

8 August 2013

John Pierce
Chairman
Australian Energy Market Commission
PO BOX A2449
Sydney South NSW 1235
Lodged electronically

Attention: Submission - ERC0147 Connecting Embedded Generation Rule Change Consultation Draft Determination

Dear Mr Pierce,

FRV Services Australia Pty Ltd (FRV) is pleased to submit our response as part of the consultation on the draft rule determination, ERC0147, for connecting embedded generators.

FRV is an international developer of large scale solar projects with experience in both solar thermal and photovoltaic technology. FRV has developed and built projects in Europe and the United States and currently has activities in Europe, Australia, Middle East, North and South Africa and Latin America.

FRV is involved in connecting large scale embedded generators to the National Electricity Market. Most notably, FRV is currently in the process of connecting a 20MW embedded generator in ACT and a 56MW embedded generator in NSW.

FRV welcomes open and frank discussion on the current connection process as it applies to embedded generators.

The following submission provides comment on the Commission's proposed draft rule change and provides recommendations for connection processes for embedded generators.

Please do not hesitate to contact FRV for any queries regarding this submission.

Yours Sincerely,



Steve Jackson
FRV Development Manager

8 August 2013

FRV Submission on the ERC0147 Connecting Embedded Generation Rule Change

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We have considerable experience in a variety of regulatory environments and have been successful within a number of different renewable energy support mechanisms.

In summary our recommendations are as follows:

1. The rule change request contemplated embedded generators with a capacity of 10kW to 30MW, therefore we believe that the draft rule is only appropriate for non-registered embedded generators and should seek to make changes to Chapter 5A of the Rules, not Chapter 5.
2. Notwithstanding our recommendation to apply the proposed rule change solely to non-registered embedded generators, FRV acknowledges that improvements could be made for connection of larger-scale embedded generators with DNSP's, therefore we recommend the following changes to Chapter 5 of the Rules with respect to connecting registered embedded generators:
 - a. Amendment to 5.3.2 to allow the Connection Applicant to request detailed network planning and/or asset data from the DNSP during the connection enquiry stage. This is necessary as there is currently no obligation on a NSP (or AEMO) to provide detailed network information to an Applicant to allow it to prepare a Connection Application.
 - b. Amendment to 5.3.3 to allow a DNSP to charge reasonable actual costs for providing detailed current network planning and/or asset data to the Connection Applicant (if it has been requested by the Applicant) within 20 business days;
 - c. Amendment to 5.3.3 to ensure that all responses to a connection enquiry by a DNSP includes options for connecting at more than one point in the network (effectively a relocation of 5.3.6(e) into 5.3.3). This improves the efficiency of the connection process by encouraging earlier discussion between the DNSP and Applicant to determine the connection concept and allows the Applicant to proceed with greater confidence that the proposed connection concept contained in the Application for Connection be accepted by the DNSP.

- d. Amendment to 5.3.6 to ensure that a DNSP provides an offer to connect within a maximum timeframe of 4 months once the connection application has been submitted. Currently there is no obligation or benchmark for a NSP to provide this offer within a specified timeframe.
- e. Introduction of a contestability framework for distribution networks similar to that proposed under the Transmission Frameworks Review for transmission networks.

Scope of Rule Change Request

Context of Rule Change Request

The scope of the rule change requested by the original proponents contemplated the connection of 10kW – 30MW embedded generators located within commercial premises and in the context of cogeneration or trigeneration systems in particular.

These types of generators would most likely be retail customers located “behind the meter” and would connect through the Chapter 5A “negotiated connection” category in cases where the National Energy Customer Framework (NECF) has been adopted by the participating jurisdiction.

The intent of the proposed connection process outlined in the proposed draft rule is therefore framed around the connection of non-registered generators and the difficulty of such generators in understanding technical requirements, undertaking studies and proposing appropriate negotiated access standards. As such the DNSP is often in a better position to carry out the necessary technical studies for non-registered generators and non-registered generators are more likely to engage with the DNSP on a “fee for service” basis. The proposed connection process is framed around this context which is designed to meet the needs of non-registered generator connections.

Scope of Draft Rule

The scope of 5.3.1 in the draft rule seeks to capture all embedded generators, including large scale embedded generators, and proposes to amend Chapter 5 to affect these changes. It is noted, however, that 5.1.2 provides an opt-in clause where non-registered generators can elect to be connected under Chapter 5 rather than Chapter 5A.

Given the context of the requested rule change and the intent of the proposed connection process that was framed around the connection of non-registered generators, there are a number of issues associated with using the proposed connection process for all embedded generators, including registered generators. These issues are listed below:

- The proposed connection process allows the DNSP to propose access standards, including negotiated access standards, in forming the “agreed project” during the detailed enquiry stage. This contradicts 5.3.4(e) of the Rules and goes against the premise that the generator is best positioned to make efficient investment decisions and therefore is best placed to propose negotiated access standards. We believe that the mechanism for proposing and determining negotiated access standards is already adequately covered in 5.3.4(e) and 5.3.4A and should remain.
- We do not believe the proposed 2-stage enquiry process further improves the transparency of the connection process and instead adds a greater burden to embedded generators by:
 - Imposing an enquiry fee;

- Having a very short validity period of 6 weeks, which is insufficient time for generators to consider the commercial implications of enquiry responses and fully develop an application for connection. This forces the generator into a position of either accepting the proposed access standards without fully acknowledging the commercial implications or paying an additional enquiry fee to the DNSP to repeat the detailed enquiry stage. Ultimately this will add to the cost and time of the project and add to uncertainty for the generator; and
- Taking away the generator's role in proposing negotiated access standards as previously discussed.
- The proposed connection process does not adequately cover the timeframe required for DNSP's to provide an offer to connect, other than 20 business days for "agreed projects" or within a timeframe agreed by both parties. It is recognised that there is an asymmetric power held by DNSP in negotiating timeframes with connecting parties, leading to some DNSPs requiring up to 24 months to provide an offer to connect.

It is our opinion that proposed connection process does not enhance the certainty, transparency or economic efficiency of the current connection process for large scale registered embedded generators. Therefore, the scope of the draft rule should be aimed at non-registered generators and should be addressed with changes to Chapter 5A, not Chapter 5 of the Rules.

Notwithstanding our recommendation to incorporate the proposed connection process into Chapter 5A, we acknowledge that a number of issues identified in the draft rule determination apply to registered embedded generators that could be best addressed by optimising the existing connection process in Chapter 5.

Recommended Amendments to Optimise Chapter 5 for Registered Embedded Generators

The draft rule determination identifies a number of issues that are applicable to both registered and non-registered embedded generators. The issues fall into the following broad categories:

1. Lack of certainty in the connection process and terms and conditions
2. Lack of transparency in the technical requirements
3. Lack of clarity in connection costs, including augmentation costs

Although we recommend that the proposed connection process in the draft determination is suited only for non-registered generators, we acknowledge that there is a need to optimise the existing connection process for registered embedded generators. As such, we suggest that a number of amendments are made to Chapter 5 for registered embedded generators as listed below:

- a. Amendment to 5.3.2 to allow the Connection Applicant to request detailed network planning and/or asset data from the DNSP during the connection enquiry stage.*

It is commonplace for DNSPs to enter into an agreement with generators during the connection enquiry stage to allow detailed investigation services, such as the provision of network planning and asset data, to be provided for a fee. This detailed information is not typically included in the high-level response to the connection enquiry and is required for the generator to carry out its own detailed network studies, develop an application for connection and proposed negotiated access standards.

However, as this agreement falls outside of Chapter 5 of the Rules, the terms on which the DNSP agrees to provide this information is often determined by the DNSP. This can be a significant source of delay and cost to the Connection Applicant.

- b. Amendment to 5.3.3 to allow a DNSP to charge reasonable actual costs to provide detailed network planning and/or asset data to the Connection Applicant (if requested by the Applicant) within 20 business days;*

This amendment reflects the need for DNSPs to pass on reasonable actual costs associated with providing additionally requested information and provide a response to the information within 20 business days. This would mitigate the risk of unreasonable delay or cost associated with any additional information that has been requested by the Connection Applicant.

- c. Amendment to 5.3.3 to ensure that all responses to a connection enquiry by a DNSP includes options for connecting at more than one point in the network (effectively a relocation of 5.3.6(e) into 5.3.3);*

As recognised in AEMC's Transmission Frameworks Review final report, it is important for generators to understand the connection options and preferred and alternative locations for connecting to the network early in the connection process to ensure efficient economic decisions are made for investing in generation and shared network assets. Likewise, the final report recommends moving 5.3.6(e) from the Offer to Connect stage into the Response to Connection Enquiry stage, 5.3.3. The same principles apply to registered embedded generators, therefore we recommend the same provision be included for embedded generators.

- d. Amendment to 5.3.6 to ensure that a DNSP provides an offer to connect within a maximum timeframe of 4 months once the connection application has been submitted;*

The AEMC Transmission Frameworks Review final report recognised that there is asymmetric power held by NSPs in negotiated with connecting parties. This also relates to DNSPs in negotiating timeframes and in developing a preliminary program for responding to the connection process. This is often a source of significant delay leading to some DNSPs requiring up to 24 months to provide an offer to connect from the time that a connection application is submitted. Given the relative

simplicity of embedded generator connections compared to generator connections with TNSPs, we believe that a maximum timeframe of 4 months is appropriate for DNSPs to provide an offer to connect.

e. Introduction of a contestability framework for distribution networks similar to that proposed under the Transmission Frameworks Review for transmission networks.

A key recommendation of the AEMC Transmission Framework Review final report is the amendment of connection frameworks to better facilitate contestable build and ownership of identified user shared assets. This would give connecting parties the opportunity to seek a contractor which best suits its needs in terms of cost, timing or other terms, rather than having to accept the NSP's choice of contractor.

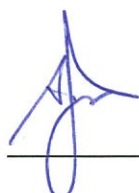
As any augmentation to identified user shared assets or services required for connecting embedded generators to distribution networks are fully funded by connecting generators, this principle is also applicable to embedded generators. As such, there are limited checks on the incentive on DNSPs to maximise the reliability and security – and therefore the cost – of those investments associated with augmenting part of their shared network.

Greater economic efficiency can therefore be gained by providing contestability in the augmentation of shared network assets, whilst not compromising the ongoing security and reliability of the system by allowing the DNSP to provide a high-level design and technical specification and allowing the DNSP to continue to own and operate the assets.

It is recommended that a similar contestability framework be introduced for distribution networks in relation to embedded generator connections, similar to those proposed under the Transmission Frameworks Review for transmission networks.

Thank you for the opportunity to provide a submission. If you have any questions in relation to this submission please don't hesitate to contact Chris Wilson on 02 8257 4749 or chris.wilson@frv.com.

Yours sincerely,



Steve Jackson

Development Manager - Australia