Energy Power Systems Australia Pty. Ltd.
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Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Attention: Chris Stewart

Dear Chris

ERC0129 Proposed Rule Change

Please find attached a copy of our submission for the proposed rule change relating to avoided TUoS and network support.

We do not agree that a rule change is necessary, however, we do agree that some changes need to be made in this area to make the connection process more transparent.

Should you have any queries please do not hesitate to contact Jon Coles on 02 8796 9240 or jon.coles@energypower.com.au.

Yours Sincerely
ENERGY POWER SYSTEMS AUSTRLALIA P/L

Jon Coles
Regional Manager NSW & ACT

General comment with regards to the rule change document.

The rule change appears to be based on network support and avoided TUoS payments for generators connected directly into the TRANSMISSION network, and therefore the connections affecting the same asset base, and in this case there may be potential for "double dipping". If the generator is connected into the upstream side of a terminal station in a transmission network they should not receive avoided TUoS, but any network support agreement and payment should take into account both the locational and overall benefits of the generator installation verses a traditional network upgrade.

However, the wording of the document is unclear and could suggest that distribution network support agreements should not apply where avoided TUoS is paid when generators are located in the DNSP networks. This is completely incorrect and would significantly affect the viability of embedded generators in this network, particularly for non network solutions to constraints. The rule in its current form is correct and distinguishes properly between the implications for transmission and distribution networks.

If a clarification is deemed necessary then the following change should be made to the suggested wording.

*"Except where a Connection Applicant has a **TRANSMISSION** network support agreement with a TNSP,...."*

The possible payment values of TUoS and potential for network support should be clarified. SP Ausnet is the only TUoS document that is easily located and is still not clear in its application. All DNSPs / TNSPs should publish this document clearly on their websites or they should appear, as the SP Ausnet document does, on the AEMO website.

It is also questionable whether avoided TUoS should only be paid on the locational portion. This process appears to be based on large load constraints which need to be supported by generators somewhere in the network. Whereas an embedded generator does not need a connection to other base load generators and should receive the full TUoS payment not just the locational portion.

Clear rules on network support payments in both distribution and transmission networks are required to set fair values, and make negotiations with NSPs simpler for all concerned. The rule should be clear on how an NSP would fund network support, and how this would funded. The current process has no visibility and the networks largely do not understand this process.

Question 1 Are the current arrangements efficient?

*1.1 Would the combination of a **TRANSMISSION** network support payment and avoided TUoS payment over-signal and/or over-compensate embedded generation?*

The combination of both transmission network support and avoided TUoS payments would not necessarily over-signal or over compensate embedded generation. The payment of locational TUoS only accounts for a reduction in load in a specific part of the network and does not take into account other services and benefits to the transmission network provider. The connection point should determine whether TUoS payment is appropriate as some DNSPs also operate TRANSMISSION assets.

*1.2 Do the services and benefits provided by embedded generators for a **TRANSMISSION** network support payment and avoided TUoS payment differ, and if so how?*

Embedded generators can improve efficiency of the network by improving power factor and voltage stability. This benefit can affect individual feeders and/or loads on terminal stations or zone substations and can be a more cost effective way of providing for load growth or supporting aging assets.

Depending on the location of the connection point it is possible that transmission network support is provided in a DNSPs network (customer side of a terminal station) and delaying augmentation in this part of the network, in this case avoided TUoS should also be paid as the transmission network operated by the TNSP will also see reduced load and benefit from the presence of an embedded generator.

*1.3 Is the Rule change likely to have any unintended consequences in terms of the **TRANSMISSION** network support agreement negotiations?*

The rule change will reduce the take up of embedded generation and other not network solutions. The end result will be a more costly less efficient network as embedded generator can increase efficiency of power flows and suffer from lower losses due to distance.

Question 2 What is the materiality of the identified problem?

*2.1 To what extent do embedded generators receive both a **TRANSMISSION** network support payment and an avoided TUoS payment? Please provide any instances where a network support payment is made to an embedded generator and an indication of the expected value?*

We are not aware of any generators who receive both payments.

*2.2 How material is receiving both a **TRANSMISSION** network support payment and an avoided TUoS payment to the commercial viability of an embedded generator?*

Due to the upfront costs of installing an embedded generator (such as studies and connections) and the relatively high capital cost there are significant barriers and risks for developing these types of projects. As most embedded generators are intermittent in their operation and designed for peaks there is limited opportunity to cover the generators long run marginal cost. The absence of a suitable payment for the location or service carried out would reduce the number of projects that would be commercially viable.

The real question is if an embedded generator reduces the load on a transmission network and as a result reduces OPEX and CAPEX costs for the TNSP why should the TNSP have this income passed through to them? What would the benefit be to the network and how would this impact the cost to the end user?

Avoided TUoS and transmission network support payments can assist in getting more embedded generation projects across the line ensuring that the most cost effect and efficient solutions are developed, rather than the traditional approach of upgrading network assets.