



**Stanwell Corporation Limited**  
ABN 37 078 848 674

# **AEMC NEM Financial Market Resilience Review**

Issues Paper

Stanwell Corporation Limited submission



## 1. Introduction

Stanwell welcomes the opportunity to respond to the Australian Energy Market Commission's (AEMC) Issues Paper on National Electricity Market (NEM) Financial Market Resilience (the Paper). We understand the review was requested by the Standing Committee on Energy and Resources (SCER) and the Global Financial Crisis (GFC) provided the catalyst for reviewing the level of risk of financial contagion in electricity markets.

As background, Stanwell Corporation Limited (Stanwell) is a Queensland based generator, with the capacity to supply more than 45 per cent of the state's peak power needs.

Stanwell was originally established in 1997. However, the business was transformed on 1 July 2011, following a restructure of the Queensland Government owned generating sector from three Queensland Government owned corporations (Stanwell, Tarong Energy Corporation Limited and CS Energy Limited) to two (Stanwell and CS Energy).

We are a diversified energy company, with an energy portfolio comprising coal, gas, diesel and hydro power generation facilities geographically dispersed across Queensland.

Our plant portfolio includes:

- Stanwell Power Station near Rockhampton - 1460 MW
- Tarong Power Station in the South Burnett - 1400 MW
- Tarong North Power Station in the South Burnett - 443 MW
- Swanbank E Power Station near Ipswich - 385 MW
- Mica Creek Power Station near Mount Isa – 304.7 MW (not connected to the National Electricity Market (NEM))
- Kareeya Hydro in Far North Queensland - 86.4 MW
- Barron Gorge Hydro in Far North Queensland - 66 MW
- Mackay Gas Turbine in Central Queensland - 34 MW
- Koombooloomba Hydro in Far North Queensland - 7.3 MW
- Wivenhoe Small Hydro located at Wivenhoe Dam - 4.3 MW.

Stanwell owns Meandu Mine, which has the capacity to supply up to seven million tonnes of coal a year to the adjacent Tarong Power Stations. We also have a coal supply agreement with Wesfarmers Resources' Curragh Mine that includes the sharing of revenue from coal exports.

Stanwell employs just under 1000 people across its various sites and is well placed to provide efficient and competitive power to Queenslanders well into the future.

Overall Stanwell concurs with the AEMC's initial view that the financial relationships and the markets that underpin the efficient operation of the NEM are generally robust. As a significant player in Australia's energy and resource sectors, we wish to respond to the Paper, by providing more context relating to two important issues which appear to feature strongly in the review process. These include risk management frameworks in the NEM and the capacity of NEM participants to manage significant market stress, particularly in relation to the failure of a large generator. Ensuring the AEMC is appropriately informed on these issues will provide the right foundations to progress the review process.

We also note that the AEMC have formed an Industry Working Group to assist in understanding the nature of the financial relationships and measures that participants currently adopt to manage those risks. While we support the formation of expert groups to assist in framing the issues, we are concerned that only a proportion of the market is represented. As mentioned, the Paper raises the issue of the failure of a major generator in the NEM, but the membership of the group largely excludes merchant generators in Queensland, New South Wales and Tasmania. We strongly encourage the AEMC to reconsider the membership structure of the group so it represents a more balanced cross-section of the market. It may also be beneficial to include interested representatives from the financial markets and its related industry bodies.

## 2. Risk Management Practices in the NEM

In framing the level of financial interdependence in the NEM, section four of the Paper outlines details on existing contagion-mitigating mechanisms and practices employed by businesses including internal and external risk management measures and requirements. While the points made are valid, this is only a rudimentary overview of the current risk management practices at play in the market (i.e. focuses primarily on corporate governance structures) and does not reflect the level of sophistication employed by participants in understanding and managing their business risks. Businesses operating in the sector are typically large sophisticated players with significant long term capital investments and hence have a commercial imperative to understand and appropriately manage financial risks resulting from trading, operational and credit risk.

We strongly recommend the AEMC seek further advice on risk management practices in the NEM. Without this level of analysis, the outcomes of this review could result in unnecessary, costly and potentially distorting policy changes.

The risk of financial contagion in the NEM should be considered in two distinct stages:

1. What is the likelihood of an electricity market participant defaulting on its contractual obligations?

2. If a single electricity market participant were to default on its contractual obligations, what is the likelihood that would cause a second electricity market participant to default on their contractual obligations?

The likelihood of an electricity market participant defaulting on its contractual obligations is minimised if that entity has a comprehensive understanding of the nature and quantum of risk exposures. When the relationships between the range of business risk exposures are understood cost effective risk management strategies be implemented to ensure the business maintains the ability to meet its contractual obligations.

There have been significant advancements in the risk management practices employed in the electricity market in the past decade. The majority of participants have moved from static rule-of-thumb risk policies to market risk management limits determined by extensive modelling of business performance under a range of stressed market scenarios. Common stress scenarios considered in such modelling include:

- the loss of generation units, either by the business themselves or another market participant;
- transmission and fuel constraints; and
- significant movements in the forward contract market curves (over the counter (OTC) and exchange traded).

NEM participants are typically dynamic businesses that have diversified asset bases both in terms of energy generation mix, fuel sources and regional geography. This trend has continued over time as the market has matured and more market consolidation has taken place. Australian energy businesses not only trade in the NEM, but participate in gas, environmental and other commodity markets. For example a generator faced with an unexpected extended outage potentially has options to on-sell fuel in related markets. Where businesses are not able to utilise their own diversified portfolios to manage the impacts of the stress scenarios considered above, a range of tailored financial arrangements are available to achieve equivalent outcomes from a cash flow perspective.

Accordingly Stanwell is of the opinion that electricity market participants are already operating in a way that allows them to withstand the majority of the market stress conditions highlighted in the report, and as such the catalyst event for financial contagion has a very low probability of occurrence.

In addition to prudent strategies being employed across the market to minimise the likelihood of participant default, the measures implemented to manage contagion risk (credit risk management) should a default occur, have become increasingly sophisticated. In recent years dynamic credit support provision within International Swaps and Derivatives Master Agreements (ISDAs) has become the electricity market standard. Credit collateral held under these agreements can be accessed quickly without reference to a defaulting party, and so can mitigate cash flow shortfalls experienced by a business if a counterpart defaults on their OTC contractual obligations. Margining mechanisms also limit the value a business may lose in the event of a participant default in respect to exchange-trade instruments.

Stanwell wishes to stress the importance of putting financial contagion risk in the NEM and any response to that in appropriate context. In a market where participants business interests are increasingly diversified financial contagion is very much a second order risk and should be treated accordingly. Although effective, each of the mechanisms that can be used to minimise the impacts of a contractual default have different secondary business implications. Any regulatory intervention mandating the use of any of any of these mechanisms (such as centralised margining for wholesale OTC contracts) would actually increase pressure on electricity market participant cash flows and increase the likelihood of an initial participant default.

### 3. Historical events in the NEM

In considering the level of financial resilience in the NEM, the Paper refers to international examples of events that have resulted in financial contagion in the energy sector in California and the United Kingdom. Interestingly, the Paper does not site any significant examples that have occurred in the NEM.

The NEM has experienced a number of significant events that have impacted individual participants, but have not resulted in broader systemic issues for the market. Consistent with our discussion above on risk management practices in the NEM, it is not surprising that these events were absorbed by the market and wide spread financial contagion avoided. In this context, we suggest the AEMC closely consider how the NEM has managed notable past events and highlight a sample below.

The 2006-08 drought and its impact on the availability of water for thermal and hydro generation across the NEM is one of the most notable examples of a major market supply-side shock and period of sustained high prices. Specifically, Tarong Power Station (now part of Stanwell) was required to reduce its unit operation by half for a sustained period of time. Coincident with these actions at Tarong Energy, there were low water levels at thermal power stations in New South Wales (NSW) and hydro facilities including Snowy Hydro, Southern Hydro and Hydro Tasmania were also energy constrained.

Importantly, Tarong Energy remained solvent throughout this period and no financial stress was exported to other counterparts. Policies and procedures at Tarong Energy were either in place at the time or were identified and enacted through Executive and Board levels as required to allow management of the quite large physical and financial exposures that resulted from the dramatic changes in generation capability and operations. Tarong Energy's primary response was through financial market trading in standard swaps, caps and options, but also more tailored risk management products.

Participants across the NEM managed financial exposures appropriately to prevent any financial failures. Also, physically the NEM coped well with the market clearly demonstrating that the physical structure of the market supported by the development of a liquid financial market is appropriate to allow participants to manage wholesale physical supply shocks. This has also been demonstrated through other more short term events.

Other shorter term examples of major generation and transmission outages within the history of the NEM include the Bayswater Power Station Transformer failure. In August 2004, a current transformer at Bayswater Power Station in NSW developed an internal fault causing it to later explode. This failure triggered a major power system incident which involved the loss of five large generating units and one medium capacity generating unit in NSW. The most recent example of large scale forced generation outage is the floods impacting the operation of TruEnergy's Yallourn Power Station. To date, the market has remained viable.

## 4. Recommendations

In considering the next stage in the review process, Stanwell makes the following recommendations to the AEMC:

1. Reconsider the membership structure of the group so it represents a more balanced cross-section of the market.
2. Seek further advice on risk management practices the NEM. Without this level of analysis, the outcomes of this review could result in unnecessary, costly and potentially distorting policy changes.
3. Gain a better understanding of the level of business and market diversification within the energy and resources sectors and its mitigating impact on systemic risk within the NEM; and
4. More carefully consider how the NEM, rather than international markets, has managed notable supply-side shocks and the market response.

We would appreciate the opportunity to discuss the matters raised in this submission further with the AEMC. Please contact Ms Erin Bledsoe (0409 877 116) with any further questions.



[www.stanwell.com](http://www.stanwell.com)

GPO Box 800 Brisbane QLD 4001

