

19 December 2024

SA Department of Energy and Mining

Submitted online



Firm Energy Reliability Mechanism

The Australian Financial Markets Association (AFMA) is responding to the South Australian Department of Energy and Mining's (DEM) consultation on its proposal for a Firm Energy Reliability Mechanism (FERM).

AFMA is the leading financial markets industry association promoting efficiency, integrity and professionalism in Australia's financial markets, including the capital, credit, derivatives, foreign exchange, energy, carbon, and other specialist markets. Our membership base is comprised of over 130 of Australia's leading financial market participants, including many energy firms who are key participants in the NEM.

Key Points

- **Firming variable renewable generation is one of the key challenges for the NEM**
- **Jurisdictional mechanisms should be designed to work within the NEM framework**

Ensuring the NEM has adequate firming resources to support the increasing volumes of variable renewable generation required for the net-zero transition is one of the key challenges facing the market. Solving this challenge in a timely fashion is particularly important for South Australia, which has some of the highest levels of variable renewable generation globally, but this should be done in a way that is consistent with the broader NEM regulatory arrangements. AFMA therefore encourages South Australia to work closely with the NEM Wholesale Market Settings Review to ensure that any South Australian specific arrangements can work effectively with the national arrangements.

1. Firming and the financial market

One of the challenges of the energy market transition for the financial market is that the decline in dispatchable generation has led to a reduction in the number of assets with suitable performance characteristics to sell firm financial contracts. This has led to a reduction in the volume of firm contract cover available to retailers to manage their spot price exposure. Currently, as the operators of some of the largest dispatchable units, coal and gas-fired generators are major suppliers of swap and cap cover in the NEM. The retirement of these units has reduced liquidity in the financial market and made it more challenging for retailers to hedge their NEM exposures to allow them to supply customers.

The impact of this is most obvious in South Australia where financial market liquidity has consistently been substantially lower than other regions, particularly since large quantities of dispatchable generation retired in the 2010s. Supporting firming capacity could improve liquidity by boosting the number of parties able to offer firm financial cover to retailers which would support them supplying their customers.

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AFMA Recommendations

- i. South Australian specific arrangements should be designed to work effectively with the NEM regulatory arrangements.
- ii. The FERM should support participation in the financial market.

2. Proposed framework

While AFMA broadly supports DEM's objective of ensuring adequate investment in firming capacity we have a number of comments on the proposed design.

2.1. Eligibility

The paper proposes that eligible resources must have a capacity of >30MW and be capable of supplying power for at least 8 hours. We support appropriate eligibility criteria to ensure that assets are capable of providing appropriate firming services but we think further detail may be required regarding the capability of storage assets, particularly if they are only expected to be able to provide 8 hours of energy within a 24 hour period and how soon after discharging they are expected to be available to be dispatched again.

2.2. Contracting

AFMA supports the proposed approach of providing reasonably long-term contracts to support both existing and new assets. Our members' experience is that long term investment certainty will increase participation in the scheme and competition between providers, but we have some queries about how the contracts will work.

New projects are entitled to a 15-year contract if they have a lead time of greater than 4 years. AFMA is unsure why DEM is requiring a minimum lead time for new projects. While we appreciate that many projects will have substantial lead time it is unclear why a meritorious new project would not be eligible for support because it could commence operating in under 4 years. We think DEM should consider removing the 4yr requirement and make all new projects eligible for the longer contracts.

The paper proposes that the Firm Energy Target (FET) will be assessed annually and that contracts will also be awarded annually. AFMA understands that the intention is for the FET to be assessed across a financial year and contracts to be awarded for financial years. If implemented this would result in a significant number of contracts expiring on 30 June each year. We question if this is the most appropriate operational approach as it will mean that retiring assets are likely to leave the market in the middle of winter. While this is preferable to them retiring at the end of a calendar year, in the middle of summer, we think it is worth considering if:

- the FET should be assessed over some other 12-month period to avoid having units retiring during peak periods; or
- if contracts for different assets could be for different 12-month periods, to avoid having multiple units retiring at the same time.

Under the proposed model retiring assets with either \$0 or priced FERM contracts must remain operational until the end of their contract. While we appreciate the policy intention of giving certainty about the unit's retirement date, we are unsure how this will work in practice for units that intend to exit on any date other than 30 June. Under the current proposal a unit wishing to retire in March, after the summer peak, would either have to continue operating until 30 June (which may be difficult or impossible) or retire early on 30 June of the previous year. We suggest DEM should provide for

contracts to finish on dates other than 30 June and allow units to have contracts of less than one year in their final year of operation.

2.3. Revenue model

AFMA considers the proposed revenue model is likely to support participation in the financial market, but we consider that the proposed approach to calculating net revenue will be complicated to implement. The proposed \$0 contracts will have limited impact on unit's participation in both the physical and financial market and the priced FERM contracts will still incentivise market participation as the return of revenue above the ceiling is limited to repayment of money received by the unit under the FERM, which we think will not deter participation in the market.

The proposed approach to calculating net revenue for an asset seems to be premised on the assumption that assets are contracted separately, and that costs and revenue can easily be attributed to a particular asset. Allocating costs and revenue to an asset has proved difficult for both the Capacity Investment Scheme (CIS) and NSW's Long-Term Energy Service Agreements (LTESA) even though both only apply to new assets and require the asset to be held in special purpose vehicles. We think determining net revenue will be more complicated for FERM as it will apply to existing assets, many of which will be within corporate groups with existing contracts that may be difficult to attribute to an individual asset. We therefore encourage DEM to work with the industry on guidelines about how costs will be allocated within corporate groups.

2.4. LOR events

The paper proposes that parties with FERM contracts must bid their units during LOR 2 and 3 events. While AFMA appreciates the intention of this requirement is to ensure that units are available when they are most required as we have said previously in relation to similar requirements under the CIS we consider that operational restrictions should be limited to avoid perverse outcomes and ensure units are able to participate fully in the market.¹

Our members' experience is that LOR requirements have proved problematic under NSW's LTESAs. LOR events are, by their nature, unpredictable and will often occur with very short notice. It is therefore difficult for units to ensure that they will be available during these periods. For storage units we have observed that overly strict requirements incentivise operators to reserve part of or all of their capacity to be confident that they will be available during an LOR period. These has been observed to result in the following two perverse outcomes:

- a) Operational – units withhold capacity during normal market operations to ensure they can meet their contractual obligations during an LOR event.
- b) Investment – proponents' models must make more conservative estimates about the amount of run time a unit will have as capacity must be reserved to meet their contractual LOR requirements.

The first results in less capacity being available to the market, which will generally lead to higher prices. While the second has resulted in some participants choosing not to participate in other schemes and higher costs for those who do.

Thermal generation has not been able to participate in either the CIS or LETESAs, bit we anticipate that the LOR requirements would impose similar challenges for thermal units, particularly gas and liquid fuelled units, as they would make decisions not to run to preserve fuel to be available to run during an LOR event. As with storage units we anticipate this would lead to higher average prices.

AFMA recommends that the CIS design should not include an LOR requirement. We consider that removing the LOR requirements will result in more capacity being made available in the market and

¹ [AFMA Submission CIS Consultation Paper](#) and [AFMA Submission CIS Implementation Design paper](#)

reduce the cost of the FERM; and those existing mechanisms, such as the RERT and AEMO's directions powers, are adequate to manage LOR events.

The paper also does not provide any guidance about how planned and unplanned outages will be treated. Prudent operation requires that units have periodic planned outages, and it is inevitable that they will experience forced outages and obviously units that are on outage are unlikely to be able to offer energy during LOR events. Conducting ex-post analysis of outages to determine their genuineness is a labour intensive and fundamentally fraught exercise. AFMA considers that a better approach than imposing an LOR availability requirement and conducting ex-post assessments of outages would be for priced FERM contracts to include contractual availability requirements with allowances for planned and unplanned outage, failure to meet the contracted availability requirements would result in contractual penalties. This would be operationally simple and give DEM confidence that the units would be available for large periods of time, including during peak periods, and the operator's flexibility about how they operate their units.

2.5. Obligations for \$0 contracts

The paper is unclear about the extent to which FERM requirements will apply to assets with \$0 contracts. Our members' view is that as assets with \$0 contracts are not receiving any support to allow them to meet the FERM obligations they should have no obligations other than regarding notification of closure dates. DEM should clarify the extent to which FERM obligations will apply to assets with \$0 contracts.

AFMA Recommendations

- iii. The framework should provide more detail about the expected performance characteristics of storage assets.
- iv. DEM should consider making 15-year contracts available to all new projects, regardless of their commissioning time.
- v. DEM should consider if the financial year is the best term for FERM contracts.
- vi. DEM should consider how plant retirement on dates other than 30 June will be treated.
- vii. DEM should work with industry to develop cost allocation guidelines for assets within corporate groups.
- viii. The FERM should impose contractual availability requirements rather than LOR availability obligations.
- ix. DEM should clarify the extent to which FERM obligations will apply to assets with \$0 contracts.

AFMA would welcome the opportunity to discuss this submission further and would be pleased to provide further information or clarity as required. Please contact me at lgamble@afma.com.au or 02 9776 7994.

Yours sincerely,



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