AEMC

INFORMATION

An efficient approach to distribution reliability

Recommendations on a framework for distribution reliability

The Australian Energy Market Commission has developed a framework for distribution reliability in the National Electricity Market (NEM) to better determine the levels of reliability in distribution networks that reflect the needs of customers.

Reliability in distribution networks

Reliability refers to the extent to which customers have a continuous supply of electricity. Distribution networks facilitate the supply of electricity to end use customers within each jurisdiction of the NEM. The level of reliability that distribution networks are required to provide affects the level of investment that networks undertake. This ultimately feeds through to the electricity prices paid by customers.

As it would not be cost effective or feasible to remove all potential supply interruptions faced by customers, determining the level of reliability in distribution networks requires trading-off the costs of building and maintaining distribution networks against reliability outcomes. The costs to customers of interruptions to their supply of electricity can then be used to guide the setting of reliability targets.

There is scope to improve the efficiency of network investment in the NEM through applying a transparent framework which informs this trade-off and a consideration of the value that customers place on reliability.

Benefits of an efficient framework for distribution reliability

The Australian Energy Market Commission has recommended a framework which promotes greater efficiency, transparency, and community consultation in how reliability levels are set and provided across the NEM. In particular the framework would:

- Compare the costs of building and maintaining electricity networks against reliability outcomes. The costs to customers of interruptions to supply can then be used to guide the setting of reliability targets. This would provide for a more economically efficient way to determine the appropriate levels of reliability in distribution networks, and could lead to more efficient investments by network businesses and electricity prices that are consistent with the needs of customers.
- Provide an independent process that separates the body responsible for providing reliability from the body responsible for setting reliability targets.
- Set reliability targets ahead of the need to invest to provide transparency and certainty to market participants regarding the level of reliability they can expect to receive and increase the accountability of network businesses for the level of reliability provided.
- Provide consistent national expression of the measurements of reliability performance in distribution networks will allow customers to better understand how the cost of electricity relates to the levels of reliability provided. It will also allow the Australian Energy Regulator (AER) to better benchmark reliability performance and improve its ability to determine revenues that are consistent with the efficient delivery of required levels of reliability.

The intention of the framework is not to result in a single harmonised level of reliability that will apply across the NEM. Rather, the focus is on implementing an effective framework for setting, delivering, and reporting on distribution reliability targets and outcomes.

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The Australian Energy Market Commission has recommended a framework which promotes greater efficiency, transparency, and community consultation in how reliability levels are set and provided across the NEM.

In most jurisdictions, regulation of reliability is primarily the responsibility of jurisdictional governments. The framework would allow for jurisdictions to transfer the responsibility for setting distribution reliability targets to an independent body. This would include the ability to delegate responsibility to the AER.

As part of the framework, the AER would also become responsible for estimating the value that customer place on reliability (VCR) to assist jurisdictions to assess reliability levels. With this responsibility the AER will improve the VCR methodology using the experience gained through repeated application. This will allow customer preferences to be more accurately revealed over time.

In light of the limitations in the measurement and application of VCR estimates, the framework would include the ability for jurisdictions to incorporate additional reliability requirements for areas of particular economic or social importance.

Decisions on reliability would be informed through a transparent process that incorporates a consideration of relevant and up to date information to best reflect the needs of customers.

Next steps

Given current expectations of limited demand growth and lower network investment, changing arrangements in such circumstances allows the framework to be introduced and adapted under relatively stable network conditions. While the potential for significant shifts in reliability performance and efficiency savings might be limited in the short run, given the capital that has already been spent and demand expectations, implementing the framework will reduce the risks of inefficient network investments over the longer term.

There is an opportunity to capture some of the benefits in the near term through establishing key elements of the framework. The final report sets out an interim stage which could be undertaken to improve the existing arrangements for setting, delivering, and reporting on distribution reliability targets and outcomes ahead of the full implementation of the framework.

This interim stage would include the Standing Council on Energy and Resources (SCER) requesting that the AER, or alternatively the AEMC, works with industry and jurisdictional governments to develop common definitions of reliability measures. SCER would also request that the AER becomes responsible for VCR estimates to assist jurisdictions to make decisions about reliability targets.

The AEMC has also been requested by SCER to develop a framework for transmission reliability in parallel with the distribution framework. A substantially common set of arrangements has been developed for the distribution and transmission reliability frameworks, to reduce the regulatory costs of implementing these frameworks.

The AEMC's final report on its recommended framework for transmission reliability will be submitted to SCER by 18 October 2013 and published by 1 November 2013.

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27 September 2013