

# Submission to the Crib Point Inquiry and Advisory Committee

**FROM:** Lighter Footprints Inc. <https://lighterfootprints.org/>

**RE:** AGL Environment Effects Statement, Gas Import Jetty and Pipeline Project

26th August 2020

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*Lighter Footprints authorises Michael Nolan to speak on its behalf at the public hearing. Michael has indicated this online.*

## Background to our organisation:

Lighter Footprints is a local not-for-profit, organisation working towards a low carbon future.

Lighter Footprints is based in the eastern suburbs of Melbourne.

For more than 14 years we have educated ourselves and members of our local community about the causes of, and appropriate responses to, global warming. We have more than 2,000 associates and work with a variety of experts to inform ourselves properly and truthfully to make solid recommendations and insights. For example, our Energy Transitions Sub-Group includes an ex CFO of a major Gas Distributor, and an ex-Technical manager at a major Industrial Gas user.

## Our stance:

We object to AGL's proposed Crib Point gas import jetty and gas pipeline project. Our objections focus on two key aspects, 1) the economics of the project and 2) misalignment of AGL's proposal with legislative objectives.

### Preamble

#### VICTORIA's "Climate Change Act 2017":

*The Parliament of Victoria recognises on behalf of the people of Victoria that the international community has reached agreement to hold the global average temperature increase to well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.<sup>1</sup>*

## ECONOMIC IMPACTS

The question here is, "what problems are we trying to solve?"

- Do we have a gas supply shortage?
- On what timeframe will it become a problem? Can this be solved by reducing *Demand*?
- What other economic factors should be taken into account for the broad Victorian economy rather than narrow interests of AGL shareholders?
  - Gas price forecasts?
  - Energy security?
  - Jobs in the Victorian economy?

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<sup>1</sup> <https://www.diplomatie.gouv.fr/en/french-foreign-policy/climate-and-environment/2015-paris-climate-conference-cop21/cop21-the-paris-agreement-in-four-key-points/>

## Comments:

### 1. Gas prices will continue to rise, whereas electricity prices will continue to fall.

The Australian Energy Market Operator (AEMO) has recently released the final version of its Integrated System Plan (ISP), where a 'step change' scenario now shows the plan to achieve 94% **renewables** by 2040. Among the key messages in the ISP plan are that gas prices and network costs will continue to increase, while costs of battery costs and renewables will continue to fall. It says "Australia is on track to experience the fastest energy transition in the world"<sup>2</sup>.

### 2. Demand can be economically reduced (so that existing supply is sufficient):

Northmore Gordon<sup>3</sup> recently conducted a detailed study to assess the potential 10-year Victorian gas **supply** shortfall. They found that:

"A constant gas demand between 2020 and 2030 was modelled. Our analysis found that, on an annual basis, there is enough supply capacity in Victoria until 2027, however from 2027 until 2030 there is a shortfall of between **26 PJ and 85 PJ**".

Northmore Gordon then assessed the potential for Victoria to reduce gas **demand** over that same period to determine if demand could be economically reduced so that supply exceeded demand. They found that:

"On an annual basis, the potential avoided gas consumption from these measures (**98 to 113 PJ**) is greater than the forecast shortfall facing Victoria (**26 to 85 PJ**).

Table 4 in the Northmore Gordon report, shows that the residential sector alone accounts for **about 93 PJ/year**. This indicates that government policy aimed at transitioning the **residential sector** alone has the capacity to satisfy existing demand.

**Table 4 - Victorian Residential Gas Demand (Source, Australian and New Zealand Residential Baseline Energy End-use Model, 2015)**

| Year | Appliances | Cooking | Space conditioning | Water heating | Total |
|------|------------|---------|--------------------|---------------|-------|
| 2015 | 0.4        | 1.5     | 71.3               | 20.9          | 94.1  |
| 2016 | 0.4        | 1.5     | 70.6               | 21.2          | 93.7  |
| 2017 | 0.4        | 1.5     | 70.1               | 21.4          | 93.4  |
| 2018 | 0.4        | 1.6     | 69.7               | 21.6          | 93.3  |
| 2019 | 0.4        | 1.6     | 69.3               | 21.8          | 93.1  |

Two initiatives in the residential area would drive the required demand reduction:

- Convert from gas space-heating to electric reverse-cycle air-conditioners
- Convert from gas water heating, to electric heat pump and/or solar hot water

### 3. Economics of Electric space-heating and electric hot water:

There has been limited work done to assess the economics of these initiatives in the Residential sector. A study by the Alternative Technology Association (ATA) in July 2018<sup>4</sup>, found that for:

<sup>2</sup> 2020 Integrated System Plan (ISP), Australian Energy Market Operator.

<https://aemo.com.au/en/energy-systems/major-publications/integrated-system-plan-isp/2020-integrated-system-plan-isp>

<sup>3</sup> "Victorian Gas Market – Demand Side Measures to Avoid Forecast Supply Shortfall", Northmore Gordon, 23, March 2020.

<sup>4</sup> "Household Fuel Choice in the National Energy Market" Final Report (revised), Alternative Technology Association, July 2018.

**New Homes** – “The major finding of this study, is that by choosing an all-electric home with solar PV, a new home buyer will be in the order of **\$9k to \$18k better off over 10 years**, as compared with establishing that home as dual fuel (i.e. electricity and gas) without solar”.

**Existing homes** - The ATA model found that when a home *only has one* gas appliance, it is always better to replace it (when it is due for replacement) with an efficient electric one, in all circumstances and locations (in Australia).

The situation is more nuanced if an existing home has *more than one* gas appliance and one of them fails. Depending on whether a gas hot water system has failed, or a gas ducted heating system has failed, and then depending on the size of the household, results are marginal for switching to electric versus staying with gas.

The ATA Report points out that “the end result of households basing appliance replacement fuel choice on economic benefit is ultimately for most households to switch away from gas (whether all at once, or one at a time)”.

But the ATA Report makes the point that Government intervention will be required to offset up-front capital cost, in order to achieve reduced long-term running costs, for most owners and landlords.

**Additional economic benefits** accrue through use of above-mentioned air-conditioning;

- Reverse-cycle air conditioners: - can be utilised in summer months as well for cooling
- Jobs:-
  - Retail jobs for the sale of air-conditioners, hot water units and solar hot water.
  - Tradespeople for installation of aircon/space-heaters
  - A recent report by the Australia Institute<sup>5</sup> found the gas industry provides few jobs, pays little tax and would lock in decades of high emissions and high energy prices. The gas industry provides around 1/8th as many jobs per dollar spent as the average for all Australian industries.

Other macro-economic factors need to be taken into account in a broader context. Importing gas by sea from the USA or the Middle East or elsewhere:

- Drives jobs offshore
- Negatively impacts Australia’s ‘Balance-of-Trade’ account
- Fails to build energy-sector jobs in installing efficient appliances, as well as the renewables electricity sector that powers these types of appliances.
- Fails to build good jobs in a resilient economy for future generations
- Lowers energy security domestically (heightens reliance on other countries)
- Fails to account for shipping risks associated with geo-political tensions that may arise. For example, Political and Trade tensions between the USA and China, in shipping routes like the South China Sea and the Straits of Hormuz (controlled by Iran and Oman).

As well, Covid-19 and the contemplation of local resilience dictates that good governance requires greater consideration of the benefits to jobs and emissions of a ‘transition from gas to electricity’. Effects of Covid-19 on un-employment mean we should pause and analyse any expansion proposals of energy import infrastructure. The case has not been made that this project needs to happen in the next 3 years. By say mid-2022, if gas demand has continued to fall, and jobs have been created by switching appliances to electric and installing solar PV, then the need for increased Supply may well have been avoided.

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<sup>5</sup> [https://www.tai.org.au/sites/default/files/P908 Gas-fired backfire %5Bweb%5D\\_0.pdf](https://www.tai.org.au/sites/default/files/P908%20Gas-fired%20backfire%20web%5D_0.pdf) (Australian Institute)

### Economics - in summary

- Gas prices are rising, electricity prices are falling
- We can re-phrase the issue from Supply to Demand.
- Demand can be reduced by the Victorian government creating incentives for the Residential sector to switch just two types of appliances - space heating and hot water.
- Running cost for electric space heating and hot water are now lower than for gas appliances
- Jobs would be created by a focus on reducing residential Demand
- Energy security would be enhanced compared to relying on imported sea-borne energy
- Covid-19 dictates that jobs and the economy must be prioritised as we emerge

## LEGISLATIVE OBJECTIVES

### Pre-amble

The earth is already too hot due to increasing greenhouse gases (GHG's). We are already seeing unprecedented bushfires, floods, hurricanes and extreme temperatures in Australia as well as globally.

Natural gas consists mostly of methane. As a greenhouse gas, methane is about 85 times as potent as CO<sup>2</sup>. Gas imported under this proposal would have already leaked greenhouse gases into the atmosphere. There is growing but compelling evidence being highlighted by the CSIRO and people like Tim Forcey (ex gas industry)<sup>6</sup>, that gas emissions from well-to-home are under-reported, and higher levels than previously assumed are being released into the earth's atmosphere as situation-normal activity.

Mining corporations, fossil fuel corporations and the Commonwealth Government's National Covid-19 Coordination Commission (NCCC) are currently pushing the idea of a 'gas-led' economic recovery and promoting gas as a 'transition fuel' in the critically important shift to renewable energy. Proponents argue that it has less impact on climate change than other fossil fuels. This is fallacious. When used for *heating and transportation* (as distinct from other uses), the CO<sup>2</sup>-e emissions from natural gas are higher than other fossil fuels.

Electric space-heating and hot water heating uses electricity that has a lower carbon footprint than gas. That is today in 2020. This will improve year on year as the electricity sector transitions to ever-more renewables over the next decade. For example, Victoria's target is for 40% renewables by 2025 and 50% by 2030<sup>7</sup>. South Australia will be at 100% renewables by 2030.

The amount of gas used for electricity generation in Victoria is small, compared with the other ways gas is used in Victoria: only 9% of gas is used for electricity generation.<sup>8</sup> In Victoria, the major gas consumption is in the residential sector, where gas is mostly used for space heating and hot water. So, household gas use, rather than the electricity grid, should be the focus of decision makers on this Proposal, in responding to planning gas supply and demand.

***Increasing the production and supply of gas will only increase greenhouse emissions - at a time when it is critically important to reduce them dramatically and move quickly to near zero emissions.***

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<sup>6</sup> <https://renew.org.au/renew-magazine/climate-change/greenhouse-gas-footprint-of-gas/>

<sup>7</sup> [https://www.climatechange.vic.gov.au/\\_data/assets/pdf\\_file/0016/420370/Final-Report\\_Interim-Emissions-Reduction-Targets.pdf](https://www.climatechange.vic.gov.au/_data/assets/pdf_file/0016/420370/Final-Report_Interim-Emissions-Reduction-Targets.pdf) (Combet Report)

<sup>8</sup> "Victorian Gas Market – Demand Side Measures to Avoid Forecast Supply Shortfall", Northmore Gordon, 23 March 2020.

## Comments on Legislation and Government Treaties and objectives

Approval of the AGL Project would be counter to the following aims:

- Existing Victorian legislation (Victoria's **Climate Change Act 2017**)
- Vote of the **Shire of Mornington Peninsula Councillors** opposing the terminal
- To the Shire of Mornington's declaration of a **Climate Emergency**.
- The Federal Government commitments to the **Paris Agreement**,
- The United Nations *Climate Council global treaties* (e.g. Paris Agreement, Kyoto Agreements).
- The **UNESCO Ramsar Wetlands** listing.
- The appropriate development of **Marine National Parks**.

Various Reports, when taken together show clearly that:

1. Approval of the AGL Project would represent a **serious failure** of interpretation of a range of legislation and Treaties. The sum of individual policy and regulations by the Victorian Government, the United Nations Climate Council (e.g. Paris Agreement) the Shire of Mornington Peninsula, the Federal government, UNESCO Ramsar Wetlands, all seek to reduce greenhouse gas emissions and preserve local and global environments. Approval of the AGL project would contravene the aims of these policies and objectives.
2. The AGL proposed development is **counter to Victoria's Climate Change Act 2017**. The Climate Change Act seeks to legislate successive reductions in emissions that are consistent with a trajectory to zero emissions by 2050. Whereas, this AGL project would *increase* emissions over a 20-year time-frame, say till the year 2042. The AGL project therefore contravenes the essence and objectives of Victoria's Climate Change Act (2017), and actually places a burden onto taxpayers to fund additional activities to offset this AGL impact.
3. AGL's EES does not consider in its scope the emissions overseas from gas extraction (e.g. fracking in the USA, or extraction in the Middle East or Russia). The EES does not consider the emissions from household or industry emissions where the gas is burnt and emitted. We know a **'shadow carbon tax' is already being factored in by fossil fuel suppliers and users**<sup>9</sup> (including AGL, Origin Energy, BHP Billiton), yet this EES fails to take this into account. A strategic environmental assessment is out of scope of the AGL EES, but **needs to be done by the State Government**.

The above issues may sit outside of the scope for AGL's EES, but such issues **must be considered** in Project Approval or Rejection. Not to do so is negligent.

### Summary of Legislative Objectives:

The logical and responsible response to such an array of legislation and Treaties and Agreements - is to ensure a decision is on balance a **decision that is the most consistent with all objectives**.

The decision should be in the **'spirit of the law'**,= as well as being aligned with Legislation and Agreements. This is a simple enough test.

Referencing the above, we seek a decision to reject the AGL proposal so as to:

- reduce emissions, consistent with Victoria's Climate change Act (2017)
- reduce emissions consistent with the Paris Agreement to remain within no more than 2 degrees global warming (e.g. 60% reduction by 2030, zero emissions by 2050)
- reference the significant emissions overseas during gas extraction, which should be considered in a recognition of GHG being a problem for the global 'commons'
- be consistent with the Mornington Peninsula Shire resolutions
- protect existing Ramsar Wetlands at Westernport Bay

A wider view is required to reach a decision. Decision makers should consider legislative and non-legislative overlays in reaching a correct and proper decision. Passing the AGL Proposal would be a failure of decision makers.

<sup>9</sup> <https://www.afr.com/policy/energy-and-climate/the-shadow-carbon-price-companies-are-already-paying-20190424-p51gvc>

## Conclusion

There are two powerful arguments against this development. **Economics.....** and **Legislation.**

In Economic terms, gas prices are rising, while electricity prices are falling.

We should re-frame the AGL Proposal from a gas *Supply* shortage in 2028 - to the need to reducing *Demand* for gas. Gas demand can be reduced by the Victorian Government creating incentives and settings for the Residential sector to switch space-heating and hot water to electric. This is more economic for all households over the longer term. And this will create 8 times more jobs in our economy than importing gas.

We are seeing the climate effects already from increased greenhouse gases (GHG's). Bushfires to name but one. We must hit Legislated Climate Change targets including 50% reduction in GHG's by 2030. The AGL Proposal would increase GHG's and make Victoria's emissions reduction task more difficult and more expensive.

This is not the time to ignore our responsibility to our greenhouse gas reduction Legislation and targets, or our economy. This is not the time to drive jobs offshore.

Now is the time to build a clean economy, in a clean environment, for all generations.

Thank you for providing Lighter Footprints with the opportunity to make this submission.