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Mr Sebastian Roberts
General Manager
2012 Victorian Gas Access Arrangement Review
Australian Energy Regulator

Via eMail VicGAAR@accc.gov.au

EnergyAustralia Gas Storage Submission

APA GasNet Access Arrangement 2013-2017

Dear Mr Roberts,

The following is the EnergyAustralia Gas Storage Pty Ltd (Gas Storage) response to the AER draft decision on the APA GasNet Access Arrangement provided in September 2012.

Gas Storage owns and operates the Iona Gas Plant located near Port Campbell. The plant, which has a capacity of 500 TJ/day, provides underground gas storage, pipeline injection and withdrawal services, and offshore gas processing services to seven Market Participants in the Victorian Gas Market and Shippers on the SEA Gas Pipeline.

While Gas Storage is not a Market Participant, so a number of aspects of the draft decision have limited impact on our ability to provide services to our customers, we are concerned and disappointed about the modest support for increased transmission capacity between Port Campbell and Melbourne.

This submission by Gas Storage on the AER draft decision covers two areas:

1. South West Pipeline Capacity including additional compression, and
2. The Western Outer Ring Main (WORM)

South West Pipeline Capacity Increase

Gas Storage is pleased that AER has belatedly approved further expansion of the South West Pipeline (SWP) through the installation of a Centaur 50 compressor at Winchelsea. Gas Storage was disappointed that the AER rejected further expansion for the 2008-2012 Access Arrangement after Sleeman Consulting agreed in 2007 that the SWP was a constraint,[1]

> *"the South West Pipeline ('SWP') represents a constraint on overall PTS capacity (since gas is available from Iona and SEA Gas at rates in excess of the 307 TJ/d deliverable through the SWP)"*

In the 2007 Gas Storage submission to the ACCC on the case for further expansion of the SWP, Gas Storage provided graphs from the 2007 VENCorp Annual Planning Report (APR)

[1] GasNet Principal Transmission System Review of Proposed New Facilities Investments, Sleeman Consulting, 19 September 2007, Page 32

that clearly showed the significant shortage of SWP capacity relative to the installed plant capacity in the Port Campbell area.[2]

The 2010 AEMO Victorian APR again clearly showed the lack of South West Pipeline capacity (Figure 3-2 and 3-3 below). These graphs do not appear to be included in the 2011 or 2012 APR documents.

Figure 3-2 Total Longford, VicHub and BassGas peak day contracted and non-contracted gas supply and capacity forecast, 2011-2015 (TJ/d)

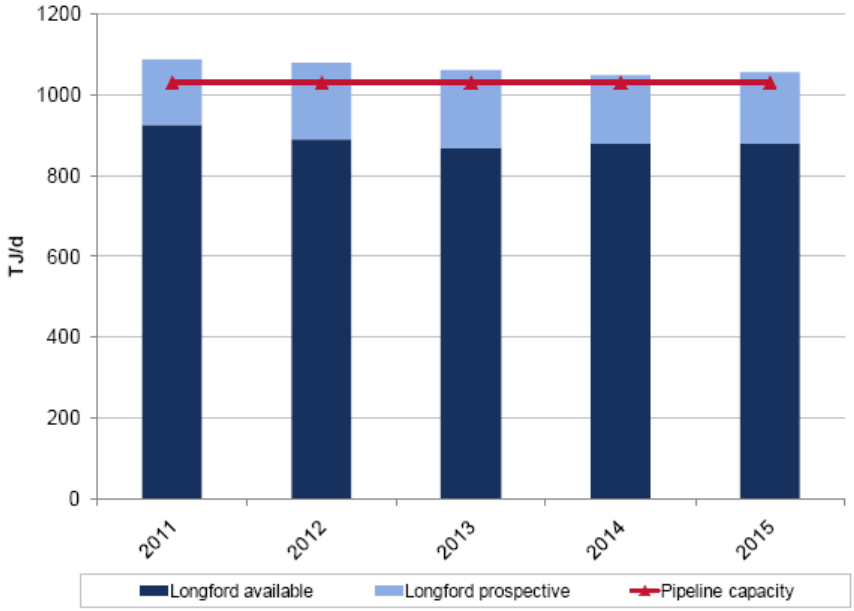
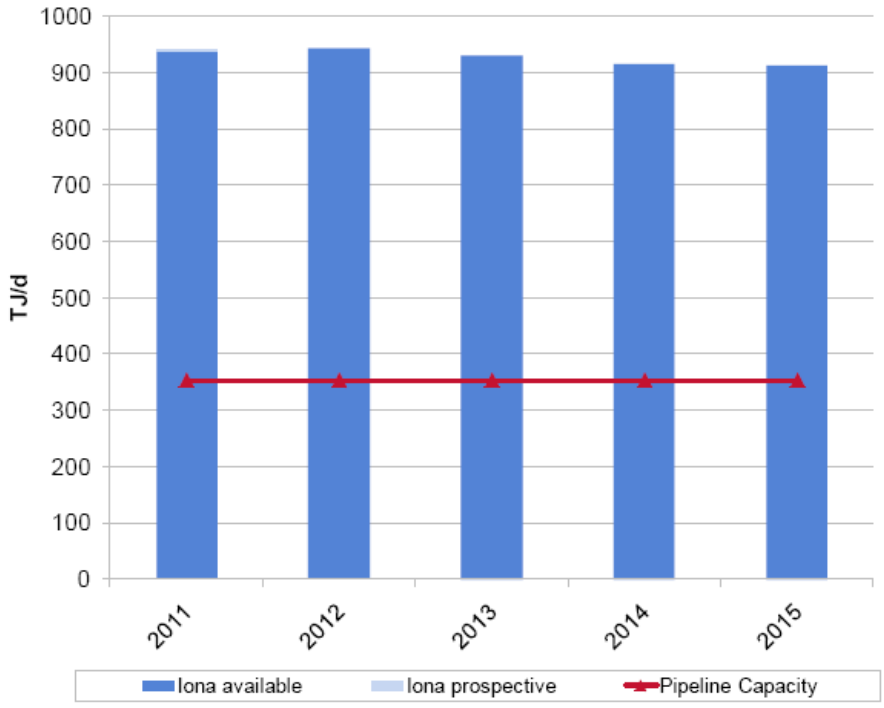


Figure 3-3 Total Iona and SEA Gas peak day gas supply and capacity forecast, 2011-2015 (TJ/d)



[2] TRUenergy Gas Storage Submission on 14 November 2008 Draft Decision, Matthew Clemow, 14 December 2007, Pages 2-3

This Longford graph (Figure 3-2) indicates that there is sufficient capacity on the Longford to Melbourne Pipeline (LMP). We also note that there are considerable gas flows from Longford to Sydney via the Eastern Gas Pipeline, so it is unlikely that the LMP will be full under normal circumstances.

For the SWP, after allowing for the SEA Gas Pipeline capacity of approx. 320 TJ/day, and assuming that the Mortlake Power Station will consume 100 TJ of gas on a Peak Day, then that still leaves the SWP Capacity approx. 200 TJ/day short of the installed injection capacity at the Iona hub.

So while the Energy Users Coalition of Victoria points out that there are considerable gas flows from Iona to South Australia[3], there is usually sufficient flexibility to divert volumes from South Australia to Victoria. Increasing the SWP capacity further to reduce this 200 TJ/day capacity gap would reduce the impact of a major Longford outage on large gas consuming facilities (who are usually the first to be curtailed).

The proposed expansion of 65 TJ/day (Winchelsea Centaur 50 with Iona at 9.5 MPa) on top of the current 353 TJ/day capacity, will only take the SWP capacity to 418 TJ/day.[4]

Validity of Modelling Assumptions

Gas Storage questions the validity of using a 10.2 MPa pressure at Iona for any sensible SWP capacity modelling. This is the maximum allowable operating pressure of the SWP. In the real world the facilities that are injecting into this pipeline will need to manage their injection flows so that the pipeline pressure stays below this limit. Failing to do so would cause that facility to be in breach of its connection agreement with APA GasNet.

The injecting facility must also follow the AEMO schedule, which differs from the rate at which gas is withdrawn from the Victorian Transmission System. Therefore, operating the SWP at 10.2 MPa at Iona could not be sustained for an entire Gas Day. A pressure of less than 10 MPa at Iona should be used to provide realistic capacity modelling.

Compression vs. Looping

As raised by Sleeman Consulting during the 2007 Access Arrangement, APA GasNet does not appear to have made a clear case for compression vs. looping of the SWP. Sleeman Consulting have highlighted this again in their 2012 review. Sleeman estimate that a single compressor at a greenfields site will cost $35 million vs. $45 million for looping to provide the same capacity benefit.[5]

The problem with the compression price estimate is that this ignores the cost of fuel and maintenance, plus the fact that there is a reliability risk associated with a single (i.e. no standby spare) compressor. Looping has more flexible expansion increments (any length of pipe can be added vs. a more fixed amount of compression capacity) and it provides system operability benefits because it will also add linepack. We also understand that the APA GasNet SWP easement agreements allow for the installation of a second pipeline.

Gas Storage believes that APA GasNet should be required to satisfy relevant stakeholders that compression has a lower overall cost than looping.

SWP is Again Constraining Injections

AEMO issued SWP Capacity Constraint notices on 28 and 29 June 2010, which is only two years after the Brooklyn-Lara Pipeline was commissioned in 2008. Had further expansion of

[3] Response to Application by APA GasNet, Energy Users Coalition of Victoria, June 2012, Page 17

[4] Review of Gas to Culcairn Project and Western Outer Ring Main Project, Sleeman Consulting, 25 July 2012, Page 11

[5] Review of Gas to Culcairn Project and Western Outer Ring Main Project, Sleeman Consulting, 25 July 2012, Pages 12-13

the SWP been approved for the 2008-2012 Access Arrangement, this is unlikely to have occurred. This is a clear indication that the AER is not allowing SWP expansions to match increasing demand for capacity.

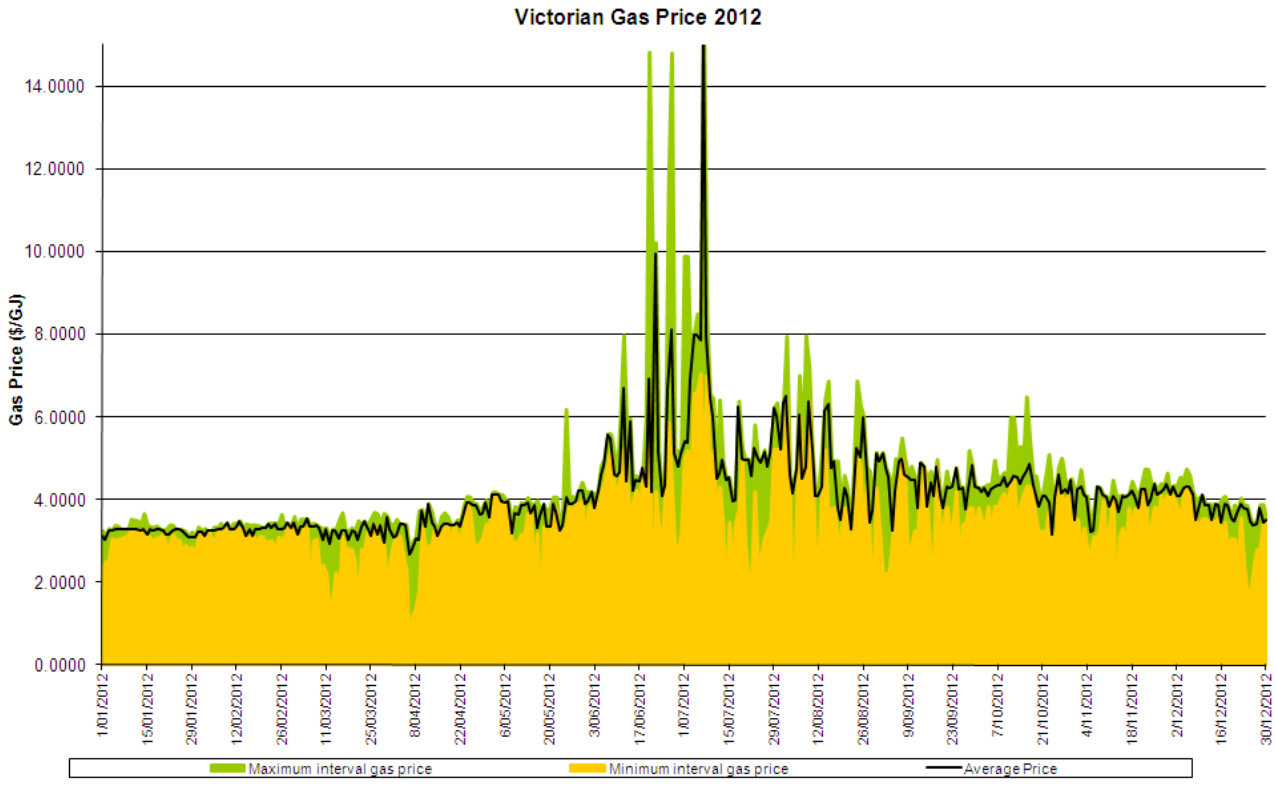
During winter 2012 there was a number of occasions when the SWP was not "full" so a Net Flow Transportation Constraints (NFTC) was not issued. Most Market Participants were flowing at their AMDQ Credit capacity and did not wish to take the risk of being de-scheduled in a later interval if holders of the remaining SWP AMDQ Credits had their gas scheduled. This would have exposed them to buying gas back from the market at higher prices (with prices peaking above $14/GJ this is understandable).

AEMO also introduced flexible injections at Longford for winter 2012 to manage system pressures. It was not possible request the Iona hub facilities due to the nature of the SWP capacity constraint (lack of spare linepack).

AEMO did request Gas Storage to provide flexible injections during winter 2007, which saw extremely volatile gas market prices including large LNG volumes (to the point that low LNG inventory had become a concern). The need for flexible injections was removed when the Brooklyn-Lara Pipeline was commissioned in May 2008.

Impact on Gas Market Price

Gas Storage believes that a reasonable indication of when there is insufficient SWP capacity is when the Victorian Gas Market price increases above $6/GJ. As the graph below shows, there were high prices throughout winter 2012. We expect that this will continue to occur until there is an increase in SWP capacity.



The flow through cost to consumers of these higher spot prices is likely to be considerably more than the $4 per year that the AER claims to be saving consumers by restricting necessary investment in transmission system capacity. [6]

We also note that it is our understanding that APA GasNet has held three AMDQ Credit auctions for SWP Capacity in recent years. All three of these auctions have left at least one

[6] Access arrangement draft decision APA GasNet Australia (Operations) Pty Ltd 2013–17 Part 1, AER, September 2012, Page 21

Market Participant short of their required SWP capacity. This indicates that there is still a problem with the mechanism for the financial justification of expansions in the Victorian Declared Transmission System, which has been raised in recent AEMO APR documents.[7] [8]

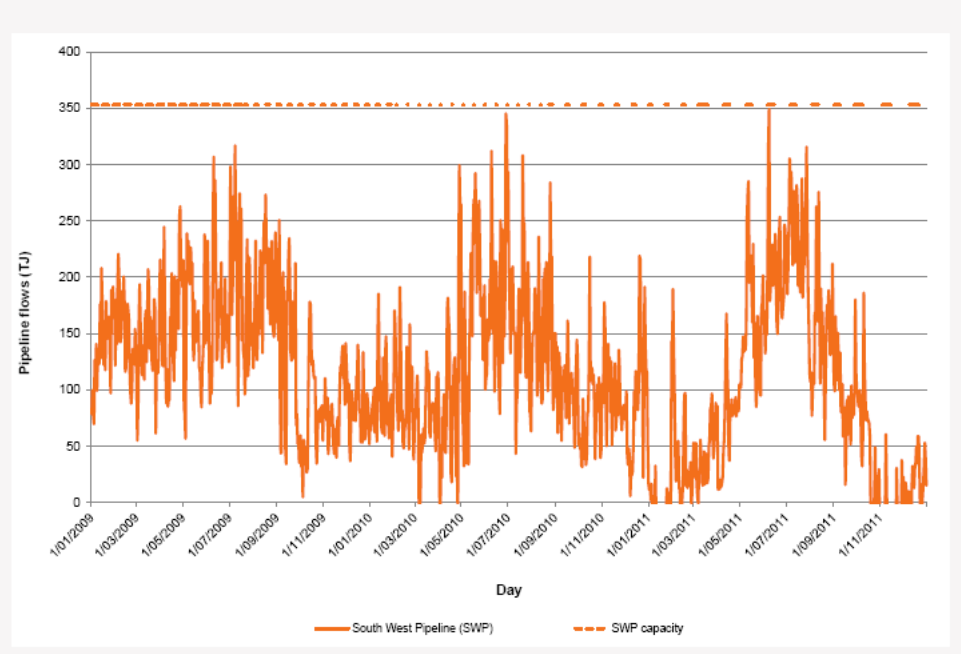
South West Pipeline Utilisation

In their submission, AGL attempts to make a case against expansion of the SWP on the basis of declining utilisation.[9] This is a simplistic analysis that ignores a number of factors including reductions in gas fired power generation, and the change in the shape of gas demand as industry reduces consumption with peakier domestic load remaining.

The SWP capacity limit also appears to be forcing Market Participants to source additional gas from Gippsland. This suggests that competition between facilities in the east and the west of Victoria is being impacted.

The chart below from the 2012 AEMO Victorian APR clearly shows that the flows from the Iona hub are becoming peakier.

Figure 4-8 — Daily SWP flows from Port Campbell from 2009 to 2011



If the AGL argument is to be followed, does it mean that there should be no capacity installed to manage peak demand at all? (Take a look at the infrastructure that is in place for electricity peak demand management). The utilisation of APA GasNet's Dandenong LNG facility dropped to near zero in 2008 following the commissioning of the Brooklyn – Lara Pipeline. In 2007 there were concerns about there being sufficient LNG inventory to get through the winter.

AGL also questions whether further expansion of the SWP should be supported due to "reduced reserves" in future years. This Iona Gas Plant can be expanded to approx. 600 TJ/day to offset reduced production at other Port Campbell facilities. Origin Energy also purchased the Santos Heytesbury reservoirs with the stated intention of developing them for underground gas storage service.

The need to fill these storage facilities when there are "reduced reserves" in future years is one of the reasons why the Western Outer Ring Main must be progressed.

[7] 2011 Annual Planning Report, AEMO, August 2011, Pages 15-17
[8] 2012 Annual Planning Report, AEMO, November 2012, Page 1-6
[9] AGL Submission — GasNet AA 2013 – 2017, G M Foley, 18 June 2012, Page 2

Compression Location

Gas Storage does have some concerns regarding the recommendation by Sleeman Consulting to locate the South West Pipeline compressor at Winchelsea vs. Stonehaven. The recommendation to use a site other than Stonehaven, which has existing piping vs. another site is likely to take longer to purchase, permit, engineer and construct including the need to hot taps.

While Gas Storage notes the Sleeman Consulting comments that locating compression closer to Iona will increase northward capacity (to Melbourne). We counter this with the need to consider southward capacity (to Iona) for storage filling, exports to South Australia, and gas consumed by the Mortlake Power Station are taken into account.

This is covered further in the following section.

Western Outer Ring Main

Gas Storage believes that the Western Outer Ring Main (WORM) is a critical project that must be progressed. Our understanding of the project benefits are:

1. Increased South West Pipeline Capacity for flow to Melbourne including support for northerly flows
2. Increased flow from Melbourne to Iona
3. Increases system linepack

Support for this project has been poor. In their 2007 review for the 2008-2012 Access Arrangement, Sleeman Consulting viewed the acquisition of easements for the WORM as a "speculative investment".[10]

In 2009, VicRoads announced (along with the announcement of the Regional Rail Project) planning for its proposed 70-kilometre outer ring road that travels from the west of Werribee, then traverses north between Caroline Springs and Rockbank, before meeting the Hume Freeway (near Kalkallo and Wollert). This is despite VicRoads stating that it is "unlikely to be considered for construction before 2020".[11]

Gas Storage believes that the AER must support early planning and easement reservation for major system augmentations. We acknowledge that the AER agrees that the development of the WORM would provide some operational benefits, for example through enhanced linepack management and simpler east-west flows.[12]

Increased South West Pipeline Capacity for flow to Melbourne including support for northerly flows

Gas Storage understands that the WORM will enable increased SWP flows from Iona. Currently most gas from the SWP destined for metropolitan Melbourne flows into the Brooklyn compressor station where the pressure is substantially reduced to enable the gas to flow through the lower pressure transmission pipelines in Melbourne.

The WORM will enable higher pressure Iona gas to reach Wollert. This will support northern flows and help support pressures in eastern Melbourne by flowing into the existing Eastern

[10] GasNet Principal Transmission System Review of Proposed New Facilities Investments, Sleeman Consulting, 19 September 2007, Page 35

[11] "New train line and ring road routes to be unveiled", Clay Lucas, The Age, 16 June 2009

[12] Access arrangement draft decision APA GasNet Australia (Operations) Pty Ltd 2013–17 Part 2, AER, September 2012, Page 46

Outer Ring Main. It should also provide additional flows to support greater generation at the Somerton Power Station on peak days.

The Brooklyn – Lara Pipeline has provided increased pressures at Brooklyn that has helped with meeting flows to Ballarat and Sunbury. The WORM would be expected to provide similar benefits and potentially lead to reduced compressor expenditure (both capital and operating expenses).

Increased flow from Melbourne to Iona

Gas that flows from Longford to Iona for storage filling flows between Dandenong and Brooklyn via low pressure transmission pipelines that run through metropolitan Melbourne. Less than 100 TJ/day can be transported to Iona via this route during the very low summer demand period.

When industry load returns and the gas fired power stations (Newport and Laverton North) in western Melbourne are operating, this capacity is significantly reduced. The commissioning of the Qenos cogeneration plant is expected to further reduce the ability to flow gas from Melbourne to Iona.

Offshore gas production at the Iona Gas Plant is expected to reduce for the first time in 2013. As discussed above, reduced reserves for storage filling, exports to South Australia, and gas consumed by the Mortlake Power Station will lead to more frequent gas flows from Melbourne to Iona.

During the November-December 2012 Otway Gas Plant planned outage, the Iona Gas Plant regularly withdrew gas from the SWP. The Gas Bulletin Board daily SWP flows were usually negative, with the flow from Melbourne to Iona ranging between 20 and 60 TJ/day.

With the Otway Gas Plant back on line, SWP flows from Melbourne to Iona have averaged nearly 30 TJ/day for the first 6 days of January 2013.

The inability to fill storage at Iona could become a System Security issue for the Victorian Gas Market.

Increases System Linepack

The AER agrees that the installation of a 49.3 km 500mm pipeline from Wollert to Rockbank via Kalkallo will add significant additional linepack, which has operational benefits. Increased linepack will become more important with a peakier load shape (discussed above) and as existing gas fired power stations operate more often as a result of the carbon tax.

Should you require any further information or wish to discuss this matter further, please contact me on (03) 8628 1771.

Yours sincerely,

Matthew Clemow
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EnergyAustralia Gas Storage Pty Ltd