

**AESO Process Change Consideration**  
**Micro-generation**  
**July 27<sup>th</sup>, 2006**

**This paper applies only to micro-generators that have a cumulative site capacity of less than 150kW in size, and exports less than 25kW<sup>1</sup> to the AIES**

**Executive Summary:**

The AESO recognizes a need for an interim process for micro-generation due to various interpretations by industry players on Section 18(2) of the Electric Utilities Act requiring all electric energy to be exchanged through the power pool. This process would provide clarity to Distribution-connected Generator Owners (DGO's), Wire Service Providers (WSP's), Load Settlement Agents (LSA's) and other interested parties until such time that the Department of Energy (DOE) issues a policy paper on Micro-Generation. This is neither an AESO rule change nor a policy change.

The AESO is seeking stakeholder input considering factors such as AESO visibility and/or requirements, metering/data requirements, and energy payments on the proposed recommendations outlined below:

- (1) If a micro-generator (cumulative site capacity of less than 150kW in size, and exports less than 25kW to the AIES), wishes to connect to the distribution system, and does *not* want to receive payment in the event that energy is exported to the AIES, the DGO will not be required to become a Pool Participant.
- (2) If the DGO wishes to receive payment for any energy exported to the AIES, or if the generating unit is greater than 150kW in size, and/or exports more than 25kW to the AIES the DGO is required to become a Pool Participant.

All other micro-generators will continue to follow ISO Rule 1.1<sup>2</sup>

**Background:**

All DGO's currently connected to the AIES regardless of size, are required to become Pool Participants with the AESO as per the Electric Utilities Act (EUA<sup>3</sup>) and ISO Rule

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<sup>1</sup> To align with the requirements of having an interval meter, per the Settlement System Code (SSC), 4.6.1 b)(1)

<sup>2</sup> *ISO Rules 1.1 Requirement of Becoming / Application to Become a Pool Participant*  
Except as otherwise provided in the Act or these rules, no person will exchange electric energy through the power pool or provide ancillary services as contemplated in the Act unless that person is a pool participant.

<sup>3</sup> *EUA*: Sec. 18(2) All electric energy entering or leaving the interconnected electric system must be exchanged through the power pool unless regulations made under Sec. 41, sec 99, or sec, 142 provide otherwise.

1.1. The annual Pool Participation fees (\$150/year + GST) are typically higher than any profits a micro-generator could realize from selling into the power pool. Additional costs for metering services vary between the WSP's; however, these costs can increase with the requirement of providing generation data to the AESO. In most cases, the DGO is only interested in reducing the amount of load required from the WSP. Furthermore, power produced by the DGO may not be significant enough to be recognized by the AESO systems for settlement purposes.

### **Recommendations:**

The AESO proposes to provide the following options for micro-generators with a *cumulative site capacity of less than 150kW in size, and exports less than 25kW to the AIES.*

- (1) If a micro-generator does *not* choose to receive payment in the event that excess energy is exported to the AIES, the following will apply:

#### Visibility

- The AESO will not require visibility of the generator, therefore the DGO will not be required to become a Pool Participant; this notice must be provided via letter to the AESO<sup>4</sup>.

#### AESO Requirements (this information may be submitted by the DGO through the WSP)

- The AESO will continue to require the DGO to complete the following generator asset addition form: [http://www.aeso.ca/files/Generator\\_Asset\\_Addition\\_Form.pdf](http://www.aeso.ca/files/Generator_Asset_Addition_Form.pdf) and submit a single line diagram (SLD). Once these documents are received, the AESO will assign an Asset ID for tracking purposes.

#### Payment

- The DGO will *not* receive payment from the AESO, in the event that excess energy is exported to the AIES.

#### Generation Metered Data<sup>5</sup>

- The WSP (or meter data manager) is not required to provide generation metered data (DSM files) to the AESO or the LSA.<sup>6</sup>
- Any energy exported to the AIES in any given month will not be accounted for by the Pool or the LSA.

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<sup>4</sup> This letter must be executed by the DGO, WSP, and the AESO.

<sup>5</sup> The AESO sets standards for metering and meter data management for purposes of load and financial settlement of distributed generation. WSP's may also have additional requirements above those established by the AESO. All costs associated with metering is established by the WSP and their respective regulator.

<sup>6</sup> The DGO and WSP should be clear on ownership of the metering systems, per SSC Appendix B - 2.1, and 4.6.1 b) of the SSC.

- Metered generation data cannot be used to offset the metered load data.

Consent

- The DGO, WSP, and the AESO will review each scenario, and all three parties must be in agreement that this option is appropriate. This agreement will be documented in a letter.

(2) If a DGO requests that they receive payment from the AESO, for exported energy to the AIES, the following will apply:

Visibility

- The DGO must become a Pool Participant with the AESO and follow all ISO Rules accordingly.

Metering Requirements

- Per 4.6.1(b) of the Settlement System Code (SSC), interval metering is required.
- If a DG meets the requirements outlined in 4.6.1(b)1, it is exempt from having an interval meter.

Meter Data Provision

- Data must be collected and provided to the AESO and the LSA in accordance with Appendix B Section 3 of the SSC for every 15 minute interval during the month, in the DSM format as described in Schedule B.6.2.4.2 of the SSC.
- In the case of a cumulative meter, the data from the monthly meter must be distributed across every 15 minute interval during the month.

**Proposed Approach**

The above process will be revisited by the AESO, once the DOE issues a policy on micro-generation, or at the end of 2007.

**Proposed Timeline:**

- 1) July 27<sup>th</sup> AESO posts paper to website requesting comments (Comment Matrix attached)
- 2) Aug 11<sup>th</sup> Stakeholder comments due
- 3) Aug 16<sup>th</sup> Stakeholder comments posted to the AESO Website
- 4) Aug 22<sup>nd</sup> AESO post recommendation on the AESO Website.

**Questions/Answers:**

**Q) What type of metering is required for a DGO that does not wish to receive payment for energy exported to the AIES?**

A) The metering requirements do not change. Per the SSC, 4.6.1(b), all distributed generation sites must have interval metering. Cumulative metering is allowed for units that meet the requirements outlined in the SSC 4.6.1 b) 1. A meter(s) providing both the generation and load reading is still required. However, it is the discretion of the WSP to determine the metering requirements.

**Q) Who is responsible for profiling the data on a cumulative meter, and who decides how that profile will appear?**

A) The AESO will accept monthly cumulative values, however, these values are to be distributed across 15 minute intervals during the entire month. It is the WSP's responsibility to determine the manner in which the data is profiled over the 15 minute intervals.

**Q) What are the requirements, per Section 2.10 of the SSC, Provincial Reconciliation?**

A) Should the DGO wish not to receive payment from the AESO, there is no requirement to submit data to the LSA. Therefore, the LSA will not be including it in settlement calculation. Per Section 2.10, the AESO will confirm that in the case where a micro-generator meets the criteria outlined in the paper and does not wish to receive payment for energy, the AESO will exempt the party from providing the supply (generation) data, as the AESO will not be including this data in the provincial reconciliation.

**Q) Will the proposed changes create an impact to the industry?**

A) There are micro-generators in Alberta that are currently operating, without being a Pool Participant, and not receiving payment for exported energy. Some new micro-generators coming on-line, are encountering frustration with the costs and logistics associated with the current situation. The AESO feels that if micro-generators meet the criteria listed, and choose the option of not becoming a Pool Participant, the impact to the industry would be very negligible or non-existent.

**Q) What are the long-term impacts in the event that a large number of micro-generators come on-line under the option of not becoming a Pool Participant?**

A) The AESO is only proposing this option as an interim measure. It is neither an AESO rule change nor a policy. If industry comments strongly favor the option of not becoming a Pool Participant, then the AESO will implement and track the required information. The DOE's policy paper will supersede the options provided in this paper, or if a policy has not been provided, the AESO will review the situation at the end of 2007. The AESO will continue to monitor throughout the duration.