

**Submission to APA re South-West Pipeline Capacity
Requirements for Inclusion in the Revised VTS
Access Arrangement 2023-2027**

17 November 2021

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Mr Scott Young
Manager Regulatory - Governance and External Affairs

APA
Level 25, 580 George Street, Sydney NSW 2000

Submitted by email to: scott.young@apa.com.au

Dear Mr Young,

APA VTS Access Arrangement 2023-2027 – Capacity of the South-West Pipeline

Introduction

A number of participants in the Victorian Gas Market and users of the Victorian Transmission System (VTS), including Lochard Energy, the owner/operator of the Iona underground gas storage facility in Western Victoria, have come together as a Consortium to provide their views on their expected capacity requirements for the South-West Pipeline (SWP) in the coming years. The Consortium thanks APA for the opportunity to provide feedback as part of its broader consultation on the Victorian Transmission System Access Arrangement for 2023-2027.

Gas storage provides an essential security of supply service to Victoria. As base load coal generators accelerate their retirement plans and commercial and industrial users transition towards a carbon constrained future as Victoria and Australia move towards net zero emissions by 2050, the ability of gas storage services to support firming capacity enables a bridge to renewable energy over the coming decades.

Customers of Lochard Energy have provided feedback that, by the Australian Energy Regulator (AER) approving the APA SWP capital expansion augmentation (to 570TJ/day) within the 2023-2027 Access Arrangement, the gas transmission network will be able to respond to expected electricity generation firming support requirements and provide resilience to the gas market, within a prudent economic framework. At a cost of \$71M, the SWP augmentation represents an approximate pass-through cost to residential customers of 0.37c/GJ (being only 20c per annum, based on APA's "First Look at Proposal for VTS 2023-27 Access Arrangement", p42/43). The Consortium considers this a low cost, especially relative to the significant benefits of the SWP expansion to the VTS.

The Consortium recognises that capital invested in additional capacity in the SWP during the 2023-2027 Access Arrangement must meet the requirements of the AER. The Consortium members have endeavoured to estimate their capacity requirements and energy reliance on the SWP for the purposes of the Access Arrangement evaluation.

The Consortium's input comes in four parts:

- 1) the Consortium's qualitative views on the gas demand/supply balance across the VTS;
- 2) a statement of the Consortium's expected aggregate SWP capacity requirements from 2023 to 2030;
- 3) modelling of the VTS gas demand/supply balance prepared by Marsden Jacob Associates (MJA) for the Consortium; and
- 4) a discussion of the conclusions on the VTS gas demand/supply balance prepared by Oakley Greenwood for APA.

A summary of these views is outlined below and a copy of MJA's report, which contains further details on all four aspects, is attached. The Consortium's qualitative views and feedback on their expected SWP capacity requirements have been obtained through a confidential survey conducted by MJA and are reported anonymously to preserve confidentiality between Consortium members.

This feedback represents Phase 1 of the Consortium's study. Phase 2 of our study will investigate the sensitivities from Phase 1 in more depth with the Consortium members and other stakeholders.

Lochard Energy has a financially committed Victorian gas storage expansion project (to 570 TJ/day) under development. Expansion of the SWP as proposed by the Consortium will support the desired outcomes of this project and help underpin energy security in Victoria as the State transitions to net zero emissions by 2050.

Consortium's Views

The responses to the set questions in the survey conducted by MJA reveal universal support for SWP eastbound capacity expansion amongst Consortium members, strong support for SWP westbound capacity expansion and a high level of consensus that gas supply security is increasingly an issue, with developments occurring in the gas market that will both have positive and negative impacts on gas supply security.

The key messages from the comments provided by Consortium members are as follows:

- General concern regarding the forecast decline in Longford production and the uncertainties and risks associated with new supply developments (such as Sole and Golden Beach).
- A general theme that supply adequacy is seen as an increasing issue as gas infrastructure ages.
- That the role of Lochard Energy's Iona gas storage facility is expected to increase in the future.
- General agreement that as Gippsland declines, increasing reliance will be placed on Iona and the SWP, which offer more rapid response and are less vulnerable to transmission outages than more distant gas sources.

Further comments are documented in the attached MJA report.

SWP Capacity Requirements

The survey reveals that Consortium respondents would like the SWP to be augmented such that:

- Peak day capacity of 570 TJ/day could be made available to transport their Iona Close Proximity Point (CPP) contracted supply, from 2023 to 2027 and beyond.
- Further additional market available capacity could be contracted from future Otway Basin supply developments, approximately 210 TJ/day of gas production capacity at Otway Gas plant and Athena Gas Plant in the Otway Basin.
- The views of the Consortium regarding the urgent need for SWP capacity enhancement are supported by a number of characteristics of the near-term Victorian gas supply environment:
 - Timing of the drop-off in Victorian production. A key finding of AEMO's VGPR 2021 was that existing and committed Victorian production is forecast to decline by 43%, from 360 petajoules per year (PJ/y) in 2021 to 205 PJ/y in 2025. The forecast can be further broken down into:
 - Gippsland annual production will decline by 52% from 316 PJ p.a. in 2021 to 153 PJ/y in 2025.
 - Port Campbell annual production will increase by 18% from 44 PJ p.a in 2021 to 52 PJ/y in 2025.
- The availability of the proposed increase of 102TJ/day after the delivery of the WORM provided by the APA SWP expansion project may not meet these expected shortfalls in supply if approved within the pending January 2023 to December 2027 access period. Consideration for early works may be required during the

current access arrangement to provide resilience to the network sooner than that planned within the 2023-2027 Access Arrangement framework.

- It has not been established how the PKGT LNG terminal would fulfil a Victoria gas peak supply role, as seems to be widely envisaged. As a gas storage facility, an LNG terminal can store considerably smaller volume than that of Iona's facility (estimated to be 3PJ vs 23.5PJ for Iona), and is greater distance from the Victorian market, hence less timely responses. While the PKGT can (and must) be refilled frequently, it is not clear how this could be reliably co-ordinated amongst different users, who may need different frequencies of service.

Notwithstanding the above concerns, the Consortium views the planned SWP capacity expansion proposed by APA at a cost of \$71M (\$FY22) and the proposed supportive financial investment principals as a welcome enhancement within the Access Arrangement principles, and the Consortium commend APA on their stewardship in this area.

MJA Modelling of the South-Eastern Australian Gas Demand-Supply Balance

MJA has constructed a model of the South-East Australian gas market that:

- Determines least cost supply solutions for daily gas demand,
- Considers capacity constrained gas sources via constrained pipelines.

The preliminary modelling focusses on peak day demand only, ignoring cumulative demands on storages and their refilling. The key takeaways from the study are as follows:

- The users of the SWP support that there is projected to be a high level of utilisation of the SWP for peak day services from Winter 2023. The market participants will use the available capacity to cap high gas prices via offers within the bid stacks of the DWGM. However, under the Access Arrangement, the first stage of capacity augmentations may not be in place until Winter 2024, with the second stage in Winter 2025. Based on these timings, a key learning from the MJA modelling is that structured supply of gas that is close to Melbourne could be constrained out of the market, creating an issue of security of supply and resilience of the system.
- The SWP provides essential security of supply to the DWGM. The study further confirms reliance on storage capacity and Otway production to continue to provide energy for key electricity infrastructure within Victoria and support for other states when called upon. Iona provides a time shift service that will be needed for system resilience and system security of supply. Participants will use Iona storage to meet peak day DWGM demand, and to supply gas-fired power generation assets for the electricity market.
- The modelling also shows that the SWP flows become increasingly constrained by its limited capacity, as production at Longford reduces, and Victoria becomes increasingly dependent upon supply from the PKGT. However, as noted above, it has not yet been established how reliably or at what cost PKGT can play a peak-supply role.

Therefore, by not addressing the SWP expansion, there remains an outstanding security of supply issue for the supply of peak demand energy, due to the current significant constraint in the SWP.

The terms of reference for the Phase 2 modelling scheduled for December 2021 intends to refine the initial findings and propose the lowest cost and least risk supply to the DWGM for seasonal demand.

Comments on Oakley Greenwood Modelling Undertaken for APA

APA commissioned consultants Oakley Greenwood to advise on the factors that are likely to affect the supply/demand balance in the Victorian gas market over the pending Access Arrangement (2023-2027) period and, more specifically, the broad impact that those factors could have on the VTS.

The Consortium agrees that the work conducted by Oakley Greenwood provides important findings and key insights. However, the Consortium observes the following four limitations in the Oakley Greenwood report:

- 1) Assumptions used in the capacity adequacy report are not supported for application in a centralised capacity adequacy assessment, because of the high level of reliability required of the gas system.
- 2) The resulting outlook shortfall is described as “manageable”. This conclusion should be more sensitive to a risk-based determination of users and the need for resilience in the AEMO-operated DWGM.
- 3) Oakley Greenwood has made no assessment or consideration as to the economics of the available options. This limits the conclusions that can be drawn in relation to any comparison of supply for seasonal or peak demand services.
- 4) Suggested evidence presented in the discussion of potential supply options that the SWP has been underutilised may be inaccurate or misleading. The DWGM operates on a bid stack basis and if bids are present at an injection point the system is utilised, however the price offered may be such that the volume has not been commercially called upon.

Impacts on Retail Competition

Longford/Gippsland and Iona/Otway have to date supported retail competition in Victoria, with the majority of retailers supplied from those sources. SWP expansion is critical to Iona/Otway continuing to play this role, especially as some potential alternatives, such as VNI expansion and Golden Beach, appear to be supplying single retailers. Their continued development, in place of the SWP, could therefore lead to reduced levels of retail competition in Victoria, another factor that should encourage regulatory support for SWP expansion.

Lochard Energy and the Consortium members would be happy to discuss our views further with APA. If you wish to discuss any aspect of this submission, please contact Giles Toler at Giles.Toler@lochardenergy.com.au.

Yours Sincerely,



Anthony Fowler
CEO, Lochard Energy

On behalf of the Consortium members