

Australian Energy Market Operator
GPO Box 2008
MELBOURNE VIC 3001

20th March 2019

Submitted via e-mail to forecasting.planning@aemo.com.au

Dear Sir/Madam,

Planning and Forecasting Consultation

The Australian Energy Council (the “**Energy Council**”) welcomes the opportunity to make a submission in response to the Australian Energy Market Operator’s (“**AEMO’s**”) *2019 Planning and Forecasting Consultation Paper*.

The Energy Council is the industry body representing 23 electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. These businesses collectively generate the overwhelming majority of electricity in Australia, sell gas and electricity to over ten million homes and businesses, and are major investors in renewable energy generation.

Discussion

The Energy Council appreciates the level of consultation which AEMO is conducting to ensure that its forecasts are representative. As these forecasts form the basis for the Integrated System Plan (“**ISP**”), which itself has additional authority in the determination of the future construction of interconnectors and renewable energy zones, it is important that the assumptions made and scenarios modelled are reasonable and broadly agreed by industry and other stakeholders.

Emissions Reduction Trajectories

The Energy Council appreciates that AEMO is ensuring that its models interact with other energy sectors such as gas, but suggests that emissions should have a different treatment to that proposed by AEMO. According to the Consultation Paper, AEMO’s new approach “treats emissions as an output of the changing resource mix”,¹ yet regards the Large-Scale Renewable Energy Target and other state-based targets as inputs to its forecasts. The Energy Council’s view is that this is inconsistent, and not reflective of the likely progression of national emissions policy, which will see broader national targets mandated, and the generation mix will need to change, based on least-cost modelling, to meet these targets, not the reverse. On this basis, the Energy Council believes that AEMO should publish, consult on, and apply explicit emissions trajectories.

In addition, the interaction with other sectors needs to be considered in the modelling. For example, policies which increase electric vehicle penetration will change power system demands and affect generation retirement decisions. Similarly, coal-fired generation retirement may increase natural gas and perhaps diesel emissions as replacement plant seeks to fill the gap in dispatchability. This suggests that in addition to considering the impact of broader emissions reduction policies, AEMO should contemplate a national CO₂ emissions budget for all economic sectors, and include a scenario where the electricity sector delivers deeper cuts than currently contemplated. This is to compensate for other sectors in the economy where emissions reductions are harder and more expensive to deliver. AEMO could also consider commissioning economy-wide modelling, and use this as an input to its scenario determination.

Such scenarios are critical to the development of the ISP and dependent projects. The Energy Council supports AEMO using scenarios to “bookend” possible outcomes and stresses that the neutral scenario should not simply be a “change nothing” scenario, but instead should be the most likely case. To support this case, the Energy Council believes it would be helpful if AEMO set out its assumptions about coal-fired generation

¹ Consultation Paper, p.27

retirement dates. While this information was presented in the ISP,² given the consultation now occurring, it would be helpful to have the schedule presented in the Consultation Paper for each scenario, rather than have it unclearly referred to in the *2019 Input and Assumptions Workbook*.³

Economic Growth & Modelling

The Energy Council notes that AEMO has assumed economic growth continues. While Australia has been fortunate to experience continuous economic growth over the last 28 years, there is a case to be made that this is very uncertain to continue over the period of the forecast. The Energy Council therefore believes that AEMO should consider a scenario where this does not occur, and economic contraction is present for a short period.

The modelling is also predicated on spot market returns to generators. Generators have a number of revenue streams available to them, the most important of which is the financial derivatives market. In addition, there are ancillary services markets available, and soon there will be a revenue stream from the Retailer Reliability Obligation. Thus the returns to generators, their decisions about offering into the market, and ultimately retirement, are affected by broader considerations, and the Energy Council believes these items should be included in AEMO's considerations.

Of course the power system is undergoing significant change, not only in the broad generation mix, but also in the type and location of generators. Alongside the possible development of renewable energy zones, interconnectors and distributed energy resources, there may be increased transmission line congestion and resultant market signals. This is a focus of the work by the Australian Energy Market Commission in its *Coordination of Generation and Transmission Investment Review*,⁴ which has proposed introducing dynamic regional pricing in the future.⁵ The Energy Council suggests that contemplating the market signals which will be provided from rule changes such as these, as well as the July 2021 implementation of five minute settlement,⁶ is necessary for AEMO's forecasting to be robust.

Discount Rate

The Energy Council notes that the Consultation Paper proposes a "social" discount rate of 4%, acknowledging that it is below the Weighted Average Cost of Capital for new investments.⁷ While the rationale of a social discount rate reflecting the value society places on the present relative to the future is understood, its use in this context is regarded as inappropriate, referring as it does to storage technology investments being made by commercial organisations. The Energy Council therefore submits that commercial discount rates should be used, to reflect the markets in which such storage technologies will operate.

Generator Technology Costs

The Energy Council is very supportive of the work AEMO has conducted with the CSIRO to determine appropriate generation costs, although the Energy Council is sceptical of the value of including the 4° scenario the CSIRO has suggested. The Energy Council also suggests that fixed maintenance costs should be linked to the modelled running time, rather than elapsed time.

High Impact Low Priority Events

The Energy Council remains concerned about AEMO's focus on High Impact Low Priority ("HILP") Events. The Energy Council believes that the yardstick of the reliability standard remains appropriate for the scenario assessment needed by the ISP, and that incorporating HILP events distorts the "bookend" scenarios and the neutral scenario.

² Australian Energy Market Operator, *Integrated System Plan*, July 2018, p.22, Figure 2.

³ *2019 Input and Assumptions Workbook*, Retirement tab

⁴ Australian Energy Market Commission, *CoGaTI Implementation – Access and Charging Consultation Paper*, 1st March 2019

⁵ *Ibid.*, p.17ff.

⁶ National Electricity Amendment (Five Minute Settlement) Rule 2017 No. 15

⁷ Consultation Paper, p.38

Conclusion

In conclusion, the Energy Council is supportive of AEMO increasing its consultation in preparing its forecasts, however as such forecasts form the basis for the Electricity Statement of Opportunities and the Integrated System Plan and, as a consequence, the Retailer Reliability Obligation, it is critical that the scenarios contemplated are both reasonable and robust. The initial developments presented in the Consultation Paper suggest that more work is needed to be done, particularly in how emissions trajectories are contemplated, as well as the interaction of the electricity industry with the broader economy.

Any questions about this submission should be addressed to the writer, by e-mail to Duncan.MacKinnon@energycouncil.com.au or by telephone on (03) 9205 3103.

Yours sincerely,



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