



# International Power Australia

Submission to the AEMC  
Second Interim Report  
Review of the Effectiveness of  
NEM Security and Reliability  
Arrangements in Light of  
Extreme Weather Events

31 March 2010

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## Summary

International Power Australia (IPRA) broadly supports the NGF submission regarding the Effectiveness of NEM Security and Reliability Arrangements in the light of extreme Weather Events, and seeks to emphasise the following points.

- Specification and interpretation of the reliability standard in the future
    - The current measures are supported, but there is a need to report the probabilistic USE measurements in context of its variability is essential. A well established statistical process control mechanism is recommended.
  - Recognising differences in jurisdictional expectations
    - The notion of differential MPCs is not supported as it would require a major market redesign, create additional risks to investors and deliver politically untenable outcomes.
  - Governance arrangements
    - The role of the MCE in setting high level policy is acknowledged. However the current arrangements are effective and no case was established to warrant a change. The alternatives canvassed put at risk the independence of the AEMC and effective participant input. Consequently IPRA rejects the alternative options as proposed.
  - MPC and investment drivers
    - The MPC is no longer a major investment driver and, increasing it is starting to be viewed as an impediment to market efficiency and new investment. A wider assessment of investment drivers in support reliability is required.
  - Market design and sustainability
    - The market is in need of a major and holistic review to assess its sustainability to deliver new investment in light of significantly heightened regulatory uncertainty and sovereign risks primarily caused by Government intervention.
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## Detailed response

### **Ref: 4.2 - Specification and interpretation of the reliability standard in the future**

Firstly, the introduction text to section 4.2 on page 34 is contradictory. If indeed extreme weather events are more likely in the future, then by definition they will not be extreme, as they become part of the norm in the planning base case.

The key issue is that the USE is probabilistic, tends to exhibit a high degree of variability and when measured on annual basis can produce unnecessarily alarming results when USE target is exceeded. Whilst a 10 year moving point average reduces the short term variability of the measurement, we agree that it presents additional problems as it becomes a lagging indicator, and isn't particularly suitable for response purposes.

The challenge is to present the measurement without lag but place its variability into context.

It is recommended the elements of statistical process control be utilised to assist with the measurement reporting and control issues. Specifically the use of a control interval for USE is seen as potentially useful. Using the variance of the USE, the control interval, or warning limits, would be determined (typically 2-3 standard deviations). The annual USE would then be presented on such a control chart, and provided the measurement remains within the control limits; no further action would be required.

The use of a control chart would serve to better frame the USE measurement in the context of its variability, and would assist in more effective communication of the outcomes.

### **Ref: 4.3 - Recognising differences in jurisdictional expectations**

Notwithstanding that this question was raised by the Ministerial Council on Energy, and assessed as feasible by the AEMC in its second interim report, given the issues we raise below, we cannot understand why such a concept is being seriously considered. IPRA does not support differential market price caps on the following grounds:

- It will lead to the potential that load/customers in one region (state) with a lower MPC could be shed at the same time as that state was exporting power to support customers from being load shed in a higher MPC priced region. We believe this will be politically untenable, and this is evidenced by the political reaction to a previous USE event in Victoria in the early 2000s, when restrictions were in place because of industrial issue at Yallourn, and Victoria continued exporting to NSW.
  - Fundamental changes to market design, and particularly the dispatch and optimisation process would be needed, and it is unlikely that the NEL objectives would be satisfied in the process.
  - IPRA considers the distortion and risk introduced to the investment environment will be severe. Generation investment should be attracted (as intended) to the more risk averse
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regions, potentially starving regions with a lower MPC where investment appetite is limited. This is likely to precipitate a “race to the top” of the regional MPCs, making further regulatory interventions likely, and thus further destabilising the investment environment.

Questionable arbitrage drivers will be introduced across interconnections, and (unless major changes to regulatory tests are introduced to manage the anomalies, interconnection could driven to remove the signal).

In particular, the investment climate will become confused between regions, and less certain, because of the risk that individual jurisdictions will change the level of reliability for their region alone, undermining decisions made in good faith on the face of the existing settings.

- MPC is assumed to be the key investment driver. Whilst this maybe correct in a “pure market”, no evidence was presented to support this assumption in the current imperfect market.

In practice, the MPC is a contributing, but not dominant driver. Depending on the impacts on interstate trade, contract liquidity, increased prudential requirements the application of increased/differential MPCs may not be at all effective in delivering the targeted outcomes.

- Even if all technical and political issues were to be satisfactorily resolved, there is likely to be an overall decrease in economic efficiency and fail to meet the NEL objective.

One option for managing load shedding would be to place an obligation on all loads to bid into the market (similar obligation as generators). In this way the market could be always cleared to maximise economic efficiency and load would be shed (not dispatched) based on price.

Such a market based arrangement is seen as economically superior to the current process of load shedding (\*).

Such a mechanism would also automatically take into account the potential differences loads between jurisdictions.

*(\*) - although it is accepted that load shedding may be necessary in some cases where the market dispatch is too slow in relation to system dynamics)*

### **Governance arrangements**

The current governance arrangements between the MCE, AEMC (and Reliability Panel) and AEMO appear to be working and no case was made in the interim report to demonstrate otherwise. IPRA strongly opposes the Commission’s proposals for amendment of the governance arrangements for Reliability.

IPRA finds the analysis presented self-serving, and suggest that the AEMC should have sought independent advice on this matter if it wishes to maintain its independent decision-making.

IPRA does not agree that the current arrangements for management of reliability are historical anomalies. This argument is not sustainable in the light of multiple generations of Code and Rules changes, and in

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particular the very careful revision of the original electricity Code prior to its establishment as the “Rules” under the National Electricity law.

IPRA suggest the current arrangements are neither anomalous nor a mistake. Assessment of whether changes are needed should not proceed on this foundation.

Assessment of any need for change should also be based on perceived deficiencies in the current arrangements. “If it ain’t broke, don’t try to fix it”. IPRA is not aware for example of any significant claims of conflict of interest in the Reliability Panel. With such a diverse and representative membership, we find it difficult to perceive such an argument could be sustained, aside from its potential convenience for lobby groups offended by Reliability Panel decisions.

Perhaps more importantly, we are not aware of deficiencies in reliability performance of the NEM that would justify calling for significant change. The AEMC analysis does not highlight any such deficiencies.

IPRA’s comments are particularly focused on potential changes to the role of the Reliability Panel. Since this organisation currently provides a senior manager as a generation representative on the Panel, the commentary we make is informed by significant involvement in the Panel’s activity.

We do not agree with the Commission that all reliability settings can be conveniently grouped together as an “integrated package” and thus should be treated in the same way. On its face, the assignment of responsibility for setting the Reliability Standard to the Reliability Panel could be perceived as out of step with the responsibility for the remainder of the settings, particularly if one started from the assertion that the arrangements are historical anomalies.

However, the Reliability Standard is different to the other Reliability Settings. In simple terms, the other settings - MPC, CPT and MFP are the ‘levers’ pulled to deliver the Reliability Standard. While the Commission characterises these settings as all having a “strong economic market framework” character, we think it is clear why the designers set the Reliability Standard apart.

The Reliability Standard is the target that reflects the interests of stakeholders in the level of reliability they are prepared to pay for. The Reliability Panel is structured to ensure that there is a very broad representation of stakeholder interests in its deliberations. All participant classes in the market are represented, as are both large and small consumers. IPRA would argue that this group is purpose-designed to determine, on balance, the target levels for reliability in the NEM. We also acknowledge that the MCE has a role in setting a broad statement of Policy Principles, but the political view also has its limitations, specifically its shorter term horizon. Conversely, the Reliability Panel has been deliberately been structured to take a longer term view.

We agree in principle with other aspects of the proposed framework, including the setting of broad Policy Principles by the MCE, responsibility for operational decisions residing with AEMO, and ultimate responsibility for the remaining reliability settings (requiring as they do extensive analysis and modelling) residing with the AEMC - in short the current arrangements with the addition of a statement of Policy Principles by the MCE.

We consider the Commission’s representation of the relationship between the Reliability Panel and the AEMC is understated in the “Second Interim Report”. The Commission fails to mention that the AEMC appoints members of the Panel under a broad selection process, that the AEMC has the power to broaden the membership of the Panel,

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that a Commissioner of the AEMC chairs the Panel and that the AEMC provides the secretariat services that underpin the Panel's operation. The Panel is a strong vehicle to test, both internally and in public consultation, the delivery of reliability in a practical tension (where tension even exists) between the various stakeholders, including the Commission.

The Commission's recommendations also devalue the considerable market experience of the membership of the Panel that it appoints itself.

The Commission's draft recommendations propose that this testing and assessment by a Panel structured to represent the broad community of stakeholders in reliability outcomes, be discarded in favour of centralised decision-making by a body set up to set the market rules, not, we would argue, its outcomes. We do not support that recommendation. The proposals presented seek to reduce the level of stakeholder involvement in NEM decision-making. We regard this as a retrograde step.

Given the importance to stakeholders in the reliability setting outcomes, in particular their importance to investors, we do not support proposals for the AEMC to be given the power to change the reliability settings without the rigour of a full Rule Change process. One focus of the Commission's analysis is the involvement of parties that can represent "the community's expectations regarding reliable electricity supply relative to its cost". We consider the constitution of the Reliability Panel is consistent with this, as is the Commission's proposal that a broad statement of Policy Principles be provided by the MCE. We consider a reduced discipline on the AEMC in the setting of those parameters in its purview to be inconsistent with these principles.

Consequently, we support no change, but if any change is proposed, the above arguments make it clear that we consider Options 2 or 3 unacceptable, and Option 1 a marked backward step from the current arrangements.

Governments have the power to change the Rules in the end. Should the MCE wish to bring all aspects of reliability settings under its control, it has the power to do so. However, in doing so it loses the benefit of a Panel of stakeholders which pays ongoing and persistent attention to reliability matters, and which provides first-line stakeholder input to the reliability of the NEM. Reliability is the sole focus of this Panel, in contrast to the occasional involvement of other stakeholders, including the AEMC and the MCE.

### **Market Price Cap and investment drivers**

There is an urgent need to establish key investment drivers and impediments under the current NEM Energy Only Market (EOM). The considerations to date by the AEMC and the Reliability Panel, while useful, have had a very narrow focus on the MPC and CPT and a wider examination is warranted.

For example significant increases in the MPC are likely to lead to a range of significant problems and inefficiencies, and are unlikely to deliver the expected investments.

- Increased cost associated with the existing risks to generators as a result of transmission congestion and plant availability are likely to cause generators to withdraw capacity from the contract market;
  - The likely impact will be lower liquidity in the contract market and reduced competition;
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- Vertically integrated businesses are likely to manage these risks by investing in their own plant, thus further increasing market concentration;
- This, combined with reduced contract liquidity and increased prudential requirements will serve as a barrier to entry to smaller retailers (some may exit the market). Increased market concentration is the most likely outcome;
- Increased maximum prices and pool price volatility, coupled with increased contract prices would sensitise regulators and governments and may lead to more frequent intervention. This in turn would serve to increase the regulatory risk on generators and impede investment.

### **Market design and sustainability**

The existing NEM market design, now eleven years old, is yet to be comprehensively and objectively examined for ongoing sustainability in light of stalled industry restructuring, primarily government ownership and regulatory uncertainty due to multitude of policy interventions under the guise of addressing climate change and industry development. The ongoing interventions distort the economic foundations on which the market design was built, and the uncertainty and wash-up of the global financial crisis further exacerbates investment problems.

The NEM energy only market (EOM) was designed in 1994/5 in response to the microeconomic efficiency reform and was thus well suited to the challenges in the 1990s.

- Large over investment in generating assets by states.
- Little or no interstate trading of electricity.
- High cost of operations and maintenance (high employment, non-business related areas etc)
- Poor plant performance by world standards (low availability, high planned and forced outage rates).
- Scarcity of capital hampered further construction (no new debt policy in Victoria, etc)
- Political climate favoured microeconomic reform and market based solutions (COAG/ Hilmer).

The NEM has delivered many benefits from over the last decade and was free from blackouts experienced in other markets, for example California.

However, past success is not a good guide to the future unless the challenges and objectives remain constant.

The challenges ahead are vastly different to those of the 1990's, and can be summarised as follows:

- Environment
    - Delivery of the 20% renewable generation target.
    - Pressure to reduce CO<sub>2</sub> intensity in line with yet to be agreed climate change policies.
    - The need to cope with a plethora of initiatives that intervene in normal competitive market operations to reduce demand
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- through end use efficiency, and stimulate gas fired generation by subsidising gas (Qld).
- The possible need to cope with the accelerated decommissioning of coal fired plant and the timely delivery of cleaner (lower CO<sub>2</sub> footprint) replacement generation.
- Operation
  - A changing plant mix will challenge market operation.
  - The need to manage system inertia (following replacement of coal fired plant with low inertia and intermittent plant).
  - The need for standby generation to firm-up wind.
  - Increased network congestion.
  - Accommodating distributed and micro-generation.
- System adequacy - investment
  - Meeting supply demand balance, particularly when new base load generation is required.
  - Replacement generation under a potential ETS, and other climate change policies?
  - The need to attract private capital.
  - Financing of new projects post GFC in the face of climate change policy uncertainty is increasingly challenging:
    - All businesses requiring access to finance need to compete for capital on the international stage.
    - This dictates that Australian investment environment is perceived as competitive, particularly as far as regulatory and sovereign risks are concerned.
- Infrastructure to underpin generation must occur in step with the investments in generation including:
  - Development of efficient transmission and distribution infrastructure, and
  - Provision of efficient gas infrastructure.

The overarching objective of delivering economically efficient outcomes from customer's perspective remain, but this objective is compromised by a plethora of climate change initiatives at both the federal and state levels. These initiatives force uneconomic generation into the mix and thus increase cost to consumers.

IPRA is of the firm view that the MCE and AEMC must assess the sustainability of the current (EOM) market form to meet the reliability criteria and overall system adequacy in the face of a range of policy interventions/initiatives (RET, ETS, energy efficiency initiatives, gas schemes etc) and operational challenges.

- We refer to the AEMC's own documentation - CRA advice to Reliability Panel 2007 – current (EOM) market form requires undistorted environment.
  - Inertia is necessary for system stability but is not explicitly valued by the current trading arrangements.
  - No market price cap triggered when market operation outside market design (FM).
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- Risks to generation investors from the current transmission arrangements.
- Uncertainty over Carbon policy and its impacts on existing and prospective investments.

Consideration of these elements is critical to the on-going development of the NEM energy only market (EOM).

According to a latest esaa member survey, the electricity industry needs some \$97 billion of capital for refinancing and new projects in the next 5 years. Accelerated investment to replace plant dislocated by the introduction of CPRS will present large additional demand in excess of this amount.

IPRA suggests a comprehensive and wide reaching review of the current market arrangements with respect of market sustainability.

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