Geelong Refinery

Investing in local manufacturing
Committed to our community

We have been part of the local landscape since 1954 and are proud that the Geelong Refinery is a key driver of Victoria’s economy, supplying more than half of Victoria’s fuel needs. We have a workforce of around 700 people and spend more than $200 million each year locally in wages and services.

With $250 million invested in our operations over the last two years, Viva Energy is fully committed to keeping local manufacturing alive in Geelong. Viva Energy is also spending $3 million over three years to fund our national community program, Jigsaw, supporting a range of local and national initiatives focusing on mental health and substance abuse. Key aspects include our partnership with headspace National Youth Mental Health Foundation, a Geelong-specific affiliation with Northern Futures to address joblessness and support for local sporting clubs.
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For over 60 years the Geelong Refinery has been an integral part of the Geelong community. Our vision is to build a sustainable operation so that we will continue manufacturing for many years to come.

Our industry is constantly changing, and international competition is fierce. To meet this competition head on, Viva Energy is changing the way we play the game to make sure we stay competitive and profitable, and keep manufacturing in Geelong. We call it future-proofing our refinery.

The prize is a safe, reliable and viable refinery and the winners are our current employees, future employees, apprentices, local Geelong communities and the Victorian and Australian economies.
How we’ll deliver our commitment to our employees, customers and the Geelong community to operate a long-term sustainable refinery is outlined in our business improvement plan.

It has three major areas of focus: improving performance, increasing production, and driving productivity to secure the future of the refinery.

Each of these focus areas is further broken down into our ‘game changers’, where we clearly articulate what we’re going to do, how we’re going to do it and what we have already achieved.

**Our game plan: it’s how we’ll succeed**

Helping to support Victoria’s economy

Geelong Refinery’s Game Changers

- Investing $500m in Victoria over a five year period
- Supplies 50% of Victoria’s bitumen requirements (80K tonnes), and has the capacity to supply more (180K tonnes)
- 800M+ litres of storage capacity across Victoria
- 240+ Shell branded retail sites in NT, QLD & WA
- Low Aromatic Fuel manufactured & supplied into NT, QLD & WA
- 2/3 of our workforce & in Victoria
- Each year over $550M is invested in local wages & services into the Victorian local economy
- Viva Energy supplies 100% of avgas to the Victorian market
- 55% of the State’s fuel needs
- Supplies 100% of marine fuel oil for Victorian commercial shipping & Spirit of Tasmania
- 800M + litres of storage capacity across Victoria

- Over 500,000 diesel cars & trucks
- 50% of jet fuel & 100% of avgas to the Victorian market
- 700 people work at the refinery
- 1 of 4 refineries in Australia
- Only manufacturer in Australia of:
  - avgas
  - solvents
  - bitumen
- Accounts for over 50% of The Port of Geelong’s trade, equalling 6.5M tonnes per annum
- Supplies 100% of marine fuel oil for Victorian commercial shipping & Spirit of Tasmania
- Helps to support Victoria’s economy
A successful business needs to be a safe business, and one that cares for the environment. Improving our performance starts with constantly striving to improve our safety and environmental performance. It is at the forefront of everything we do.

We also plan to improve our reliability to ensure we consistently supply Victoria’s fuel needs. $150 million dollars already invested into our 2015/16 major maintenance projects will help us get there, as will further investments in plant reliability and predictive maintenance.
DID YOU KNOW?

We treat hydrocarbon sludge waste in geo-bags where water is removed by seeping through a specially designed membrane. The remaining material is mixed with mulch and the resulting compost is used in the parkland around the refinery, where we’ve planted more than 100,000 native trees over many years.

Goal Zero

Goal Zero means operating with zero harm to people, and no harm to the environment. We know it’s possible, and will continually improve our everyday work practices to achieve Goal Zero routinely. We work closely with the Victorian Environment Protection Authority (EPA) and WorkSafe, who regulate our operations to ensure we meet their expectations and those of the community.

How we’ll do it

- A safe business is one where everybody takes responsibility for safety. We plan to improve how we equip working groups to take ownership and drive safety matters important to them, with escalation when appropriate.
- We are proud of our environmental achievements during the past 10 years, but acknowledge there is always more to do. Our key task is to increase assurance on all our environmental barriers.

What we have already achieved

Developing safety leaders

Over a number of years we have trained in excess of 300 people in our two-day front-line Safety Leadership program. We believe leaders set expectations for safety, and that everyone is capable of being a safety leader.

Process safety

In 2016 a major upgrade of the instrumentation that controls our catalytic cracking unit (RCCU) was completed. Utilising brand new technology this $7.3 million project greatly improves monitoring systems, significantly increasing reliability and decreasing safety risks to both people and the environment.

World class recycling

Waste management practices at the refinery are recognised as world-class, with an impressive 100% of all waste water from our operations being recycled back to the refinery, through the Northern Water Plant.
Energy efficiency

Our refinery was built in days when energy was much cheaper, and as a consequence our energy management practices are something we must always strive to improve.

We need to reduce our energy consumption by limiting wastage and improving energy efficiency, just as we all do in our homes.

How we’ll do it

- Just like an energy audit of your home can help you identify efficiencies and save you money, we need to fully understand where all our energy is being used, to develop meaningful targets and track improvements made.

- To make it easier for our operations staff to produce fuel with the lowest possible carbon footprint, we plan to roll out an updated energy management tool to make it easier to manage and reduce energy consumption.

- We also plan to trial and implement an energy tool to assist with the prioritisation of maintenance jobs which will save energy.

- We will identify additional investments that can be made to improve our energy efficiency.

What we have already achieved

Energy dashboard

Key energy indicators have been established and verified so that operations staff know how much energy is being used across the refinery. Much like the dashboard in your car, these indicators provide the information needed to make energy efficiency choices in operating the refinery’s equipment.
Reliability

The Geelong Refinery supplies 55% of Victoria’s fuel needs. That’s millions of customers every day relying on us to reach their destination.

Improving the reliability of the refinery means better performance and never letting our customers down. That’s why we are investing hundreds of millions of dollars to reduce any downtime.

How we’ll do it

- Predictive maintenance is crucial to ensure repairs are performed before they impact our operations. We are installing a Wi-Fi network across the refinery and Lara terminal to improve real time monitoring of critical equipment and build preventative reliability.

- Improving reliability is sometimes just about the small stuff - like valve maintenance or tank inspections. We have a strong maintenance program and spend around $50 million every year on routine maintenance.

What we have already achieved

Reducing threats

We have completed vulnerability assessments for a number of key refinery units with the purpose of identifying potential weak points. These assessments have uncovered several reliability threats allowing us to eliminate them.

Corrosion controls

The operating environment and location of the refinery presents the perfect conditions for corrosion, and over the last four years we’ve invested approximately $500,000 on inspection technologies to prevent leaks or failure of equipment due to corrosion. In 2016, we introduced a new real-time technical inspection technique called Emat (Electromagnetic Acoustic Transducer) for critical pipelines, including those on our jetty. Emat, along with our conventional inspections, detected and prevented 115 leaks from potentially occurring. Given this success, two more Emat units have been purchased and will be operational in 2017.

FAST FACT
Our 2016 major maintenance project, known as a turnaround, took 18 months to plan, involved an extra 1,000 people on site, cost $100 million and took more than 300,000 work hours to complete. These highly detailed services occur every four to six years to inspect, clean, repair and renew major sections of the refinery.
DID YOU KNOW?

Building new pipelines can cost more than $1 million per kilometre? The refinery needs hundreds of kilometres of pipeline to transport crude oil and fuels to different parts of the refinery and keep them separate.

Capital efficiency

Improving our capital efficiency means choosing the right projects and getting more value out of each dollar we spend on projects designed to improve the refinery.

In line with best practice our projects need to be delivered safely, to the highest quality, with the correct approvals, on schedule and on budget.

How we’ll do it

- Consistently deliver on schedule and on budget projects.
- To help us make sure we are investing in the right projects for our future, we plan to revise our project approval processes to improve efficiency.
- We need to get better at delivering simple projects more cost-effectively. To do this we will implement a streamlined process for the efficient delivery of low-cost or low-complexity projects.

What we have already achieved

Project improvements

We have re-designed our approach to project management and implemented changes that reduce duplication, lower project overhead costs, and improve the capabilities of the team.

Capital budgets have also been tightened to drive careful project selection and efficient execution.
Cost control

With the emergence of Asia’s mega-refineries the global fuels market has become highly competitive. The challenge this places on the local refining industry is that we need to spend our money more wisely than ever before.

In the long-term, money well spent at the refinery means ongoing jobs and apprenticeships for Geelong. To achieve this goal we need to minimise waste, as well as increase efficiencies and accountability at all levels.

Many of the factors that affect the profitability of the refinery – such as the exchange rate, cost of crude oil and gas/electricity prices - are out of our control. So we need to be focused on costs that we can control.

How we’ll do it

- Historically the refinery has paid above market rates for contracts and services. This is no longer sustainable. We need to ensure our service contracts are delivered at market competitive rates.

- We will embed plans for improved procurement processes, procure locally where possible and competitive to do so, and foster a culture of continuous improvement.

What we have already achieved

Service savings

Cost control programs on services purchased in 2016 delivered savings to the refinery of almost $5.5 million. This is a significant achievement and one that we plan to improve upon.

In addition to these results our continuous improvement program has already identified cost savings of more than $2.5 million per annum.
Focus area – Production

Victoria’s population is growing and it is our plan to keep pace with this growth by increasing our production. Wherever possible, we will sell our fuels to Victorian customers due to the efficiency of doing so. Manufacturing locally meets the needs of our local customers, reduces shipping costs and just makes good sense.
DID YOU KNOW?

Higher-octane fuels such as V-Power account for more than 25% of all the petrol sold in Victoria. More and more cars are needing higher octane fuels and Geelong Refinery, the home of V-Power, is well set up to support this trend.

FAST FACT

We are the only refinery manufacturer in Australia of aviation gasoline, bitumen and solvents.

Capacity utilisation

We want to produce 110 thousand barrels of fuel per day, every day of the year. That’s 17.5 million litres or enough fuel for 290,000 vehicles every day.

To achieve this we need to remove bottlenecks from our operations, reduce downtime and maintain our key units at 90% utilisation.

How we’ll do it

- We need to clearly identify our future investment pathway to ensure we match our production plans with Victoria’s future fuel needs.
- By more fully utilising spare capacity on particular units, we plan to produce and sell more solvents, aviation gasoline and bitumen.
- During our recent major maintenance programs, we made modifications to some of the refinery’s most important units - the catalytic cracking unit (RCCU) and the platformer (PFU). We will leverage this improved capability to produce more from these units in 2017 and beyond.
- We need to clearly identify our future investment pathway to ensure we match our production plans with Victoria’s future fuel needs.

What we have already achieved

Growing production

Technical changes to the hysomer unit have enabled the refinery to produce more higher-octane fuels like Shell V-Power. This is important to help us meet the growing demand for high performance fuels.

We have also provided clearer targets and accountabilities for delivering daily fuel production plans. As a result, the operations teams have responded and significantly improved daily production.
Crude oil supply logistics and flexibility

Petroleum refining starts with crude oil as a raw material, and not surprisingly it is our single biggest expense. Improving the type and quantity of crude oil we purchase and how we are able to store it will result in smoother and steadier production as well as cost savings, allowing us to continue to produce quality fuels to Australian standards.

How we’ll do it

- We’ll complete the construction of our new crude oil tank, which will deliver significant value to the refinery in terms of improved storage and crude oil blending capabilities.
- Continue to implement Dynamic Under-Keel Clearance (DUKC) technology, enabling increased vessel draught. This will mean that larger ships can berth at the refinery for shorter duration, resulting in significant cost-savings.

What we have already achieved

New crude oil tank

One of the refinery’s flagship game changer projects is our new 100 million litre capacity crude oil tank, scheduled for completion in 2017.

The new tank will increase the refinery’s storage capacity by an enormous 40%. It will significantly increase our production capabilities by allowing blending and processing of a wider range of crude oils, and reduce shipping costs by allowing ships to be fully discharged in less time.
Focus area - Productivity

Viva Energy is driven by people.

Our future success relies on every one of the around 700 people who work here, working towards our common goals and having the support and opportunity to perform at their best.
Engaged, high performance people

We understand that our people are what make our business a success, and it is our people who will ultimately bring about the changes necessary to have a refinery in Geelong for the future. Because of this, we must work even harder at engaging our workforce, building trust and acknowledging the resilience and contribution made by all who choose to work at the refinery.

How we’ll do it

- We will continue to invest in attracting, developing and rewarding the best people to ensure our future success.

- During this time of substantial change, we need to engage more than ever in open and honest two-way communication with all of our workforce and other partners.

- We will continue the rollout of goal plans, capability development and performance appraisal practices for all employees, both classified and award.

What we have already achieved

Employees leading the way

Viva Energy encourages our employees to become actively involved in the local community. In 2016, 195 of the refinery’s employees donated $50,000 dollars to local charity Give Where You Live. Viva Energy then doubled this generous donation, leading to a total contribution of $100,000. We also run programs where employees can help a range of local and national charities through team building activities, performing good deeds or volunteering to act as community ambassadors.
Fit for purpose

Since our construction in 1954, people have always been the refinery’s greatest asset - from the teams of predominantly international workers who built the refinery, to the majority Geelong-based workforce of today. We have a responsibility to ensure the future of the refinery for the livelihood of our people, our contractors and the families they support, and to create an environment that brings out their best.

How we’ll do it

- We will continue to support a highly-skilled and experienced team of people comparable in size and structure to refineries of similar scale to us, while ensuring that our operations remain safe and reliable.
- In August 2014 we began an organisational change program. Since this time, all departments have been reviewed and in some areas restructured. This process will be completed in 2018.
- We will continue to support apprentices to ensure we sustain the skills base we need locally.

What we have already achieved

Apprenticeships for locals

Currently the Geelong Refinery employs 12 apprentices comprising of four mechanical fitting trades and eight electrical and instrument apprentices.

Of these young people just starting their careers, seven were referred by one of our community partners, Northern Futures. Northern Futures exists to create employment opportunities for local Corio and Norlane residents. Together, we’re making that happen.
Focusing on our future

Operating safely and reliably with care for the environment is always our number one priority.

We also need to implement the game changers we've detailed here, which are necessary to ensure the long-term success of the Geelong Refinery.

Such success will require support from employees, the community and other important stakeholders.

With that support we know we can win, preserving the jobs at the refinery and the contribution made by Viva Energy each year to Geelong and the Victorian economy.