

Mr Bobby Ditric  
Reserve Capacity Mechanism Project Lead  
Public Utilities Office  
Government of Western Australia  
Email: [electricitymarketreview@finance.wa.gov.au](mailto:electricitymarketreview@finance.wa.gov.au)



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**Re: Reserve Capacity Mechanism Position Paper Response – Energy Efficiency Council**

Dear Mr Ditric

Thank you for the opportunity to provide a response to the Reserve Capacity Mechanism Position Paper (referred to as the Position Paper).

The Energy Efficiency Council (EEC) is the peak body for energy efficiency, energy management and cogeneration. Our members are Australia's top experts in these topics and help thousands of homes and businesses each year to save money.

The EEC commends Minister Nahan and the Government of Western Australia for driving long-overdue reforms to the Western Australian energy market, including removing electricity subsidies for consumers and reforming the Reserve Capacity Mechanism (RCM). The Council supports the following elements of the reforms proposed in the Position Paper, including:

- The adoption of an auction as the basis for procurement of capacity; and
- Harmonising demand side management (DSM) availability requirements with requirements for conventional generators.

However, the Council has grave concerns about the Position Paper's proposal to remove DSM from the RCM and pay DSM capacity on a different basis than generation capacity under transitional arrangements, as this would:

- Increase electricity prices for consumers, due to the prospect of the large-scale exit of DSM leading to an increase in the capacity price paid to remaining generators;
- Increase long-term electricity prices for consumers by damaging both the capability and investment confidence for DSM and unnecessarily delaying the closure of some generators. Recent work by CSIRO demonstrates that DSM will be critical to manage electricity supply costs in coming decades;
- Contradict the Position Paper's proposed objective that "*market incentives and outcomes are conducive to a least cost, sustainable deliver of capacity and energy to customers*". The RCM should encourage the exit of the least economic forms of capacity, irrespective of whether it is supply-side or demand-side. However, the Position Paper appears to argue that generation capacity should be supported more than DSM capacity during the transition because it is more expensive; and
- Unfairly focus the economic losses from RCM reform on the energy users and aggregators that provide DSM capacity. While there is a sound case for harmonising requirements for DSM and conventional generators, there is no sound basis for excluding DSM from the RCM and paying DSM providers 90 per cent less than generators for an identical service. Focussing the economic losses from RCM reform on DSM capacity providers only serves to benefit privately and publicly-owned generators, and breaches the principle that governments shouldn't select some private companies to bear the cost of a broader reform process without sound justification.

The EEC recommends that the Government of Western Australia expedite the move towards an auction system for capacity, and that any transitional arrangements encourage the rational exit of the least economic forms of capacity, whether that capacity is supply-side or demand-side. To achieve this we recommend that the Government:

- Transition rapidly to an auction for the RCM;
- Rapidly harmonise requirements for conventional generators and portfolios of DSM. The EEC notes that the point of harmonisation for DSM must be on packages of service provision, rather than individual sites, as this is the functional unit of capacity. The functional unit of service provision is the organisation that is willing to provide capacity with the required characteristics, whether that is a single provider or an aggregator;
- Continue to allow compliant DSM and generation capacity in the RCM during any transition period; and
- Gradually reduce payments for capacity of all forms over a number of years.

The EEC's position is set out in more detail in the following pages. I look forward to discussing these matters with you directly. I can be contacted on 0414 065 556 or [rob.murray-leach@eec.org.au](mailto:rob.murray-leach@eec.org.au)

Yours sincerely

Rob Murray-Leach  
Energy Efficiency Council

# Reserve Capacity Mechanism Position Paper

## Response from Energy Efficiency Council

### Need for reform and principles for reform

The EEC supports electricity market reform in Western Australia, and commends Minister Nahan for leading major reforms that include:

- Removal of electricity subsidies for consumers.
- Opening up the electricity market to competition; and
- Adjusting to the major global transition in the electricity sector, with changes in technology (both in generation and energy-using appliances), consumer preferences and market participants.

The Council agrees that reform of the RCM is essential. There is excess capacity in the South West Interconnected System (SWIS), which is partly a function of poor demand projections compounded by rapid changes in technology, consumer preferences and economic conditions. However, excess capacity has been exacerbated by a previous government's decision to use an "unresponsive" capacity price in the RCM, which failed to deter new capacity entry in times of excess.

The Council notes that effective reform of the RCM must both reduce the current excessive payments for capacity and encourage the deployment of a mix of capacity that delivers lowest cost to consumers over the longer-term. This will inevitably result in reduced earnings for capacity providers over the next five years, and this should drive some of the less economic forms of existing capacity to exit the market, including both generation and DSM.

Reform of the RCM must be based on sound principles to ensure that the costs of RCM reform are appropriately distributed, particularly given that the Government of Western Australia owns generation assets and therefore the distribution of costs of reform will impact on the Government.

The EEC supports the following three currently proposed objectives:

- Capacity market incentives and outcomes are conducive to a least cost, sustainable delivery of capacity and energy to customers;
- The Reserve Capacity Mechanism is to provide strong incentives to introduce capacity when there is a forecasted undersupply and strong incentives to remove capacity in times of oversupply; and
- The Reserve Capacity Mechanism is to appropriately provide signals for the efficient retirement of plant.

The Council does not have a comment on the other currently proposed objectives and principles, but does recommend the adoption of the following general objectives and principles:

- Fairness and transparency;
- Technology neutrality, which is critical during rapid technological change; and
- Enabling the Western Australian energy market to adjust to the expected global changes in electricity supply and demand.

## Demand Side Management

The Position Paper makes a number of errors and generalisations regarding DSM, particularly the statements that DSM is expensive to run and is only suitable for very short periods. DSM is a broad mix of actions that have a variety of characteristics, such as:

- Switching off the compressor in a cool store for a few minutes. This has a modest up-front cost to install remote switching equipment but low running costs. However, compressors can only be switched off for a short period if a store needs to maintain a certain temperature; and
- Shutting down part of a plant (e.g. gravel crushing). This might have a low up-front cost but reasonable running costs. Shut down can be maintained as long as the store of a product (e.g. gravel) meets the businesses needs.

DSM is typically aggregated into portfolios that blend these characteristics to provide fast ramp-up capacity that is well suited to providing low-cost capacity during reductions in supply and peak demand periods, particularly the top 100 hours of annual demand.

DSM is a critical part of the mix of technologies that are needed to provide capacity at lowest cost. These include:

- Large-scale generators and renewable generation that provide relatively cheap base capacity. These types of generators typically have large upfront costs but low running costs, a poor ramp-up rate (with the exception of hydroelectricity) and are poorly suited to servicing the variable part system loads;
- Peaking generators that provide good shoulder capacity, but are expensive for both baseload and extreme peak loads. Peaking generators typically have reasonable upfront costs but high running costs; and
- DSM that provides a range of peaking capacity services.

The location of capacity is critical in determining its true cost. The cost of providing capacity through remote generation needs to take into account the cost of providing the network infrastructure that is needed to distribute that supply. In contrast, onsite generation and local DSM can significantly reduce the need for investment in the grid.

CSIRO's Future Grid project, while it focuses on the National Electricity Market, has findings that are applicable to the SWIS and other grids. In particular, the Future Grid project found that DSM would be critical to lower the cost of energy supply (including generation and network costs) for all the scenarios that it modelled to 2050.

The SWIS has elected to run a market for capacity (the RCM) alongside a market for energy in order to provide investment signals for the development and deployment of a mix energy services. For example, baseload generators not only receive capacity payments, but also large payments for energy delivery. Generators that provide shoulder services will receive a mix of capacity and energy payments. DSM is largely funded through capacity payments.

Where DSM provides an identical form of capacity to generation it should be paid an identical amount of funding. Where DSM is paid less for an identical service the market will over-invest in generation and under-invest in DSM, resulting in a much more expensive mix of capacity that pushes up the cost of electricity supply.

The SWIS has excess capacity, and some capacity must exit the market. The forms of capacity that should exit are more expensive and /or cannot meet necessary criteria. It is clear that some generation capacity (and some DSM capacity) should exit on that basis. Reducing payment for DSM capacity, irrespective of its quality, in order to maintain payments for generation capacity that should exit the market runs contrary to sound economic principles, leads to higher costs for consumers and is deeply inequitable.

Analysis of data on the Australian Energy Market Operator's website indicates that almost 500MW of generation in the SWIS has been utilised for less than the 200 hours per annum that is proposed for DSM through harmonisation. In fact, six generators were utilised for less than 10 hours per annum (0.11 per cent of the year). However, the Position Paper is recommending that all generators be treated the same with regards to capacity, while DSM would be treated differently. This goes against the principle of technology neutrality.

### **Proposed reforms to the RCM**

The EEC supports the proposed shift to an auction mechanism for capacity, which we believe supports the objectives and principles outlined in the paper and the additional principles that we propose on page 3 of this submission. The Council does not have a comment on the details of the proposed auction mechanism.

The EEC also supports the proposed harmonisation of requirements between DSM and generation. However, harmonisation must be applied at the portfolio rather than the site level, as DSM generally provides the best quality of capacity and other services when it is aggregated. For example, while it may only be economic for an individual site to provide a few hours of DSM during a heat wave, but an aggregator can coordinate a large period of demand-response from multiple sites.

The EEC strongly opposes the proposed exclusion of DSM from the RCM during its transition period, with DSM instead receiving substantially reduced payments, as this would:

- Increase electricity prices for consumers, due to the prospect of the large-scale exit of DSM leading to an increase in the capacity price paid to remaining generators;
- Increase long-term electricity prices for consumers by unnecessarily delaying the closure of some generators and damaging both the capability and investment confidence for DSM. The CSIRO Future Grid project demonstrates that DSM will be critical to manage electricity supply costs in coming decades;
- Contradict the Position Paper's proposed objective that "*market incentives and outcomes are conducive to a least cost, sustainable deliver of capacity and energy to customers*". The RCM should encourage the exit of the least economic forms of capacity, irrespective of whether it is supply-side or demand-side; and
- Unfairly focus the economic losses from RCM reform on the energy users and aggregators that provide DSM capacity. Focussing the economic losses from RCM reform on DSM capacity providers only serves to benefit privately and publicly-owned generators.

The EEC recommends that the Government of Western Australia expedite the move towards an auction system for capacity, and that any transitional arrangements encourage the rational exit of the least economic forms of capacity, whether that capacity is supply-side or demand-side. To achieve this we recommend that the Government:

- Transition rapidly to an auction for the RCM;
- Rapidly harmonise requirements for conventional generators and portfolios of DSM. The EEC notes that the point of harmonisation for DSM must be on packages of service provision, rather than individual sites, as this is the functional unit of capacity. The functional unit of service provision is the organisation that is willing to provide capacity with the required characteristics, whether that is a single provider or an aggregator;
- Continue to allow compliant DSM and generation capacity in the RCM during any transition period; and
- Gradually reduce payments for capacity of all forms over a number of years.