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September 11, 2006

Alberta Electric System Operator
2500, 300 – 5th Ave SW
Calgary, AB T2P 0L4

Attention: Mary-Beth Hansen, Account Coordinator

Dear Ms. Hansen:

Re: AESO Process Change Consideration Micro-generation

ENMAX Corporation is providing the following comments in response to the Alberta Electric System Operator's (AESO's) "AESO Process Change Consideration Micro-generation" of July 27, 2006. In general ENMAX is accepting of recommendation (1), a policy that relieves distributed generators (DG) of the requirement to become a Pool Participant if they do not want to receive payment for exported energy.

ENMAX is pleased to see that the AESO is looking for a way to provide an interim solution for micro-generation, however we stress that this is only a temporary solution. Given our wire service provider (WSP) experience in the Calgary zone, we feel an arrangement that simply forfeits payment will not satisfy stakeholders for any great length of time.

In principle, ENMAX believes distributed generation should not be discouraged; however the number of customers in this segment remains so low that it is challenging to implement cost-effective solutions without spreading the costs across all load and generation customers. To avoid cross-subsidy ENMAX currently uses a manual practice that effectively net-bills energy for small DG sites. We believe it is reasonable to continue this practice until an uptake threshold is crossed. Unfortunately the recommendations proposed may prohibit this practice.

The AESO is proposing the new policy be implemented with a review at the end of 2007 or upon issuance of a DOE policy paper. Similarly, our November 2005 response to the DOE in the "Micro-generation Discussion: A Discussion Paper Rev 4.0" (September 2005) suggests that a 10 MW/5 year/300 site threshold trigger a mandatory review of DG. To avoid premature policy changes we ask that any policy revisions allow case-by-case resolution to continue to be an option rather than applying a needlessly uniform standard. This would prevent pointless compliance expenditures and allow existing, sound arrangements to be grandfathered. It could also permit practical, lower cost solutions where agreement can be reached by involved parties. If agreement cannot be maintained between the affected parties (WSP, DGO, retailer for net metering) a minimum fallback standard can be applied such as the proposed policy.

We also provide the following comments on the proposal:

Recommendation (1)

Visibility
Micro-generators of this size do not need to be included in the Load Settlement process. ENMAX will track the locations and the amount generated. ENMAX supports EPCOR's definition of "Micro-generation" as site with generation less than 25kW.

Payment
This is clearly the most straightforward method, which ENMAX supports. The issue will be that typically the micro-generator wants to get paid (usually through a netting), which in this option is not supported. In this model, all micro-generation becomes negative UFE which will benefit all retailers but not the DGO.

Metering Requirements
Due to the size and limited amounts of sites currently occurring in the Calgary service territory, ENMAX supports the use of cumulative bi-directional metering. This is consistent with our D600 rate that specifies that only facilities above 25 kW must be interval metered. Due to the fact that the tracking of these cumulative sites and their generation is manual, this support will diminish as the number of sites increase. The SSC states that the exception level will be revisited as per section 4.6.1(b) 2. For the interim, this solution seems reasonable.

Consent
If permission is obtained from the energy retailer, ENMAX feels that net-billing for energy could be acceptable for small DG installations until a DG review is triggered. By design, the ENMAX D600 delivery rate depends on dual register metering as the transmission component of the rate is not charged for generation. For energy, some small cumulative metered sites are allowed to net generated energy amounts from their load. Cumulative negative volumes are manually carried forward or discarded per our current practice. In this case generated volumes are temporally banked in UFE for up to one month rather than being donated to UFE. Also note that this practice has evolved due to a lack of guidance in the SSC and other rules, however it seems reasonable for very small DG applications, and where the retailer of record is supportive.

We also raise the question of entitlement in the case all parties cannot agree. It is our understanding that this exemption (Recommendation 1) is an option and not a right. If any party is not in agreement the DGO must follow existing pool rules as in Recommendation (2).

Meter Data Provisioning
NA

Recommendation (2)

ENMAX is generally accepting of recommendation (2), although is appears to simply confirm existing rules and practices.

Visibility

ENMAX is supportive of the DGO becoming a Power Pool Participant. ENMAX believes that the cost of participation will continue to be perceived as a barrier by small DGO. In order to foster growth in this area the cost of becoming a participant will need to be reduced or an aggregation service may need to evolve.

Metering Requirements

Per 4.6.1(b), interval data is acceptable; however we are concerned with 4.6.1(b) and with the requirement of the creation of interval data. ENMAX is not currently supportive of profiling cumulative meters in order to create interval data for two reasons.

- Profiling of photovoltaic, wind, or other types of micro-generation will be difficult to determine given the accuracy requirements of the Settlement System Code and the extremely small number of sites in this category. Profiling will vary greatly from one geographic area to another and by competing technology. The DOE may wish to simply deem a profile (e.g. flat) for compensation purposes rather than meet the technical requirements needed to develop dynamic or small segment profiles. ENMAX will need to see resolution on the methodology to be used, before it can lend its support.
- Currently all of the micro-generation sites in the Calgary service territory are handled manually. Manual calculations, using profiled cumulative readings, will be time consuming and most likely problematic. Especially if the numbers of micro-generation sites grow to a significant amount. We suggest that the AESO look to the EUB for support for limited system development by the WSPs, in order to develop a profiling system for these sites. If this was to happen, ENMAX would be supportive.

Payment

Since the Power Pool would handle payment as usual, there is no issue.

Meter Data Provisioning

ENMAX is currently not supportive of profiling cumulative meters in order to create interval data (see above.)

Finally, other options that have not been explored in the proposal may become viable as the segment grows. ENMAX suggests that before excluding other potential solutions, the AESO strike a committee to review all options. We appreciate the opportunity to comment on this interim proposal.

Sincerely,

Original Signed

Peter Griba
Manager, Regulatory

July, 2006
Micro-generation
Stakeholder Comment Form

Comments From:	ENMAX Corporation
Date:	12-September-2006
Contact:	P. Griba
Phone:	403-514-1511
E-mail:	pgriba@enmax.com

1. If a Micro-generator (less than 150kW in size and exports less than 25kW to the AIES) wishes to connect to the distribution system, but does not wish to receive payment for exported energy:	
The AESO will not require visibility of the generator, therefore, the DGO will not be required to become a Pool Participant	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	
The DGO will submit a Generator Asset Addition form and a SLD, and an Asset ID will be assigned	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	
The DGO will *not* receive payment for energy that is exported to the AIES	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	
Generation metered data (DSM) files will not be provided to the AESO or the LSA	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	
In the event that energy is exported to the AIES, it will not be accounted for by the Pool or the Load Settlement Agent.	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	

Metered generation cannot be used to offset the metered load data.	☐ Support ☑ Oppose ☐ Indifferent
Reasons for Stakeholder Position: Current practice is net metering for extremely small sites	
The DGO, WSP, and the AESO must be in agreement of this option, and provide an executed letter to the AESO.	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position: May include retailer consent if net metering is allowed.	
Option 2. If the DGO wishes to receive payment for energy exported to the AIES, the following will apply: (no changes to the existing rules)	
The DGO must become a Pool Participant and follow all ISO Rules accordingly.	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	
Interval Metering is required, per 4.6.1(b) of the SSC.	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	
If a DG meets the requirements per 4.6.1(b)1, it is exempt from having an interval meter.	☐ Support ☑ Oppose ☐ Indifferent
Reasons for Stakeholder Position: Unless profile is mandated by statute (e.g. flat) the cost of creating a profile to the standards defined in the SSC will be prohibitive. Dynamic profiling is an option however with different profiles for each DG technology and the limited number of DG sites, this solution degenerates into one time-of-use meter per DG site – you might as well use TOU metering. Also the current SSC is unclear on who pays for profile creation.	
Data must be provided to the AESO and the LSA in accordance with App. B, Section 3 of the SSC for every 15 minute interval during the month, in the DSM format described in B.6.2.4.2 of the SSC.	☑ Support ☐ Oppose ☐ Indifferent
Reasons for Stakeholder Position:	

In the case of a cumulative meter, the data from the monthly meter read must be distributed across every 15 minute interval during the month.	☐ Support ☑ Oppose ☐ Indifferent
Reasons for Stakeholder Position: See comments in cover letter regarding profiling requirements; until we have a more definitive description of how these are to be profiled	
General Comments: The role of MSP/MDM is not an obligation of the WSP; in most cases the DGO will contract this to a private MDM.	

Please return this form with your comments by August 11th, 2006, to:

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