



Prospect Hill International

# FREQUENTLY ASKED QUESTIONS

May 2024 –



# ABOUT THE PROJECT

## 1. What is the Project?

Prospect Hill International Pty Ltd (Prospect Hill) is proposing to construct and operate an Energy from Waste facility at 164-200 McManus Road, Lara. The proposed facility would divert approximately 400,000 tonnes of waste from landfill each year and convert it into energy. This is at a time when Victoria is experiencing increased pressure on current landfills and a number of landfills will close in the next 5-10 years. This Project will importantly support the transition away from Victoria's dependency on landfills towards a circular economy.

## 2. Who is Prospect Hill International?

Prospect Hill is an Australian-owned and based company located in Melbourne. We are an Energy from Waste business led by three Directors, who are engaging with specialist local and international environmental and engineering consultants to deliver the Project. Using our combined Project experience and industry contracts, we are committed to developing a state-of-art facility to support a sustainable solution to the waste management in Victoria.

## 3. Where is the facility to be built?

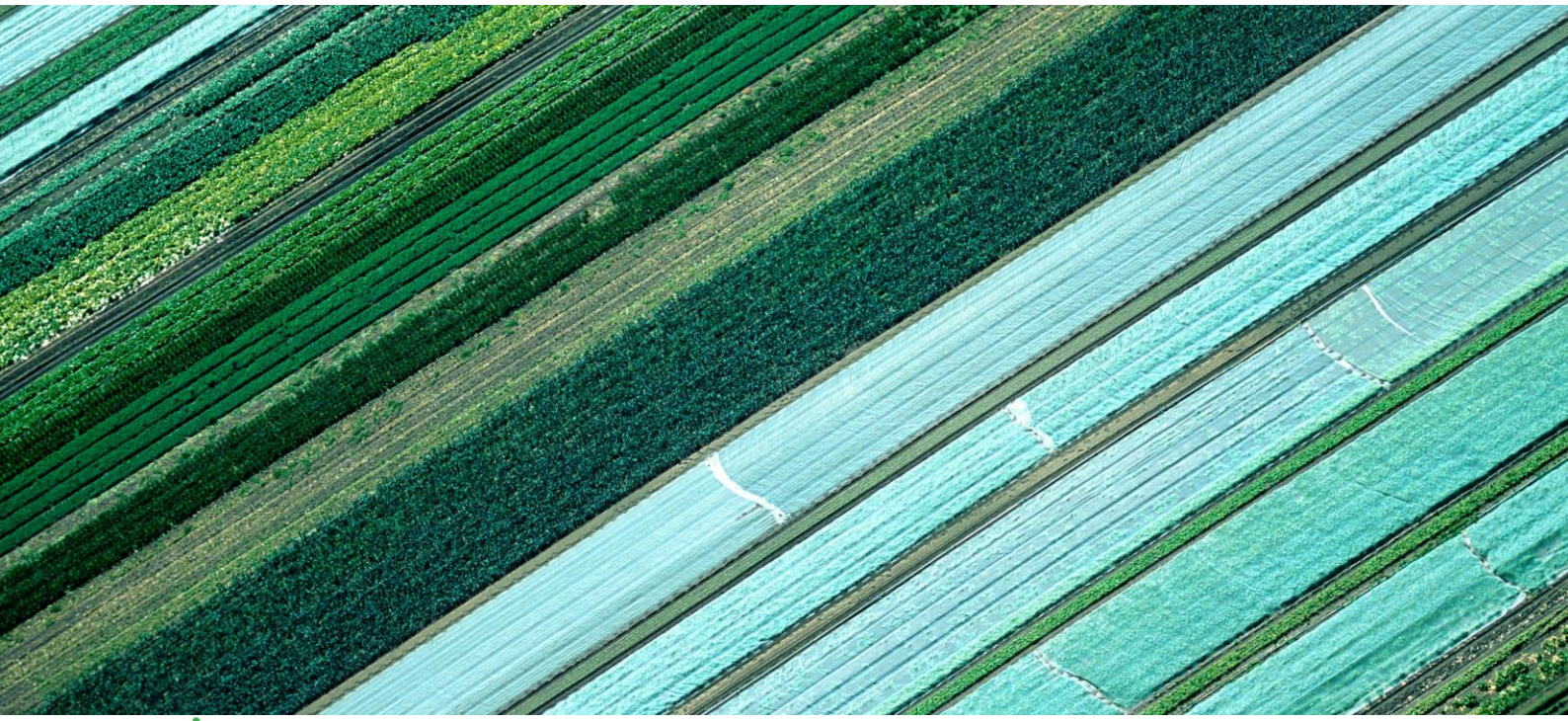
The Energy from Waste facility will be developed at 164-200 McManus Road, Lara.

## 4. How was the site selected?

The site was selected during the feasibility stage of this Project, where we assessed several potential sites using the following key criteria:

- zoning of the land
- road access
- availability of services
- site readiness
- potential social and environmental impacts.

The key factor which made the site suitable for this Project is the location within the Geelong Ring Road Employment Precinct (GREP). The GREP is Geelong's largest designed industrial development precinct and includes over 500 hectares of land zoned for heavy industrial purposes. Complementing the GREP is the fact that the Project site is located within an industrial planning zone (Industrial 2 Zone or "IN2Z") which is designated for large industrial purposes.



## 5. What are the benefits of this Project?

The Project will importantly process waste which cannot be reused or recycled that would otherwise go to landfill.

By diverting this waste from landfill the Project helps to reduce large amounts of greenhouse gases entering into the atmosphere, as well as avoiding other negative impacts of landfills (e.g. soil pollution, water pollution, odour, reduced amenity, etc). While providing a new source of energy for Victoria, the Project will create numerous jobs for the local community. Prospect Hill are committed to sharing the benefits of this Project with the local community through employing locals and using local resources such as trades and supplies.

## 6. How many jobs will be created?

This Project will contribute to the community by creating hundreds of jobs during the construction of the facility and around 30 ongoing roles during its operation. Prospect Hill will prioritise the hiring of locals and the use of local businesses during the lifecycle of the Project.

## 7. What is the circular economy?

A circular economy is an economic system that uses innovative design, technologies and recycling systems that:

- Promote the continuous reuse and recycling of goods by reusing them
- Preserve resources and prevent waste ending up in landfill
- Reduce impacts on the environment
- Encourage economic growth.

## What stage of the approval process is the project at?

On 6 December 2023, the Victorian Environment Protection Authority (EPA) issued a Development Licence to Prospect Hill. The EPA assessed the application against the Environment Protection Act, state regulations and relevant policies, guidelines and standards.

The approval of Prospect Hill's application for a Development Licence, is a result of almost three years of rigorous environmental assessment required by the EPA. The Development Licence includes a set of strict conditions which Prospect Hill needs to meet at clear milestones. If the milestones are not successfully met by Prospect Hill, the Project cannot proceed to the next phase.

For further information regarding the EPA decision please refer to:

<https://engage.vic.gov.au/project/epa-development-licences/page/prospecthill>.

## 8. What are the next steps after the Development Licence?

After the issuing of the Development Licence, Prospect Hill will also need to need fulfill other regulatory approvals.

The key approvals required are:

- **Planning permit from the Minister for Planning**
  - A Planning Permit is required to start construction. Prospect Hill submitted a planning permit application in 2021. This application will be assessed by the Minister for Planning and the Department of Transport and Planning.
- **Waste Cap Licence from Recycling Victoria**
  - In Victoria, there are limits (or a cap) on the amount and type of waste that can be sent to Energy from Waste facilities. This cap is one million tonnes each year. Prospect Hill will need to apply for an Energy from Waste cap licence from Recycling Victoria to operate.

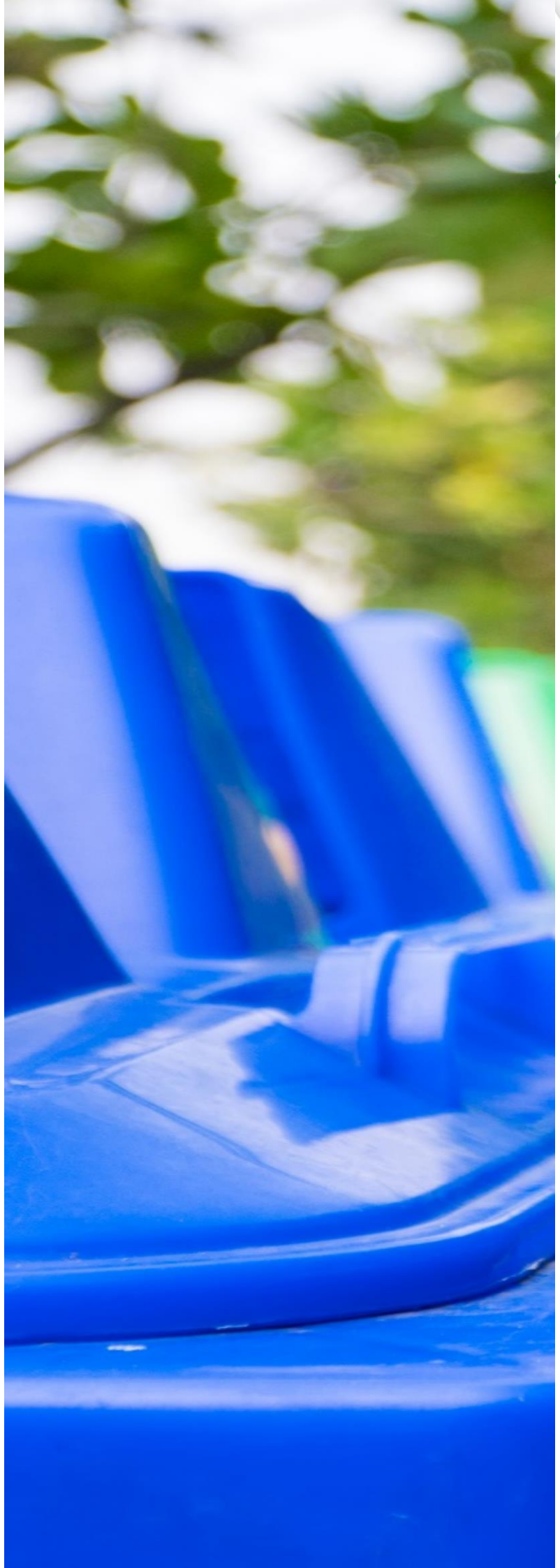
The Project will progress through detailed design and further Project development steps, which includes a 12-month waste audit in line with the requirements of the EPA. Construction is expected to commence in 2025/2026.

### Why was an Environment Effects Statement not undertaken for the Project?

Prospect Hill assessed the need for a referral for an Environment Effects Statement (EES) for the Project, in accordance with the "Ministerial guidelines for assessment of environmental effects under the *Environment Effects Act 1978*".

In the guidelines, there is a list of referral criteria which is used to help determine if a project would need an EES. Most of the criteria relate to potential effects on native vegetation, threatened flora/fauna species, ecological impacts and there is a criterion for health effects and for greenhouse gas emissions.

Prospect Hill engaged the Department of Transport and Planning to see whether the Project would require a referral for an EES. After reviewing the guidelines as well as EES referral information for other EfW projects, it was determined that the Project did not trigger any of the criteria and therefore a referral for an EES was not required.





# About Energy from Waste

## What is Energy from Waste?

Energy from Waste is a safe technology which turns residual waste materials that cannot be recycled, composted or reused into useful heat and electricity. The electricity generated is exported back into the energy grid to power Victorian homes and businesses. Energy from Waste is a widely recognised technology that can help to reduce greenhouse gas emissions and provide a reliable source of energy. It has been used across Europe, the United States and Asia for decades.

## How does the facility make electricity?

Residual waste which cannot be recycled, composted or reused is transported to site in trucks and then fed into a boiler. The waste is thermally treated in the boiler to create steam which rotates turbines to generate electricity.

## How much energy will be generated by the facility?

The Project will generate approximately 35 Megawatts of electricity. This is enough energy to power up to 50,000 homes.



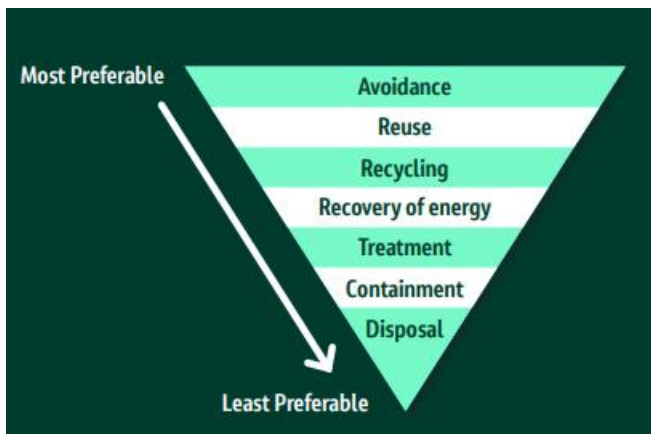
# Waste

## What waste will be processed at the facility?

The facility is planning on processing Municipal Solid Waste (MSW) and Commercial and Industrial (C&I) waste from sources such as households, offices, shopping centres and schools. Importantly, waste processed at the facility would only be residual MSW and C&I waste that is not eligible to be recycled or composted as it has been degraded during collection or compromised by other items in the rubbish bin. As a result, this waste would end up dumped in landfill, if it did not otherwise go to an Energy from Waste facility.

## Do Energy from Waste facilities undermine recycling?

The waste processed at the facility will be comprised of only residual waste – waste destined for landfill as it cannot be recycled or composted. After waste avoidance, reusing and recycling, Energy from Waste is the final opportunity to get value such as electricity from material that would otherwise go to landfill.



Victoria's Waste Hierarchy

## What is residual waste?

Residual waste is the waste that is left over after suitable materials have been recovered for reuse and recycling. This waste cannot be reused or recycled as it has either been degraded during collection or compromised by other items in the rubbish bin. Generally, the economic cost and negative environmental impact of further separating and/or recycling residual waste are greater than the potential positive benefit of doing so.

## Will the facility receive hazardous waste?

The facility will not process any hazardous waste.

## Where is the waste coming from?

Prospect Hill intends to source waste from the western and southwestern areas of Melbourne and Victoria. As the Project is in the planning and approval phase, Prospect Hill will continue to engage with councils and waste management companies in the Melbourne metropolitan area and the western suburbs to confirm potential waste feedstock.

## How do you manage the waste coming into the facility?

The waste will be sorted prior to arriving the site to be thermally treated to generate electricity. The sorting of waste helps to ensure materials that could be recycled, reused or potentially hazardous are not processed at the facility.

## What's in the proposed waste feedstock?

Prospect Hill completed waste modelling and a waste assessment for the Project. They found that the majority of the residual waste was made up of organics, paper, cardboard and plastics. A smaller percentage of the waste included metals, textiles, glass, earth-based materials and masonry. These are typical components of household waste.

# Health and Safety

## What are the health and safety impacts of the Energy from Waste facility?

As part of Prospect Hill's application for a Development Licence, a comprehensive Health Impact Assessment (HIA) was conducted. It found the risk of potential health impacts to the community would be low to negligible.

## What did the Health Impact Assessment (HIA) consider in its assessment?

The HIA considered all potential impacts, especially from air emissions, noise and particulate deposition (i.e where particulates may land on to soils or pastures and then be consumed/eaten by humans or animals). It found that:

- There are no acute risk issues of concern for health issues related to air quality and inhalation, deposition or multiple pathway exposures.
- Chronic and incremental carcinogenic risks are negligible and essentially representative of zero risk.

Prospect Hill considers the health and safety of the local community and our employees as a top priority. We are committed to providing a safe and healthy working environment and delivering an Energy from Waste facility that benefits the local community and Victoria. As the Project progresses, we will continue to monitor health and safety impacts to ensure they are promptly identified and effectively mitigated.

## Will there be any impact on air quality from the operation of the facility?

The Project has to also meet strict European and Victorian emission limits. In Victoria, the EPA requires emissions from Energy from Waste facilities to comply with European emissions limits as well as Victorian legislative standards. In Europe, emissions to air from Energy from

Waste plants are regulated by the Industrial Emissions Directive 2010/75/EU (IED).

Prospect Hill undertook an Air Quality Assessment in line with EPA guidelines and regulations. The assessment found that the emissions to air from the proposed Energy from Waste facility are minimal, with no adverse air quality impacts expected.

## What approach did the Air Quality Assessment take?

Air emissions from the proposed facility were analysed and estimated following EPA's guidelines: Energy from waste (EPA, 2017a), the Industrial Emissions Directive 2010/75/EU (IED), State Environment Protection Policy Air Quality Management and Demonstrating Best Practice (EPA, 2017b).

In accordance with policies, the assessment includes a detailed analysis of existing weather conditions. Five years of hourly meteorological data has been used as input to the modelling. We used meteorological data from the nearby Bureau of Meteorology weather station at Avalon Airport and the EPA's monitoring station at Geelong South for the air dispersion modelling for the facility.

A conservative strategy was applied for the assessment, assuming high estimates for air pollutant emissions from the proposed Energy from Waste facility. This strategy also included assessing these estimated emissions levels in different weather conditions to help understand how emissions behaviour in different weather conditions. The weather conditions were specifically based on what would be typically experienced in the Project location area between Lara and Corio.

## What emissions are produced in the process?

Air emissions from the Energy from Waste facility are the most regulated and controlled emissions from an EfW facility. The facility is required to and will implement continuous (24/7) emission monitoring systems (CEMS) for the majority of pollutants to ensure compliance with the air quality requirements.

The table below provides a summary of the types of emissions found in low concentrations and the Best Available Techniques (BAT) typically used to control these emissions and comply with environmental regulations.

Energy from Waste Emissions and treatment

Flue gas emissions	BAT Treatment
<b>Oxides of Nitrogen (NO<sub>x</sub>)</b>	Controlled by combustion control and a selective non-catalytic reduction (SNCR) system with the injection of ammonia or urea into the hot flue gases
<b>Oxides of Sulphur (SO<sub>x</sub>)</b>	Controlled by the injection of lime (alkaline) reagent into the flue gas to absorb and neutralise the acid gas compounds
<b>Halogens (e.g., HCl, HF)</b>	Controlled by lime (alkaline) reagent injection, neutralisation and adsorption
<b>Particulates</b>	Boiler ash and APC residues are filtered out in the bag filter system
<b>Heavy Metals (e.g., Hg, As, Cd, etc)</b>	Controlled by the injection of activated carbon into the flue gas which is subsequently collected downstream in the bag filter system
<b>Volatile organic compounds including dioxins and furans</b>	Destroyed by high temperature in the furnace. The reformation of these compounds is inhibited by controlling the flue gas cooling and using activated carbon injection and bag filters to absorb and remove any residuals

**What materials are released into the air? Are these toxic?**

A substance becomes toxic at the dose which begins to damage an organism. Contrary to popular belief, all substances have a certain toxicity. Protection of human health and the environment from the potential toxicity of the materials emitted to air are managed by the emission limits presented in the Development Licence.

**Will the emissions or ash affect people with asthma or other respiratory conditions?**

The Health Impact Assessment identified that there are no acute or chronic risk issues of concern for health issues related to air quality and inhalation, deposition or multiple pathway exposures.

**How does the filtration system work and is it effective?**

Prospect Hill is committed to managing the emissions from our Energy from Waste facility to reduce potential impacts to the community and the environment. The facility will include the latest effective air pollution control (APC) system. This

state-of-the-art system will use bag filters, absorption chemicals (e.g. bicarbonate, activated carbon or lime) and reactors to treat the emissions prior to being released via the stack (or chimney). The APC system will be designed so that the stack emissions comply with the strict European Union emissions limits (EU IED - Industrial Emissions Directive) and EPA Victoria limits.

**When the facility is in operation will it be monitored?**

The facility will be staffed around the clock to monitor safety and the facility's operation. The facility will include a continuous emissions monitoring system (CEMS) which will monitor the performance of the control system and the emissions from the plant 24 hours a day, 7 days a week. The CEMS will provide constant monitoring of a wide range of emissions to demonstrate the facility's compliance with the strict European Union emissions limits and EPA limits. It will also identify reductions in performance and alert the operators of any issues – before emissions reach limits.

Regular calibration checks on equipment and National Association of Testing Authorities (NATA) accredited tests will also occur on the CEMS, and an operation and maintenance program will provide



Prospect Hill International  
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the framework required to undertake regular maintenance on the plant.

In the event of facility malfunction, the facility would automatically shut down and there would be no release of emissions to the environment.

**Will the public be able to access live data around emissions?**

It is intended that emissions data will be made publicly available and captured and reported in accordance with EPA Licence requirements.

**Does Prospect Hill have emergency management plans in place for the facility?**

In line with standard practices, during construction and operation of the Energy from Waste facility, emergency management plans will be developed by Prospect Hill. They will be comprehensive plans to ensure we can respond effectively to any emergency, minimising risks to our people, the environment, and the community.



# Ash Management

## Will the facility generate ash?

During the combustion of waste at the facility, two types of ash will be generated. Bottom ash is produced in the boiler and collects at the base of the moving grate, much like a fire pit. Bottom ash is generally inert and contains non-combustible materials such as dust, sand, metal, glass and ceramics.

Air Pollution Control residues (APCr, sometimes called “fly ash”) is produced during the flue gas treatment process, when harmful substances are removed from the flue gases. APCr is collected in the bag filters then stored in air-tight silos.

## What happens to the ash?

Metals in the bottom ash will be separated, then reused or recycled. For the remaining bottom ash, Prospect Hill intends to treat the ash to enable reuse for aggregate products such as road base.

Prospect Hill also intends to treat APCr to facilitate reuse – it is increasingly common in Europe for APCr to also be reused, as additives for bricks/masonry or concrete.

Prospect Hill is planning on achieving 100% diversion of residual waste from landfill by reusing all ash generated.

## How much ash will there be?

The Project is being designed to divert approximately 400,000 tonnes per year of waste from landfills. On this basis, there will be approximately 60,000 tonnes of bottom ash and 20,000 tonnes of APCr generated.

Prospect Hill is planning on achieving 100% diversion of residual waste from landfill by reusing all ash generated.



# Impacts on people, the environment and wildlife

## Noise, odour and light

### Will the facility be noisy?

Modern energy from waste facilities include sophisticated noise reduction and sound proofing design elements to minimise noise. The appropriate management of noise levels is also a key element of regulatory approvals and was assessed by EPA.

A Noise Impact Assessment was conducted for the project. The assessment concluded that the Energy from Waste facility will meet all of the required noise limits, in line with EPA requirements.

Nearly all of the noise generating activities (e.g. unloading waste, machinery noise) will take place within enclosed buildings. Additionally, EPA concluded in their assessment that they were *"satisfied risks of harm associated with noise emissions are reduced so far as reasonably practical"*.

### Will the facility be smelly?

There will be no odour released from the facility during normal operations because the tipping hall and waste bunker will be maintained under negative air pressure – that is, air is drawn into the building from outside and used in the boiler.

The trucks that transport waste to the facility will use sealed containers so that there will not be odour or other leakage from the containers.

### Will there be light emitted from the facility?

The facility will be located in an industrial zone with the intention to have minimal impacts on surrounding residents and businesses. The facility will be designed to mitigate light impacts, especially when operating at night. The lighting to be installed at the facility will be similar to the lighting of other industrial factories currently operating in the area.

## Environment and Biodiversity

### Will the project have an impact on the environment and local wildlife?

As part of the approval process for the project, a Flora and Fauna Assessment of site was undertaken. The assessment did not identify any flora and fauna values on the Project site. A value refers to Indigenous (native) plants and animals. The assessment found that the project site had been previously cleared in the past for activities such as farming. As a result of these past activities there are no native plants or animals on the site.

## Water

### How much water will be used by the Energy from Waste facility?

We expect the facility to use approximately 2500 kilolitres of water per day during operation. This water will be used to drive the turbines, as cooling water, in the flue gas treatment and other amenities.

### Where does the water come from and how does it get there?

Prospect Hill has been liaising with Barwon Water, who is the water authority in the area, during the planning and approval phase. There are existing water supply and sewerage pipes along the site which will provide access to the water and sewer systems. Additionally, Prospect Hill is investigating the potential to use recycled water in the process.

## Contamination

### Will the facility contaminate the land or water?

A Land and Groundwater Contamination Assessment was conducted which demonstrated that the groundwater level on site was approximately 9 metres below the surface. The project will implement measures to protect groundwater from contamination and to meet all EPA requirements. These include disposing water to sewer (where required) and using impervious concrete for the site.

The development of this Project, through the diversion of waste from landfill, will also reduce land and groundwater contamination that currently occurs at landfill sites.

## Visual Impact

### How will the project mitigate the visual impact of the facility?

The location of the facility is within a designated heavy industrial zone, which is an Industrial 2 Zone for land-use planning. If there are potential visual impacts from the facility, these can be mitigated through the façade design and the use of more subtle colours and materials, to soften the outline of the building in the landscape.

## Traffic

### How many trucks will travel to site each day?

During the operation phase, there will be approximately 125 vehicles accessing the site each day. Traffic during the construction phase will vary depending on the particular work being undertaken at the time. During the peak construction period, it is estimated that there will 700 vehicle trips each work day. These vehicle trips will be directed through non-residential roads.

Prospect Hill will also prepare a Traffic Management Plan in coordination with the City of Greater Geelong and the Department of Transport and Planning. This plan will govern all project traffic during the construction and operation phases.

### Are trucks allowed to deliver waste at all hours?

Trucks are expected to arrive and leave the project site predominantly during normal business when waste collections normally occur. This is typically from 6am to 6pm. This is because municipal waste collection and the operation of transfer stations/landfills is during normal business hours. There may be times when trucks transfer waste to the plant outside of these times, however it is expected that these occasions will be infrequent.

### Will the Project lead to more trucks on the road?

The facility will be located within the Industrial 2 Zone which has existing major transport links via the Princess Freeway and the Geelong Ring Road. Our location means that we can avoid residential roads during construction and operation. The Transport Impact Assessment modelled traffic flows for the Project and found that the Project will not lead to significant traffic disruptions or blockages.

## Greenhouse Gas

### How does the Project reduce greenhouse gases?

Prospect Hill International is committed to our mission of supporting the creation of a more sustainable world. When waste decomposes in a landfill, it emits methane and other greenhouse gases. By diverting waste to the Energy from Waste facility instead of disposing in landfill, the production of greenhouse gases is avoided.

As part of the EPA approvals application, a Greenhouse Gas Assessment was conducted. The assessment found that the Project would lead to a reduction of greenhouse gas emissions of approximately 315,000 tonnes per year.

## FREQUENTLY ASKED QUESTIONS

### Will the Project impact climate change or global warming?

In the absence of Energy from Waste projects, residual waste would continue to be dumped in landfills, compounding a wide range of existing environmental problems such as greenhouse gas emissions, groundwater contamination, soil contamination and amenity issues (dust, odour, traffic, visual). EfW projects present an alternative opportunity where improvements to the environment and climate change can be made, while society transitions to a zero waste future.

As an example, PHI's EfW project will reduce GHG emissions from landfills by approximately 315,000 tonnes of CO<sub>2</sub>-e per annum – so for every year that the PHI EfW project is not in operation, these significant GHG emissions will be released to the atmosphere (equivalent to 60,000 cars on our roads).

### Was a business case for government developed?

This Project is being developed privately by a privately owned company. A business case as per the Department of Treasury and Finance (DTF) guidance is only required for public and government projects funded, delivered or overseen by government departments or agencies and where there are no other competitors.

This Project is being developed in a very competitive landscape, where there are numerous other energy from waste competitors. Disclosing the business case would put Prospect Hill at a distinct disadvantage over other competitors – it would be akin to going to a house auction and revealing your highest price to everyone.





PROSPECT HILL INTERNATIONAL

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