



Air Quality Coordinator
Department of Environment, Land, Water and Planning
PO Box 500
Melbourne VIC 8002
By Email: air.quality@delwp.vic.gov.au

July 10, 2018

Dear Air Quality Co-ordinator

Re: Clean Air for All Victorians - Victoria's Air Quality Statement

Viva Energy Australia Pty Ltd (Viva Energy) welcomes the opportunity to comment on the *Clean Air For All Victorians Victoria's Air Quality* paper (the Paper) and welcomes further consultation beyond the preliminary information supplied with this correspondence towards developing an Air Quality Strategy for Victoria.

About Viva Energy

As the exclusive distributor of Shell branded fuels and lubricants in Australia, Viva Energy supplies around 55% of Victoria's and 25% of Australia's fuel needs. We operate across all areas of the liquid fuels supply chain including crude and petroleum product imports, refinery operations, fuel storage, terminal and distribution networks, customer solutions, retail and marketing.

We have an important role in Victoria overall, where every year we supply the fuel to refuel around two million petrol vehicles, over half a million diesel cars and trucks, and 800 ships. We supply more than half of Victoria's fuel needs, around half of Melbourne Airport's jet fuel needs and 100 percent of Avalon Airport's jet fuel needs.

Therefore, we have a natural interest in discussions about Victoria's Air Quality as we recognise that the distribution and consumption of petroleum products can contribute to emissions and have an impact on urban air quality.

Viva Energy's business in Victoria comprises a 250 site-retail network and a bulk fuels, aviation, bitumen, chemicals, marine and lubricants business supported by Geelong Refinery and our major fuel storage and distribution terminal in Newport.

Geelong Refinery

Geelong Refinery is a critical part of Viva Energy's business and provides significant benefits to the local Geelong, Victorian and Australian economies. On a local level, it directly supports more than 700 manufacturing jobs. With a production capacity of up to 120,000 barrels per day, Geelong Refinery supplies over half of Victoria's fuel needs and around 10% of Australia's demand.

Geelong Refinery is the only refinery in Australia producing solvents (for industries such as paint manufacture), bitumen (to support major infrastructure projects), avgas (for piston engine planes) and low aromatic fuel to help combat petrol sniffing in Northern Australia. As the exclusive supplier of jet fuel to Avalon Airport, we truck jet fuel directly from Geelong Refinery to the airport.

The Geelong Refinery is an energy intensive, high technology manufacturing process which converts crude oil to marketable petroleum products and, given a large proportion of fuel used in Australia is imported, Geelong Refinery competes head on with international refineries. The industry has been repeatedly recognised as an Emission Intensive Trade Exposed Industry (EITE) through multiple Government processes over a decade or more.

We encourage any new government policy to consider and recognise this trade exposure to ensure the refinery is operating on a level playing field with both local and international competition.

Newport Terminal

Viva Energy's Newport Terminal in Spotswood is one of Victoria's primary fuel distribution centres. It services the Melbourne and greater Victorian marketplace for fuels (including truck and pipeline supply of jet fuel to Melbourne Airport. Newport Terminal has 40 storage tanks with a total capacity of 140 million litres and vehicle filling gantries for fuels, solvents and lubricating oils.

Australian Fuel Quality Standards

The framework for national fuel quality standards is provided under the *Fuel Quality Standards Act 2000* (Cth) and the *Fuel Quality Standards Regulations 2001* which regulate fuel parameters that can have a direct impact on the environment. Part of the National Clean Air Agreement's work plan from 2015 - 2017 was a review of the *Fuel Quality Standards Act 2000*.

Through the ongoing review and implementation of tighter fuel standards in Australia, there has been a reduction in the amount of toxic pollutants from vehicle emissions, such as benzene and particulates, with studies estimating reductions of up to 50 percent for some pollutants over 20 years¹. As the Paper also recognises, '*air pollutants associated from motor vehicles has continued to reduce due to emission controls and fuel standards*'.

Viva Energy has been actively engaged and supported tighter fuel quality standards for many years including in 2004, when we commissioned the first ultra-low sulphur diesel production facility in Australia at Geelong Refinery ahead of the regulated requirement to do so. The \$160 million investment has helped to reduce sulphur emissions from vehicles, trucks and equipment using diesel.

Viva Energy has also been actively involved in various consultations for the recent Ministerial Forum on Vehicle Emissions. As part of this work, the Forum is considering a suite of reforms including:

- Introduction of Euro 6 vehicle emissions standards;
- Tightening the CO₂ standards for motor vehicles; and
- Reviewing fuel quality standards – including the recommendation to reduce the sulphur limit in gasoline to 10 parts per million (ppm).

While Viva Energy supports a transition to lower sulphur gasoline by 1 July 2027 as part of the current Ministerial Forum on Vehicle Emissions, it is important to note that the average sulphur levels of petrol currently supplied to the Australian market are significantly lower than the Australian fuel quality standards. The Australian Institute of Petroleum (AIP) examined the sulphur levels for every parcel of fuel imported and produced in the Sydney and Melbourne markets in 2014-15. Based on this study, it found that in markets supplied by Australian refineries such as Melbourne, the 2014-15

¹ Department of the Environment and Energy, Fuel Quality Standards, www.environment.gov.au/topics/environment-protection/fuel-quality/standards

average sulphur levels for Unleaded Petrol (ULP) were 60 ppm and 28 ppm for Premium Unleaded Petrol (PULP), well below their respective 150ppm and 50ppm limits².

New marine emission regulations will also come into effect from 1 January 2020, under the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (Cth). The effect of these regulations is that all ships and vessels will be required to reduce their sulphur emissions. The International Maritime Organisation has set a global limit for sulphur content in fuel oil used on board vessels of a maximum of 0.5% mass by mass (m/m). These changes are being introduced with the aim of reducing the impacts of sulphur dioxide emissions on the environment and human health.

We have long supported a consistent and where possible, national approach to government policies including proposals for meeting Australia's emissions reduction objectives. To this end, we support the Paper's intent in '*recognising the importance of cost-effective and consistent national approaches to reducing air pollution*'.

Air Emissions

Manufacturing, storing, supplying and using fuels and oil products can cause air emissions. The Geelong Refinery and Newport Terminal operate under licences issued by the Environment Protection Authority of Victoria (EPAV) under the *Environment Protection Act 1970*. These licences prescribe conditions and limits for air emissions and Viva Energy is required to monitor and report on compliance with these conditions. The results are submitted to the EPAV through an Annual Performance Statement.

Daily monitoring of the (ambient) air quality adjacent to the Geelong Refinery has been undertaken for many years and is consistently in the "Very Good" range. These results are available on our website at www.vivaenergy.com.au/about-us/environment-and-sustainability

Emissions from our facilities are also reported annually and the data is publicly available to the community, industry and government via the national Pollution Inventory (NPI).

Viva Energy supports the proposal of having a state-wide emissions inventory that utilises existing frameworks and data such as the NPI to avoid a duplication of reporting and red tape. Any policy measures should be designed to reduce complexity, administrative and regulatory burden on industry. We support a simple yet efficient policy framework, which by definition preferences a streamlined approach and reduces duplication of administrative efforts.

Emission Reduction Measures

We are committed to managing emissions from our operations to minimise or reduce emissions as well as to meet regulatory requirements. In doing so, we have made significant investments in our equipment and processes which have seen emissions from our operations reduce as follows:

- **Bulk Storage Tanks** - Viva Energy has invested over \$13 million in reducing Volatile Organic Compounds (VOC) emissions from gasoline bulk storage tanks at Geelong Refinery and at major fuel terminals across Australia. This involved installing internal floating covers in fuel tanks; these covers sit on top of the fuel and provide a tight seal so that the escape of emissions is minimised.

² Australian Institute of Petroleum Vehicle Emissions Working Group on the Vehicle Emissions Discussion Paper February 2016, 8 April 2016 https://infrastructure.gov.au/vehicles/environment/forum/files/Australian_Institute_of_Petroleum.pdf

Monitoring has found that over a 10-year period, hydrocarbon emissions from gasoline storage tanks at Geelong Refinery have reduced by more than 86 percent.

- **Vapour Recovery Units (VRU)** –VRUs were installed at Geelong Refinery and Newport Terminal to collect vapour emissions during tanker refuelling operations. Filters are used to capture the vapours, which are then converted to liquid, turning a potential air emission back into fuel. This closed system significantly reduces the amount of VOC emissions that may escape to the air.

Emerging Technologies

There has been an advancement in conventional fuel engine technologies and a subsequent reduction in motor vehicle emissions. It is anticipated that these air quality benefits will continue to be captured as the motor vehicle fleet is replaced with latest and newer standard vehicles.

In addition, change in the automotive sector is advancing fast with new technologies emerging for transport as well as a shift in transport behaviours including: electric vehicles, alternative fuels, autonomous transport and ride sharing which will all have the benefit of reducing emissions.

Engine technologies continue to evolve with electric, hybrid and hydrogen fuel cell vehicles and Viva Energy is watching these developments closely. Viva Energy is a member of Hydrogen Mobility Australia and supports their coordinated approach to analysing hydrogen as a viable transport option in Australia.

Victoria's Air Quality Strategy

Australia continues to have enviable air quality and Viva Energy considers that the forthcoming Victorian Air Quality Strategy will build on the significant gains that have already been made in improving urban air quality and fosters the cooperative approach between industry and government towards policy development.

In forming the strategy and in implementing actions to *'improve our understanding of where and when pollution occurs'* consideration should be given to:

- **Standards** - ensure a consistent approach to monitoring and reporting air quality, including for like industries having consistent requirements within Environmental Protection Licences for emissions limits and monitoring (for example; stack and bubble limits) so as to promote a level playing field;
- **Emission Inventory** – consultation with industry and relevant stakeholders including best practice regulation impact assessment on any subsequent policy proposals as a result of emission inventory figures and /or forecasts;
- **Emissions reduction measures** – where there is a demonstrated need and subject to a net community benefit;
- **National Consistency** - consider work streams of The National Clean Air Agreement particularly around the 2018-2020 work plan which includes *'completing the adoption of new emission and efficiency standards for new wood heaters and a continued commitment to sharing best management practices across jurisdictions'*.

We note that at this stage, Government is seeking industry views on some preliminary ideas for consideration to monitor, reduce and consider future air quality issues and that further consultation

opportunities will be available on these topics. Specifically, our views on the proposed measures covered are:

- **Improving our understanding of where and when air pollution occurs** – Viva Energy supports targeted and meaningful air quality monitoring. We have seen the value of regular and recordable air quality monitoring in helping with community understanding and confidence, particularly around our Geelong Refinery where we monitor and report on our website air quality data. We encourage Government however to utilise existing databases of air monitoring such as the National Pollution Inventory to avoid duplication and reduce red tape for industry.
- **Empowering Communities** – We have found that air quality monitoring around industrial facilities (such as our Geelong Refinery) and having the information readily available on our website has been valuable in having an informed conversation with the local community. Viva Energy supports ongoing monitoring at Geelong Refinery and reporting this data on our website.
- **Reducing the occurrence of air pollution** – Viva Energy has already been active in installing floating tank roofs and Vapour recovery units at our terminals and refinery. We would appreciate early consultation on any additional measure identified by government that might be relevant to our industry and that any potential initiatives be subject to a net community benefit assessment prior to implementation.
- **Tackling emerging air quality challenges** (*improving guidance on the location and design of sensitive uses*) – through our participation in the Major Hazard Facility Committee Review (conducted in late 2016), and Reforming of Victoria's Planning Provisions (December 2017), Viva Energy supported strengthening of the planning regulations to limit encroachment on industry facilities such as terminals, refineries and pipelines from sensitive uses such as childcare centres, schools and aged care facilities. This is important so as to manage land use situated adjacent to or proximate to our facilities to ensure that, we continue to be able to operate safely, with minimal impact on the community, have the capacity to grow to meet future liquid fuel demand and without the added time, administration and cost burden in managing proposed developments and associated planning issues. Viva Energy consistently objects to such developments proposed within close proximity to our facilities and works closely with Energy Safe Victoria (ESV), WorkSafe Victoria and local Councils on these matters.

While not specific to the Victorian Government's Air Quality Strategy, but of potential relevance, is that Viva Energy through the Australian Institute of Petroleum (AIP) has for the past 40 years sponsored the independent *Health Watch* study to monitor the health of petroleum industry employees. The study underpins the very longstanding commitment of the industry to the health and wellbeing of their employees.

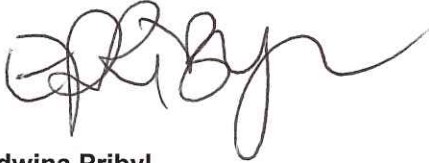
This internationally recognised research covers over 20,000 past and present employees during their time in the industry and after they leave or retire to track what happens to their health. *Health Watch* is a detailed analysis of job types, lifestyle influences, and illness and causes of death. The health of petroleum industry employees is then compared with data for the overall Australian community.

The study provides valuable insights into the influences on employee health, such as the relationship between the incidence of various cancers and working in the industry, and the measurable effects of an employee's lifestyle. The findings of the study assist the petroleum industry to develop workplace policies and programs that are providing safe and healthy working environments.

The 15th report is due for release shortly and may be of interest to government in this context. The latest and past reports can be found at <https://aip.com.au/programs/health-watch>

We welcome the opportunity to contribute to Victoria's Air Quality Strategy, and look forward to ongoing discussion and further consultation in due course. Should you wish to discuss any aspect of our submission, please contact me on (03) 8823 4148 or via edwina.pribyl@vivaenergy.com.au.

Yours Sincerely



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