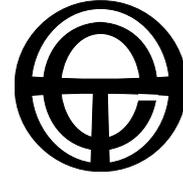


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SUBMISSION
to

AEMC
Review of national framework for electricity
distribution network planning and expansion

Stakeholder Workshop and Paper

June 2009

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AEMC Review of national framework for electricity distribution network planning and expansion Stakeholder workshop and paper

1. Introduction

Notwithstanding the poor standard of current state-based planning requirements for non-network solutions, it is critical that current best practice is not lost. Rather, the chronic under-utilisation of demand management (DM)¹ and embedded generation (EG) by networks must be addressed and improved upon. The national framework must deliver a substantial increase in DM and EG to achieve far greater network efficiency and a reduction of greenhouse emissions.

Such an increase requires a planning framework that ensures that DM and EG are considered thoroughly and implemented *before* network expansion. The framework thus requires significant change from current arrangements and explicit guidance from the AEMC.

2. Objectives of the Annual Planning Process

The first listed objective of the Annual Planning Process should not be to provide 'certainty in relation to the approval of network expansion and augmentation'.² This assumes that expansion and augmentation are the natural solutions to current and increasing demand, as well as security and reliability, and sets up a false premise that prioritises expansion over more efficient non-network approaches. This kind of thinking belongs in a redundant paradigm and must be addressed if the significant, untapped potential of non-network solutions is to be harnessed

The next stated objective is also flawed in the premise that network and non-network approaches should be treated equally. DM provides such a wide range of benefits, many of which are not captured by distribution network service providers (DNSPs), that the AEMC should prioritise DM over network expansion.

2. The Non-network strategy

It is not appropriate that networks are merely to use 'reasonable endeavours' to engage with non-network proponents when 'reasonable endeavours' has not been defined and hence cannot be measured. Such actions are far too open to

¹ DM in this submission can be read to include 'demand response', 'demand side management', 'demand side response', 'energy efficiency' and 'non-network solutions'. In general, DM can include both the management of peak loads and energy efficiency as a way of meeting capacity requirements most cost effectively. It includes a diverse array of activities that meet energy needs, including cogeneration, standby generation, fuel switching, interruptible customer contracts, and other load shifting mechanisms.

² AEMC, *Review of National Framework for Electricity Distribution Network Planning and Expansion*, Stakeholder Workshop Paper, 19 May 2009, Sydney, p. 8.

subjective interpretation, variation and are at the mercy of other, more powerful competing interests of DNSPs.

Likewise, the requirement to ‘publish a paper’ is a long way from requiring DNSPs to procure or implement non-network solutions to their full potential. Relying on DNSPs to develop their own approach in the Non-network Strategy is bound to result in more of the same: chronic under-utilisation of non-network solutions. A far more useful approach would be for the AEMC to develop, in consultation, an overarching Non-network Strategy of its own which details how it is going to ensure that DNSPs deliver an appropriate level of DM and EG.

At the DNSP level, the critical issue is not one of *strategy* but of *implementation* and *delivery*. This requires a focus on performance, not just strategy. Allowing the networks to develop their own strategies relegates the process to a ‘set your own rules’ and ‘tick box’ exercise. At worst, it provides an avenue for networks to justify doing less, rather than more. Without benchmarks, standards and consistent protocols set by the AEMC, it is unclear on what grounds the Australian Energy Regulator (AER) is to approve these Strategies. Further, the lack of a link between these Strategies and capex determinations renders the incapable of ensuring that it results in *actual* benefits for electricity consumers.

In light of these problems the AEMC should develop its own Non-Network Strategy and set explicit protocols for all networks in the procurement of non-network solutions. This should include requirements for:

- Internal timing to allow for the development of non-network solutions
- Protocols on internal cost-benefits analyses comparing non-network solutions with augmentation and replacement for projects prior to a formal RIT-D or that fall under the RIT-D threshold
- A formula for calculating what payment levels must be offered to non-network proponents. This could reflect the value of demand management in terms of \$/kVA and could be based on the value of deferred or avoided network augmentation or replacement.³
- Networks to make requests for proposals (RFP) for non-network solutions where augmentation or replacement would cost in excess of \$1 million
- Networks to publish standard offers for the procurement of non-network solutions based on the above formula for any constraints where augmentation or replacement would cost in excess of \$200,000
- Protocols for the disclosure of information for non-network providers

³ A precedent for such calculations can be found in, Department of Energy, Utilities and Sustainability, *Demand Management for Electricity Distributors – NSW Code of Practice*, 2004, p 22-23.

- Reporting on what investigations have been made into non-network solutions
- Reporting on DM and EG offers made to the DNSP
- Reporting on the amount of DM and EG implemented
- Reporting on expenditure on non-network solutions
- Reporting on the savings achieved by non-network solutions, including:
 - Avoided capital and operating costs avoided or deferred
 - Avoided peak demand in MW
 - Avoided total energy consumption in MWh
- Reporting on the value of electricity sales foregone

The currently proposed Non-network Strategy should instead be used as an initial fact-finding tool for the AEMC to establish what processes are currently in place within DNSPs. This would provide a starting point which the AEMC could use to understand why non-network solutions are routinely ignored or minimised in DNSP planning.

3. Requirements of the Annual Planning Process

Embedded generation forecasts

The reporting of EG forecasts (3.a.i.4.), as proposed, is necessary and valuable, and can be discerned through the level of inquiries and proposals received by the DNSP. This should include both controlled EG (contracted) and uncontrolled EG (operating on pool price). However, there should be a similar requirement to assess the forecast level of DM, to be assessed in a similar manner, based on the level of inquiries and proposals.

Joint planning

Joint planning should not only identify the potential requirement for a *joint network investment* (3.b.ii), but the potential for a joint network DM and EG approach to a system limitation.

Distribution Network Advisory Committee

It is unclear what the intended role of this Committee is. If the Committee's advice is to have any material impact on Rules or requirements for DNSPs in planning and reporting, then it must have representatives from the following stakeholder groups (with travel support for not-for-profit stakeholders):

- DM providers
- EG providers
- Consumers
- Environment

Without such representation it is likely that the DNSP representatives will provide advice to the benefit of DNSPs, rather than the range of stakeholders they serve.

4. Distribution Annual Planning Report (DAPR)

The DAPR should be certified by the DNSP's CEO and a Director. This will ensure that the appropriate rigour is applied to the contents of the document and is critical to ensure that consumers are confident that an accurate and transparent account of current and future spending has been provided.

5. Contents of Distribution Annual Planning Report

A critical aspect of the DAPR is reporting on performance of the network for the benefit of consumers. A missing element of the proposed Report is, however, reporting on the level of DM and EG undertaken or procured by the DNSP. As noted above in relation to the Non-network Strategy, the following should be included:

- Reporting on what investigations have been made into non-network solutions
- Reporting on DM and EG offers made to the DNSP
- Reporting on the amount of DM and EG implemented
- Reporting on expenditure on non-network solutions
- Reporting on the savings achieved by non-network solutions, including:
 - Avoided capital and operating costs avoided or deferred
 - Avoided peak demand in MW
 - Avoided total energy consumption in MWh
- Reporting on the value of electricity sales foregone

The DAPRs should also transpose information from the RIT-D assessments to reduce confusion and complexity for consumers. For projects exempt from the RIT-D or for which the RIT-D does not apply, reporting on the items in 7.h. should be required for augmentation and replacement projects, including negotiated services, where the estimated capital cost is more than \$200,000. This amount is

indicative of a threshold at which DM and EG projects may be able to compete with network approaches and thus requires transparency.

6. Regulatory Investment Test for Distribution (RIT-D)

Project Specification Threshold Test

This proposed Test introduces a non-transparent process that will further exclude non-network solutions by allowing the current bias on DNSPs against non-network solutions to dominate. As such, allowing DNSPs to assess the material potential for non-network options works against the MCE's terms of reference which require the AEMC to ensure proper recognition of non-network options. The chronic under-utilisation of non-network solutions by DNSPs illustrates that they are in no position to objectively determine whether or not there is 'no material potential for non-network options'. Indeed, the incentives for DNSPs to maintain and expand their asset bases are also incentives for the exclusion of non-network solutions at this early stage of planning.

There appears to be no oversight regarding the DNSPs' assessment of the indicative costs of non-network solutions or the assumptions used to make these assessments. The ability to avoid the RIT-D through the demonstration of there being 'no material potential' for non-network solutions should therefore be rejected and the reduced consultation time-frames should be dropped.

Non-network providers already suffer from reduced time-frames to deliver proposals compared to the extended time-frames that networks have at their disposal to plan augmentation. As such, they are already at a disadvantage compared to monopoly DNSPs. Reducing this timeframe even further at the discretion of the DNSPs is inappropriate.

The exemption for replacement assets should also be dropped. Non-network solutions can provide an alternative to replace, just as they can for augmentation projects and, as such, should be able to benefit from a transparent RIT-D process.

Environmental Costs and Benefits

Environmental costs and benefits should be calculated by forecasting the expected carbon costs over the life of the project in NPV terms. In the future at least partial assessment of carbon costs will probably be picked up under a general analysis of costs; for instance, DNSPs will probably be obliged to report carbon costs and so should, in theory, automatically include them in cost analyses. It is far from certain, however, in what form DNSPs will need to report on carbon costs; what level of costing will occur (depending on what price is set for carbon); and which activities they will be required to report on.

This means that the external framework for carbon costing is not only indeterminate, but moreover will probably not apply to all decisions on augmentation and replacement. It is therefore essential for the proper assessment

of environmental costs for DNSPs to be required to report on *all* potential carbon costs

A related issue is the *avoidance* of greenhouse gas emissions. A major environmental benefit is the selection of the least emission intensive option, and this should be assessed in terms of the expected carbon costs over the life of the project in NPV terms.

It is critical that DNSPs accurately assess *all* investment decisions in terms of carbon costs since accumulated small investments can lead to incremental increases in emissions. In particular, we are concerned that many DM alternatives to smaller augmentation and replacement decisions will continue to be overlooked without the explicit requirement to include the benefits of avoided carbon costs and greenhouse gas emissions in the RIT-D.