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Tasmanian Gas Pipeline Pty Ltd  
Tasmanian Gas Pipeline Economic Analysis  
**Final Report**  
29 September 2020

**Deloitte**  
Access **Economics**

29 September 2020  
Darren Giri  
General Manager, Commercial  
Palisade Integrated Management Services Pty Ltd  
[Darren.Giri@palisadeims.com.au](mailto:Darren.Giri@palisadeims.com.au)

Dear Darren

**Re: Tasmanian Gas Pipeline Economic Analysis – Final Report**

In accordance with our signed offer letter dated 21 May 2020, this *Final Report* provides the findings of economic, strategic and industry analysis to develop a 'Vision Study' on the economic, social and other benefits of reticulation of natural gas to the Tasmanian Economy and the Tasmanian Gas Pipeline (TGP). The final report considers: megatrends for the Tasmanian economy in the context of TGP as well as the recent impacts of COVID-19; the economic contribution of TGP users; and presents the results of modelling of the broader economic impacts of the operations of two new TT-Line vessels and related activities.

**Restrictions on report use**

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**Basis of our work**

We have based this work on our economic research and analysis of publicly available data as well as our own economic analysis and data provided in confidence by TGP. To the extent that these key information and data change, the results of the economic analysis are likely to change.

For all enquiries on this report please contact Steve Kanowski - [skanowski@deloitte.com.au](mailto:skanowski@deloitte.com.au) or 0477 727 754.

Kind regards,



**Steve Kanowski**

Partner, Deloitte Access Economics

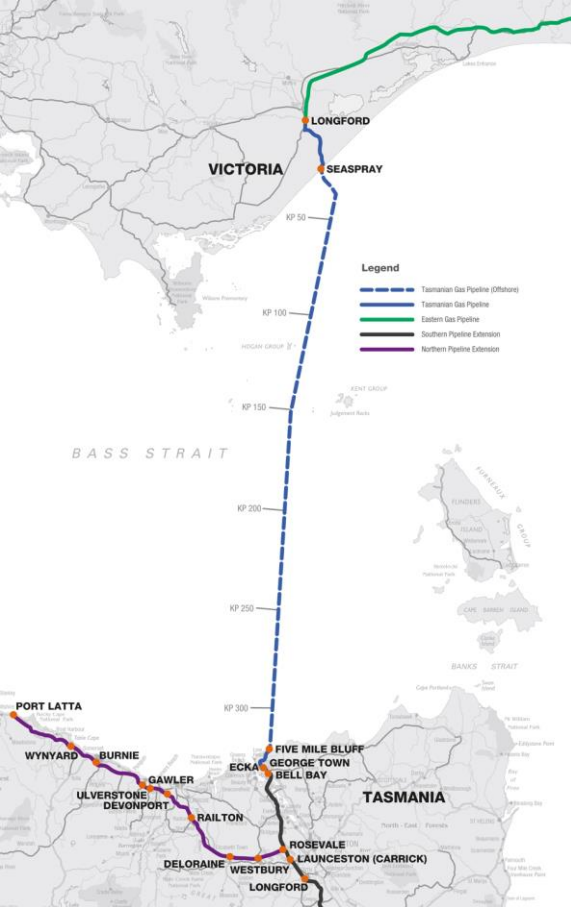
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# Executive summary

The **Tasmanian Gas Pipeline (TGP)** is a major contributor to the Tasmanian economy. It directly supports around \$1 billion of economic output and 4,000 jobs.

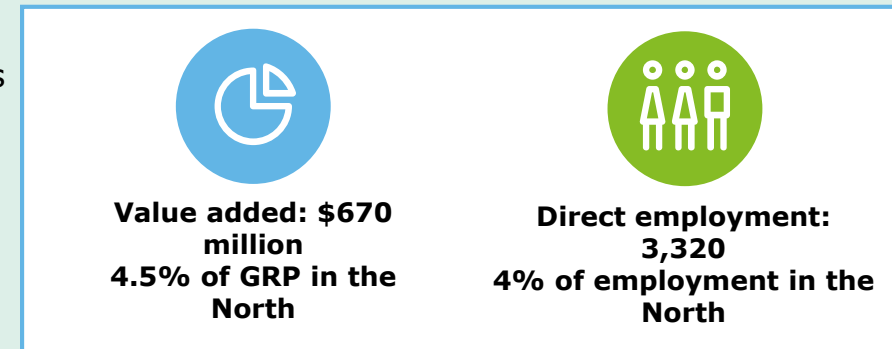
The 20 main users of the TGP **contribute** the following to the Tasmanian economy:



The TGP **services**:



The TGP is particularly important for the **north of Tasmania**. The TGP underpins many large employers in the region, with 16 of the 20 major users of the TGP having operations in the north of the state.\*\* These users account for:



\*Indirect employment is estimated using input-output multipliers focusing on C&I users of the TGP. See Appendix C for discussion of methodological considerations.  
\*\*These 16 enterprises are geographically located in the north of Tasmania and contribute to the output of the north.

The TGP helps to 'maintain and sustain' Tasmania's manufacturing sector by providing a reliable and competitive source of clean energy. It also services residential customers and adds to energy security by supplying the Tamar Valley gas-fired power station.



Tasmania has a long history of **industrial and manufacturing** innovation and achievement. These industries are **underpinned by the TGP**.

Several large employers in Tasmania, such as Grange Resources and TEMCO are heavily dependent on competitively priced gas.



The TGP provides **energy security** in Tasmania by servicing the Tamar Valley gas-fired power station.



The TGP provides a clean source of fuel for **heating and cooking** for residential and commercial customers.

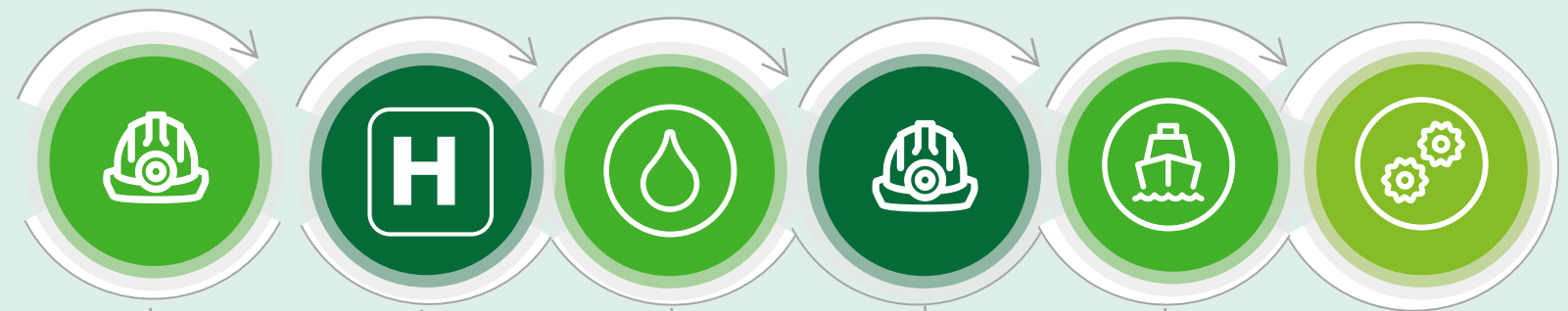


The TGP is well-placed to support the **post-COVID economic recovery** in Tasmania by providing a secure, affordable energy source for recovery-related projects.



Natural gas is a **clean source** of energy in terms of carbon emissions when compared with other fossil fuels. About 117 tCO<sub>2</sub> are released per million British thermal units (MMBtu) of gas, compared with 200 tCO<sub>2</sub> per MMBtu of coal and 160 for diesel.\* Natural gas consumption also avoids the particulate emissions associated with burning wood.

**There exists expansion and investment opportunities that could potentially be supported by the TGP:**



**Tin mining**  
There are tin mining projects in the pipeline for Tasmania worth at least \$100 million in capital spend.

**Hydrogen Plan**  
The TGP could support Tasmania's hydrogen plan in multiple ways.

**Dairy products**  
Tasmania has a strong dairy export industry that has potential to grow.

**Iron ore**  
The Rogetta iron ore project is estimated to start production in 2023 (\$100 million in capital).

**TT-Line vessels**  
Two new TT-Line vessels intend to utilise LNG as a fuel.

**Advanced manufacturing**  
The State Government has indicated it will facilitate expansion of the advanced manufacturing sector.

\* US Energy Information Administration, <https://www.eia.gov/energyexplained/natural-gas/natural-gas-and-the-environment.php#:~:text=Natural%20gas%20is%20a%20relatively,an%20equal%20amount%20of%20energy.>

## TGP and natural gas are well-placed to take advantage of global trends and support the Tasmanian Government's COVID-19 recovery plan.

### Increasing sustainability awareness

Businesses and individuals are becoming more empowered, demanding environmentally sustainable products and energy solutions.



### Energy prices

Prior to the outbreak of COVID-19, LNG exports in Queensland had exposed Australian consumers to higher world gas prices. Gas prices were falling prior to COVID-19, and have fallen further subsequently. This presents short-term opportunities for industries that are more reliant on natural gas to reduce energy costs. However, LNG prices are expected to recover from below US\$3/MMbtu to US\$5-6 in 2022 (OCE, REQ June 2020).



### Trends in commodity outlooks

The demand for Tasmania's commodities will impact on production levels and energy demand. The prices of many commodities are suppressed as a result of COVID-19, so Tasmanian manufacturers need to keep their energy costs down to remain competitive.



### Tasmania's changing economy

The Tasmanian economy is undergoing structural changes, with the labour force moving from primary production into services sectors such as healthcare, tourism and renewables. However manufacturing remains a significant contributor to the economy.



### COVID-19 impacts and opportunities

COVID-19 is having a significant impact on the Tasmanian and Australian economies. Tasmanian output is expected to be 3% lower over the year to June 2020.

## Short-term impacts

Reduction in economic output across a range of industries and some investments will be deferred or cancelled.

## Long-term opportunities

Opportunities for the TGP to support local economic recovery as well as infrastructure stimulus and industry demand.

**The TGP, through supply of natural gas, can have a positive impact on the Tasmanian economy in the future by reducing energy costs for industry.**

### State Government's COVID-19 recovery plan

Like the Commonwealth, the Tasmanian Government has announced a public construction package to help stimulate the state's economy. Other stimulus focus areas include **agriculture**, tourism, **aquaculture**, renewable energy, **advanced manufacturing**, skills and education, and trade. The availability of competitively priced natural gas will support advanced manufacturing, construction activity and other pilot type projects that may need access to gas. This could help to facilitate or potentially fast track these activities.



*The economic impact of the TT-Line vessels project is anticipated to be significant, increasing the size of Tasmania's economy by an estimated \$170 million in present value terms. The project will complement increased reliance on domestic tourism.*

**The opportunity exists to fuel future TT-Line vessels with LNG produced in Tasmania**

The new TT-Line vessels project stands to provide economic stimulus into the Tasmanian economy in three main ways:

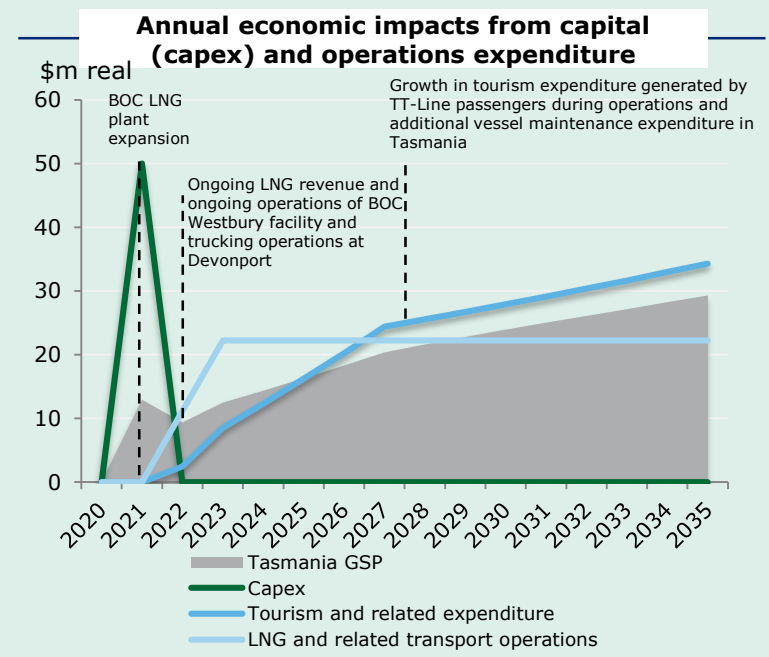
1. Capital expansion of the BOC Westbury LNG plant
2. Additional LNG production and related operations (including transport of LNG in B-Double tankers)
3. Additional **domestic tourism** and vessel maintenance (with tourism accounting for the majority, circa 90%).

This would have a significant positive impact by creating jobs in a number of industries and supporting recovery post COVID-19.

**Exploring local opportunities for new TT-Line vessels**

The State Government has recently [announced](#) that they intend to explore **local opportunities** for procuring these vessels. This will support local jobs both directly and indirectly.

**Moving now on TT-Line with LNG refuelling opportunities through BOC in Tasmania will drive significant jobs and growth.**

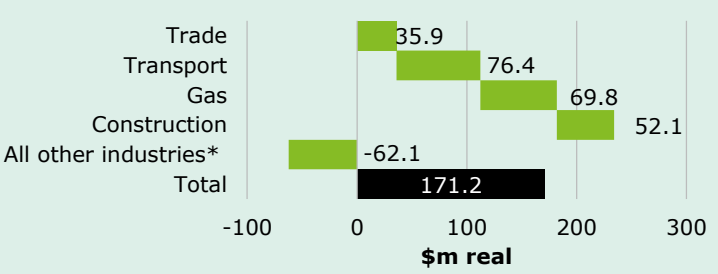


**Total impacts (present value @ 7% real discount rate, 2020-35)**

|  |  |
|--|--|
| <b>\$47m</b><br>Total capital investment                     | <b>\$172m</b><br>Value of LNG and related operations |
| <b>\$168m</b><br>Value of TT-Line vessel related expenditure | <b>\$171m</b><br>Additional Tasmanian real GSP       |

\* Based on economic modelling using DAE RGEM and assumptions developed for this economic analysis

**Industry impacts, value added, present value @7% real 2020-35**



**Employment impacts\*\*, FTE jobs (annual average and peak)**

- An additional 70 FTE jobs per year on average between 2021 and 2035
- The number of FTE jobs peaks in 2035 generating around 100 FTE jobs

\* All other industries is comprised of finance, insurance and business services; government and other services; agriculture; mining; and other manufacturing. DAE-RGEM is a model with resource constraints. As economic activity and investment increases in the Tasmanian economy it pushes up prices (e.g. the real wage). This has a 'crowding out' effect reducing value added in some of these industries. As a result, All other industries in aggregate experiences a reduction in value added.

\*\* An explanation of employment impacts is provided in **Appendix A**.



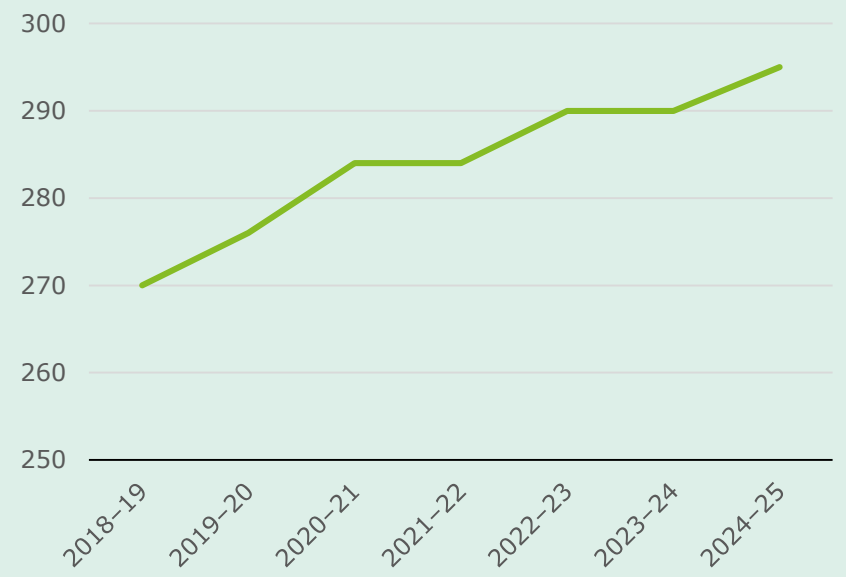
*The TGP is an important enabler of potential growth industries in Tasmania. There is capacity to expand gas output to supply new customers and projects.*

**E Export industries** - Including dairy products

**Opportunity for Tasmania to take advantage of growing export industries**

Some of Tasmania’s specialised industries, such as dairy products, have strong forecast export growth, and therefore potential to expand.

Forecast Australian butter and dairy product export values (\$m)

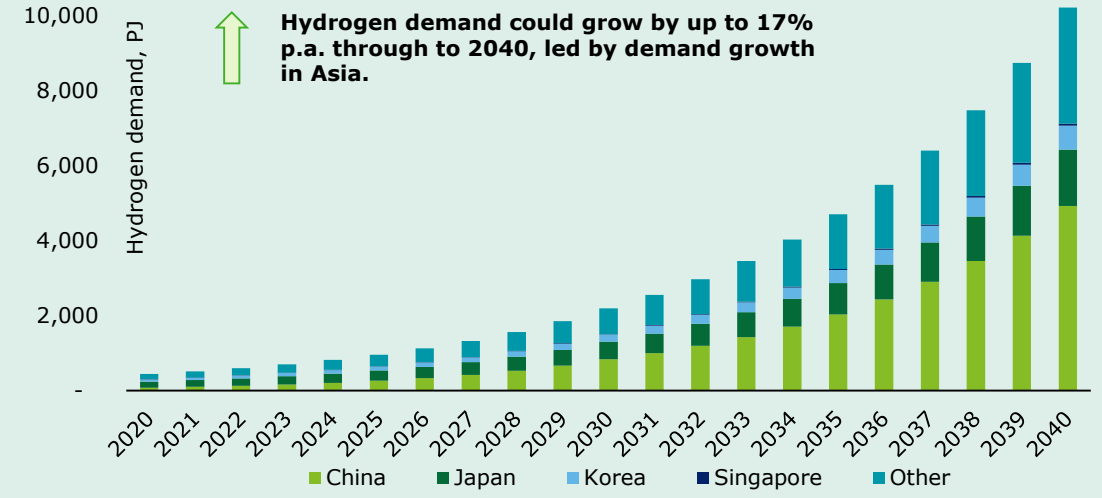


**Utilisation** is currently 12.2% on average (16 TJ/day out of a potential 129 TJ/day). This could **increase by up to 400%** to support new projects and growth opportunities in Tasmania, given contracted capacity.

**H Hydrogen** - Development of hydrogen facility

**Potential to take advantage of global shifts toward hydrogen**

The State Government has announced an ambitious Renewable Hydrogen Action Plan. The TGP could play a role in this plan by transporting hydrogen if it is further processed into syngas by using carbon emissions from Bell Bay industrial activity.



The State Government has an opportunity to support a **gas-led economic recovery**. A manufacturing taskforce has been set up to advise the national taskforce guiding Australia’s COVID-19 recovery. A part of the plan is to support the gas industry and potentially ‘underwriting gas’ prices, expanding networks and the addition of new gas fields. There could be an important collaborative role for TGP from a Tasmanian perspective.\*

\* <http://gandmmonitoring.com.au/reports/story.php?storyProfileID=414776>

# Limitation of our work

## General use restriction

### **General use restriction**

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