APA

Australia's energy infrastructure partner

Stage 2 Projected Assessment of Supply Adequacy – AEMC Consultation Paper

APA Submission

08 May 2025

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Anna Collyer
Chair
Australian Energy Market Commission
Level 15, 60 Castlereagh Street
SYDNEY NSW 2000

Lodged online

08 May 2025

RE: APA Submission to Projected Assessment of Supply Adequacy Rule Change Consultation Papers

Dear Ms Collyer,

Thank you for the opportunity to comment on the AEMC's Projected Assessment of Supply Adequacy (PASA) Rule Change Consultation Paper (Consultation Paper). We appreciate the opportunity to contribute to these important issues and support measures that aim to increase the accuracy of information reported to AEMO.

APA is an ASX listed owner, operator, and developer of energy infrastructure assets across Australia. Through a diverse portfolio of assets, we provide energy to customers in every state and territory. As well as an extensive network of natural gas pipelines, we own or have interests in gas storage and generation facilities, electricity transmission networks, and 692 MW of renewable generation and battery storage infrastructure.

Energy Ministers' proposed PASA raises many complex issues. It is essential that the benefits of steps taken to improve accuracy of information reported by market participants outweigh the costs to implement these measures. This can be successfully achieved by, where possible, utilising existing data and reporting mechanisms to inform the PASA.

Our submission below provides views on various issues raised in the Consultation Paper. If you have any questions about our submission, please contact John Skinner on 0435 898 022 or john.skinner2@apa.com.au.

Regards,

Natalie Lindsay
General Manager, Economic Regulatory and External Policy
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1. Submission

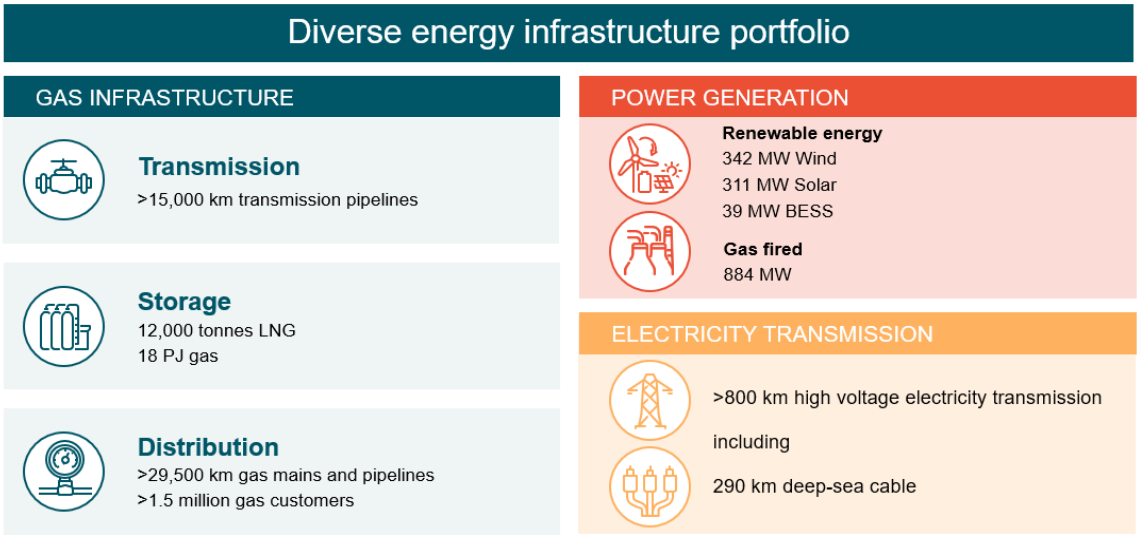
Key Points

- Bilateral contracting between APA and shippers has led to the efficient expansion of the east coast gas grid to meet projected supply shortfalls.
- We support the use of existing Part 18 information provided to the Gas Bulletin Board to inform the proposed PASA.
- There is a risk that the proposed changes will create a significant operational burden for services providers and result in material implementation costs.
- Clarity is needed on the granularity of the proposed pipeline segmentation before an assessment can be made of the time to implement and requirement for any transitional measures.

1.1. APA as a partner of choice in Australia's energy transition

APA is a leading ASX listed energy infrastructure business. Consistent with our purpose of securing Australia's energy future, our diverse portfolio of energy infrastructure delivers energy to customers in every Australian state and territory. For decades we have owned, operated, and maintained some of Australia's most important energy infrastructure.

Figure 1: APA's portfolio



Our 15,000 kilometres of natural gas pipelines connect sources of supply and markets across mainland Australia. We operate and maintain networks connecting 1.5 million Australian homes and businesses to the benefits of natural gas. We also own or have interests in gas storage facilities and Gas Powered Generation (GPG).

We operate and have interests in 692 MW of renewable generation and battery storage infrastructure, while our high voltage electricity transmission assets connect Victoria with South Australia, New South Wales with Queensland and Tasmania with Victoria.

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APA actively supports the transition to a lower carbon future. In September 2024, we published our FY24 Climate Report, detailing our progress against our Climate Transition Plan. This plan outlines our commitments to support Australia's energy transition and pathway to net zero operations emissions by 2050.

In early 2023, APA established an Electricity Transmission business unit with a focus on electricity transmission infrastructure across Australia. We have recruited a team of established industry professionals to lead APA in playing a pivotal role in the energy transition. In line with our strategic focus, we have also announced a partnership with leading global infrastructure organisation EDF Group. This partnership synergises EDF's global experience in electricity transmission delivery and operations, with APA's strong local experience in the construction and operation of linear energy infrastructure.[1]

With our extensive portfolio of assets and expertise across gas, electricity and renewables, APA is well-placed to support the energy transition towards net zero.

1.2. The market fundamentals that have underpinned investment and the allocation of capacity must be maintained

Gas infrastructure operators have a strong track record of delivering the necessary infrastructure to ensure customers have sufficient gas in the locations they need it.

To date, the incremental expansion of existing infrastructure has been the most efficient, timely and lowest cost solution to ensure that gas is delivered when and where it is needed. Gas retailers coordinate with producers to ensure they secure gas supplies and with pipeline operators to ensure they can transport gas from gas fields to their end customers.

Until a pipeline is fully compressed, adding compression to an existing pipeline to increase capacity is usually more cost effective than building a new pipeline and has far less delivery and investment risk. This means that the incremental expansion of the east coast grid is the most efficient solution to transport more gas from Queensland to southern markets.

1.2.1. APA's current market-driven investments in the east coast market

In 2024, APA completed the second of the first two stages of East Coast Gas Grid (ECGG) expansion, which delivered 25% additional capacity to the grid. In February 2025, APA announced a five-year ECGG Expansion Plan to deliver an additional ~24% increase in north-to-south gas transport capacity and new southern markets storage. This plan will help ensure lower cost and lower emissions domestic gas is available to meet East Coast gas demand and to support the delivery of new gas-powered generation.[2]

We support a proposed Gas PASA to the extent that it will work to inform gas market participants to support incremental expansion of infrastructure. As it becomes clear that

[1] APA, '*APA Group and EDF Group to pursue electricity transmission projects*' (Media Release, 31 October 2023).
[2] APA, '*East Coast Grid Expansion Plan*', https://www.apa.com.au/operations-and-projects/gas/gas-transmission/east-coast-grid-expansion-ecge

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further investment in gas infrastructure is needed, market signals and bilateral contracting will help support the continued expansion of the East Coast gas network.

1.3. Future Changes to PASA should follow existing rule change processes

This section relates to Question 2

"How do you think future changes should be made to PASA? Do you consider requiring AEMO to follow the NGR consultation process to develop and update the PASA would provide stakeholders with sufficient certainty and predictability while minimising the potential burden on industry? Are there other options that we should consider?"

To provide stakeholders with the opportunity to contribute to the development of the PASA framework, future changes must follow standard National Gas Rules (NGR) consultation processes. If the change is to the objective, scope, compliance or enforcement of PASA provisions, it is critical that industry is consulted through a standard AEMC rule change process.

If the change is to AEMO operating procedures that support the NGR PASA provisions, we support AEMO following the standard consultation process in the NGR, which includes two steps for consultation. Even slight updates to what information is to be provided or how the information is to be provided can involve substantial system configuration and procedure changes for market participants and facility operators. Even if these changes impact how AEMO interpret the data, the methodology for deriving the PASA or presentation of PASA data, it is important to provide industry with the opportunity to be consulted. Information presented in the PASA will ultimately reflect on market participants and inform investment decisions.

1.4. The PASA should be informed by existing data sources and align with existing procedures where possible

This section relates to Questions 4 and 5 of the PASA Consultation Paper.

"What are your views on the proposed inputs, outputs and other ST and MT PASA design elements? Is anything missing? Are there any necessary inputs our outputs?

In their rule change request, Energy Ministers stressed the importance of utilising existing information already available to AEMO through facilitated markets, Bulletin Board, GSOO, VGPR, Part 27 of the NGR and the NEM when developing proposed ST and MT PASA designs.[3] We support utilisation of existing information to reduce administrative and reporting burden, as well as the risk of considerable implementation costs.

Market participants and facility operators such as APA already provide a considerable amount of information to the Bulletin Board (BB). APA, in its role of gas pipeline,

[3] DCEEW, *Rule change request: Implementation of a Gas Projected Assessment of System Adequacy (PASA) for the east coast gas system,* pg. 28.

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compression and storage service provider, provides the following reports for 18 registered BB facilities under Part 18 of the NGR:

- Nameplate ratings and detailed facility information
- Daily Production and Storage
- Linepack Capacity Adequacy Reporting
- Capacity bookings
- Short term and medium term capacity outlooks
- Nominated and forecast use of BB facilities
- Information about actual use
- Facility development reporting

The Consultation Paper outlines the inputs required for the proposed MT PASA and ST PASA reports.[4] We support the utilisation of extensive existing information provided by medium term capacity outlook (MTCO) and short term capacity outlook (STCO) reporting and other reports under Part 18 to inform the MT and ST PASA, minimising the implementation and operating burden on industry.

1.4.1. We support defining 'pipeline segment' with the definition set out in the Gas Bulletin Board Procedures

In conjunction with the Consultation Paper, AEMO released an assessment of the requirements for a ST and MT PASA (AEMO Report). Despite Energy Minister's request that AEMO utilise existing information sources to inform ST and MT PASA[5], AEMO proposed changes and additions to existing reporting procedures where they deemed it necessary to do so.

APA agrees with AEMO's proposed approach and regulatory changes to obtain consistency between BB and ECGS pipeline capacity outlook reporting obligations, with a preference for this to be a BB reporting obligation and defined in the BB Procedures. Currently there is a difference between segment definition across the BB Procedures and ECGS Procedures for capacity and linepack data. Overtime, there is risk that these procedures will get out of sync and the reporting and compliance burden on market participants increase substantially.

Capacity information is currently reported for BB pipelines, and there is a risk that creating more granular segments will lead to onerous obligations on capacity modelling and operational teams.

Under the existing BB Procedures, AEMO defines pipeline segment as '*each part of a BB pipeline for which a reporting entity is required to separately report under clause 6.1(g) of the BB Procedures.*'[6]

Clause 6.1(g) of the BB Procedures reads as follows:

'6.1…

[4] AEMC, *Projected Assessment of Supply Adequacy Rule Change Consultation Paper*, pg. 15-16
[5] Ibid, pg. 14
[6] *AEMO, East Coast Gas System Procedures*, pg. 9 cl2.1.4(a)

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…g) The *BB reporting entity* for a *BB pipeline* must report all the following *nameplate ratings* for the *BB pipeline*, and corresponding capacity outlooks:

- If the *BB pipeline* is bidirectional – for both directions; and
- If the *BB pipeline* has different capacities in a single direction, for all the different capacities'[7]

Reporting capacity outlooks on pipeline segments consistent with the BB pipeline segments definition would capture sufficient information to inform the objectives of the PASA. It will provide quality information covering the intra-year period to support decision making by ECGS stakeholders, whilst also minimising the additional burden placed on reporting entities.

If a preference is provided for greater segment granularity to that of the BB pipeline segments, a cost-benefit analysis should be undertaken, in consultation with industry. This process should focus on the benefits and improved accuracy this increased granularity provides compared to the existing BB pipeline segments.

For the reasons outlined in section 1.4.2, further granularity could result in a higher margin of error of reporting, which would impact the quality of information being provided to the market.

1.4.2. Demonstrating impact of granular segments

The below passage and Table 1 demonstrates the impact of increasing granularity in pipeline segment capacity reporting. The Roma to Brisbane Pipeline (RBP), which has been used as an example, operates bidirectionally and has seven example segments identified for the Capacity Trading and Auction market (CT&A).[8]

When determining the capacity to report on a pipeline, the following set of assumptions are followed:

- contracted demand-receipt distribution profiles,
- process parameters (e.g. seasonal temperature, pressure, gas quality),
- chosen direction of operation (east, west, north, south) and
- the location where capacity is calculated (i.e. at a location where there the minimum pressure requirement is the determining factor.)

The location that capacity is calculated may be at the end of the pipeline or in a location upstream of the pipeline (e.g. Swanbank power station location on the RBP). The assumptions used in determining capacity at the pipeline level allows the pipeline to be operated within that defined operating window with a high level of confidence and flexibility to meet all contracts.

Defining pipeline capacity in more granular segments will require more assumptions to be made. The capacity of each pipeline segment would be related to its upstream and downstream segment assumptions. Segments which contain receipt points (other than in-flows from the previous segment) and demands (apart from out-flows into the next section) adds to the complexity in capacity calculation.

[7] AEMO, *BB Procedures*, pg. 15
[8] AEMO, *Transportation Service Point Register,* table 9, Pg19

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Each time there is a planned or unplanned maintenance event on the pipeline, all segment capacities would need to be re-calculated. For example, a 10 Terajoules per day (TJ/d) reduction in the overall pipeline capacity reduction does not mean that each segment capacity drops by 10 TJ/d. Segments closer to the restricted segment or with receipt points will have a lower capacity loss than that those segments further downstream which will be affected by greater frictional loss.

For these reasons, there is not a linear relationship in capacity reduction in the segments and requires iterative hydraulic modelling to define the capacities in each segment. There is a risk that more granular segments could lead to a higher margin of error within the segment, depending upon the assumptions chosen and how the whole pipeline is operated in real time daily. Factors such as the movement of linepack and variation in receipt/delivery profiles within that segment can vary from day to day. Table 1 below summarises these points and compares how different definitions of pipeline segments would be applied practically.

Table 1 Comparison of pipeline segment definitions practical application

	RBP Pipeline by Direction (Pt 18 BB Pipeline)	**RBP Linepack Forecasts (Pt 27)**	**RBP Pipeline by granular segment (e.g. Pt 25 CT&A)**
Capacity values	Two reported	One reported	Seven reported
Calculation complexity	Simple to calculate capacity values aligned with technical build parameters of a pipeline	Complicated calculation based on multiple data inputs and assumptions	Complicated calculation based on multiple technical assumptions
Margin of error	Lower to negligible margin of error	Higher margin of error	Higher margin of error

We support the incorporation of the existing definition of pipeline segment under the BB Procedures, which would require capacity outlooks to be reported for both directions of bidirectional pipelines and different capacities in a single direction.[9] A more granular definition of pipeline segments risks imposing significant costs on service providers and a lengthy implementation process, as well as creating a higher margin of error in reports as discussed.

If a more granular definition of pipeline segments is determined, further consultation must be undertaken with industry. Adopting an existing segment methodology will minimise the implementation costs and daily capacity modelling, operational compliance and

[9] AEMO, *BB Procedures*, pg. 15

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assurance monitoring required to meet the Information Standard requirements for these obligations.

1.4.3. The definition of daily capacity should be clarified and remain enshrined in the NGR

In their report, AEMO recommends clarifying the definition of daily capacity and moving it from the National Gas Rules (NGR) to the BB Procedures.[10]

Whilst we support greater clarity in regulatory processes, there is a suite of reporting obligations and system configuration that is tied to the definition of daily capacity and internal processes required to comply. We recommend this definition continues to be enshrined in the NGR, to provide greater certainty to the market that it will not be altered without satisfying the formal rule change process.

APA agrees that clarity in the NGR definition could be enhanced as to what constitutes daily capacity as multiple terms are often utilised across AEMO procedure and data submission documents (e.g. standing capacity, nameplate capacity, short term capacity) which creates confusion. With market participants and facility operators potentially subject to information standards with significant penalties applied, it is critical that industry has certainty in these terms, enshrined in the NGR.

1.5. There is a risk that the proposed changes will create significant operational burden

The Consultation Paper has proposed amendments to the NGR to increase nomination and forecast obligations for the use of BB facilities with the intention of improving accuracy and transparency for the use of BB facilities.

The proposed rule 167A, pertaining to BB shipper obligations, will obligate shippers to provide their best estimates of the use of the BB facility for the next gas day and each gas day D+1 to D+6 to the facility operator.[11] We support this proposed change as it would increase accuracy of the Short Term Capacity Outlook (STCO) in line with the intention of this rule change and support more timely, informed and efficient decision-making and market-led responses to reliability or supply adequacy threats.[12]

The Consultation Paper also proposes changes to rules 182 – 185, for nominations and forecast use of BB facilities, to amend the rules such that the facility operator reports the forecasts provided by shippers (in accordance with the proposed new rule 167A) to the GBB.[13] If the shipper nominations are not received in time, the rule proposes to obligate the BB facility to use its own estimate in place of the shipper's estimates.

In their rule change proposal, Energy Ministers allude to the possibility that current information provided under STCO is based on facility operator's assumptions or poor shipper forecasting.[14] Whilst we agree that the obligations on shippers to provide facility operators their 7 day forecasted nominations may help ensure greater accuracy of

[10] Pg 13
[11] DCEEW, *Rule change request: Implementation of a Gas Projected Assessment of System Adequacy (PASA) for the east coast gas system*, pg. 52
[12] AEMC, *Projected Assessment of Supply Adequacy Rule Change Consultation Paper*, Pg iv
[13] Ibid, pg. 54
[14] DCEEW, *Rule change request: Implementation of a Gas Projected Assessment of System Adequacy (PASA) for the east coast gas system*,, Pg19

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information provided, this will not be the case if the proposed obligations are placed on facility operators.

APA does not support a positive obligation on facility operators to estimate a shipper's nominations and forecasts if not received in time. APA held a similar view in our submission to the Gas Transparency Measures reforms in 2022. AEMO subsequently accepted that where a shipper hasn't provided forecast or nomination data, zero is appropriate.[15] It is APA's expectation that this approach will be maintained for PASA.

Customers are best placed to provide their view on their gas supply and transportation needs which are influenced by many factors across an entire portfolio, including commercial arrangements that are not visible to facility operators. It is therefore not appropriate for facility operators to estimate their customers' behaviour and there is a high risk that the estimates provided would be inaccurate. This would not support the intention of the proposed PASA, which strives to address issues with the quality and completeness of information currently provided in the rules. Considering Information Standards and potentially significant compliance and enforcement provisions could accompany these obligations, it is paramount that the responsible entity for this data (e.g. the shipper) is the accountable entity for the data.

We support the need for increased accuracy in BB non-market demand forecasts, specifically, BB pipeline gas flows and ECGS forecasts. However, imposing the obligation on the operator to estimate shipper forecasts would contradict the intent of the proposed rules to provide high quality information on the system adequacy and transportation capability.

1.6. Careful consideration should be given to operational and financial burdens when determining timing of implementation

This section relates to Question 8 of the PASA Consultation Paper.

"What are your views on the costs or benefits of implementing an ECGS PASA before a reliability standard has been developed? Are there potential benefits from a staged approach to implementation?

The Consultation Paper proposes a two-stage implementation process of the proposed PASA, targeting that market participants will be reporting information to inform the PASA within 12-18 months of the final rule being made.[16] It is crucial that there is a sufficient window between publishing the updated ECGS Procedures and BB Procedures and the first reporting deadline to allow time for market participants to put in place systems and processes to meet the new requirements. The length of the time required to do so cannot properly be judged until further clarity is provided on the extent of additional burden placed on market participants. Six months would be the minimum amount of time necessary from release of the final AEMO procedures, due to the factors discussed in Sections 1.3 and 1.4 of this submission.

When considering the implementation timeline, the following factors are critical:

- **Internal resourcing:** Many organisations are already managing significant workloads, and reallocation of internal resources will require long lead times and prioritisation within constrained staffing environments

[15] AEMO, *BB Procedures,* pg 20 6.4.2 (d)
[16] AEMC, *Projected Assessment of Supply Adequacy Rule Change Consultation Paper*, pg19

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- **Availability of external modelling resources:** The same specialist consultants and technical vendors are likely to be required across multiple participants. A compressed timeline will create bottlenecks and increase costs
- **Industry-wide competition for resources:** If all participants are required to implement technical changes within the same window, and the requirements are highly complex or technical, there is a material risk that implementation will be delayed or incomplete. A phased or staggered approach may reduce this risk
- **Cost and proportionality of implementation:** Some participants may face significantly higher implementation costs due to the need for new systems or bespoke modelling. Careful consideration should be given to the equitable distribution of compliance burdens across market roles.

Given these factors, it is recommended that the AEMC and AEMO adopt a pragmatic, staggered approach, and early engagement and transparency on procedural and technical requirements will be essential to ensure a successful and timely implementation.