CLIMATE AND HEALTH ALLIANCE

Viva Energy Gas Terminal Project

CAHA submission in response to the proposed Viva Energy Gas Terminal Project

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About the Climate and Health Alliance

The Climate and Health Alliance (CAHA) is a national charity and the peak body on climate change and health in Australia. CAHA is an alliance of organisations within the health sector working together to raise awareness about the health risks of climate change and the health benefits of emissions reductions.

The membership of CAHA includes a broad cross-section of health sector stakeholders with 90+ member organisations, representing healthcare professionals from a range of disciplines, as well as healthcare service providers, institutions, academics, researchers, and consumers.

For more information about the membership and governance of the Climate and Health Alliance, see www.caha.org.au.

About the proposed Viva Energy Gas Terminal Project

The Viva Energy proposal is to develop a Floating Storage and Regasification Unit (FSRU) in Corio Bay to import gas from overseas or interstate to sell to the south-eastern Australian market.

The project comprises dredging of a channel to accommodate large gas tankers, extending the existing Refinery Pier to facilitate the continuous mooring of an FSRU, the construction of nitrogen and odorant injection facilities, and construction of a 6.5km pipeline from the gas import terminal to Lara.

The project life is estimated to be a minimum of 20 years.

Overview

This submission is a response to the proposal for the Viva Energy Gas Terminal Project (the project), which comprises of the development of a gas terminal using a floating storage and regasification unit (FSRU) at Refinery Pier in Corio Bay, adjacent to Viva Energy's Geelong Refinery.

This submission is a combined response to the Environment Effects Statement (EES), draft Planning Scheme Amendment (PSA), and the Environment Protection Authority (EPA) development licence applications and pipeline licence application.

The Climate and Health Alliance strongly opposes the Viva Energy Gas Terminal Proposal. CAHA does not support the continuation or expansion of gas infrastructure in Corio Bay, or anywhere else in Australia, as it carries significant risks for human health and wellbeing, exacerbates climate change and environmental damage, and is contrary to state and national climate policy.

The expansion of gas infrastructure, such as the one proposed in Corio Bay, poses immediate and long-term dangers to the health of local communities, Australians, and people around the world (IPCC, 2021).

The proposed project also goes against many existing legislation and strategies. These include the Climate Change Response Plan of the City of Greater Geelong, Victoria's Climate Change Act, and the Commonwealth's international obligations under the Paris Agreement.

The Australian Energy Market Operator (AEMO) latest official gas forecast for the state of Victoria concludes that "annual Victorian production is sufficient to meet forecast annual DTS demand in 2026". After which date it is reasonable to assume that programs across Victoria to achieve the state's emissions reduction target of 45-50% by 2030 will have reduced future demand for gas.

The proposed LNG import terminal would be built in close proximity to Victoria's second largest city, and would place approx. 30,000 residents within a 3.5 km radius of the project, with some residential houses in the suburb of North Shore as close at 250m to the shipping channels. This is not in line with best practice LNG safety regulations and exposes many Geelong citizens to unnecessary health risks and property devaluation.

In addition, the dredging required for the Viva proposal poses significant environmental risks to the nearby wetlands, many of which are protected under the Ramsar convention and have state and national significance.

Health Risks

Gas - also known as LNG - poses a continuous danger to health and wellbeing, especially for communities living and working around gas sites, and to local food and water supplies (Haswell & Shearman, 2019). This is true for every phase of gas exploration, mining, extraction, storage and usage.

Gas development also affects local and regional air quality, causing acute and chronic respiratory and heart conditions, neurological problems, and cancer. Associated emissions from cars, trucks and buses, power plants, and off-road equipment, plus fugitive emissions (production losses and leaks) all pose added health risks (APPEA, 2017).

Living and working near gas sites exposes people to increased risk of cardiovascular disease (McKenzie et al., 2019), sinus disorders, fatigue and migraines, asthma hospitalisations (Tustin et al., 2017), neurological, kidney and urinary tract conditions (Denham et al., 2019), blood/immune diseases and cancer (McCarron, 2018; Werner et al., 2018), skin rash, irritation, nausea or vomiting, abdominal pain, breathing difficulties, cough, nose bleeds, anxiety/stress, headache, dizziness, eye irritation, and throat irritation (Colborn et al., 2011).

Other reported risks include higher frequencies of low birth weight, extreme premature births, higher-risk pregnancies and some birth defects, among pregnancies spent closer to unconventional gas mining activities, compared with pregnancies further away (Currie et al., 2017; Whitworth et al., 2018; Janitz et al., 2019).

End-users of gas also face severe health consequences; all gas-burning appliances produce pollutants such as carbon monoxide, nitrogen dioxide, particulate matter, volatile organic compounds and polycyclic aromatic hydrocarbons that can have adverse health impacts (DEA, 2020). Recent reports have shown that household gas appliances leak dangerous pollutants even when not in use (Lebel et al., 2022).

These health effects can have a greater impact on low-income households, and disproportionately affect children and adolescents (Climate Council, 2021). For example, a recent scientific study showed that 12% of childhood asthma is associated with indoor gas use (Knibbs et al, 2018).

Climate Risks

Gas is a fossil fuel. Gas production and development releases methane which can trap 86 times as much heat in the atmosphere as carbon dioxide (EPA, 2017). Methane is a major driver of climate change.

According to the Gas Industry Social and Environmental Research Alliance (GISERA), fugitive emissions in Australia account for 6% of our greenhouse gas emissions contributing to climate change. There are several reports assessing that fugitive emissions from gas mining are at the level of between 2%–3.2% of production. This would likely undermine any relative reduction in greenhouse gas emissions of gas production when compared with coal mining (Alvarez et al., 2012; Wigley, 2011).

We are already witnessing the immediate, medium and long-term health effects of climate change through record-breaking heat waves, droughts, floods, forest fires and cyclones. Food and water security concerns among Australian communities are increasing. Growing and extending the use and production of gas would further accelerate both the direct and long-term health impacts of climate change and would be counterproductive to state, national and global action to reduce greenhouse gas emissions (Haswell and Shearman, 2019).

There is no place for the construction of infrastructure that supports the use of fossil fuels for the next two decades when there is an imperative to drastically reduce our reliance on fossil fuels by 2030 (Climate Council, 2021).

Moreover, Australia has plenty of renewable alternatives to gas, including biogas, geothermal and solar (ARENA, 2015). Australia's growing renewable energy capacity already outcompetes gas and coal generation. A recent report by the CSIRO and AEMO confirms the status of wind and solar as the cheapest sources of new electricity supply, even after the costs of storage and network investments are taken into account (CSIRO, 2021).

Australia’s Reserve Bank has endorsed a warning that without more ambitious Australian and international climate change policies, more frequent weather-related disasters and ‘transition risk’ will lead to a financial crisis and fall in global productivity (NGFS, 2020). The Australian Energy Council (AEC) recognises the need to decarbonise the economy and supports stable national policies to do so (AEC, 2021).

Legislative Risks

Key approvals required for the project under Victorian legislation are a Development Licence under the *Environment Protection Act 2017,* and a controlled action under the federal *Environment Protection and Biodiversity Act (1999).*

Two other key requirements are that the project is in accordance with Victoria's *Renewable Energy (Jobs and Investment) Act 2017 (Vic*), and the Victorian Interim Emissions Reduction Targets 2021-2025, *Victoria's Climate Change Act 2017*.

However, the Environment Effects Statement (EES) has not been required to address either of these requirements. For example, the EES has not been required to consider Victoria's legislated commitment to renewable energy targets and interim emissions reductions targets 2021-2025. It is therefore an inadequate analysis to fully understand the environmental consequences of Viva Energy's proposal.

Additionally, the proposed project would go against other existing legislation and strategies, such as the Climate Change Response Plan of the City of Greater Geelong, and the Commonwealth's international obligations under the Paris Agreement.

The import of fossil gas into Victoria is contrary to Victoria's current energy policy, including its updated renewable energy targets (VIC, 2021a) and its draft gas substitution roadmap (VIC, 2021b).

A lack of coordinated regulation of gas development between States, territories and the Federal government also exposes this project to significant risks. For example, a lack of coordinated regulation to enact and enforce health impact assessments of gas developments is directly putting people's health at risk, and exposes gas projects to legal risks (CAHA, 2022).

Lastly, there is no demand-side need for additional gas supplies. The Australian Energy Market Operator (AEMO) latest official gas forecast for the state of Victoria concludes that "annual Victorian production is sufficient to meet forecast annual DTS demand in 2026" (AEMO, 2022). After which date it is reasonable to assume that programs across Victoria to achieve the state's emissions reduction target of 45-50% by 2030 will have reduced future demand for gas.

Environmental Risks

The project would impact the ecological character of Corio Bay and present risks to biodiversity and sensitive, protected environments that have state and national significance (DELWP, 2018).

Works associated with the Viva Energy project such as dredging, disposal of dredged material (490,000 m^3), and marine discharges during operation have the potential for significant environmental effects.

The Victorian government previously rejected AGL's proposal for a similar gas import terminal at Crib Point in Westernport Bay. The nearby Western Port area is considered a 'Wetland of International Importance' under the Ramsar convention, similar to Port Phillip Bay. The Minister's assessment of the Crib Point proposal concluded that "the environmental effects of the project on the marine environment of the Western Port Ramsar site are unacceptable" (VIC planning, 2021).

The project would bring continuous LNG carrier traffic and operation of the FSRU, with significant risks to the ecology and habitat values of nearby wetlands and beaches and the Western shoreline of Port Phillip. Several of these sites are protected under the Ramsar convention, and are home to several bird species listed under international migratory bird agreements (Australian Wetlands Database, 2019).

Viva Energy has been fined in the past for "a failure to properly manage and maintain a vital piece of equipment," leading to Viva "releasing levels of chemicals in the Corio Bay well above its licence limits," according to a verdict by the Victorian Environment Protection Agency (EPA, 2021). This prior mismanagement indicates there is a significant risk of environmental damage to occur at any stage of the proposed project.

In summary, CAHA does not support the continuation or expansion of gas infrastructure in Corio Bay, or anywhere else in Australia, as it carries significant risks for human health and wellbeing, exacerbates climate change and environmental damage, and is contrary to state and national climate policy.

Climate and Health Alliance Members

CAHA membership as of February 2022.

Abilita
Arriba Group
Asthma Australia
Australasian College of Health Service Management (ACHSM)
Australasian College of Nutritional and Environmental Medicine (ACNEM)
Australasian Epidemiological Association (AEA)
Australasian Society of Lifestyle Medicine (ASLM)
Australian Association of Gerontology (AAG)
Australian Association of Social Workers (AASW)
Australian Chiropractors Association
Australian College of Nursing (ACN)
Australian Council of Social Service (ACOSS)
Australian Federation of Medical Women (AFMW)
Australian Healthcare and Hospitals Association (AHHA)
Australian Health Promotion Association (AHPA)
Australian Indigenous Doctors' Association (AIDA)
Australian Institute of Health Innovation (AIHI)
Australian Lesbian Medical Association (ALMA)
Australian Medical Students' Association (AMSA)
Australian Nursing and Midwifery Federation (ANMF)
Australian Physiotherapy Association
Australian Podiatry Association (APodA)
Australian Primary Health Care Nurses Association (APNA)
Australian Psychological Society (APS)
Australian Women's Health Network (AWHN)
Brooke Shelton - Perinatal, Child & Family Counselling
Cairns Hand Clinic
Central Australia Rural Practitioners Association (CARPA)
Children's Healthcare Australasia
Climatewise Design
Codesain
CoHealth
ConNetica Consulting
Consumers Health Forum of Australia (CHF)
Coota Girls Aboriginal Corporation
CRANAplus
Cultivate Impact
Dietitians Australia
Doctors for Nutrition

Doctors Reform Society (DRS)
Enliven Victoria
Enriching Lives Psychology
Environmental Health Australia
Faculty of Health, University of Technology Sydney
Food for Thought Consulting Australia
Friends of CAHA
Health Care Consumers' Association ACT
Health Consumers NSW
Health Issues Centre (HIC)
Health Nature Sustainability Research Group (HNSRG)
Health Services Union (HSU)
Healthy Futures
Indigenous Allied Health Australia (IAHA)
Inner East Primary Care Partnership (IEPCP)
Institute for Sustainable Futures, University of Technology Sydney
Kooweerup Regional Health Service (KRHS)
Lowitja Institute
Medical Association for Prevention of War (MAWP) Australia
Medical Scientists Association of Victoria (MSAV)
Metta Health & Psychology
MinterEllison
Motion Energy Group
Mott MacDonald
National Association of Aboriginal and Torres Strait Islander Health Workers and Practitioners (NAATSIHWP)
National Rural Health Alliance
Naturopaths and Herbalists Association of Australia (NHAA)
NSW Nurses and Midwives' Association (NSWNMA)
Optometry Australia
Pharmacists for the Environment Australia (PEA)
Psychology for a Safe Climate (PSC)
Public Health Association of Australia (PHAA)
Queensland Nurses and Midwives Union (QNMU)
Royal Australasian College of Physicians (RACP)
Rural Doctors Association of Victoria (RDAV)
SANE Australia
School of Public Health, University of Sydney
School of Public Health & Social Work, Queensland University of Technology
Second Chance Psychology
Services for Australian Rural and Remote Allied Health (SARRAH)
Veterinarians for Climate Action (VFCA)
Victorian Allied Health Professionals Association (VAHPA)

Weenthunga Health Network
Women's Health East (WHE)
Women's Health Goulburn North East (WHGNE)
Women’s Health in the North (WHIN)
Women's Healthcare Australasia

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