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## Wholesale Electricity Market – Submission to Procedure Change Proposal PC\_2011\_06:

(5-yearly Review of the Methodology and Process for Determining the  
Maximum Reserve Capacity Price)

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### Submitted by

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### Submission

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#### 1. Please provide your views on the Procedure Change Proposal, including any objections or suggested revisions:

Firstly, it should be noted that Western Power is relatively indifferent to any change to the MRCP methodology but has previously raised some concerns regarding the proposed procedure changes in terms of overall market outcomes.

In summary, Western Power is concerned that the volatility of a forecast 24% reduction in a key market parameter may represent a significant price shock for some participants which may have a material financial impact. It appears that no assessment has been performed of any net economic benefit which may arise due to changes to the MRCP and it is not possible to say whether the MRCP is indeed too high or too low to promote the economically efficient, safe and reliable production and supply of electricity. Even if substantial changes to the MRCP were justified, Western Power suggests serious consideration must be given to limiting or smoothing the price movements from year to year in order to provide reasonable certainty to existing and potential market participants.

Western Power notes that these concerns have not been widely supported and on this basis consequently supports the principle of the proposed amendments subject to the administrative qualifications below.

Western Power has attempted to apply the new draft procedure in its estimate of the Transmission Costs (TC) for the current MRCP determination which is already underway. In doing so however, and in subsequent discussion with the IMO and SKM, it has been discovered there are some significant areas of ambiguity in the new draft procedure which require clarification.

## Generators To Be Included

The draft procedure section 1.8.1 currently reads:

"The calculation should exclude generation facilities for which the significant driver for the location of the facility is the access to source energy (fuel or renewable) or the need to embed the generation with a load (electrical or heat). For clarity, this includes but is not limited to coal, renewable and embedded (including waste heat capture) generators."

However, with respect to the direct connection cost, IMO also advised in an email:

"The intent was that the real direct connection cost be included directly from the capcon (even if it is 1km or 20km). The 2km calculation was only to be used in circumstances where there was the direct connection cost is unknown."

Together these two statements suggest the calculation of TC should include generators irrespective of how long the direct connection is, but also exclude facilities for which the significant driver for the location is the access to source energy. These requirements are somewhat mutually exclusive and don't provide the level of clarity required for the Network Operator to follow an auditable process. There are examples of generators on the SWIS for which Western Power is unable to say whether the significant driver for the location was access to source energy or some other commercial driver unknown to Western Power.

Also, there are cases where new generators have been allocated new capacity credits but they are replacing previously decommissioned plant and utilising their own existing network Declared Sent Out Capacity (DSOC), although there still may be capital contributions required such as for fault level upgrades. Also there are examples of existing generators being allocated small increases in capacity credits from time to time as they increase their available output incrementally but without any significant network upgrades. To include these minor increases in capacity in the MRCP calculation at no or little cost could be misleading, and Western Power proposes we should exclude any new or existing generators which have been allocated new additional capacity credits but without any significant increase in their DSOC.

Further, Western Power believes the issue of whether or not to include connection cost data from distribution-connected generators was discussed in the working group and it was agreed that they would not be included on the basis that they would not be reflective of the costs of the notional 160MW generator. Western Power believes the working group's decision has been reflected in the draft procedure which calls for "the estimate of Total Transmission Costs ... for all works required to connect relevant generators to the transmission network". However, Western Power notes that SKM and the IMO both discussed this matter at the public forum and appeared to imply that distribution-connected generators were to be included. SKM have reiterated this view in subsequent meetings on the basis they believe the 9.9MW diesel generators are the most economic marginal generator. However, Western Power considers this would be contrary to the requirements of

section 4.16.4 of the Market Rules which Western Power believes to imply the MRCP be based on the cost of an Open Cycle Gas Turbine connected to the transmission network.

Western Power either requires the procedure to explicitly identify which generators should be included in the MRCP calculation in every case including the atypical, or an additional clause is required such that where there is any doubt Western Power will receive confirmation from the IMO as to which specific generators should be included in the calculation of TC each year.

### **Calculation Year**

Sections 1.8.1(d) and 1.8.1(e) both refer to a “Calculation Year” however this term is not defined. There has been significant confusion over this term, but clarity over the Calculation Year is important since it determines the number of years for which historical capital contributions will be included in the calculation of TC and for how many years the estimated data from Access Offers will be utilised.

Western Power believes the intention of the working group was for the Calculation Year to be the Capacity Year commencing in year 1 of the relevant Reserve Capacity Cycle, and notes the words in section 1.8.1(d) “the year of calculation (Year 1 of the relevant Reserve Capacity Cycle)”. In this case the calculation of TC would include approximately 1 year of data from Access Offers, and 4 years of historical capital contribution data.

However in recent meetings with SKM and the IMO, SKM advised they intended the Calculation Year to be the Capacity Year commencing in year 3 of the relevant Reserve Capacity Cycle. The IMO highlighted the perceived advantage of this approach by providing a further forward-looking estimate of transmission costs. However, Western Power advised it is extremely unlikely for Access Offers to be made this far in advance for relevant generators, and considers that if the Calculation Year is commencing in year 3 it is unlikely there will be sufficient data to calculate a realistic transmission connection cost.

The IMO requested advice from Western Power as to whether Access Proposals (which are typically made before Access Offers but are not a required part of the access process) could be used instead of Access Offers as currently required by the draft procedure. Western Power hereby advises that while the estimated costs provided in Access Proposals are made in good faith they do not have a sufficient level of rigor for commercial application and are not binding. Western Power consequently does not believe it is appropriate to use Access Proposals (which were developed for a different purpose and provide indicative information only) to determine the TC component of the MRCP.

Clarification is required regarding the definition of Calculation Year.

### **Direct Connection Costs**

The terms 'direct connection assets' and 'direct transmission connection costs' are not defined and in fact section 1.8.2 seems to offer a possible definition but describes some assets which Western Power considers (in accordance with our Access Arrangement) to be shared assets which are likely to be covered somewhat by a capital contribution. This introduces an ambiguity which requires resolution.

Western Power believes the intent as discussed in the working group was for all of the costs in 1.8.2 to be included whenever that clause is enacted, and as such proposes the following procedure wording changes for clarity:

*Section 1.8.1(a)*

"If capital contributions paid or forecast to be paid to Western Power have not been calculated to cover ~~the cost of the direct connection assets~~ all transmission connection works required to connect from the terminals of generator step up transformers to the shared transmission network, Western Power shall include all of those additional costs estimated in accordance with section 1.8.2 of this procedure."

*Section 1.8.2*

"For the purposes outlined in clause 1.8.1, Western Power will also estimate ~~the direct transmission connection costs only required to connect the generator~~ all transmission connection works required to connect from the terminals of generator step up transformers to the shared transmission network using the following assumptions:"

However, while Western Power understands the above interpretation is not without flaw in every case, subsequent discussions with the IMO and SKM have revealed very different understandings between all parties of what is required. Where capital contributions do not cover all of the required connection works, views ranged from Western Power being required to estimate the actual costs of private connection assets irrespective of the guidelines in 1.8.2, to Western Power determining which assets were not covered by a capital contribution and estimating the costs consistent with only the relevant parts of section 1.8.2.

Western Power is concerned at the wide interpretation possible to the existing clauses and at the possibility of being required to estimate the cost of specific private connection assets without definitive guidelines.

Clarification is required regarding the assessment of direct connection costs in an auditable manner.

### **No Data Available**

For the years where no relevant data is available, in accordance with discussion at the public forum, Western Power proposes the following amendment simply for clarity:

*Section 1.8.1(b)*

For years for which no historic capital contribution data or Access Offers for relevant generators is are available a connection cost will be calculated on the basis defined in clause 1.8.2 ~~with no additional costs assumed.~~ and the cost to reinforce the shared transmission network will be assumed to be zero.

### **Escalation of Capital Contributions**

The following paragraphs in the draft procedure are relevant to the escalation of costs however there are several possible interpretations.

*Section 1.8.1*

"For the purpose of the calculation, the capital contribution for each facility will be attributed to the Capacity Year for which the facility is first assigned, or expected to be assigned, Capacity Credits."

*Section 1.8.1(a)*

"All costs shall be with reference to the year of commissioning of the generator."

*Section 1.8.1(d)*

"The average per unit capacity costs are to be escalated into the dollars of the year of calculation (Year 1 of the relevant Reserve Capacity Cycle). The basis of escalation is to be the average change over 5 years in the estimates calculated consistent with clause 1.8.2."

Western Power receives and accounts for capital contributions in financial years, and does not always receive a single lump sum payment in accordance with a definitive timetable which may have been assumed in drafting the clauses above.

SKM have advised their intention was that actual dollar amounts received should be allocated to the Capacity Year (1 Oct to 1 Oct) for which the facility is first assigned Capacity Credits irrespective of when the payment was received and whether it was positive or negative (a refund).

Western Power accepts this is a pragmatic approach which avoids any requirement to escalate capital contributions to a common base before calculating the average per unit capacity costs. Of course the clauses above will need amendment to allow for using cost data from Access Offers also.

Western Power notes the intention to escalate the average per unit capacity costs to the appropriate year is unchanged, however due to the confusion over the definitions of the Calculation Year and the connection costs in section 1.8.2 care will be required to clarify how that escalation should be performed and exactly to which year.

Clarification is required over how to escalate capital contributions, connection cost data from Access Offers and the average per unit capacity costs.

### **Average Per Unit Capacity Costs**

Section 1.8.1(c) states:

"The sum of connection costs for each Capacity Year is to be divided by the sum of the generators' certified capacity in that year to provide an "average per unit capacity" connection cost for each year."

The most obvious interpretation of the above clause requires that all cost data from capital contributions and Access Offers should be divided by the capacity credits allocated to generators in their first year. However, it is not unreasonable to expect minor changes in generators' certified capacity in the first few years after being commissioned for reasons other than network capacity availability or constraints. Capital contributions may consequently have been made to establish an amount of network capacity in the first year which may be unused in some years.

Discussion with the IMO and SKM suggests an amendment is appropriate such that the capacity used for each generator in the divisor should be the quantity of certified capacity most recently assigned to the facility that is attributable to the capital contribution used to establish that network capacity.

Clarification is required to confirm the divisor in the calculation of the average per unit capacity and that the sum of connection costs should include all of the relevant costs from capital contributions and Access Offers.

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**2. Please provide an assessment whether the Procedure Change Proposal is consistent with the Market Objectives and the Wholesale Electricity Market Amending Rules.**

Western Power understands that economic analysis has not been performed to determine the overall net benefit or otherwise to the market due to this proposed procedure change.

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**3. Please indicate if the Procedure Change Proposal will have any implications for your organisation (for example changes to your IT or business systems) and any costs involved in implementing these changes.**

Western Power can accommodate the implementation of the proposed procedure within business as usual operations.

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**4. Please indicate the time required for your organisation to implement the changes, should they be accepted as proposed.**

Western Power would find it difficult to calculate the TC in accordance with the proposed new procedure (as currently drafted) due to the significant uncertainties identified above.

Due to the complexity of the issues raised here, Western Power would be pleased to meet further with the IMO and any other interested parties to explain these matters in more detail and to ensure a successful resolution.

In any event, we expect it will take approximately 6 weeks to complete the estimate of TC and provide the required auditors report once the procedure is approved.