18 February 2022

Mr Kris Funston
Executive General Manager
Australian Energy Regulator
GPO Box 3131
CANBERRA ACT 2601

Via email: APAVTS2023@aer.gov.au

Dear Mr Funston

On behalf of Viva Energy Australia Pty. Ltd. (**Viva Energy**), thank you for the opportunity to make a submission on APA's 2023-27 Access Arrangement (**AA**).

Viva Energy is a longstanding manufacturer and supplier of liquid fuels for Australia and has strong ambitions to develop an energy hub at its refinery site in Geelong. Central to the energy hub is a floating LNG import terminal to support the gas needs of Victoria and South-east Australia. For these reasons, we have a strong interest in the AA and the system and investment proposals outlined within this proposal. Viva Energy's Geelong Refinery also consumes approximately 5PJ per annum of natural gas, so security of supply is very important for the ongoing operation of what is now one of only two petroleum refineries remaining in Australia.

As previously highlighted, Viva Energy is proposing to undertake a project to import LNG into a new terminal located adjacent to the Refinery (Geelong Gas Terminal Project or GTP). At full capacity, this will have the ability to supply up to 140PJ per year into the Victorian Transmission System. The FEED stage of the project is complete, project partners have been announced, a Floating Storage and Regasification Unit (**FSRU**) vessel supplier has been appointed and the Environmental Effects Statement (**EES**) for the project has been submitted to the Victorian Government for a determination.

As modelled and confirmed by APA and AEMO, this project will have the ability to inject in excess of 600TJ/d into the Victorian Transmission System (**VTS**) at the junction of the Brooklyn-Lara Pipeline

(**BLP**) and the South West Pipeline (SWP) at the Lara City Gate installation (refer Appendix 1). This will make a material contribution to the state's future gas supply needs, including seasonal requirements. The GTP would also be able to operate flexibly - ramping up and down as needed to help meet peak system day demand requirements. The project's proposed use of modern FSRU technology means the vessel can sail away when its gas supply is no longer needed. And because the GTP connects to the VTS via a small 4km pipeline which will be owned by Viva Energy, there is minimal or no stranded asset risk associated with the GTP. Viva Energy is already in discussion with AEMO on incorporating this asset into the Declared Transmission System (DTS), however the asset will not be designated, avoiding the need for a separate Access Arrangement. As such, the Victorian consumer will bear no liability for this specific asset.

Viva Energy expects to be in a position to make a Final Investment Decision (**FID**) on the project in Q3 2022 and, subject to formal approvals, the project could be in a position to supply first gas into the Victorian and SE Australian market ahead of winter 2024.

For the purposes of the main body (rule 79 segment) of the AA, we understand the GTP could not be considered as a "committed" source of gas supply, and hence it would have been inappropriate for Viva Energy to present its project during the consultation phases as an immediate solution to many of the forecast gas supply shortfall issues identified in the AA and elsewhere. That said, Viva Energy would submit that the timelines set out above make the GTP an initiative worthy of strong examination by the AER in its overall survey of Victoria's future gas supply environment. This is especially true, considering the security, reliability and affordability benefits that the GTP would offer Victorian consumers relative to the alternatives. It also avoids the stranded asset risk that most alternative future supply options introduce, which we understand to be a key consideration and concern for the AER.

Whilst the focus of our submission is the Application under Rule 80 of the National Gas Rules (Rule 80 Application), which deals with potential investment in the VTS that may be needed to facilitate an LNG project on the western side of Melbourne, Viva Energy would make the following general comments on the main body (rule 79 segment) of the AA.

Firstly, it should be acknowledged the particularly uncertain context in which the AA has been compiled. The issues in play are very challenging. Whilst almost all analyses produced by industry and market experts (including independent work performed for Viva Energy by respected consultancy EnergyQuest[1]) concludes that Victorian consumers face imminent supply shortages, the exact timing of these shortages is subject to a number of variables. Nevertheless, the consensus is that the supply shortfall is expected to be material by around the middle of the decade.

[1] Refer Appendix 2

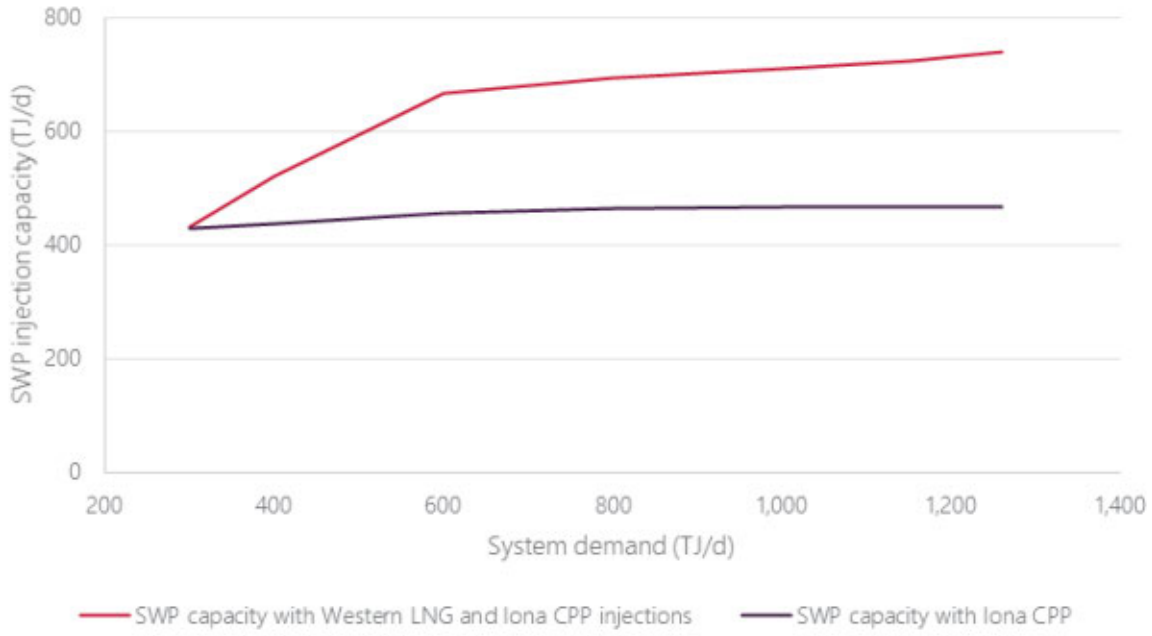
Secondly and given this uncertainty, Viva Energy acknowledges the position proposed by APA and established during the AA consultation period of the need for investment in the VTS to shore up supply (most notably for potential peak day shortfalls), including expansion of the SWP to facilitate the injection of up to 570TJ/d from Lochard Energy's Iona underground storage into the VTS.

Finally, Viva Energy strongly supports the need for the capital proposed in the AA to complete the Western Outer Ring Main (**WORM**) project. The case for the project has been well established, and if not for delays largely outside the control of APA, this project would have been commissioned by now. Notwithstanding, the WORM represents a very important upgrade to the VTS, integrating its geography, facilitating greater gas supply from current and future sources as well as providing improved system/line-pack operability. Not completing the WORM would also mean most of the injection and mass balance assumptions underpinning network planning (including for the GTP) would need to be reviewed, potentially delaying and changing the project's viability.

With respect to the Rule 80 Application, it is worth reaffirming the simple benefit afforded to supply into the Declared Wholesale Gas Market (**DWGM**) from the implementation of the Viva Energy GTP. By virtue of its location at Geelong, the GTP provides the VTS with some 270TJ/d of additional overall capacity. This is achieved without the need for any large system upgrades (assuming the WORM is constructed as planned).

This was established in APA modelling commissioned by Viva Energy (and reviewed by AEMO, refer again to Appendix 1), and which was highlighted in the AEMO 2021 Victorian Gas Planning Report (**VGPR**). Figure 26 below is taken from page 62 the VGPR and depicts this increase in capacity. So, it is fair to say that with the GTP Victorian gas consumers essentially get an additional 270TJ/d of capacity "for free" with no system tariff impacts.(At some stage Viva Energy would also welcome a discussion with the AER about how the Capacity Certificates and injection rights associated with the enhanced capabilities of the VTS would be calculated and awarded.)

Figure 26 SWP injection capacity with Western LNG injections and WORM (TJ/d)



It should also be noted from same section of the VGPR, the benefit conferred on Iona storage from the GTP:

> *"Iona CPP withdrawal capacity… is significantly increased when there are sufficient western LNG injections (the modelled results are with 600 TJ/d). The increase is due to its proximity to Iona CPP and supports withdrawals for all system demands including a 1-in-20 system demand day."*[i]

It is evident from the 2021 VGPR and from Business Case 603 in the Rule 80 Application, that a relatively inexpensive upgrade to infrastructure at the Brooklyn City Gate and Brooklyn Lara Pipeline City CG would improve the ability of the Melbourne network to receive more gas from the western side of the state via the SWP and BLP. This prospective investment of around $14m is very small and delivers outsized value for consumers in the form of more certain ability for an additional 150TJ/d to be carried on the SWP in the case of Iona having expanded to 570TJ/d injection and / or an increase of 252TJ/d where the Viva Energy GTP proceeds.

Viva Energy would contend that this upgrade contemplated by Business Case 603 represents a demonstrably more economic outcome for Victorian consumers than relying on gas supply arriving from one of the other proposed LNG import terminals or indeed from new field developments in NSW, Qld or the NT. Gas from the Port Kembla LNG import terminal in NSW requires the Eastern Gas Pipeline to become bi-directional (noting this is not committed yet). Likewise, gas from the uncommitted Venice LNG import project in Adelaide needs the SEAGas pipeline to Port Campbell in the VTS to become bi-directional as a minimum precondition to supplying the Victoria consumer.

Should Victorian consumers effectively pay for these upgrades via the additional long-distance gas transportation costs, as well as bear any potential stranded asset risk from unnecessary investment in the VTS, when the alternative of gas supply from Viva Energy's GTP carries no such costs nor risks?

Viva Energy would also like to correct an inaccuracy in the Rule 80 Application. The document (page 7) incorrectly states that Viva Energy's GTP will need the ability to inject into the VTS in order to evacuate gas from its facility so LNG carriers can depart the berth. This is not the case. LNG can be held on the FSRU for extended periods, so there is no relationship between LNG shipping and VTS gas injection rates other than that arising from normal cargo scheduling and customer nomination and supply commitments.

The broader point made by APA however is generally correct. Whilst the VTS can currently accommodate the GTP (upgrades are not in and of themselves necessary for FID), further clarity is required around what is, and is not approved for future capital upgrades of the VTS. This provides all project participants with a greater degree of investment certainty.

Thank you for the opportunity to comment on the AA. Please do not hesitate to contact the under-signed on [redacted] if there are any questions or follow-up.

Yours sincerely

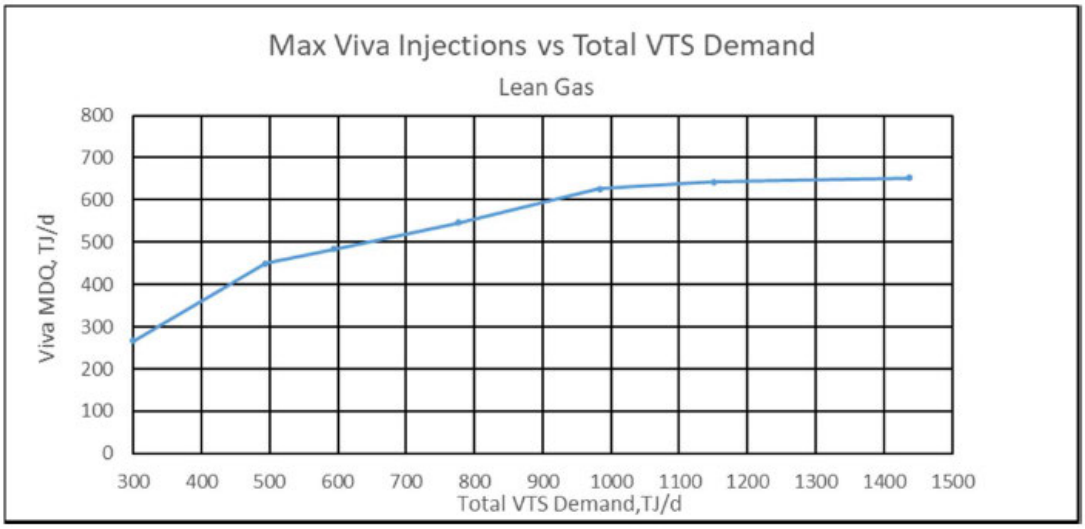
[redacted]

Patrick Stock
Viva Energy Gas Terminal Project

Appendix 1 –

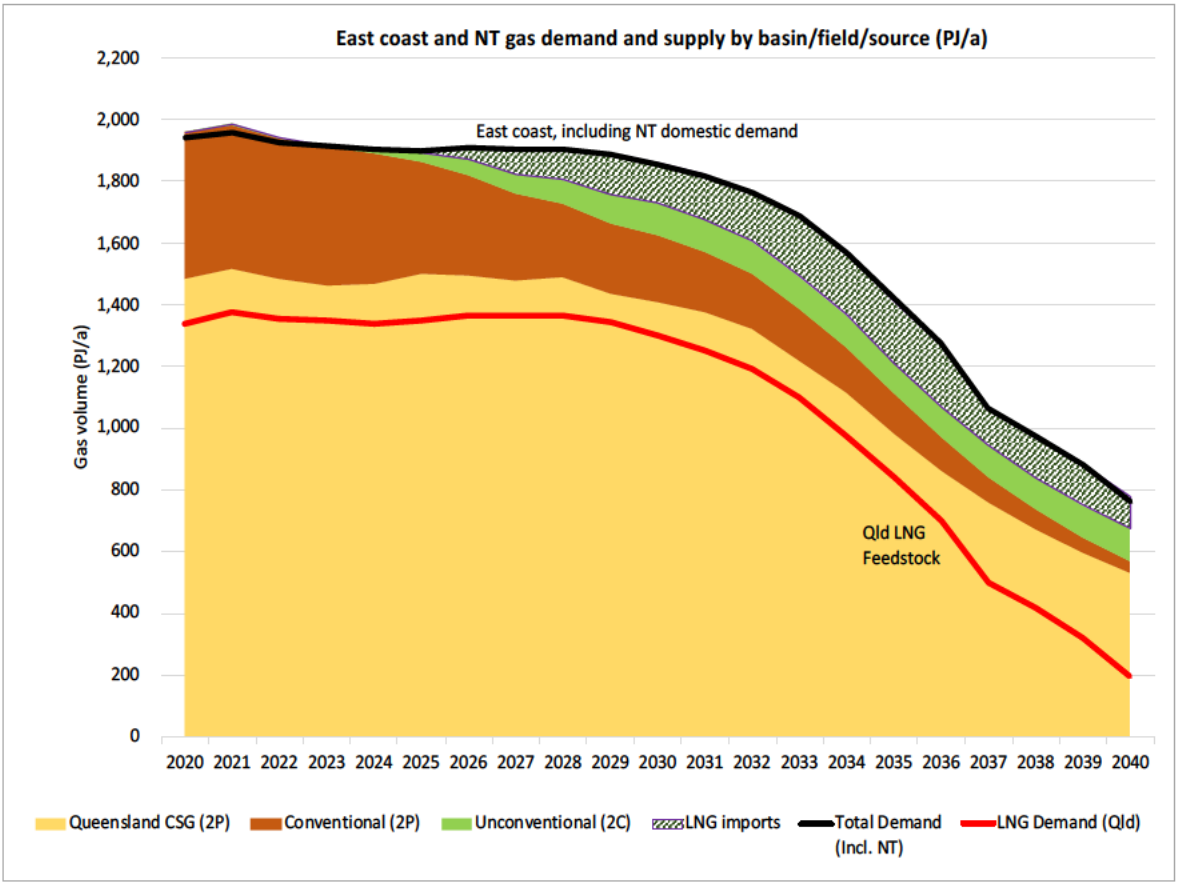
Relationship between VTS demand and possible Viva Energy GTP injections (APA Stage 1 Study Report 31.3.20)

Figure 2 Viva Injection vs VTS Demand

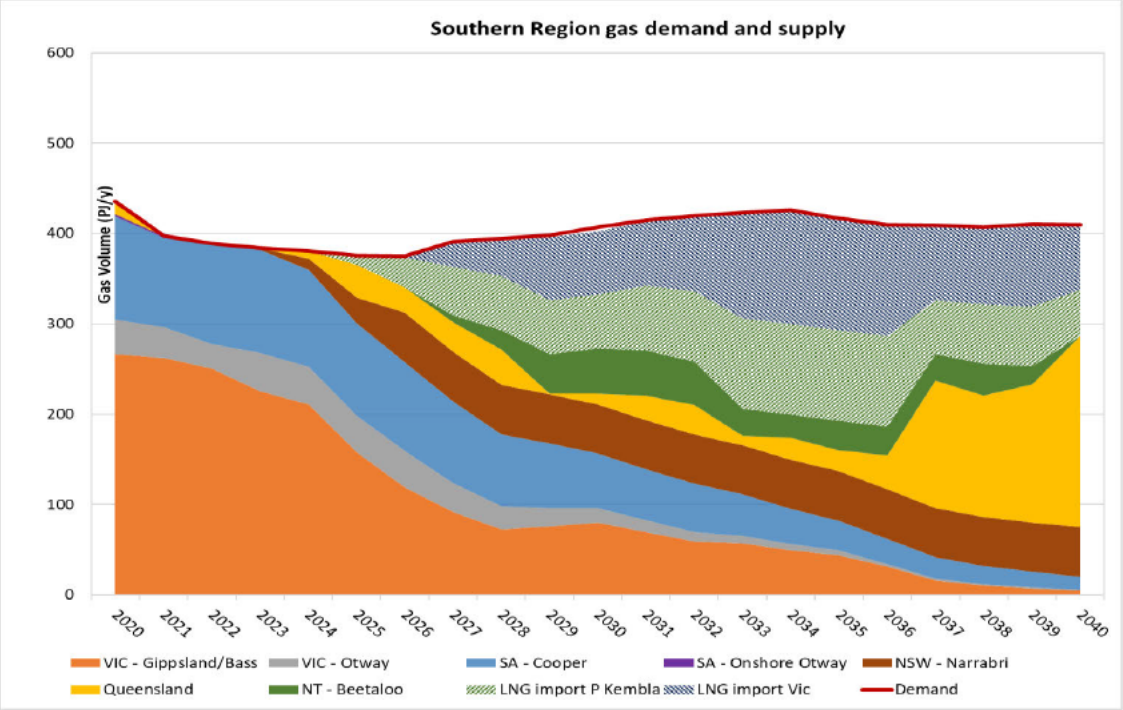


Appendix 2 –

Demand Supply Outlook by Major Source & South East Australia Supply and Demand (Source: Energy Quest analysis for Viva Energy Sept 2021)

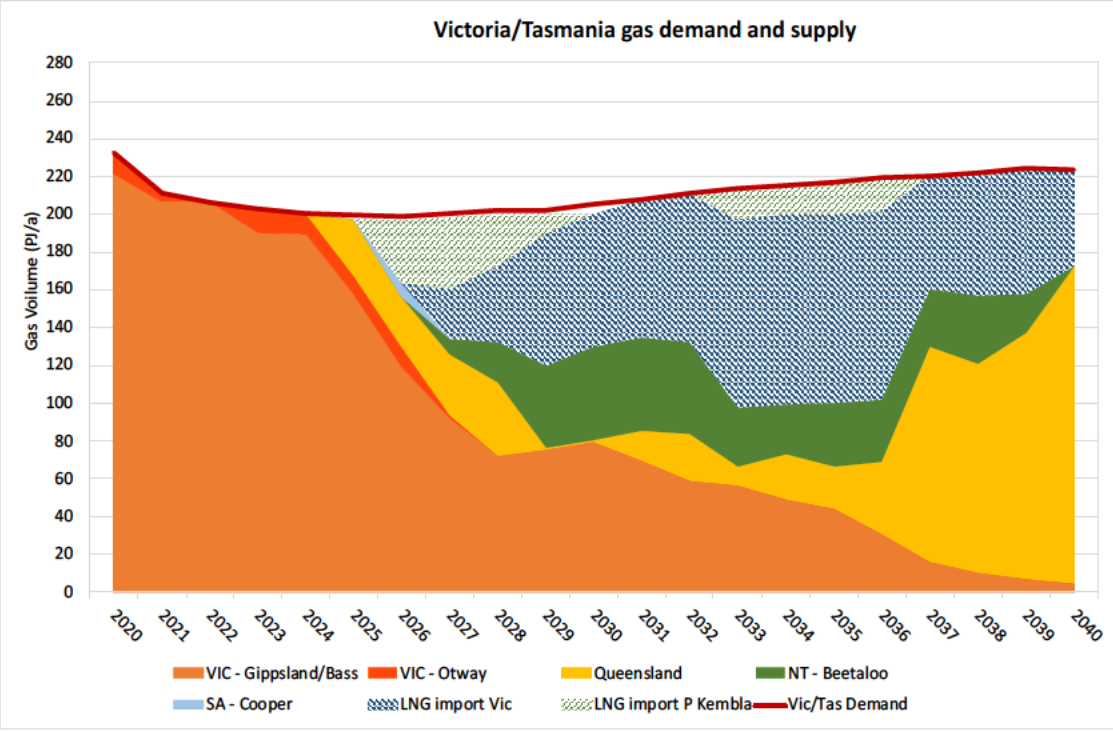


- EnergyQuest has modelled gas supply by gas field in order to meet the demand profile.
- APLNG, GLNG, QCLNG and (most of) Arrow are gas producers linked to the Gladstone LNG projects, and account for most of the east coast gas production.
- By around 2025, the east coast is unable to meet 'business as usual' demand profile…
- … and LNG imports are required. By 2033 gas demand still exceeds the planned capacity (100 PJ/a each) of the two LNG projects (AIE, Port Kembla and Viva Energy, Geelong)



(Southern Region = NSW, ACT, Victoria, Tasmania and South Australia)

- The decline of the Bass Strait and Cooper Basins from around 2025, leaves the Southern Region short of gas...
- ...even with some available gas from Queensland and NT,
- requiring LNG imports to meet the 'business as usual' demand profile.



- The decline of the Gippsland/Bass Basins leaves Victoria/Tasmania seasonally short by 2026 (earlier when peak day demand is considered).
- Some gas may make its way south from the north, but this is also an opportunity for additional local LNG import volumes to displace the long distance gas.
- Based on just Victoria/Tasmania demand, an LNG import terminal in Victoria will reach capacity by 2033.

[i] VGPR (AEMO 2021 p62)