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Clean Energy Council

12 September 2011

Assistant Director Electricity
PO Box 8469, PERTH BC WA 6849

By email: publicsubmissions@erawa.com.au

Dear Assistant Director Electricity,

CEC response to the Review of Western Power's Technical Rules

The Clean Energy Council (CEC) is the peak body representing Australia's clean energy and energy efficiency industries with close to 550 members.

Its priorities are to:

- create the optimal conditions in Australia to stimulate investment in the development and deployment of world's best clean energy technologies;
- develop effective legislation and regulation to improve energy efficiency; and
- work to reduce costs and remove all other barriers to accessing clean energy.

The CEC works with members and the government to identify and address the barriers to efficient industry development in the energy efficiency and stationary energy sector.

The clean energy industry and its members contribute to the generation of electricity using wind, hydro, solar, biomass, geothermal and ocean energy as well as the emerging technologies and service providers in the energy efficiency sector including solar hot water and cogeneration.

The CEC is pleased to provide comment on the Economic Regulation Authority's proposed amendments following the review of the Technical Rules for the South West Interconnected System.

The CEC has concerns over the consultation process in which these proposed Technical Rules have been reviewed and amended. Firstly, the timeframe that the Economic Regulation Authority (ERA) has allowed for comment is inadequate given the complexities involved in the Technical Rules and their impact upon the electricity market. Given the short timeframe for responses, this submission includes the CEC's comments to date, however it is anticipated further issues may be raised.

Secondly the review appears to have been heavily influenced by the Network Service Provider's input following Western Power's request to the Authority to approve the proposed

amendments. This has resulted in the Rule amendments being heavily weighted in favour of the Network Service Provider (NSP).

The Rules in general seem to provide the NSP with the ability to dictate the level of performance when it comes to generator connections. The Rules specify a quite onerous upper limit of performance for some of the technical requirements such as the frequency ride through capability, temporary over-voltage, but assume the participant will negotiate with the NSP to achieve a connection. The Rule requirements should align with the expected system standards, for example why is the frequency ride through not aligned to the system performance standard? Developers need certainty in order to make investments in the supply of electricity to the market. Likewise, manufacturers of turbines need to be able to confidently interpret the required performance criteria in order to supply equipment that meets the market criteria.

The National Electricity Rules (NER) allow for a turbine to operate within an acceptable tolerance of performance, however these proposed amendments in WA do not provide sufficient guidance as to whether the manufacturer's equipment will meet Western Power's requirements prior to connection negotiations with the developer. Without some certainty for manufacturers as to whether their equipment will meet performance expectations, it would be difficult to supply turbines into the WA market, since the performance would only be defined after confirmation with Western Power during the connection negotiations with the developer. As turbine supply for a project would already need to have been firmed up prior to connection application and before connection negotiations, it is difficult for a developer to manage this level of uncertainty as the investment risk is increased significantly. This will culminate in a reluctance to enter the supply market given the insecurity associated with the negotiation process. Given the size of the WA market is small, the Rules cannot afford to be overly prescriptive at a level far above other major global markets. If the Rules remain requiring a level of performance that is not normally required in other power systems it will increase cost and risk, reduce competition and lengthen the connection process due to the uncertainty.

The CEC submits the following specific comments and questions in reference to the recommended changes to the clauses of the Technical Rules in the Review:

Clause 3.2.1(a): The over-voltage curve has been modified and it has been proposed that Western Power will undertake studies to determine the over-voltage curve that the generator is required to ride through. It is not clear if the studies will be based on the system as is or will take other developments (generation and network) into account, if so what is the criteria?

Clause 3.3.3.1: The reactive power capability from different generation technology seems to be exploited here, instead of a uniform approach (i.e. technology neutral) as in the NER. The WA area has been split into different regions with specific ambient temperatures and the reactive power capability under all operating conditions has to be met under these extreme ambient temperatures. How have these ambient temperatures been obtained and what's the likelihood of getting an exemption with Western Power?

Clause 3.3.3.1(f): Depending on the technology used for the reactive power equipment, reactive current under very low voltage conditions may not be possible as these devices go into inhibition mode (i.e. able to stay connected but not able to provide reactive current).

Clause 3.3.3.3(b): The requirement on generators is much more onerous than the frequency operating standard. While there is an avenue to apply for exemption, it has to be approved by Western Power resulting in further uncertainty

Clause 3.3.3.3(c): The ride through capability should be provided depending on the voltage level at which the generator connection is made.

Clause 3.3.3.3(d): There is no time period specified for how long the generator should stay connected.

Clause 3.3.3.3(e): It is not clear which is the new curve in the figure.

Clause 3.3.3.3(g): In addition to the Rule phrase "…..capable of delivering to the transmission or distribution system active power…." the active power to be delivered should be "subject to energy source availability." Failing to include the performance criteria being subject to energy source availability would result in the Rules undermining the market's ability to provide renewable energy.

Clause 3.3.3.8(b)(2) Should have inserted at the end - "…or as agreed with the NSP."

The Clean Energy Council and its members look forward to continuing engagement with the ERA. If you have any further questions please contact Felicity Sands via telephone on 03 99294100 or by email: felicity@cleanenergycouncil.org.au

Yours sincerely

<original signed>

Russell Marsh

Policy Director