24 July 2024

To: Department of Climate Change, Energy, the Environment and Water (DCCEEW) RE: Orderly Exit Management Framework Draft Exposure Bill and Rule – June 2024

Thank you for the opportunity for the Institute for Energy Economics and Financial Analysis (IEEFA) to provide input into the DCCEEW's Orderly Exit Management Framework Draft Exposure Bill and Rule. IEEFA is an independent energy finance think tank that examines issues related to energy markets, trends, and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy.

IEEFA provided a comprehensive submission to the Energy Ministers of the National Electricity Market (NEM) jurisdictions on 2 February 2024.² The focus of this submission was on the Orderly Exit Management Framework (OEMF) and its implications for the energy market. Overall, IEEFA's view was that the OEMF has significant risks associated and should be avoided, and if it is implemented, it should be done so very carefully to prevent adverse impacts such as higher emissions, higher energy system costs and investor uncertainty. Since this submission, there have been limited changes to the design of the OEMF, so much of our original analysis of the framework remains relevant. IEEFA's high-level view on the framework is reiterated below.

There is an urgent need for coal power stations to exit the energy system more rapidly than currently scheduled if Australia is to meet its emissions reduction targets. In IEEFA's view there is value in exploring how to manage coal exits in an orderly and accelerated manner.

The construction schedule of new renewables and storage entrants should be managed to replace exiting coal-fired power plants. Utilising the Capacity Investment Scheme more explicitly to deliver coal plant replacement capacity could be explored to help ensure reliability.

The risks associated with the OEMF mean it is best avoided. The OEMF involves payments to keep aging coal generators operational beyond their planned closure dates. There are significant cost and emissions implications associated with this approach. Such payments could distort the energy market and deter investments in new renewable energy and storage projects, while shifting risks and costs from coal-power plant owners to electricity consumers in a high cost-of-living environment. The OEMF should be avoided due to these considerable risks and pitfalls.

¹ DCCEEW. Orderly Exit Management Framework Draft Exposure Bill and Rule - June 2024. 26 June 2024.

² IEEFA. <u>OEMF Consultation Submission</u>. 2 February 2024.

Other options to manage coal exits could be explored instead of the OEMF that do not have the same pitfalls. Operators of coal-fired power plants could provide financial bonds to ensure reliability and accountability for performance. These bonds would be forfeited if the operators fail to meet reliability performance standards or close their facilities without adequate notice. Alternatively, a capacity reserve could be established to mitigate the risk of early coal plant closures, thereby ensuring a smoother transition to renewable energy sources. Ideally, governments could avoid the need to enter into an OEMF by using existing mechanisms in the NEM or by implementing new mechanisms like those proposed here.

If the OEMF is implemented, it should be done so carefully to reduce adverse impacts. We have recommended a range of ways to reduce potential adverse impacts including:

- The OEMF should limit incentives for coal generators to generate any more power than necessary to ensure reliability (thus reducing emissions and providing greater incentive for new capacity to enter). The exit contract should incentivise contracted generator/s to be available to deliver capacity at times when supply shortfalls are likely (if required) while discouraging output at all other times to contain emissions and avoid economic distortions. For example, contracts under the OEMF could require generators to mothball their plants outside high-demand periods.
- As an extension of this prior point, the mechanism should encourage flexibility of coalfired power plants whenever possible for example, flexing down their output in periods
 when there is abundant renewable power available. Recent experience at AGL has shown
 coal flexibility is higher than it has been in the past, with AGL's CEO recently stating:
 "We've undertaken significant upgrade works at our Bayswater plant in NSW and Loy
 Yang in Victoria that means these plants can now be flexed down approximately 60-70
 per cent of their full operating capacity."
- The search for alternative solutions should be comprehensive and transparent, to make sure that measures like demand flexibility, distributed energy resources (DER), energy efficiency, battery storage and other options are adequately assessed. The search should include a market sounding (we note the NSW DCCEEW comments that it would be difficult and potentially take a while⁴, but IEEFA maintains it should be done). The OEMF should only be entered into if there is no other lower-cost way to deliver the required level of reliability.
- An ongoing system needs assessment should be published publicly and frequently. This
 should continuously track reliability outcomes and demonstrate the remaining gap that
 needs to be filled (and has led to an OEMF contract). This would provide a clear view of

³ RenewEconomy. No room for nuclear: AGL says flexibility is key as it switches from coal to renewables in a decade. 9 July 2024

⁴ DCCEEW. <u>Orderly Exit Management Framework Draft Exposure Bill and Rule - June 2024</u>. 26 June 2024. Link: *Response to Stakeholder Submissions (DOCX)*.





the current and expected "system needs shortfall" as new capacity is added to the system. Emissions-intensive generators in the OEMF should cease operation once the system shortfall gap is closed by new supply or demand reductions.

 IEEFA recommends public consultations at various stages of the OEMF process, enabling consumers to challenge decisions involving contracts with emissions-intensive generators.

IEEFA has put forward a set of contract parameters that could be used for the OEMF if **implemented**, to ensure a coal plant is incentivised to be available during periods of system need, and to minimise their generation when not needed.

- "The plant is required to mothball in the months when supply shortfalls are unlikely for example during much of Spring and Autumn.
- The plant must make available for dispatch a set minimum amount of capacity during hours defined as at risk of supply shortfalls (with potentially some allowance for certain proportion of unplanned outage deemed as statistically likely irrespective of how well the plant is managed) for example this might be the hours of 4pm until 9pm during winter months. If this performance requirement is not met, for a say a given week or month, then payments are docked.
- For each week they achieve their availability performance requirements they are paid an amount sufficient to steadily build up over a year to cover their expected annual fixed costs plus a profit margin (the profit margin should be set at a reasonable level, reflecting the risks faced by the generator).
- An assessment is made of the variable generating costs the generator is likely to incur per megawatt-hour of generation.
- During the non-mothballed months for all hours of the day, irrespective of whether
 deemed at risk or not at risk of supply shortfalls, the generator receives fixed payment
 each week equal to what is assessed to be its minimum stable generation level in
 megawatts multiplied by their variable generating cost multiplied by the hours of the
 week. This payment is provided to the generator irrespective of how many megawatthours they actually generate, provided they meet their availability performance
 requirements.
- Any wholesale pool revenues the generator earns during the hours outside the shortfall
 risk period are provided to the government except for negative revenue incurred during
 negatively priced periods. These negative pool revenues are borne by the operator.
- On the counter side, during the hours deemed as at risk of supply shortfalls, the operator only returns pool revenues to the government up to a value equal to what it received from



the government to cover its variable costs associated with operating at minimum generation levels. Any pool revenue above that value is then shared between the operator and the government. We do not have a view about what the appropriate split should be between government and the operator, but the operator should be allowed to capture an amount that is expected to provide a very high likelihood of exceeding any negative pool revenues they are likely to incur from negative price events.

To avoid the OEMF becoming a type of one-sided option that might tempt plant operators
to see it as insuring them against losses while granting significant upside, the share of
pool revenues the government receives (during the shortfall risk period for when prices
go above variable cost) increases as the generator passes defined profitability
thresholds."5

Since the last consultation round, IEEFA notes there have been some changes to the mechanism⁶, but the mechanism remains mostly similar. Our comments on the changes are:

- The calculation of the emissions impact associated with continued operation of the OEM generator compared with other projects is a helpful addition – this calculation should be completed as soon as possible in the framework and made public.
- Measures increasing the transparency of the framework are helpful transparency should be incorporated into the framework at all possible points.

In conclusion, IEEFA maintains its view that the OEMF is best avoided due to considerable risks and pitfalls associated with it, and if implemented it must be done so carefully to ensure the emissions-intensive generator only operates when required to maintain reliability – thus reducing emissions and market distortion.

Kind regards,

Johanna Bowyer, Lead Analyst, Australian Electricity, IEEFA

⁵ IEEFA. OEMF Consultation Submission. 2 February 2024.

⁶ DCCEEW. <u>Orderly Exit Management Framework Draft Exposure Bill and Rule - June 2024</u>. 26 June 2024. Link: *Response to Stakeholder Submissions (DOCX)*.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. www.ieefa.org

About the Authors

Johanna Bowyer

Johanna Bowyer is the Lead Analyst for Australian Electricity at IEEFA. Her research is focused on trends in the National Electricity Market, energy policy and decarbonisation. Prior to joining IEEFA, Johanna researched distribution networks at CSIRO, worked in the solar energy industry and as a management consultant at Kearney. Johanna has a first-class Honours Degree in Photovoltaics and Solar Energy Engineering from UNSW Australia. While at UNSW she received the Co-op Scholarship, No Carbon Women in Solar Prize and Photovoltaics Thesis Prize.

ibowyer@ieefa.org