



29th July 2016

Essential Services Commission,
Level 37, 2 Lonsdale Street,
Melbourne, Victoria 3000.

Via email: DGInquiry@esc.vic.gov.au

Re: Submission to True Value of Distributed Generation Inquiry

Dear Sir/Madam,

APA Group is pleased to have an opportunity to provide comments to the Essential Services Commission (the Commission) of Victoria with regard to the *The Network Value of Distributed Generation – Distributed Generation Inquiry Stage 2 Discussion Paper (the paper)*.

About APA Group

APA own and/or operate around \$19 billion of energy assets and deliver half the nation's natural gas usage. APA own 15,000 kilometres of natural gas pipelines that connect sources of supply and markets across mainland Australia. APA operate and maintain gas networks connecting 1.3 million Australian homes and businesses and employ over 1600 people. APA also own or have interests in gas storage facilities, gas-fired power stations and wind farms. APA Group (ASX:APA) is listed on the ASX and is included in the S&P ASX 50 Index.

APA's Energy Assets include the 7,500-kilometre East Coast Grid of interconnected gas transmission pipelines. This grid provides the flexibility to customers to move gas around eastern Australia, anywhere from Otway and Longford in the south, to Moomba in the west and Mount Isa and Gladstone in the north. In Western Australia and the Northern Territory, APA's pipelines supply gas to power major cities, towns and remote mining operations. APA also own and operate the Mondarra Gas Storage Facility and the Emu Downs Wind Farm in Western Australia, Diamantina and Leichhardt Power Stations in Queensland, the Dandenong LNG Storage Facility in Victoria and the Central Ranges Gas Distribution Network, servicing Tamworth in New South Wales.

APA also has extensive investment interests in a variety of other energy assets across Australia, such as pipelines; power stations; wind farms; electricity interconnectors; gas processing plants and a gas distribution network.

APA thanks the Commission for the opportunity to comment on the paper. Please contact either Josh Hankey or myself should you wish to discuss our submission further.

A handwritten signature in blue ink, appearing to read 'Peter Gayen', written over a blue circular scribble.

Peter Gayen
Manager, Networks Commercial
APA Group

Executive Summary

APA supports the work being undertaken by the Commission with regard to the value of Distributed Generation (DG). APA agrees with the paper that DG can provide a wide range of benefits to energy users, and the list of benefits provided by the paper is reasonable. APA also supports the Commission's definition of a DG being below 5MWs in size, and includes a wide range of eligible DGs, based on a technology neutral approach.

Proponent led DG will potentially provide competitive and 'healthy' tension in DG development relative to the traditional Network led approach. The issue of information asymmetry is still a challenge for Proponent led DGs, which needs to be addressed to ensure that their projects do have reasonable access to project relevant information that may sit within the network business. Publicly available information alone will usually be insufficient for the Proponent to be to properly evaluate a DG project.

APA is confident that a portfolio of DGs can provide firm generation, with the appropriate commercial and technical arrangements in place.

Battery storage, in spite of its promise, is still an emerging technology that needs to be proven in a variety of ways, including technically and economically. As such, APA urges the Commission to be cautious and conservative in regard to battery storage, at this stage of its development.

Finally, APA supports the work that the Commission is considering on the place of the Local Generation Network Credit (LGNC), and in particular its efforts to work closely with AEMC on this matter, whilst the Rule Change process continues.

Questions

Q1. Are there any other aspects of our definition of distributed generation that we should consider, in this stage of the inquiry?

APA supports the definition of distributed generation (DG) as described in the paper. APA supports the technology neutral approach to a range of DG types, as also outlined in the paper. APA also advocates for a fundamental focus on achieving emissions reduction on the basis of the lowest cost per unit of emissions reduction achieved.

Q2. What data and evidence is available about the potential network benefits of battery storage?

At some point in the future, battery storage is likely to provide significant benefit to the Australian energy market. However, given that much work still needs to be undertaken including for example further trials, standards development, regulation, in spite of the obvious opportunities potentially provided, APA urges that the Commission adopts a cautious and conservative approach to battery storage.

Q3. On what basis should the network benefit from distributed generation be assessed – on the total output or on the total exports of the distributed generation system?

DG potentially provides a wide range of benefits in regard to network value and logically its value should be measured on a total output basis. This approach will then ensure the recognition of load that is provided to the site from the DG (and therefore avoided capacity utilisation), as well as the more obvious export to the grid.

Q4. What do you see as the main differences between network-led and proponent-led DG in terms of the network benefits they deliver?

Proponent led DG projects potentially create competitive 'healthy' competitive tension relative to the traditional network led process, where little or no competition is involved. APA believes this competition will bring benefits to energy consumers by providing more choice and potentially lower prices, as grid investment is delayed or potentially avoided, as a result. Increased competition between network led DG projects and proponent led DG projects will, with the appropriate policy settings, create more longer term benefits for energy users than the current 'model' which is more aligned towards network led DG initiatives.

A significant difference between network led and proponent led approaches, is potential information asymmetry. Although much public information is available to both Proponent and Network led projects, it is the information that is potentially only available to the network business that is a concern.

Q5. Are there any other aspects of our definition of value that we should consider, in this stage of the inquiry?

Apart from our earlier comments about caution being employed in regard to battery storage due to it still being new and unproven technology, the definition of value of DG is reasonable.

APA emphasises its view that the value of emissions reduction from DG, should be considered from the perspective of technology neutrality. The lowest unit cost of emissions reduction, should be a key consideration for both Network and Proponent led DG projects.

Q6. Are there any other aspects to our proposed framework for assessing network value that we should consider?

Other than those stated already, no additional framework aspects are identified.

Q7. Do you agree with the Commission's proposed framework for the network value stage of the inquiry? Are there alternative approaches?

APA believes that the Commission's approach is reasonable.

Economic benefits

Q8. Beyond those identified in the paper, are there other examples of applied methodologies for calculating network benefit that the Commission should consider?

APA is comfortable with the methodologies identified by the Commission.

Q9. Can you suggest any alternative or additional categories of network benefits regarding distributed generation?

APA is comfortable with the network benefits identified by the Commission.

Q10. Can you suggest alternative or additional characteristics of distributed generation (that effect the capacity of distributed generation to provide network benefits)?

APA is comfortable with the characteristics listed in the paper.

Q11. Are there circumstances in which a fleet or 'portfolio' of passive distributed generation systems can provide suitably firm generation capacity to create circumstances in which network benefit is created?

Firm generation sourced from a portfolio of generators is achievable, but only if the commercial and technical considerations are in alignment and clear.

Specifically, as with any power purchase arrangement, a combination of commercial and technical agreements can be constructed to provide firm power, even if occasionally achieved by sourcing generation from plant that may be on standby for periods of time.

Regardless of our earlier qualifying comments about battery storage, some of its promise may be its use combination with DG when firm supply is required.

Economic value methodological approach

Q12. What alternative or additional building blocks of a methodology should be considered for determining the network benefit of distributed generation?

Nil response

Q13. **What do you see as the most appropriate unit of analysis and level of granularity is for the assessment of network benefits?**

Nil response

Q14. **What publicly available data sources can be accessed to apply the methodology, particularly with respect to network constraint and demand?**

This question again points to the issue of information asymmetry.

The above issue is likely to be an issue for a Proponent led project, where not only does the network have access to publicly available information but also potentially other more specific information from within its own business.

A Proponent led project can access the public data sources, but unfortunately that information may not allow a complete and thorough evaluation of a potential DG project. Other data which is potentially more specific and deeper in detail, will likely exist within the network business itself and in principle should also be available to DG proponents, even if provided under confidentiality processes. The charging of reasonable fees, reflecting the potential cost of sourcing data is appropriate.

Q15. **What are the appropriate time parameters of a study into the potential network benefits of distributed generation?**

Nil response

Environmental and social benefits

Q16. **Can you suggest or provide evidence that supports those environmental or social benefits attributed to distributed generation listed in this discussion paper?**

Nil response

Q17. **Outside those potential benefits listed, are you able to provide (and support with evidence) of how distributed generation reduces the *environmental* impact of the transportation of electricity?**

It is logical that local DG will likely mean the electricity provided will need to travel a shorter distance to customers than if produced by the traditional large scale generator, which is usually found some distance from urban areas. Line losses will thus be avoided and therefore achieve emissions reduction, particularly in high carbon electricity markets like Victoria.

Further, if electricity is provided by a low emission fuel, e.g. solar, gas or biomass, the emissions from that generation will be lower than the current electricity pool's carbon intensity,

Q18. **Outside those potential benefits listed, are you able to provide (and support with evidence) examples of how distributed generation provides *social benefit*, as it relates to the transportation of electricity?**

Nil response

Operation of the current regulatory framework

Q19. **Are there other aspects of the current regulatory framework outlined in this paper that the Commission should consider?**

APA believes that the Commission has adequately considered the current regulatory framework.

Q20. **Can you provide specific examples of payments made to distributed generators under the regulatory mechanisms listed in this discussion paper? What size of distributed generation systems received the payments? Were payments made to small-scale systems?**

Nil response

Q21. **Are you able to provide data/evidence about the operation of the small scale generation aggregator framework as a mechanism by which network benefits of small scale distributed generation can be identified, valued and compensated?**

Nil response

Q22. **To what extent do the Tariff Structure Statements published by Victorian distribution businesses provide an indication of the benefit distributed generation can provide through reducing peak network demand?**

The information provided by a publicly available document such as a Tariff Structure Statement, is useful, but much more information would be required by a proponent for a project to be properly evaluated.

Q23. **Are there alternative conceptual frameworks that could be used to examine the benefits provided by proponent-led distributed generation? In particular, are there conceptual frameworks for considering potential benefits that were not anticipated in the planning forecasts associated with the five yearly pricing determination process?**

Nil response

Alternative mechanisms

Q24. **How should the Commission consider the scope of the LGNC Rule Change Proposal with this current inquiry?**

APA supports this study's genuine consideration of current LGNC Rule Change through the AEMC. Working in this manner not only potentially provides for more consistent outcomes across jurisdictions, but also potentially provides more creative outcomes, on what is a challenging and important issue.

APA is aware that in some quarters there prevails a view, that the current reward mechanisms are sufficient to fairly reward DG projects, and therefore that a LGNC is not required. APA believes that an LGNC has many merits, and that another method of measuring and providing appropriate rewards to Proponent led DG projects is required.

Q25. **Are there methodologies for calculating network value and/or regulatory mechanisms from any other jurisdiction that are suitable for consideration in the context of this inquiry?**

Nil response