

6 August 2021

SUBMISSION ON VICTORIA’S GAS SUBSTITUTION ROADMAP CONSULTATION PAPER

Thank you for the opportunity to comment on Victoria’s Gas Substitution Roadmap Consultation Paper.

LMS Energy appreciates the framework that has been presented and the understanding that decarbonisation of the gas industry will involve a mix of pathways.

Further to earlier engagement opportunities in this process and the concurrent work by Infrastructure Victoria, this brief submission simply addresses the pathway of “substituting natural gas with biogas” by outlining the scale of our existing landfill biogas operations in Victoria and reinforcing the key measures needed to support the use of biogas for renewable gas supplies.

Who are LMS Energy?

LMS Energy (LMS) is Australia’s **largest carbon emissions reducer**¹, having operated for almost 40 years in the waste and bioenergy sectors. **100%** Australian owned, the company owns/operates **50 biogas facilities** across Australia and New Zealand and achieves >75% biogas capture rates across a range of these sites. It has also established 4 solar farms on Australian landfills. LMS projects abate almost **4 million tonnes of CO2e from** entering the earth’s atmosphere and generate more that **500GWhs of renewable energy each year**. **To date, LMS has prevented the release of more than 40 million tonnes of carbon from the earth’s atmosphere**². LMS does not own or operate landfills, rather we are committed to utilising biogas to reduce emissions and power a circular economy.

Figure 1 – LMS Energy’s operations



Operations Snapshot

28 landfill bioenergy facilities across Australia and New Zealand

- **70 MW** installed capacity
- Project capacities from **0.5MW to 8.8MW**
- Baseload **availability >95%**
- 100% grid connected
- Anticipating **~500 GWh** in FY21
- Equivalent power for 80,000 households
- Additional 3MW of solar PV on landfill
- ~4 million tonnes of emissions abatement pa

18 landfill biogas flaring projects (3 of which will become bioenergy power stations in the near term)

¹ <https://offsetsmonitor.org.au/> - Issued Australian Carbon Credit Units (accessed on 5/8/2021). LMS Energy is responsible for around 15% of total issued ACCUs.

² Further information is available at www.lmsenergy.com.au.

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The scale of LMS's operations in Victoria and emerging opportunity

Within Victoria, LMS captures nearly **1,000,000 cubic metres of landfill gas annually** across its **eight Victorian bioenergy projects**. It currently generates renewable electricity from the biogas at these sites, **providing around 67% of all Victoria's emissions reductions** under the national Emissions Reduction Fund.

LMS has invested around \$75 million in its Victorian infrastructure, with further investment planned. It employs over 30 people in Victoria.

Landfill biogas can play an important role in aiding the rapid establishment of Victoria's renewable gas sector, using the extensive existing biogas infrastructure for provision into the grid. LMS has previous experience in upgrading landfill biogas for gas grid injection, successfully trialling this over 20 years ago. Currently, upgrading landfill biogas for gas grid injection occurs at hundreds of locations worldwide. With the right policy settings in place it can be pursued quickly in Victoria.

There are also opportunities emerging for additional forms of biogas capture in Victoria, such as anaerobic digestion, particularly as food and organic waste collection services are made available to every household in the State by 2030.

The full suite of organic wastes (including high volume agricultural wastes) and processing technologies available mean that organic waste treatment can play a central role in moving to a circular economy powered by renewable energy.

Key opportunities to support the use of biogas

The most significant costs associated with upgrading existing biogas infrastructure to enable injection to the grid are the gas upgrading facility and the gas injection skid. Gas pipeline costs are dependent upon where the project is located (urban or regional) and the overall distance of the infrastructure from the injection point of the gas network.

Subsequently, gas upgrading and injection costs would incur additional costs relative to existing activity.

LMS has modelled costs for upgrading biogas for injection into the gas network at its existing sites and investment is not economically viable under current policy settings.

To establish at scale for a renewable grid, biogas needs a mix of measures for it to be successfully used extensively for renewable gas, most particularly:

- **Rapid development of a renewable gas certification scheme to support customers to use renewable energy**
- **Implementation of an effective Emission Reduction Fund (ERF) method for biomethane to support investment in new projects, working with the federal government**
- **Implementation of a Green Gas Target, incorporating biomethane**
- **Provision of suitable financial incentives**
- **Pursuit of supportive environmental policy and education to effectively encourage maximised gas capture**

LMS is a Bioenergy Australia member and is pleased to offer support for its submission on these policy matters.

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We congratulate the Victorian Government for its strong recognition of the importance of renewable gas to decarbonising its economy and LMS looks forward to contributing its share for a more sustainable future.

Thank you for considering our submission. LMS would be happy to discuss any aspect of this submission or any further queries as may be helpful.

Yours sincerely

