

Agenda item 8c:

Network Control Service as an Alternative to Network Augmentation

Issues Paper for

The Market Advisory Committee Meeting of 10 March 2010

Prepared by the Office of Energy

Purpose of Paper:

To advise the Market Advisory Committee (the Committee) of the issues associated with implementing a Network Control Service (NCS) and the ways forward on these issues.

Background

Chapter 5 of the Market Rules is concerned with the procurement of a NCS and how this service would be operated within the context of the Wholesale Electricity Market (WEM). The Chapter includes such matters as the Independent Market Operator (IMO) tendering for the service, contracting for the service, how the service would be paid for and compliance and settlement.

It appears that the Chapter was developed to provide a service as an alternative to a major network enhancement, as contemplated by the Regulatory Test within the *Electricity Network Access Code* (the Access Code), though this is not explicitly stated by either instrument.

It is understood that the Market Rules and the Access Code were originally developed and drafted by separate groups with almost no coordination. This is very apparent from the lack of coherent and practicable process that bridges the two instruments on this service.

The Economic Regulatory Authority (the Authority) is responsible for administering the Access Code, Western Power is currently the only network operator covered by the Access Code, System Management is responsible for operation of the South West Interconnected System (SWIS) and the Office of Energy is Government's agency responsible for energy policy. The IMO has brought representatives from

these bodies together to consider how a NCS should be procured and how it should operate. This work commenced 21 January 2009.

While there have been no NCS implemented to date under Chapter 5, Western Power has implemented at least two similar arrangements; one at Ravensthorpe and one at Bremer Bay. There is a need to provide a clear way forward for how such services are to be implemented in the future as there are several projects that have become pressing where it is believed a generation alternative to a network solution would present the greater net positive benefit.

While the findings and recommendations in this paper are those of the Office of Energy, they are generally supported by the views of the individuals representing Western Power, System Management and the Secretariat of the Authority.

Findings to date

IMO Undertaking NCS Tender Process

- Chapter 5 is triggered by the service provider requesting the Independent Market Operator (IMO) to undertake an expression of interest (EOI) process for a NCS under a requirement within the Access Code. No such requirement exists in the Access Code, so Chapter 5 is impotent and could not be formally triggered under the requirements of the Access Code.
- It would appear that the original policy intent in having the IMO undertake an NCS process, and then outlining how the costs are to be allocated, is that at the time of drafting there was some mistrust of Western Power, the vertically integrated electricity utility. Since then, Western Power has been disaggregated with the networks business being separated from generation and retail (and non-SWIS services) and regulated under the Access Code.
- Also, the IMO and the Authority had not formally commenced their respective roles and so there was poor understanding of their responsibilities and how effective these organisations would be in undertaking their functions.

- It appears that principally the need for a NCS as an alternative to constructing a more expensive network enhancement solution would be considered under the Regulatory Test requirements of Chapter 9 of the Access Code. The Regulatory Test only applies to major enhancements, which are defined as exceeding the threshold capital costs of \$15 million for distribution and \$30 million for transmission projects.
- Clearly, in evaluating any NCS proposal, it would need to be compared to network alternatives and within a Regulatory Test environment. Also, the service provider would want certainty from the regulator that any NCS costs that it bears can be passed on to network users or potential users. It is clear that the IMO has little or no role in these matters.
- From the above, it would appear that an NCS, as an option to network augmentation, is more efficiently and effectively addressed by Western Power under the Access Code, with regulatory oversight by the Authority.
- There appears to be little justification for Chapter 5 of the Market Rules to require the IMO to conduct the NCS EOI and tender process and that retention of this aspect in this chapter will only serve to confuse market participants. It is therefore recommended that the IMO give consideration to removing the requirement on the IMO to conduct the EOI and tender processes.
- It is also noted that clause 9.23(c) of the Access Code, implies the IMO can have a role in assessing major network augmentations. This clause appears to be inappropriate as it does not reflect the role or expertise of the IMO. Consideration will be given by the Office of Energy to amending the Access Code to amend or remove this clause.

Western Power Engaging NCS

- It is considered that Western Power either has the means or can acquire the means to manage all aspects of the NCS through contractual means. However, this will need careful consideration to determine if there are any barriers or undue difficulties presented by a contractual solution.
- While it appears that the original policy intent was that the NCS is to apply only in cases where it is an approved alternative under a Regulatory Test, ideally the process should be capable of being applied by Western Power to network enhancement projects other than major investments.

Recovery of NCS Costs by Western Power

- Before contracting with an NCS provider, Western Power will want certainty that the costs can be recoverable under its access arrangement. The Access Code provides a process for pre-approval by the Authority of non-capital expenditure. An initial view is that Access Code changes will not be needed to facilitate this process.

Market Process Issues

- The NCS process will be assisted by the NCS provider being eligible to receive capacity credit payments and being available to be called upon for system support when it is not providing a NCS.
- Consideration will need to be given as to whether the timing limitations on the current capacity certification process may unduly delay the operation of an NCS. If so, consideration may need to be given to pre-assigning capacity credits to a successful NCS provider and that these credits are later formalised through the next capacity certification process and any

adjustments made after the fact. This arrangement appears to be provided for under the existing Chapter 5 of the Market Rules.

- There may be some outstanding issues regarding the NCS dispatch and settlement of related energy. It is recommended the appropriate parties examine how these processes should work and identify any potential impediments and practical solutions.

Cross Subsidy Issue

- While Chapter 5 in the Market Rules explicitly provides for the distribution of the fixed and variable costs of the NCS. The IMO is to pass the Monthly Availability Payment obligation on to Western Power (less the value of any capacity credits); while the NCS energy costs, above MCAP, are shared across all market participants. This effectively means that market participants are paying incremental energy costs that arguably should be paid by network users.
- It is understood that the inherent cross subsidy of NCS energy payments was intended, but under the assumption that the service would be called upon infrequently so the amount of cross subsidy would not be significant in the overall context of market settlements. However, in the case of the Eastern Goldfields, where load factors are high, the amounts entailed are significant (on the order of \$30million per year) and could lead to undesirable behaviour from market participants wishing to avoid the payment of high capital contributions for network enhancements necessary for them to access cheaper coal fired electricity.
- Further consideration will need to be given as to under what conditions a cross subsidy of energy costs may be both appropriate and efficient. In the event that it is not efficient, the appropriate scenario would be for Western

Power to sheet the costs home to the beneficiaries of the NCS who are benefiting from network capacity constraints being removed. Alternatively, it may not be efficient to account for and assign the energy costs associated with an NCS that is rarely used and entails relatively small energy costs. This issue is probably best left to Western Power to resolve, with oversight by the Authority and with the various appeal mechanisms associated with the regulatory regime, such as the Arbitrator and the Electricity Review Board.

Risk Allocation

- The allocation of risk concerning any gap between the NCS energy price and the uncertain MCAP price for balancing is a crucial issue. Preferably this risk should be passed on to beneficiaries of NCS via Western Power. This is likely to send the most efficient pricing signals to those existing and new network users considering the costs and benefits of network and non-network solutions. Also, the regulatory framework does not equip Western Power to manage significant energy price risk.
- In most cases it is considered to be inefficient to have the NCS provider take on this energy price risk and pass it on to the market.

Access Code Changes

- Any Access Code changes are best undertaken as part of the upcoming Access Code review, which is planned to commence in April 2010, but is still subject to a funding commitment from Government.

Recommendations

1. That Western Power undertake any EOI and tender processes for a NCS and that Western Power contracts with the successful NCS tenderer to provide the service. The Authority to conduct regulatory oversight of Western Power contracting a NCS under the provisions of the Access Code.
2. That Western Power allocate the costs of the NCS to the beneficiaries of the service which avoids the need for a more expensive network enhancement solution. This allocation may be to specific individuals or to classes of network users or both.
3. That the appropriate parties undertake a review of the processes required to allow for the efficient dispatch of the NCS, identification of the energy dispatched and the settlement of NCS costs. The review is to identify any impediments to the operation of the NCS within the market environment and proposed solutions to those impediments.
4. That the IMO consider removal of the requirement to conduct an EOI and tender process for a NCS from Chapter 5 of the Market Rules and that consideration be given to amending Chapter 5 to facilitate the operation of the NCS process within the broader market processes.