



**Implementation of MOF Recommendation Paper  
Stakeholder Comment Form**

Comments From: Allan Kettles, President and CEO, B(9) Power  
 Date: April 16, 2009  
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<b>1. WIND POWER FORECASTING – Centralized Forecasting Model</b>	
The AESO recommends that a centralized forecasting model be implemented in Alberta.	<input type="checkbox"/> Support <input checked="" type="checkbox"/> Oppose <input type="checkbox"/> Indifferent
<u>Reasons for Stakeholder Position:</u> Oppose. Alberta refineries, gas plants, cogeneration plants, hydro facilities, coal fired power plants, etc NEVER hand over their control-room-keys to the AESO. Government of Alberta is about “getting out of the business of being in business” (Klein) Forecasting must never be controlled by AESO but rather operated from a secure, impartial place like Market Surveillance Administrator (MSA) or AUC or third party firm with reporting directly to industry. This forecasting requirement is not forced upon any other types of generation or load in the province. Discriminatory treatment of wind power generation.	
<b>2. WIND POWER FORECASTING – RFP ASAP</b>	
The AESO recommends that solicitation (RFP), evaluation and selection of a centralized forecasting service provider should proceed as soon as practicable.	<input type="checkbox"/> Support <input checked="" type="checkbox"/> Oppose <input type="checkbox"/> Indifferent
<u>Reasons for Stakeholder Position:</u> Oppose. Neither the MOF nor its proposed rules have yet been approved. The cart cannot be before the donkey. Any forecasting mandate must be conducted FOR and BY industry and housed outside of AESO which can too readily impose economic penalties on wind generation as stated in its proposed plans. A firm “NO” to handing over these sensitive WPF-control-room-keys. Conversely, perhaps industry should take over the AESO control room with a view to inequitably curtail whomever it pleases.	
<b>3. WIND POWER FORECASTING</b>	
The AESO will commence consultation on rules, procedures, standards and technical requirements regarding submission of wind generator forecast data/information including; data requirement such as turbine availability and on-site meteorological data, communication protocols, and data quality required from wind generation facilities (or individual forecasters) to deliver forecasts to the AESO.	<input type="checkbox"/> Support <input checked="" type="checkbox"/> Oppose <input type="checkbox"/> Indifferent



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Reasons for Stakeholder Position:

Oppose. AESO MOF isn't approved and so this dog won't hunt before Alberta Department of Energy and Industry approved. AESO obviously doesn't know the true meaning of the industry term "turbine availability" which is the responsibility of the WPF O&M plant and procedures. Also, AESO will NOT "commence consultation on rules" before this MOF is approved. Cart before the donkey, again.

**4. WIND POWER FORECASTING – Data Management**

As part of its forecasting research and development work, the AESO will continue work to determine the capability, resources, systems and time required to perform the data management function. In parallel, the AESO will include data management as an optional requirement in the wind forecasting RFP.

- Support
- Oppose
- Indifferent

Reasons for Stakeholder Position:

Oppose. This must never be AESO-controlled. No other generator types are required to do this. AESO does not get the keys to the windfarm. Maybe industry, or MSA, or AUC, but not AESO. A third party paid and monitored by industry and reporting to industry MAYBE. The AESO "will" not do anything until MOF approved. Data Management is a no-go-zone for AESO. This is like an Oil & Gas company giving up its most sensitive hottest play seismic data to the government. A no go for industry FOR SURE. This must hold off pending review by DOE, AUC, MSA, and industry.

**5. FORECASTING ACCURACY**

The AESO will monitor forecasting, market and operational results and develop measures of forecasting accuracy. The AESO intends to leverage available data and forecasting resources toward this end.

- Support
- Oppose
- Indifferent

Reasons for Stakeholder Position:

Oppose. AESO "will" not do any of the above until MOF is approved. Arrogance at best. Monitoring of forecasting results is responsibility of industry. AESO is not to interfere in the market. Better run by industry for supposed \$0.20 per MWH. AESO tariff power-point is the thin edge of the wedge to unending cost increases without performance & cost justification or monitoring. A firm "NO".

**6. FORECASTING - TRANSPARENCY**

The AESO considers that system or aggregate wind forecasts should be transparent and made available to all market participants, particularly near term to real time.

- Support
- Oppose
- Indifferent



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Reasons for Stakeholder Position:

Oppose. No other form of generation is forced to reveal sensitive data so NO for wind as well. This information is subject to gaming. Why would wind industry expose data to the world when coal, cogen, hydro, gas, biomass, etc are NEVER asked to even consider the same deal. Why is wind singled out? It has never been conclusively demonstrated to the satisfaction of industry that wind is responsible for 100% of any perceived system instability. This leap of logic from “variable” to “stable” has not been properly explored or challenged.

**7. WIND POWER MANAGEMENT – Curtailment Protocol**

The AESO seeks stakeholder feedback on the work group recommendations to use a Potential MW Protocol and specifically would like input from stakeholders regarding practicality and risks associated with this option.

- Support
- Oppose
- Indifferent

1. Pro rata allocation of the system wide wind curtailment among Wind Power Facilities (WPF)
2. Use of Potential MW Capability to allocate for each WPF
3. Curtailments should be re-assess and re-allocate every 20 minutes if the limit for any one WPF has changed by greater than 5MW

Reasons for Stakeholder Position:

Oppose. Each of the above items should be individually considered. Each represents a massive cost to industry. First, some smart industry folks tried to help but main MOF author is all the time talking and at no time listening so industry folks could not get a word in edge wise. Industry participation decreased, leaving the author to do as they please anyway. So in response to the above 3 points: (1) No one knows what it really means. How about a system wide curtailment for all other forms of generation? If that is not possible to do safely then perhaps a pro-rata sharing of the opportunity cost of lost generation. How about the AESO quantifies what that might look like. (2) as above, no one knows what this really means, therefore unacceptable.. Cost implication of this is not understood by industry. What is the proposed size (GWH and when) of this proposal? (3) again, no one knows what this means so unacceptable.

The economic impact to wind has not been estimated or explained. This is not understood by industry, so NO.

<b>8. WIND POWER MANAGEMENT - Supply Surplus</b>	
<p>The AESO solicits input from all stakeholders on the proposed supply surplus protocol and proposed modifications to OPP 103 provided below.</p> <p>(1) Include wind power facilities and co-generation facilities in OPP 103 procedures with co-generation to be subject to Minimum Operating Level (MOL) requirements</p> <p>(2) Establish a Minimum Operating Level (MOL) for each asset and, where possible, assets should not be dispatched below their MOL.</p> <p>(3) Refine MOL definition to include new constraints not included in Minimum Stable Generation<sup>1</sup> (MSG) but that affect the asset's ability to operate at or below a threshold. MOL is a physical operating limit (not an economic limit) for an asset constrained by legal/regulatory, environmental, health and safety, equipment reliability, operating level required to serve dispatched ancillary services, or operating level required to prevent damages to third party equipment. Examples of physical operating constraints for types of generation and import/export are included in the WG paper (Appendix A).</p> <p>(4) Develop a mechanism for pool participants to declare and submit the MOL. It is expected that the need for, approach and frequency of declaration may vary among generators and will need to be defined.</p> <p>(5) Revise the current "inflexible block" definition. The definition of "inflexible block" will need to be amended as follows:</p> <p>"inflexible block" means a block of energy that may be dispatched on or dispatched off, but not partially dispatched on, <u>except for a \$0 offer block it may be dispatched to the asset's MOL.</u></p> <p>Definition of "flexible block" does not require any changes since it accommodates the proposed \$0 SMP management protocol.</p> <p>(6) Provide market indication of supply surplus conditions (similar to supply adequacy situations) to provide market participants an opportunity to take voluntary actions in the face of potential \$0 SMP conditions and also become aware that an out-of-market dispatch to clear the energy imbalance could be forthcoming.</p> <p><u>Reasons for Stakeholder Position:</u></p> <p>Oppose. This comment box is TOO LONG. A whole new AESO undertaking. Most industry participants know NOTHING about it. Never clearly explained. In response to the above points: (1) include wind in OPP103? Why would industry agree to this? (2) Min MOL: doesn't make sense for wind. Why does wind eat the cost of other generation types being unable to ramp in accordance with power demand? Wind is &lt;1% of generation. Why does it bear cost of 100% of the problem? All generation must be treated FAIRLY in accordance with AESO</p>	<p><input type="checkbox"/> Support <input checked="" type="checkbox"/> Oppose <input type="checkbox"/> Indifferent</p>

<sup>1</sup> ISO Rule definition for MSG is "minimum stable generation" which means the minimum generation level that an asset can be continuously operated at without becoming unstable.



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mandate. This is not fair. If wind is most logical generation type to SOLVE the problem, then why does wind bear 100% of the cost? (4) the "MSG" is not applicable for wind. The definition is inadequate as it does not address wind characteristics. The AESO comment "will need to be defined" is unacceptable. This represents an unknown not explained.

Wind is not coal nor is it cogen nor is it gas. The definition does not recognize generation diversity in Alberta.

**9. SUPPLY SURPLUS – protocol**

The Supply Surplus work group also developed the following protocol respecting OPP 103:

- Support  
 Oppose  
 Indifferent

**Step 1:** Curtail opportunity services including import transactions.

**Step 2:** Take the following actions, taking into account the transmission system operating and reliability constraints and an objective of rotating the curtailments amongst market participants where possible:

- a. Curtail flexible \$0 blocks, by pro-rata assignment,
- b. Where wind generation is required to be curtailed pursuant to (a), assign the curtailment amongst each individual wind power facility using the wind power management protocol,
- c. Curtail inflexible \$0 blocks to the asset's MOL.

**Step 3:** Curtail an asset to 0 MW (go off line), considering the asset's minimum off time.

Reasons for Stakeholder Position:

Oppose. "Curtailment" x6! Few if any stakeholders know anything about this area. Not well understood. Cost is not understood. Sharing of this cost is not considered in MOF. Opposed because no one understands the implications. A new brainchild of AESO authors for a make work project. "Curtail... Curtail... Curtail... Curtail... Curtail... Curtail.." How about getting the system ready to accommodate renewable energy. How about building some transmission.. How about a can-do attitude. This is a wind industry "NO."

Quantitative impact of curtailment is unknown. This massive uncertainty makes debt financing of wind projects infeasible due to unquantifiable uncertainty. All other aspects of wind farm operations are now well understood thanks to investment by industry and historical risk taking. Now AESO is injecting massive unknown into wind economics. This is not acceptable.

**10. Technical Requirements and Standards**

Given the expected difficulty and expense in modifying and/or retrofitting some existing wind power facilities, the WPFTR (s 1.2 g) provided an exemption from the 2004 requirements for any facilities that interconnected under the technical requirements that were in effect prior to November 15, 2004 but specified that these facilities would be required to comply with the WPFTR if the facilities underwent a refurbishment or major upgrade.

The AESO considers that this approach is reasonable and prudent but expects that the issue of applicability should be discussed in the rules and standards development and consultation phase. This will include a discussion of the potential grandfathering of certain wind facilities based on the terms and conditions of interconnection agreements and other relevant information.

Reasons for Stakeholder Position:

Oppose. No end of technical requirements and standards and rules which cost MILLIONS of DOLLARS. Cannot approve.

- Support
- Oppose
- Indifferent

**11. ADDITIONAL COMMENTS**

Additional Comments:

MOF massively undermines the economic viability of wind projects:

(1) Massive proposed curtailment costs to be unevenly borne entirely by wind industry to solve a system-wide problem caused by antiquated transmission infrastructure which AESO has not upgraded since inception in 2003.

(2) Project financing requires certainty. MOF introduces massive operating uncertainty due to proposed curtailment with no proposal for opportunity cost loss sharing among power generators. Lenders will balk at uncertainty of unquantifiable costs associated with MOF curtailment proposals. Not acceptable.

(3) Wind is <1% of generation. Wind may one day be 4% of generation Yet MOF proposal is that wind is burdened with 100% of the cost of supply/demand imbalance. Wind will share in this cost equitably with other generation types in fair proportion. MOF is discriminatory to wind.

Wind helps reduce power cost in Alberta, benefiting power consumers.

Constant dictatorial treatment by AESO forcing comments they want into a box rather than outside the box is an industry-wide unacceptable approach that's gone on far too long.

Rather than address out of the box information and suggestions, AESO wants to force industry into the AESO box. It is the reason we chose a broader outlook outside the AESO box and to ADOE, AUC and MSA. Moreover, AESO refuses to listen to anything other than what they want to hear. Thus the 900 MW cap on wind, NO TRANSMISSION built since AESO inception in 2003, too many bogus studies and more make work projects that don't get any transmission built.

Comments are: letter pdf, attachments, appear to ADOE, AUC, MSA. Clearly MOF needs to go ON HOLD until a more proactive attitude can be taken.



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Please return this form with your comments by April 3, 2009 to:

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