d) Movements in deferred tax assets

2019 movements	Property, plant and equipment $M	Lease liabilities $M	Inventories $M	Asset retirement obligations $M	Employee benefits $M	Derivative contracts $M	Other $M	Total $M
Balance at 1 January 2019	128.9	-	66.6	27.0	20.3	(2.5)	43.9	284.2
(Charged)/credited:								
Acquired in business combination	0.3	-	-	2.6	1.2	-	1.5	5.6
Initial recognition of AASB 16 *Leases*	-	749.7	-	-	-	-	(4.9)	744.8
To profit or loss	(6.2)	(27.3)	41.8	(1.2)	1.6	2.9	(20.1)	(8.5)
Directly to equity	-	-	-	-	-	-	(4.6)	(4.6)
Other comprehensive income	-	-	-	-	(0.7)	-	-	(0.7)
Balance at 31 December 2019	123.0	722.4	108.4	28.4	22.4	0.4	15.8	1,020.8

2020 movements	Property, plant and equipment $M	Lease liabilities $M	Inventories $M	Asset retirement obligations $M	Employee benefits $M	Derivative contracts $M	Tax losses carried forward $M	Other $M	Total $M
Balance at 1 January 2020	123.0	722.4	108.4	28.4	22.4	0.4	-	15.8	1,020.8
(Charged)/credited:									
Acquired in business combination	-	25.5	-	0.1	0.1	-	-	0.2	25.9
To profit or loss	(22.4)	12.4	(27.4)	(0.8)	0.4	2.9	-	(4.6)	(39.5)
Directly to equity	-	-	-	-	-	-	-	(3.9)	(3.9)
Other comprehensive income	-	-	-	-	1.1	-	-	-	1.1
Current year tax loss and carried forward tax credits/offsets	-	-	-	-	-	-	70.8	-	70.8
Balance at 31 December 2020	100.6	760.3	81.0	27.7	24.0	3.3	70.8	7.5	1,075.2

(e) Movements in deferred tax liabilities

2019 movements	Right-of-use assets $M	Intangible assets $M	Financial assets and investments $M	Total $M
Balance at 1 January 2019	-	(50.0)	(97.6)	(147.6)
(Charged)/credited:				
Acquired in business combination	-	(4.5)	-	(4.5)
Initial recognition of AASB 16 *Leases*	(744.8)	-	-	(744.8)
To profit and loss	54.3	1.0	(15.2)	40.1
Other comprehensive income	-	-	2.0	2.0
Balance at 31 December 2019	(690.5)	(53.5)	(110.8)	(854.8)

2020 movements	Right-of-use assets $M	Intangible assets $M	Financial assets and investments $M	Total $M
Balance at 1 January 2020	(690.5)	(53.5)	(110.8)	(854.8)
(Charged)/credited:				
Acquired in business combination	(25.6)	-	-	(25.6)
To profit and loss	17.1	1.2	0.4	18.7
Disposal of REIT investment	-	-	112.3	112.3
Balance at 31 December 2020	(699.0)	(52.3)	1.9	(749.4)

The income tax expense for the year is the tax benefit on the current year's taxable loss based on the income tax rate adjusted by changes in deferred tax assets and liabilities attributable to temporary differences and unrecognised deferred tax assets, or liabilities such as unused tax losses.

Current income tax expense is calculated on the basis of the tax laws enacted or substantively enacted at the end of the reporting period. Management evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation.

Deferred income tax is recognised on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred income tax is not accounted for if it arises from initial recognition of goodwill, or of an asset or liability in a transaction, other than a business combination that at the time of the transaction affects neither accounting nor taxable profit (or loss). Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by the end of the reporting period and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred tax assets are recognised for deductible temporary differences and unused tax losses only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

Tax assets and liabilities are offset when there is a legally enforceable right to offset.

Current and deferred tax is recognised in profit or loss, except to the extent that it relates to items recognised in other comprehensive income or directly in equity. In this case, the tax is also recognised in other comprehensive income or directly in equity, respectively.

Tax consolidation

The Company and its wholly-owned Australian controlled entities have elected to form an income tax consolidated group (TCG).

In addition to its own current and deferred tax amounts, the Company also recognises the current income tax liabilities (or assets) and the deferred tax assets arising from unused tax losses and unused tax credits assumed from controlled entities in the TCG.

The entities in the TCG have entered into a tax funding agreement under which the wholly-owned entities fully compensate the Company for any current income tax payable assumed and are compensated by the Company for any current income tax receivable and deferred tax assets relating to unused tax losses or unused tax credits that are transferred to the Company under the income tax consolidation legislation.

The funding amounts are determined by reference to the amounts recognised in the wholly-owned entities' financial statements. Assets or liabilities arising under tax funding agreements with the entities in the TCG are recognised as current amounts receivable from or payable to other entities in the Group.

Group structure

28. Group information

(a) Principles of consolidation

The consolidated financial statements comprise the financial statements of the Group and its material subsidiaries as at 31 December 2020. Control is achieved when the Group is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

(b) Controlled entities

The consolidated financial statements of the Group includes the controlled entities listed below:

Name of entity	Country of incorporation/ establishment	Equity holding 2020 %	Equity holding 2019 %
Viva Energy Holding Pty Ltd	Australia	100	100
Viva Energy Australia Group Pty Ltd	Australia	100	100
Viva Energy Australia Pty Ltd	Australia	100	100
Viva Energy Aviation Pty Ltd	Australia	100	100
Viva Energy Gas Pty Ltd	Australia	100	100
Viva Energy Refining Pty Ltd	Australia	100	100
Viva Energy Gas Australia Pty Ltd	Australia	100	-
VER Manager Pty Limited	Australia	100	100
ZIP Airport Services Pty Ltd	Australia	100	100
Viva Energy S.G. Pte Ltd	Singapore	100	100
Pacific Hydrocarbon Solutions Limited	Papua New Guinea	100	100
Liberty Oil Holdings Pty Ltd*	Australia	100	100
Deakin Services Pty Ltd*	Australia	100	100
Liberty Oil Affinity Pty Ltd*	Australia	100	100
Liberty Oil City Leasing Pty Ltd**	Australia	100	100
Liberty Oil Land Pty Ltd*	Australia	100	100
Liberty Oil Property Pty Ltd*	Australia	100	100
Tradeway Services Pty Ltd*	Australia	100	100
Liberty Oil (SA) Pty Ltd*	Australia	100	100
Liberty Oil (WA) Pty Ltd*	Australia	100	100
Liberty Oil Corporation Pty Ltd*	Australia	100	100
Liberty Oil Finance Pty Ltd*	Australia	100	100
Liberty Oil Wholesale (S) Pty Ltd*	Australia	100	100
Liberty Oil Express Pty Ltd*	Australia	100	100
Liberty Oil Australia Pty Ltd*	Australia	100	100
Westside Petroleum Consolidated Holdings Pty Limited**	Australia	100	-
Westside Petroleum Pty Ltd**	Australia	100	-
Westside Petroleum Wholesalers Pty Ltd**	Australia	100	-
Westside Petroleum Holdings Pty Ltd	Australia	100	-
Westside Petroleum BPM Pty Ltd**	Australia	100	-
Westside Petroleum Retail 1 Pty Limited**	Australia	100	-
Westside Petroleum Convenience Stores Pty Ltd**	Australia	100	-
Westside Petroleum CA Fuel Retail Pty Ltd**	Australia	100	-
Westside Petroleum Co Pty Ltd**	Australia	100	-

* Joined the Deed of Cross Guarantee on 13 December 2019. Refer to Note 32 *Deed of cross guarantee* for further detail.

** Joined the Deed of Cross Guarantee on 18 December 2020. Refer to Note 32 *Deed of cross guarantee* for further detail.

All Westside Petroleum companies were acquired on 31 August 2020. Refer to Note 29 *Business combinations* for further detail.

(c) Interests in associates

The Group holds interest in the following investments accounted for using the equity method:

Name of entity	Country of incorporation/ establishment	Equity holding 2020 %	Equity holding 2019 %
LOC Global Pty Ltd	Australia	50	50
Viva Energy REIT[1]	Australia	-	36
Westside Petroleum Pty Limited[2]	Australia	-	50
Fuel Barges Australia Pty Ltd	Australia	50	50

1. On 21 February 2020, the Group sold its 35.5% security holding (276,060,625 stapled securities) in Viva Energy REIT (now called Waypoint REIT) for an average of $2.66 per security by way of a fully underwritten block trade, and a sale to each of Charter Hall Group and the Charter Hall Long Wale REIT. The sale contributed $113.9 million to the Group's pre-tax profit with net cash proceeds of $730.1million after transaction costs. The Group no longer holds any securities in Waypoint REIT.
2. On 31 August 2020, the Group acquired the remaining 50% interest in Westside Petroleum Pty Ltd. Refer to Note 29 *Business combinations* for further detail.

Further details regarding these investments can be found in Note 30 *Interests in associates and joint operations*.

(d) Interests in joint operations

The Group has a 52% interest in W.A.G Pipeline Pty Ltd (2019: 52%), a 50% interest in Crib Point Terminal Pty Ltd (2019: 50%) and a 33% interest in Cairns Airport Refuelling Services Pty Ltd (2019: 33%). These are classified as joint operations under AASB 11 *Joint Arrangements*. Further details regarding these investments can be found in Note 30 *Interests in associates and joint operations*.

29. Business combinations

On 5 March 2020, the Group agreed to acquire the remaining 50% interest in Westside Petroleum Pty Ltd for a nominal purchase price of $1. The acquisition received regulatory approval and was completed on 31 August 2020.

Westside Petroleum is a supplier of bulk fuels and lubricants to customers and distributors operating predominantly in regional areas of New South Wales and Victoria. The business includes a network of 50 service stations carrying Westside Petroleum, Shell, Caltex and Liberty brands.

Details of the purchase consideration, the net assets acquired and goodwill are as follows:

Purchase consideration:

	$M
Settlement of loan facilities	4.3
Working capital funding	0.2
Write off shareholder loan to Westside Petroleum	9.0
Write off pre-acquisition trade receivables from Westside Petroleum	4.9
Total purchase consideration	18.4

Group structure continued

29. Business combinations continued

The acquisition had the following effect on the Group's assets and liabilities:

	Recognised values
Cash and cash equivalents	(1.0)
Trade and other receivables	1.5
Inventories	0.9
Property, plant and equipment	6.0
Finance lease receivables	8.8
Right-of-use assets	76.5
Intangible assets	0.2
Other assets	0.6
Trade and other payables	(4.0)
Provisions	(3.2)
Lease liabilities	(85.3)
Borrowings	(2.2)
Provision for deferred tax	0.4
Net identifiable assets acquired	**(0.8)**
Goodwill on acquisition	19.2
Total purchase consideration	**18.4**

The recognised values represent the fair value of assets recorded on acquisition. The accounting for the acquisition is provisional and will be finalised in the next accounting period. In completing the purchase price allocation, the Group has been required to make judgements relating to the fair value of assets and liabilities, in particular the valuation of certain liabilities.

The $19.2 million of goodwill acquired represents other intangible assets that did not meet the criteria for recognition as separately identifiable assets at the date of acquisition. It will not be deductible for tax purposes. The carrying value of goodwill is allocated to the Marketing and Supply CGU. Refer to Note 16 *Goodwill and other intangible assets*.

Goodwill on acquisition has been provisionally accounted for. If new information regarding the fair values of acquired assets and liabilities is obtained during the measurement period, the goodwill and respective asset and liability balances shall be retrospectively adjusted.

Acquired receivables

The fair value of acquired trade receivables is $1.5 million. The gross contractual amount for trade receivables due is $2.0 million, with a loss allowance of ($0.5) million.

Revenue and profit contribution

Westside Petroleum Pty Ltd contributed revenues of $38.6 million and loss after tax of $1.8 million to the Group from the transaction date to 31 December 2020.

If the acquisition had occurred on 1 January 2020, pro-forma revenue and loss for the year ended 31 December 2020 would have been revenues of approximately $109.7 million and loss after tax of approximately $7.6 million respectively. These amounts have been calculated using Westside Petroleum's results and adjusting them for differences in the accounting policies between the Group and the acquired subsidiaries. During the course of 2020, the Group commenced converting company owned retail sites into dealer owned sites to improve profitability.

Purchase consideration – cash outflow

	2020 $M	2019 $M
Outflow of cash to acquire subsidiary, net of cash acquired		
Cash consideration	-	42.0
Adjustment for debt/(cash) acquired	1.0	(17.2)
Net outflow of cash – investing activities	**1.0**	**24.8**

Acquisition-related costs

Acquisition-related costs of $0.2 million (2019: $2.0 million) are included within general and administration expenses or salaries and wages in the consolidated statement of profit and loss and in operating cash flows in the statement of cash flows.

30. Interests in associates and joint operations

(a) Associates

An associate is an entity over which the Group has significant influence. Significant influence is the power to participate in the financial and operating policy decisions of the investee, but is not control or joint control over those policies. The Group has a non-controlling interest in the following entities which are classified as associates under the current ownership structure in accordance with AASB 128 *Investments in Associates and Joint Ventures*. These investments have been recognised in the consolidated financial statements using the equity method:

	2020 $M	2019 $M
LOC Global Pty Ltd	15.4	15.5
Viva Energy REIT	-	615.9
Westside Petroleum Pty Limited	-	10.4
Fuel Barges Australia Pty Ltd	-	-
Total investments accounted for using the equity method	**15.4**	**641.8**

LOC Global Pty Ltd

LOC Global Pty Ltd ('LOC Global') is a private entity that is based in Melbourne, Australia. The Group holds 50% (2019: 50%) equity holding in LOC Global.

LOC Global had no other contingent liabilities or capital commitments as at 31 December 2020, except as disclosed in Note 18 *Commitments and contingencies*.

Movement of LOC Global investment	2020 $M	2019 $M
Balance at the beginning of the year	15.5	-
Transfer of investment from Liberty Oil Holdings	-	15.5
Share of LOC Global loss	(0.1)	-
	15.4	15.5

Group structure continued

30. Interests in associates and joint operations continued

(a) Associates continued

Viva Energy REIT

On 21 February 2020, the Group sold its 35.5% security holding (276,060,625 stapled securities) in Viva Energy REIT (now called Waypoint REIT) for an average of $2.66 per security by way of a fully underwritten block trade, and a sale to each of Charter Hall Group and the Charter Hall Long Wale REIT. The sale contributed $113.9 million to the Group's pre-tax profit with net cash proceeds of $730.1 million after transaction costs. The Group no longer holds any securities in Waypoint REIT.

Movement of Viva Energy REIT investment	2020 $M	2019 $M
Balance at the beginning of the year	615.9	591.6
Dividends received	(19.8)	(39.2)
Share of Viva Energy REIT profit	13.7	70.3
Share of Viva Energy REIT OCI	-	(6.8)
Disposal of investment	(609.8)	-
Balance at end of year	-	615.9

Westside Petroleum Pty Limited

On 31 August 2020, the Group acquired the remaining 50% interest in Westside Petroleum Pty Ltd. It is no longer classified as an associate and is now fully consolidated into the Group. Refer to Note 29 *Business combinations* for further detail.

Movement of Westside Petroleum investment	2020 $M	2019 $M
Balance at the beginning of the year	10.4	14.9
Share of Westside Petroleum loss	(3.0)	(4.5)
Business combination adjustment	(7.4)	-
Balance at end of year	-	10.4

Total share of profits in associates for the 2020 year amounted to $10.6 million (2019: $60.2 million). The $113.9 million profit from the Waypoint REIT sale and the $7.4 million Westside business combination adjustment are disclosed within net profit on sale of investments in the consolidated statement of profit or loss.

Aggregate summary information of associates

This table below represents the aggregate summary information of associates. It represents the amounts shown in financial statements of the associate companies in accordance with Australian accounting standards.

	2020 $M	2019 $M
Current assets	**72.4**	97.1
Non-current assets	**132.8**	2,715.5
Current liabilities	**(78.5)**	(122.2)
Non-current liabilities	**(115.0)**	(911.9)
Net assets	**11.7**	**1,778.5**
Net assets – Group's share of investment	**5.9**	632.3
Adjustments resulting from the equity accounting method	**9.5**	9.5
Carrying amount of investments accounted for using the equity method	**15.4**	**641.8**
Revenue	**577.3**	2,072.9
Net profit from continuing operations	**0.1**	189.5
Net (loss) from associate acquired during the period	**(5.8)**	(8.5)
Net profit from associate disposed of during the period	**38.4**	-
Other comprehensive income	**(1.6)**	(19.1)
Total comprehensive income	**36.8**	161.9
Distributions received from equity accounted for investments	**19.8**	40.8

(b) Joint operations

Joint operations are those entities whose financial and operating policies the Group has joint control over, and where the Group has rights to the assets and obligations for the liabilities of the entity.

The Group owns a 52% interest in W.A.G Pipeline Pty Ltd, a 50% interest in Crib Point Terminal Pty Ltd and a 33% interest in Cairns Airport Refuelling Services Pty Ltd. The investments are incorporated in Australia with principal operations in Victoria and Cairns, and are classified as joint operations under AASB 11 *Joint Arrangements*, where the Group recognises its direct right to the jointly held assets, liabilities, revenues and expenses and has proportionately consolidated its interests under the appropriate headings in the consolidated financial statements.

The joint operations had no other contingent liabilities or capital commitments as at 31 December 2020 and 2019, except as disclosed in Note 18 *Commitments and contingencies*.

Group structure continued

31. Parent company financial information

The financial information presented below presents that of the parent entity of the Group, Viva Energy Group Limited.

	2020 $M	2019 $M
Statement of financial position		
Non-current assets	**4,852.7**	4,791.8
Current liabilities	**112.6**	4.0
Net assets	**4,740.1**	**4,787.8**
Contributed equity	**4,373.9**	4,861.3
IPO reserve	**(70.3)**	(71.3)
Employee share-based payment reserve	**(3.9)**	(7.1)
Capital redemption reserve	**21.8**	-
Retained earnings	**418.6**	4.9
Total equity	**4,740.1**	**4,787.8**
Results		
Profit of the Company	**594.7**	136.9
Total comprehensive income of the Company	**594.7**	**136.9**

32. Deed of cross guarantee

As at 31 December 2020, the Company (as the Holding Entity) and all the controlled entities listed in Note 28(b) *Group information* (with the exception of Viva Energy S.G. Pte Ltd, Pacific Hydrocarbon Solutions Limited, Viva Energy Gas Australia Pty Ltd and Westside Petroleum Holdings Pty Ltd) are parties to a Deed of Cross Guarantee dated 14 December 2018 ('Deed').

Liberty entities marked with an asterisk (*) in Note 28(b) *Group information* were joined as parties to the Deed by Assumption Deeds dated 13 December 2019, and Westside Petroleum entities marked with a double asterisk (**) joined as parties to the Deed on 18 December 2020.

Under the Deed, each company guarantees the debts of the others to each creditor payment in full of any debt in accordance with the terms of the Deed.

By entering into the Deed, the controlled entities have been relieved from the requirement to prepare a financial report and directors' report under Instrument 2016/785 issued by the Australian Securities and Investments Commission ('Instrument'). The companies referred to above represent a 'Closed Group' for the purposes of the Instrument.

The aggregate assets and liabilities of the companies which are party to the Deed and the aggregate of their results for the period to 31 December 2020 and 2019 are set out below:

	2020 $M	2019 $M
Revenue	**12,408.3**	**16,541.6**
Replacement cost of goods sold	**(6,382.1)**	(10,084.9)
Net inventory loss	**(256.6)**	(49.5)
Sales duties, taxes and commissions	**(4,426.6)**	(4,607.5)
Import freight expenses	**(274.0)**	(333.2)
Historical cost of goods sold	**(11,339.3)**	**(15,075.1)**
Gross profit	**1,069.0**	**1,466.5**
Net gain/(loss) on other disposal of property, plant and equipment	**5.5**	(1.9)
Net profit on sale of investments	**106.4**	1.3
Other income	**24.9**	-
Other income	**136.8**	**(0.6)**
Transportation expenses	**(240.6)**	(258.8)
Salaries and wages	**(265.7)**	(257.7)
General and administration expenses	**(169.5)**	(140.9)
Maintenance expenses	**(91.7)**	(115.4)
Lease related expenses	**(11.8)**	(19.4)
Sales and marketing expenses	**(81.3)**	(105.4)
	-	(1.3)
Results from operations	**345.2**	**567.0**
Interest income	**4.2**	2.8
Share of profit in associates	**10.6**	60.2
Realised/unrealised gain on derivatives	**35.3**	7.9
Net foreign exchanges (loss)/gain	**(23.9)**	37.2
Depreciation and amortisation expenses	**(386.4)**	(355.6)
Finance costs	**(187.0)**	(189.8)
(Loss)/profit before income tax expense	**(202.0)**	**129.7**
Income tax benefit/(expense)	**156.3**	(39.8)
(Loss)/Profit after tax	**(45.7)**	**89.9**

Group structure continued

32. Deed of cross guarantee continued

	2020 $M	2019 $M
ASSETS		
Current assets		
Cash and cash equivalents	**47.4**	126.5
Trade and other receivables	**787.2**	1,203.0
Inventories	**698.4**	1,195.2
Assets classified as held for sale	**2.9**	6.7
Derivative assets	**-**	0.2
Prepayments	**27.2**	20.2
Current tax assets	**30.3**	40.3
	1,593.4	**2,592.1**
Non-current assets		
Long-term receivables	**28.4**	40.6
Property, plant and equipment	**1,465.6**	1,464.2
Right-of-use assets	**2,248.0**	2,328.1
Goodwill and other intangible assets	**646.6**	657.0
Post-employment benefits	**0.2**	6.9
Investments accounted for using the equity method	**15.4**	641.8
Net deferred tax assets	**324.8**	165.9
Other non-current assets	**2.1**	2.1
	4,731.1	**5,306.6**
Total assets	**6,324.5**	**7,898.7**
LIABILITIES AND EQUITY		
Current liabilities		
Trade and other payables	**1,376.8**	2,163.5
Provisions	**121.8**	127.8
Short-term lease liabilities	**132.2**	7.7
Short-term borrowings	**-**	128.0
Derivative liabilities	**19.4**	19.0
	1,650.2	**2,446.0**
Non-current liabilities		
Provisions	**101.3**	95.7
Long-term borrowings	**153.3**	256.9
Long-term lease liabilities	**2,315.4**	2,320.3
Long-term payables	**94.3**	93.2
	2,664.3	**2,766.1**
Total liabilities	**4,314.5**	**5,212.1**
Net assets	**2,010.0**	**2,686.6**
Equity		
Contributed equity	**4,369.7**	4,857.1
Treasury shares	**(6.8)**	(14.2)
Reserves	**(4,216.6)**	(4,246.5)
Retained earnings	**1,863.7**	2,090.2
Total equity	**2,010.0**	**2,686.6**

Other disclosures

33. Post-employment benefits

(a) Superannuation plan

The main provider of superannuation benefits in the Group is the Viva Energy Superannuation Fund ('VESF'). This fund was established on 1 August 2014, and provides a mixture of defined benefits and accumulation style benefits. Currently, the principal type of benefits provided under the VESF (to eligible members) is a lump sum, pension or lump sum and accumulation benefits. Lump sum and pension benefits are based primarily on years of service and the highest average salary of the employee.

The Viva Energy Superannuation Plan ('Plan') is a sub-plan in the Plum Division of the MLC Super Fund, which is operated by NULIS Nominee (Australia) Limited (the Trustee). The Plan is a 'regulated fund' under the provision of the *Superannuation Industry (Supervision) Act 1993*. The Plan is treated as a complying defined benefit superannuation fund for taxation purposes.

The Group's superannuation plan has a defined benefit section and also a defined contribution section. The defined contribution section receives fixed contributions from Group companies and the Group's legal or constructive obligation is limited to these contributions. The defined benefit section was closed to new members in 1998.

(b) Defined benefit superannuation – significant estimate

The liability or asset recognised in the consolidated statement of financial position in respect of defined benefit superannuation section is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method.

An actuarial valuation involves making various assumptions that may differ from actual developments in the future. These include the determination of the discount rate, future salary increases, mortality rates and future pension increases. Due to the complexities involved in the valuation and its long-term nature, a defined benefit obligation is highly sensitive to changes in these assumptions. These complexities expose the Group to a number of risks, including asset value volatility, variations in interest rates, inflation and fluctuations in life expectancy expectations. Recognising this, the Group has moved away from providing defined benefits pensions and the scheme has been closed to new entrants for many years. All assumptions used in the valuation are reviewed at each reporting date.

The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market yields of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms approximating to the terms of the related obligation.

Gains and losses arising from experience adjustments and changes in actuarial assumptions are recognised in the period in which they occur, directly in other comprehensive income. They are included in retained earnings in the consolidated statement of changes in equity and recognised as remeasurement of retirement benefit obligations in the consolidated statement of financial position.

Changes in the present value of the defined benefit obligation resulting from plan amendments or curtailments are recognised immediately in the consolidated statement of profit or loss within salaries and wages as past service costs.

Contributions to the defined contribution section of the Group's superannuation fund and other independent defined contribution superannuation funds are recognised as an expense as they become payable.

The following sets out details in respect of the defined benefit section only.

Amounts recognised in consolidated statement of financial position

	2020 $M	2019 $M
Present value of defined benefit obligation	(93.4)	(98.5)
Fair value of defined benefit plan assets	93.6	105.4
Net defined benefit asset recognised in the consolidated statement of financial position	**0.2**	**6.9**

Other disclosures continued

33. Post-employment benefits continued

(b) Defined benefit superannuation – significant estimate continued

Changes in the defined benefit obligation and fair value of plan assets

	Present value of defined benefit obligation		Fair value of defined benefit plan assets	
	2020 $M	2019 $M	2020 $M	2019 $M
Balance at 1 January	(98.5)	(111.4)	105.4	122.8
Current service cost	(3.9)	(4.6)	-	-
Net interest on the defined benefit (liability)/asset	(1.8)	(3.3)	1.8	3.7
Return on assets less interest income	-	-	(0.1)	4.1
Actuarial (loss) – change in demographic assumptions	(0.1)	(0.4)	-	-
Actuarial (loss) – change in financial assumptions	(2.5)	(6.5)	-	-
Actuarial (loss)/gain – experience adjustments	(0.9)	0.4	-	-
Tax on remeasurement of defined benefit obligation		-	-	-
Benefits paid	14.8	27.9	(14.8)	(27.9)
Employer contributions	-	-	0.8	2.1
Employee contributions	(0.5)	(0.6)	0.5	0.6
Business acquisition	-	-	-	-
Balance at 31 December	(93.4)	(98.5)	93.6	105.4

Amounts recognised in consolidated statement of profit or loss

	2020 $M	2019 $M
Amounts recognised in profit or loss		
Service cost	3.1	3.9
Member contributions	(0.4)	(0.5)
Plan expenses	1.2	1.2
Current service cost	3.9	4.6
Net interest on the new defined benefit liability/(asset)	(0.1)	(0.4)
Components of defined benefit cost recorded in profit or loss	3.8	4.2
Amounts recognised in other comprehensive income		
Remeasurement of the net defined benefit liability:		
Return on assets less interest income	0.1	(4.1)
Actuarial loss – change in demographic assumptions	0.1	0.4
Actuarial loss – change in financial assumptions	2.4	6.5
Actuarial loss/(gain) – experience adjustments	0.9	(0.4)
Tax on remeasurement of defined benefit obligation	(1.1)	(0.7)
Components of defined benefit cost recorded in other comprehensive income	2.4	1.7

The major categories of plan assets of the fair value of the total plan assets are, as follows:

	2020 $M	2019 $M
Australian equities	8.4	8.4
International equities	12.2	12.6
Property	7.5	10.4
Fixed income bonds	37.4	41.1
Other	9.4	12.6
Cash	18.7	20.3
Total plan assets	**93.6**	**105.4**

The Group agreed to pay nil contributions to the Plan in 2020 (2019: nil) and has agreed to pay nil contributions in 2021, then expects to recommence contributions after that time. The Group will, however, pay contributions to cover administration expenses and premiums relating to the plan in 2021. The following payments are expected to be contributed to the defined benefit plan in future years:

	2020 $M	2019 $M
Within the next 12 months	0.8	-
Between 2 and 5 years	3.8	2.4
Between 5 and 10 years	1.9	1.6
Beyond 10 years	0.3	0.3
Total expected payments	**6.8**	**4.3**

The average duration of the defined benefit plan obligation at the end of the reporting period is 5.9 years (2019: 5.7 years).

Actuarial assumptions

The principal assumptions used in determining benefit obligations for the Group's Plan are shown below:

	2020 %	2019 %
Discount rate	1.1	1.9
Expected rate of salary increases	2.0	2.5
Pension increase rate	1.8	2.0

Pensioner mortality has been assumed following the mortality under the Australian Life Tables 2017-19. Significant assumptions used to determine the present value of the defined benefit obligation are the discount rate and expected salary increases. The sensitivity analysis shown below has been based on reasonable possible changes of the assumptions occurring at the end of the reporting period:

	Impact on defined benefit obligation	
	2020 $M	2019 $M
Discount rate:		
1.0% increase	(5.4)	(5.7)
1.0% decrease	6.4	6.2
Expected rate of salary increases:		
1.0% increase	2.8	3.0

The sensitivity analyses above have been determined based on a method that extrapolates the impact on the defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period. The sensitivity analyses are based on a change in a significant assumption, keeping all other assumptions constant. The sensitivity analyses may not be representative of an actual change in the defined benefit obligation as it is unlikely that changes in assumptions would occur in isolation of one another.

Other disclosures continued

34. Related party disclosures

Note 28 *Group information* provides information about the Group's structure, including details of the subsidiaries and the parent entities.

Entities in the Group engage in a variety of related party transactions as part of the normal course of business. They supply products to related entities and overseas related corporations outside of the Group, and purchase crude and products from, and pay service fees to, overseas related corporations.

- All related party transactions are conducted at arm's length on a commercial basis.
- Outstanding balances at the year-end are unsecured and interest free and settlement occurs in cash.
- For the year ended 31 December 2020, the Group has not recorded any impairment of receivables relating to amounts owed by related parties, nor has there been any expenses recognised during the period in respect of bad or doubtful debts written off from related parties (2019: nil).
- The assessment of related party receivables is undertaken on an ongoing basis each financial year through examining the financial position of the related party and the market in which the related party operates.

The following table provides the total amount of transactions that have been entered into with related parties for the relevant financial year.

(a) Transactions with related parties

	2020 $'000	2019 $'000
Sales and purchases of goods and services		
Purchases	**6,910,598**	10,687,684
Sales of goods and services	**600,860**	964,193
Outstanding balances arising from sales/purchases of goods and services		
Receivables	**12,337**	90,477
Payables	**821,692**	1,407,737

(b) Transactions with associates

	2020 $'000	2019 $'000
Sales and purchases of goods and services		
Purchases	**10,941**	43,843
Sales of goods and services	**490,570**	1,608,118
Other transactions		
Interest income from associates	**1,678**	601
Sales of assets to associates	**5,188**	31,480
Lease expense paid to associates	**113,200**	146,370
Dividends from associates	**19,849**	40,838
Loan to associates	**-**	30,335
Outstanding balances arising from sales/purchases of goods and services		
Receivables	**39,538**	35,905
Payables	**139**	13,199

(c) Transactions with key management personnel or entities related to them

Executive Directors of controlled entities are entitled to receive discounts on their purchases of Company products under the same conditions as are available to all other employees of the Group. The terms and conditions of the transactions with directors or their director related entities were no more favourable than those available, or which might reasonably be expected to be available, on similar transactions to non-director related entities or on an arm's length basis. Dealings between the Group and various related companies are identified in this note.

Some directors hold directorships within the Vitol group of companies and any transactions entered into by the Group with the Vitol group of companies are in the ordinary course of business and are at arm's length.

(d) Key management personnel compensation

	2020 $'000	2019 $'000
Short-term employee benefits	**3,955**	2,972
Post-employee benefits	**133**	132
Employee option plan	**1,247**	1,263
Total compensation paid to key management personnel	**5,335**	**4,367**

(e) Long Term Incentive Plan (LTI)

The Company has established a long term incentive (LTI) plan to assist in the motivation, retention and reward of eligible employees. The LTI plan is designed to reward long-term performance, provide alignment with the interest of shareholders, and encourage long-term value creation. The amount of rights that will vest depends on the Company's relative total return to shareholders (TSR), free cash flow (FCF) and return on capital employed (ROCE).

A Performance Right entitles the participant to acquire one ordinary share for nil consideration at the end of the performance period, subject to the satisfaction of the performance conditions. The Board retains discretion to make a cash payment to participants on vesting of Performance Rights in lieu of an allocation of shares.

Performance rights are granted under the plan for no consideration and carry no dividend or voting rights.
Set out below are summaries of rights granted under the plan:

	2020 Number of rights	2019 Number of rights
Balance at the start of the financial year	**3,524,041**	1,600,000
Granted during the year	**2,087,421**	2,052,041
Forfeited during the year	**(510,599)**	(128,000)
Balance at the end of the financial year	**5,100,863**	**3,524,041**

The following performance rights arrangements were in existence at the end of the year:

			Number of performance rights outstanding	
Tranche	**Grant date**	**Fair value range at grant date**	**31-Dec-20**	**31-Dec-19**
FY18 Tranche	23-Jul-18	$1.39 – $2.27	**1,232,000**	1,472,000
FY19 Tranche #1	19-Mar-19	$1.73 – $2.23	**1,127,495**	1,398,094
FY19 Tranche – CEO	23-May-19	$1.31 – $1.97	**541,198**	541,198
FY19 Tranche #2	22-Oct-19	$1.32 – $1.79	**112,749**	112,749
FY20 Tranche – CFO	18-Feb-20	$1.06 – $1.73	**301,232**	-
FY20 Tranche #1	18-Feb-20	$0.47 – $1.49	**1,028,824**	-
FY20 Tranche – CEO	6-Jul-20	$0.91 – $1.58	**556,121**	-
FY20 Tranche #2	8-Oct-20	$0.91 – $1.58	**201,244**	-
			5,100,863	**3,524,041**

Other disclosures continued

34. Related party disclosures continued

(e) Long Term Incentive Plan (LTI) continued

Fair value of performance rights

The FY20 LTI Plan performance rights with the relative TSR hurdle vesting condition have been valued by an independent expert using a hybrid trinomial option model. This model uses a combination of Monte Carlo simulation and a trinomial lattice to model the performance of the Company's shares and the individual shares within the entities in the S&P/ASX 100 index. The FY20 LTI plan performance rights with FCF and ROCE hurdles are valued using a hybrid employee stock option model with a single share price target. Specifically, this model adjusts the spot prices as at the valuation date for expected dividends during the vesting period.

Model inputs for performance rights granted during the year included:

Grant date	Share price at grant date	Expected life	Volatility	Risk-free rate of return	Dividend yield	Vesting date
18-Feb-20	$1.69	2.87 years	25%	0.73%	4.30%	31-Dec-22
18-Feb-20	$1.69	2.87 years	25%	0.73%	4.30%	31-Dec-22
6-Jul-20	$1.76	2.49 years	25%	0.19%	4.30%	31-Dec-22
8-Oct-20	$1.76*	2.21 years	25%	0.19%*	4.30%	31-Dec-22

* The performance rights granted on 8-Oct-20 (non-KMP) have not been independently valued, and are aligned to the 6-Jul-20 valuation inputs.

(f) Deferred share rights issued

During the period the Company issued share rights to certain employees. Subject to satisfaction of service conditions, a share right entitles the participant to receive one ordinary share for nil consideration on vesting. Share rights carry no dividend or voting rights, however, holders are entitled to a dividend equivalent payment.

The table below sets out the number share rights granted under the plan:

	2020 Number of rights	2019 Number of rights
Balance at the start of the financial year	213,903	-
Granted during the year	1,987,680	213,903
Balance at the end of the financial year	2,201,583	213,903

The following deferred share rights arrangements were in existence at the end of the year:

			Number of performance rights outstanding	
Tranche	Grant date	Fair value range at grant date	31-Dec-20	31-Dec-19
FY19 Tranche	22-Oct-19	$1.88	213,903	213,903
FY20 Tranche #1	18-Feb-20	$1.61 – $1.69	1,952,566	-
FY20 Tranche #2	6-Jul-20	$1.69	35,114	-
			2,201,583	213,903

Fair value of deferred share rights

The deferred share rights were valued using the share spot price as at the valuation date.

(g) Legacy LTI

Section 10.4.3 of the Prospectus described the Legacy LTI introduced by VEH in 2015. Under that plan options over preference shares in VEH (**VEH Options**)[2] were issued to certain participants, including the CEO and CFO. At, or around the time, of the Company's listing on the ASX in 2018, outstanding VEH Options were acquired by the Company and, as consideration, options over shares in the Company were issued to Legacy LTI participants (Legacy LTI options). For further information, refer to the Company's Prospectus. All offers under the Legacy LTI were made in the years prior to listing, and no further offers will be made under this plan.

The table below sets out information in relation to the Legacy LTI options.

	2020 Number of options	2019 Number of options
Balance at the start of the financial year	8,651,786	16,534,520
Exercised during the year	(7,113,692)	(7,882,734)
Balance at the end of the financial year	**1,538,094**	**8,651,786**

The following Legacy LTI options were in existence at the end of the year:

Grant date	Expiry date	Exercise price	31-Dec-20	31-Dec-19
26-Apr-16	1-Jan-20	$0.82	-	6,152,382
26-Apr-16	1-Jan-20	$1.51	-	961,310
25-Oct-17	1-Jan-22	$1.21	1,538,094	1,538,094
			1,538,094	8,651,786

Total expenses arising from employee plan transactions recognised during the 2020 year was $3,578,014 (2019: $2,248,341).

35. Auditor's remuneration

The auditor of the Company and the Group is PricewaterhouseCoopers Australia ('PwC'). The following fees were paid or payable to PwC for services provided to the Company and the Group.

	2020 $	2019 $
Audit or review services:		
PricewaterhouseCoopers Australia		
Audit or review of financial reports of the Group	900,000	1,015,000
Overseas PricewaterhouseCoopers firms		
Audit or review of financial reports*	34,201	39,332
Non-audit services:		
PricewaterhouseCoopers Australia		
Other assurance services	135,764	70,000
Other services	44,576	27,381
Total	**1,114,541**	**1,151,713**

2020 Audit or review services include $130,000 additional work for 2019 audit.

2019 Audit or review services include $220,000 additional work for 2018 audit.

* Fees paid to PricewaterhouseCoopers Singapore for audit of Viva Energy S.G. Pte Ltd.

Other disclosures continued

35. Auditor's remuneration continued

The Directors have formed the view, based on advice from the Risk and Audit Committee, that the provision of non-audit services during the 2020 financial year was compatible with, and did not compromise, the general standard of independence for auditors imposed by the *Corporations Act 2001*. The non-audit services provided did not involve the external auditor reviewing or auditing its own work or acting in a management or decision making capacity for the Company, or otherwise could reasonably be expected to compromise its independence.

No officer of the Company was a partner or director of PricewaterhouseCoopers during the financial year. A copy of the auditor's independence declaration as required under section 307C of the *Corporations Act 2001* is set out on page 105.

36. Events occurring after the reporting period

There has not been any matter or circumstance occurring subsequent to the end of the financial year that has significantly affected, or may significantly affect, the operations of the Group, the results of those operations, or the state of affairs of the Group in future financial years.

Directors' declaration

This Directors' declaration is required by the *Corporations Act 2001*.

The Directors declare that in their opinion:

(a) the consolidated financial statements and notes of the Viva Energy Group for the year ended 31 December 2020 set out on pages 107 to 164 are in accordance with the *Corporations Act 2001*, including:

  (i) complying with Accounting Standards and the *Corporations Regulations 2001*;

  (ii) giving a true and fair view of the Viva Energy Group's financial position as at 31 December 2020 and of its performance for the year ended on that date;

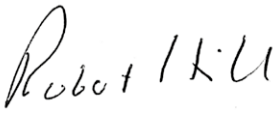
(b) there are reasonable grounds to believe that the Viva Energy Group will be able to pay its debts as and when they become due and payable; and

(c) at the date of this declaration, there are reasonable grounds to believe that the members of the Closed Group identified in Note 32 *Deed of cross guarantee* to the financial statements will be able to meet any obligations or liabilities to which they are, or may become, subject to by virtue of the Deed of Cross Guarantee described in Note 32 *Deed of cross guarantee* to the financial statements.

The Basis of preparation on page 112 confirms that the financial statements also comply with International Financial Reporting Standards as issued by the International Accounting Standards Board.

The Directors have been given the declarations required by Section 295A of the *Corporations Act 2001* from the Chief Executive Officer and Chief Financial Officer for the year ended 31 December 2020.

The declaration is made in accordance with a resolution of the Directors.



Robert Hill
Chairman

Scott Wyatt
CEO and Director

24 February 2021

Independent auditor's report

Independent auditor's report

To the members of Viva Energy Group Limited

Report on the audit of the financial report

Our opinion

In our opinion:

The accompanying financial report of Viva Energy Group Limited (the Company) and its controlled entities (together the Group) is in accordance with the *Corporations Act 2001*, including:

(a) giving a true and fair view of the Group's financial position as at 31 December 2020 and of its financial performance for the year then ended

(b) complying with Australian Accounting Standards and the *Corporations Regulations 2001*.

What we have audited

The Group financial report comprises:

- the consolidated statement of financial position as at 31 December 2020
- the consolidated statement of comprehensive income for the year then ended
- the consolidated statement of profit or loss for the year then ended
- the consolidated statement of changes in equity for the year then ended
- the consolidated statement of cash flows for the year then ended
- the notes to the consolidated financial statements, which include a summary of significant accounting policies
- the directors' declaration.

Basis for opinion

We conducted our audit in accordance with Australian Auditing Standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial report* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the auditor independence requirements of the *Corporations Act 2001* and the ethical requirements of the Accounting Professional & Ethical Standards Board's APES 110 *Code of Ethics for Professional Accountants (including Independence Standards)* (the Code) that are relevant to our audit of the financial report in Australia. We have also fulfilled our other ethical responsibilities in accordance with the Code.

PricewaterhouseCoopers, ABN 52 780 433 757
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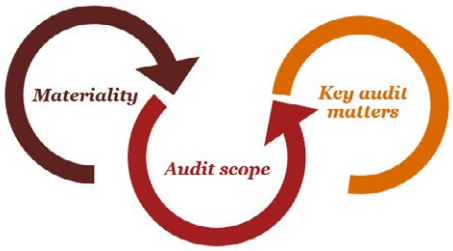
T: 61 3 8603 1000, F: 61 3 8603 1999, www.pwc.com.au

Our audit approach

An audit is designed to provide reasonable assurance about whether the financial report is free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial report.

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial report as a whole, taking into account the management structure of the Group, its accounting processes and controls and the industry in which it operates.



Materiality	*Audit scope*	*Key audit matters*
• For the purpose of our audit we used overall Group materiality of $10.1 million, which represents approximately 5% of the Group's weighted current and previous 2 year average of profit before tax. • We applied this threshold, together with qualitative considerations, to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements on the financial report as a whole. • We chose the Group's three year weighted average profit before tax as, in our view, the adoption of a multi-year weighted average benchmark will respond to longer-term trends in refining margins and will reduce volatility in the measure year-on-year.	• Our audit focused on where the Group made subjective judgements; for example, significant accounting estimates involving assumptions and inherently uncertain future events.	• Amongst other relevant topics, we communicated the following key audit matters to the Audit and Risk Committee: – Carrying value of refinery assets – Environmental and asset retirement provision – Inventory valuation • These are further described in the *Key audit matters* section of our report.

- We utilised a 5% threshold based on our professional judgement, noting it is within the range of commonly acceptable thresholds.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial report for the current period. The key audit matters were addressed in the context of our audit of the financial report as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. Further, any commentary on the outcomes of a particular audit procedure is made in that context.

Key audit matter	*How our audit addressed the key audit matter*
Carrying value of refining assets *(Refer to note 12) [$386.0m]* As at 31 December 2020, the Group's property, plant and equipment balances include $386.0m of refining assets. As required under AASB 136 *Impairment of assets,* each period the Group assess all property, plant and equipment balances for any impairment indicators. The recoverable amount of the refining assets has been determined based on a value-in-use calculation. The carrying value of refining assets was considered to be a key audit matter for the following reasons: • The impact of the COVID-19 pandemic on the demand for refined products has adversely impacted refining margins and consequently the refinery performance • Pressure on the long-term outlook of the domestic refining industry as a result of global macroeconomic impacts • Significant judgement was required by the Group to estimate the key assumptions in the calculation to determine the recoverable amount of the refining assets; including the discount rate, refinery intake, refinery margin, government support and foreign exchange rates.	We performed the following procedures amongst others: • Evaluated the forecast cash flows used in the Refinery Impairment Model for consistency with the Group's most up-to-date budget and business plan formally approved by the Board of Directors. • Assessed the Group's historical ability to forecast cash flows by comparing budgets to reported actual results for the past 3 years. • Considered whether the cash flows used in the calculation were appropriate and based on supportable assumptions by assessing cyclicality of refining margins. • Compared the key assumptions around discount rate, refinery intake, refinery margin, foreign exchange rates and government support used in the calculation to historical results, external sources and economic and industry forecasts. • Assessed the competence, experience and objectivity of the external experts used by the Group in preparing the relevant input to the impairment model. • Evaluated the adequacy of disclosures in note 12 in light of the requirements of Australian Accounting Standards.

Environmental and asset retirement provisions
(Refer to note 17) [$139.8m]

As at 31 December 2020, the Group recognised the following provisions:

- Environmental provisions: $40.1m
- Asset retirement provisions: $99.7m

The provisions relate to the Group's obligations to rehabilitate sites, either during or at the end of their operations. This includes the Group's conversion of its former Clyde refinery to a storage terminal.

This was a key audit matter as the calculation of the provisions required the Group to make judgements in estimating the cost and timing of future rehabilitation work, discounted to their present value and the provisions are material.

We performed the following procedures amongst others:

- Tested the mathematical accuracy for a sample of the provision calculations.
- Obtained and read the litigation register and board minutes to identify any legal notices in relation to environmental obligations and checked that these were appropriately considered in the determination of the provisions.
- Assessed the competence, experience and objectivity of the internal and external experts used by the Group in preparing the relevant calculations for the determination of the provisions.
- Corroborated a sample of estimates used in the provision calculations to third party support or estimates made by external experts.
- Evaluated the completeness of the provisions through comparing new sites acquired/opened during the year with the sites for which a provision has been recognised.
- Performed sensitivity analysis over key estimates and assumptions, such as the discount and inflation rates used by making changes that we consider reasonably possible to assumptions, to assess the impact on the asset retirement provision determined.

Inventory valuation
(Refer to note 5) [$698.8m]

The Group accounts for inventory at standard cost and allocates purchase price variances (PPV) to inventories to the extent that they are incurred in bringing inventories to their present location and condition. In addition, at month-end adjustments are made to the cost of inventories to ensure costs are assigned on a first-in-first-out (FIFO) basis in accordance with Australian Accounting Standards AASB 102 Inventories.

This was a key audit matter due to the judgement involved in month-end adjustments made and the significance of the inventory balance.

We performed the following procedures amongst others:

- Assessed the design and operating effectiveness of relevant internal controls over inventory valuation.
- Tested the mathematical accuracy for a sample of the underlying calculations within the valuation model.
- Tested the key inputs into the valuation model used to calculate the FIFO adjustments by comparing them to supporting evidence.
- Compared the carrying value of inventory to the estimated selling price obtained from an external source to check that inventory was measured at the lower of cost and net realisable value.

Independent auditor's report continued

Other information

The directors are responsible for the other information. The other information comprises the information included in the annual report for the year ended 31 December 2020, but does not include the financial report and our auditor's report thereon.

Our opinion on the financial report does not cover the other information and accordingly we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial report, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial report or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the directors for the financial report

The directors of the Company are responsible for the preparation of the financial report that gives a true and fair view in accordance with Australian Accounting Standards and the *Corporations Act 2001* and for such internal control as the directors determine is necessary to enable the preparation of the financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

In preparing the financial report, the directors are responsible for assessing the ability of the Group to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial report

Our objectives are to obtain reasonable assurance about whether the financial report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the Australian Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial report.

A further description of our responsibilities for the audit of the financial report is located at the Auditing and Assurance Standards Board website at: https://www.auasb.gov.au/admin/file/content102/c3/ar1_2020.pdf. This description forms part of our auditor's report.

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Report on the remuneration report

Our opinion on the remuneration report

We have audited the remuneration report included in pages 77 to 99 of the Annual report for the year ended 31 December 2020.

In our opinion, the remuneration report of Viva Energy Group Limited for the year ended 31 December 2020 complies with section 300A of the *Corporations Act 2001*.

Responsibilities

The directors of the Company are responsible for the preparation and presentation of the remuneration report in accordance with section 300A of *the Corporations Act 2001*. Our responsibility is to express an opinion on the remuneration report, based on our audit conducted in accordance with Australian Auditing Standards.

PricewaterhouseCoopers

Chris Dodd
Partner

Niamh Hussey
Partner

Melbourne
24 February 2021

Disclosures

On 11 July 2018, the Company was granted certain waivers by ASX from ASX Listing Rule 10.1. The following information is required to be disclosed in the Annual Report by the terms of the waivers.

Summary of material terms of certain supply agreements with affiliates of Vitol Holding B.V.

Members of the Group and affiliates of Vitol Holding B.V. are parties to a number of contractual arrangements, including the following material contracts:

- Vitol Asia Pte Ltd (Vitol Asia) and Viva Energy SG Pte Ltd are parties to a fuel supply agreement dated 18 June 2018 (Vitol Fuel Supply Agreement);
- Vitol Aviation BV (Vitol Aviation) and Viva Energy Aviation Pty Ltd (Viva Aviation) are parties to an agreement relating to the supply of aviation fuel dated 23 April 2018 (Vitol Aviation Fuel Supply Agreement); and
- Vitol Asia and Viva Energy Australia Pty Ltd are parties to a standard-form ISDA Master Agreement dated 13 August 2014 (Hedge Agreement).

Vitol Fuel Supply Agreement

Overview

Under the Vitol Fuel Supply Agreement, Vitol Asia agrees to supply to Viva Energy, and Viva Energy agrees to purchase (and to ensure that each other member of the VEA Group purchases) from Vitol, the following products:

- all of Viva Energy's requirements for feedstock for its refining operations, including crude oil and condensate (Feedstock), subject to certain exceptions; and
- all of the hydrocarbon products (other than Feedstock) required by the VEA Group for its Australian operations, except for products produced by the VEA Group's refining operations, products purchased under 'buy-sell' agreements with local refiners, and any lubricant products purchased from Shell Markets (Middle East) Limited under an Agreement for the Sale and Distribution of Lubricants (Shell Lubricants Agreement), (collectively, Product).

Exclusivity arrangements

Pursuant to the Vitol Fuel Supply Agreement, Viva Energy agrees that it will not (and will ensure that each other member of the VEA Group does not), except with the prior written consent of Vitol Asia but subject to certain exceptions, acquire product from any third party or acquire any interest in a third-party supplier of product which is inconsistent with Viva Energy's obligations under the agreement. Further, Viva Energy agrees that if it or any member of the VEA Group wishes to sell any Products which are ultimately exported out of Australia, Vitol Asia shall be the sole and exclusive market interface for all such sales on terms to be mutually agreed.

In addition, if any member of the Group at any time seeks to purchase any lubricants of the kind purchased by Viva Energy under the Shell Lubricants Agreement other than pursuant to the terms of that agreement, Vitol Asia shall, to the maximum extent permitted by law, be the exclusive supplier of such lubricants to Viva Energy on terms to be mutually agreed by the parties but based on the terms of the Vitol Fuel Supply Agreement.

For the purposes of the above paragraphs, VEA Group means the Company and each of its direct and indirect holding companies and subsidiaries, and subsidiary undertakings and associated companies from time to time of such holding companies.

Term and termination

The initial term of the Vitol Fuel Supply Agreement is 10 years, which Vitol Asia may renew for a further period of five years and which, following such renewal, the parties may renew again for a further period of five years by mutual agreement.[1]

The Vitol Fuel Supply Agreement may be terminated in the following circumstances:

- by the non-defaulting party, if the defaulting party becomes insolvent or fails to pay any amount due under the agreement;
- by the non-defaulting party, if Vitol Asia fails to deliver, or Viva Energy fails to take delivery of, for reasons other than 'Force Majeure', at least 75% of the aggregate quantities of Product nominated or agreed for delivery and receipt in a month for six or more consecutive months;
- by either party giving not less than 12 months' notice, if Vitol Asia announces that it intends to discontinue its Product trading business serving Australia; and
- by Vitol Asia, in the event of Viva Energy's breach of certain of its obligations under the Vitol Fuel Supply Agreement (including its obligations under the exclusivity arrangements), any event of default or review event under Viva Energy's financing arrangements, and certain other termination events.

1. Renewal of the Vitol Fuel Supply Agreement will be subject to shareholder approval, should ASX Listing Rule 10.1 apply at that time.

Pricing terms

Under the Vitol Fuel Supply Agreement, the price for each delivery of Product is, or is determined by reference to, a price mutually agreed by the parties based on prevailing market conditions, the actual price at which the relevant Vitol entity acquired the Product or the average price in the relevant index for the Product plus reasonable financing and handling costs and the cost of freight and logistics, as well as applicable market and quality premiums/discounts.

Procurement fee

The parties have agreed that no procurement fee will be payable to Vitol Asia during the first five years of the term of the Vitol Fuel Supply Agreement. A procurement fee may be payable following this period, if mutually agreed by the parties and determined on the basis of prevailing market conditions.

Title and risk

Title to the Product in each shipment passes from Vitol Asia to Viva Energy as the Product passes on to the ship at the load port. All risk in the Product in each shipment passes to Viva Energy on and from that time.

Shortfall

If, except to the extent that such was caused by Viva Energy, Vitol Asia is unable to source or deliver sufficient Product to meet any shipment that has been nominated by Viva Energy, then to the extent of such shortfall, Viva Energy may, with the prior written consent of Vitol Asia (not to be unreasonably withheld or delayed), enter into a short-term agreement for the supply of such Product shortfall.

Guarantee

Under a separate but related document, certain members of the Group (including Viva Energy Holdings Pty Ltd and Viva Energy Australia Group Pty Ltd) have guaranteed to Vitol Asia the due and punctual performance and observation by Viva Energy of its obligations under the Vitol Fuel Supply Agreement. The Company is a guarantor in respect of those obligations.

Vitol Aviation Fuel Supply Agreement

Overview

Under the Vitol Aviation Fuel Supply Agreement:

- Viva Aviation agrees to provide refuelling services on behalf of Vitol Aviation to Vitol Aviation's international customers that require such services (Refuelling Services) and, among other things, must establish and maintain or otherwise ensure access and use of facilities at airports necessary to deliver aviation fuel to Vitol Aviation's customers; and
- Vitol Aviation is responsible for managing its international customer accounts in connection with the Refuelling Services.

Term and termination

The Vitol Aviation Fuel Supply Agreement remains in force until terminated in accordance with its terms, including for convenience by either party upon 12 months' notice, such notice not to be given prior to the fourth anniversary of the commencement of the agreement.[2]

The Vitol Aviation Fuel Supply Agreement may also be terminated in the following circumstances:

- where the other party commits a material breach of the agreement, which is not remedied;
- where the other party repudiates the contract;
- where an 'Insolvency Event' occurs in respect of the other party; or
- where the other party suspends or ceases, or threatens to suspend or cease, carrying on all or a substantial part of its business.

Exclusivity

Vitol Aviation agrees to not utilise any party other than Viva Aviation in the provision of services similar to the Refuelling Services within Australia, unless and except to the extent that Viva Energy is unable to perform the agreed services.

Pricing

Vitol Aviation and Viva Aviation must use reasonable endeavours to agree on a fuel rate and commission rate in connection with each customer tender. Viva Aviation must invoice Vitol Aviation on a monthly basis in respect of sales to Vitol Aviation's customers, and Vitol Aviation is entitled to receive the agreed commission and fuel rate in respect of each such sale.

Hedge Agreement

Vitol Asia and Viva Energy Australia Pty Ltd are parties to a standard-form ISDA Master Agreement pursuant to which Viva Energy hedges the price risks associated with the volatility of crude oil pricing. Each member of the Group has provided a guarantee to Vitol Asia in respect of Viva Energy's performance under this agreement. The agreement will remain on foot until terminated by agreement of the parties or otherwise in accordance with its terms.

2. Continuation of the Vitol Aviation Fuel Supply Agreement for any period beyond the 10-year anniversary of the Company's listing on the ASX will be subject to shareholder approval, should ASX Listing Rule apply at that time.

Additional information

The information below is current as at 1 March 2021.

Voting rights

Shareholders in the Company have a right to attend and vote at all general meetings in accordance with the Company's Constitution, the *Corporations Act 2001* (Cth) and the ASX Listing Rules.

Substantial holders

As at 1 March 2021, Viva Energy has three substantial holders who, together with their associates, hold 5% or more of the voting rights in the Company, as notified to the Company under the *Corporations Act*.

Name	Date notice received	Number of shares[1]	Percentage of capital[2]
Sumitomo Mitsui Trust Holdings	6 November 2019	99,332,762	5.11%
Pendal Group	20 March 2019	97,535,578	5.02%
VIP Energy Australia B.V.	17 July 2018	871,845,097	44.84%

1. The number of shares quoted are based on the number of shares disclosed in the substantial shareholder notices lodged by each holder. Since each notice was lodged, the Company has undertaken a share consolidation where each share in the Company held on 9 October 2020 was consolidated into 0.84 shares (with any resulting fraction of an ordinary share held by a shareholder rounded up to the next whole number of shares).

2. The percentages quoted are based on the percentages disclosed in the substantial shareholder notices lodged by each holder. Since each notice was lodged, the Company has bought on market and cancelled shares pursuant to its on-market buy-back program and as at 1 March 2021, has 1,607,638,647 ordinary shares on issue.

Distribution of shareholders and number of shares

The following table shows the total number of shares on issue in the Company as at 1 March 2021 and the distribution of Viva Energy shareholders by the size of their shareholding.

Size of holdings	Total holders	Number of shares held	Percentage
1 – 1,000	3,031	1,957,046	0.12%
1,001 – 5,000	4,038	11,020,050	0.69%
5,001 – 10,000	2,572	18,126,769	1.13%
10,001 – 100,000	2,491	53,927,211	3.35%
100,001 and over	105	1,522,607,571	94.71%
Total	**12,237**	**1,607,638,647**	**100.00%**

Top 20 shareholders

The 20 largest registered shareholders as at 1 March 2021 are shown below.

		Number of shares held	Percentage
1	VIP ENERGY AUSTRALIA B. V	732,349,882	45.55%
2	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	273,335,373	17.00%
3	J P MORGAN NOMINEES AUSTRALIA PTY LIMITED	146,963,295	9.14%
4	CITICORP NOMINEES PTY LIMITED	145,245,413	9.03%
5	NATIONAL NOMINEES LIMITED	85,542,560	5.32%
6	BNP PARIBAS NOMS PTY LTD	28,142,091	1.75%
7	BNP PARIBAS NOMINEES PTY LTD	23,666,137	1.47%
8	ARGO INVESTMENTS LIMITED	9,502,255	0.59%
9	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	9,260,216	0.58%
10	SCOTT WYATT	9,171,893	0.57%
11	CITICORP NOMINEES PTY LIMITED	6,189,109	0.38%
12	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED - A/C 2	5,659,890	0.35%
13	PACIFIC CUSTODIANS PTY LIMITED	3,536,614	0.22%
14	NETWEALTH INVESTMENTS LIMITED	3,489,239	0.22%
15	NAVIGATOR AUSTRALIA LTD	3,399,075	0.21%
16	MR DENIS JEAN-MARC URTIZBEREA	2,361,799	0.15%
17	UBS NOMINEES PTY LTD	2,261,493	0.14%
18	MR DANIEL PAUL RIDGWAY	2,250,281	0.14%
19	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED-GSCO ECA	2,218,440	0.14%
20	BOND STREET CUSTODIANS LIMITED	2,152,238	0.13%
	Total	**1,496,697,293**	**93.08%**
	Balance of register	**110,941,354**	**6.92%**
	Grand total	**1,607,638,647**	**100%**

Holders with less than a marketable parcel

As at 1 March 2021, there were 418 shareholders holding less than a marketable parcel of shares (A$500) based on the closing market price of $1.685.

Shares purchased on-market

We purchase shares on-market for the purposes of our Employee Share Plan and for the purposes of our incentive plans.

During the period (from 1 January 2020 to 1 March 2021) 6,608,119 shares were purchased on-market at an average price of $1.43 per share.

On-market buy-back

On 18 March 2020, the Company announced its intention to conduct an on-market buy-back program. As at 1 March 2021, the Company has bought back 27,397,847 shares under this program.

Unquoted equity securities

As at 1 March 2021, the Company has on issue:

- 1,538,095 Options exercisable at $1.21 expiring 1 January 2022 held by one employee;
- 1,469,844 Deferred Share Rights, held by 43 employees; and
- 3,868,863 Performance Rights, held by nine employees.

Historical financial information

For the years ended 31 December		FY2020	FY2019	FY2018 pro forma[1]	FY2017 pro forma[1]	FY2016 pro forma[1]
Consolidated results						
Revenue	$M	**12,409.9**	16,541.6	16,395.1	15,660.5	14,130.9
Group Underlying EBITDA (RC)	$M	**519.4**	644.5	774.6	864.0	678.0
Underlying EBITDA (RC) – Retail, Fuels and Marketing: Retail	$M	**670.8**	564.3	608.8	607.0	542.0
Underlying EBITDA (RC) – Retail, Fuels and Marketing: Commercial	$M	**238.3**	296.5	329.0	317.0	321.0
Underlying EBITDA (RC) – Refining	$M	**(95.1)**	117.0	124.5	276.0	144.0
Underlying EBITDA (RC) – Supply, Corporate and Overheads	$M	**(294.6)**	(333.3)	(287.7)	(336.0)	(329.0)
Underlying NPAT (RC)	$M	**(35.9)**	135.8	231.5	290.7	177.9
Distributable NPAT (RC)	$M	**22.8**	153.0	155.4	n/a	n/a
Financial statistics						
Operating cash flow before capital expenditure[2]	$M	**376.1**	609.0	535.7	445.8	381.0
Capital expenditure	$M	**158.5**	161.7	241.3	234.0	309.0
Net debt	$M	**104.2**	137.4	(0.2)	74.6	(428.8)
Earnings per share – basic	cents/share	**(1.9)**	5.8	29.8	n/a	n/a
Earnings per share – diluted	cents/share	**(1.9)**	5.7	29.4	n/a	n/a
Dividends per share	cents/share	**0.8[3]**	4.7	4.8	n/a	n/a
Other data						
Sales volume	ML	**12,339**	14,695	14,046	14,151	14,557
Number of service stations[4]	#	**1,339**	1,292	1,255	>1,100	>1,100
Refining intake	MBBLs	**34.8**	42.0	40.1	40.8	39.9
Geelong Refining Margin	US$/BBL	**3.1**	6.6	7.4	10.2	7.9
Share price – high	$	**2.12**	2.58	2.51	n/a	n/a
Share price – low	$	**1.13**	1.72	1.66	n/a	n/a
Share price – close	$	**1.91**	1.92	1.80	n/a	n/a
Shares on issue – at year end	#M	**1,608**	1,945	1,945	n/a	n/a

1. Pro forma adjustments have been made to ensure consistency and comparability with reported FY2019 and FY2020 performance. For FY2018, pro forma adjustments include the impact of AASB 16 and to present the financial information in a manner that is consistent with the structure and nature of the Group post IPO (13 July 2018). For FY2016 and FY2017, Pro-Forma adjustments include the impact of AASB 16 only and the financial information included relates to Viva Energy Holding Pty Ltd.
2. The adoption of AASB16 Leases on 1 January 2019 resulted in the reclassicification of operating lease expenditure from operating cash to finance costs and repayment of lease liability. The 2016, 2017 and 2018 results reflect the classification under the previous leasing standard.
3. Excludes special dividend of 5.94 cents per share.
4. Alliance, Dealer Owned, Westside Petroleum and Liberty Platforms.

Corporate directory

Registered office

Level 16, 720 Bourke Street
Docklands, Victoria, Australia 3008
Telephone: 03 8823 4444

Share registry

Link Market Services Limited
Tower 4, 727 Collins Street
Melbourne, Victoria, Australia 3008
Telephone: 1300 554 474

Investor relations

investors@vivaenergy.com.au

Website

To view the 2020 Annual Report, Corporate Governance Statement, shareholder and Company information, news announcements, financial reports, historical information, and background information on Viva Energy, please visit our website at vivaenergy.com.au.


VIVA
EnergyAustralia

Prohibited person questionnaire

Environment Protection Act 2017

F1018

About this form

The *Environment Protection Act 2017* (the Act) prohibits certain persons from engaging in particular activities regulated by the Environment Protection Authority (EPA, the Authority). EPA also considers an applicant's status as a prohibited person (PP) when it makes its determination of a fit and proper person (F&PP) assessment.

This questionnaire sets out the principal factors EPA considers to determine if a person is a prohibited person. EPA takes the definition of a prohibited person as having the same meaning as under Section 88 of the Act.

If a relevant matter is identified through this process, where one or more persons may be considered prohibited, it is strongly recommended that an applicant engages with EPA before formally submitting an application. Some of the benefits of early engagement include:

- it helps an identified prohibited person fully understand the application requirements
- avoids delays during the application assessment process
- avoids an application refusal due to insufficient evidence or information.

This form should be read in conjunction with the *Fit and proper person policy* (publication 1938).

Who must complete this form

You are required to complete an individual copy of this form if you are **the person(s) directly responsible for the ownership, administration or management of the activity**.

Applicants should be aware EPA may require additional members of a company to complete a separate PP questionnaire or provide additional information and evidence. In these instances, EPA will inform the applicant if further information or evidence is required.

EPA relies on the applicant to nominate and make all reasonable enquiries of relevant associates. However, we may conduct verification audits of the checks you have undertaken.

It is important any person completing the questionnaire has the authority to submit on behalf of the company.

Note: EPA will consider an applicant's status as a PP when it makes its determination of a fit and proper person assessment. This PP questionnaire must be completed and accompany the F&PP questionnaire.

Supporting information

You may wish to submit additional justification, documents or evidence prior to EPA making its determination. Any supporting information must be current,

accurate and directly relevant to informing EPA's assessment. During the assessment, EPA may request additional information or evidence.

More information

For more information about prohibited persons and fit and proper persons, please refer to EPA's website (https://www.epa.vic.gov.au/for-business/fit-and-proper-person-and-the-new-laws) or contact EPA by email contact@epa.vic.gov.au or telephone **1300 372 842 (1300 EPA VIC)**.

Prohibited person questionnaire

Environment Protection Act 2017

Details of person, company or other body corporate subject to the prohibited perons determination

1. APPLICANT DETAILS Please provide your details as the applicant.				
Family name	[redacted]			
Given name/s				
Previous name/**s** *(Provide up to two most recent names you have been known by, if applicable)*	1. Click or tap here to enter text.			
	2. Click or tap here to enter text.			
Role title	Project Manager: Viva Energy Gas Terminal Project			
Company/business name	Viva Energy Gas Australia Pty Ltd			
ABN or ACN	ABN	35 645 450 059	ACN	645 450 059
Company/business address (registered)	Level 16, 720 Bourke Street, Docklands			
	State	Victoria	Post code	3008
Company/business address (postal)	Level 16, 720 Bourke Street, Docklands			
	State	Victoria	Post code	3008
Contact telephone	[redacted]			
Contact mobile				
Contact email				
Application made as a	☐ **Natural person** ☒ **Company** ☐ **Body corporate**			

Prohibited person questionnaire

Environment Protection Act 2017

Officer details for applications made by a company or body corporate

2. OFFICERS IN YOUR COMPANY Please identify relevant officers* of your company. *Note: An officer has the meaning under section 9 or the *Corporations Act 2001 (Cth)*. This section does not need to be completed for accredited consigner applicants.	
OFFICER 1	
Family name	[redacted]
Given name	
Role title	Director
OFFICER 2	
Family name	[redacted]
Given name	
Role title	Director
OFFICER 3	
Family name	[redacted]
Given name	
Role title	Company Secretary

Prohibited person questionnaire

Environment Protection Act 2017

Prohibited person assessment

Important: If you answer 'yes' to any of the following questions, it may indicate you are considered a prohibited person by the Authority.

As a prohibited person, the Authority must not determine that you are a fit and proper person unless we are satisfied that it is not contrary to the public interest to do so.

An applicant who is a prohibited person can have the Authority assess whether, or not it is contrary to the public interest that they are determined a fit and proper person to hold the permission they are applying for. This process is performed as part of the fit and proper person assessment and must be identified on the F&PP questionnaire.

A complete PP questionnaire must always accompany the F&PP questionnaire, along with any relevant information that you believe should be considered by the Authority.

Please respond 'yes', 'no' or 'not applicable' to the following questions.
1. Within the preceding 10 years, have you or your company been convicted or found guilty of:
(a) an offence involving fraud, dishonesty or violence that was punishable by a term of imprisonment of three months or more at the time of the conviction or finding of guilt?
Select your answer: **YES** ☐ **NO** ☒
(b) an indictable offence against the *Environment Protection Act 2017* or the *Environment Protection Act 1970*?

Select your answer:

YES ☐

NO ☒

The Applicant, Viva Energy Gas Australia Pty Ltd, has not been convicted or found guilty of an indictable offence against the *Environment Protection Act 2017* or the *Environment Protection Act 1970*.

Although not required by the Environment Protection Act for the purposes of this Application, given that Viva Energy Gas Australia Pty Ltd is part of Viva Energy Group and that the location of the proposed activity is adjacent to the Viva Energy Geelong Refinery (operated by Viva Energy Refining Pty Ltd), we note that Viva Energy Refining was prosecuted for contravention of a licence condition by exceeding the Fluoride emission limit on four separate occasions between December 2015 and March 2016 at the Geelong Refinery. On 23 November 2018 Viva Energy Refining was ordered to pay a fine of $21,000 in total, without conviction, and pay costs of $10,870 after pleading guilty in court to four related offences under the *Environment Protection Act 1970*.

(c) an offence that, if committed in Victoria, would constitute an offence referred to in question (1a) or (1b)?

Select your answer:

YES ☐

NO ☒

The Applicant, Viva Energy Gas Australia Pty Ltd, has not been convicted or found guilty of an offence that, if committed in Victoria, would constitute an offence referred to in question (1a) or (1b).

Although not required by the Environment Protection Act for the purposes of this Application, given that Viva Energy Gas Australia Pty Ltd is part of Viva Energy Group, we advise that on 15 March 2019, Viva Energy Australia was convicted in the NSW Land and Environment Court for two offences, water pollution and licence contravention (failure to maintain equipment) under the *Protection of Environment Operations Act 1997* (NSW). The charges resulted from a fuel oil pipeline leak at Gore Bay Terminal in December 2016.

(d) an indictable offence against the *Dangerous Goods Act 1985*, the *Equipment (Public Safety) Act 1994*, the *Occupational Health and Safety Act 2004* or the *Planning and Environment Act 1987*?

Select your answer:

YES ☐

NO ☒

2. Has EPA Victoria revoked a permission held by you or your company under section 61(1) of the *Environment Protection Act 2017*?
Select your answer: **YES** ☐ **NO** ☒
3. Has a licence or permit issued to you or your company under a law of another state or territory, that the Authority would consider to be equivalent to a permission, been revoked on a ground equivalent to one or more of the grounds set out in section 61(1)?
Select your answer: **YES** ☐ **NO** ☒
4. Are you, or your company an insolvent under administration?
Select your answer: **YES** ☐ **NO** ☒
5. Is your company an externally administered company under the Corporations Act?
Select your answer: **NOT APPLICABLE** ☐ (for applicants as natural persons) **YES** ☐ **NO** ☒

Prohibited person questionnaire

Environment Protection Act 2017

Body corporates

Please answer Question 6 & 7 if the application is being made by a body corporate, or mark as 'not applicable'.
6. Would one or more officers* of your body corporate answer 'yes' to any of the Questions 1 to 4 of this form?
Select your answer: **NOT APPLICABLE** ☐ **YES** ☐ **NO** ☒
7. Is one or more officers* in your body corporate currently or have previously been an officer* of another body corporate that would answer 'yes' to any of the Questions 1 to 4 of this form?
Select your answer: **NOT APPLICABLE** ☐ **YES** ☐ **NO** ☒

*An officer has the meaning under section 9 or the *Corporations Act 2001 (Cth).*

Prohibited person questionnaire

Environment Protection Act 2017

Declaration

Important: Applicants should be aware that it is an offence under the Act to intentionally or negligently provide incorrect or misleading information to EPA, or to conceal information.

Before you sign the declaration, ensure that:

- you have answered every question
- you have attached any required supporting documentation
- all the information you have given is true and correct to the best of your knowledge
- you hold or been given the necessary authorisation to sign this declaration.

I declare to the best of my knowledge that the information provided in this form and any attachments are true and correct.			
Full Name	[redacted]		
Company Position	Project Manager: Viva Energy Gas Terminal Project Viva Energy Gas Australia Pty Ltd		
Signature	[redacted]	Declared at:	[redacted]
		Date	04/02/2022

The personal information on this form and any correspondence, notice or other document issued after processing of this information will be stored and used by EPA for the purpose of administering the *Environment Protection Act 2017* and the Environment Protection Regulations 2021. You may access this information by contacting the EPA Privacy Information Officer. This information may be disclosed to another government organisation, tribunal or court, where required for administering or enforcing the above Act and Regulations or any other relevant laws.

You have the right to access this information by contacting Environment Protection Authority at 200 Victoria Street, Carlton VIC 3053, or by email **contact@epa.vic.gov.au**, or telephone **1300 372 842 (1300 EPA VIC)**.