

Minutes of Meeting

Date held: November 19, 2009	Time held: 9:00am-3:00pm	Location held: Toronto Congress Center
Invited/Attended	Company Name	Attendance Status A(Attended); TC(Teleconference)
Burkom, Jack	Brookfield Renewable Power	TC
Chee-Aloy, Jason	Ontario Power Authority	A
Cheng, Clarence	Ministry of Energy & Infrastructure	A
Farahbakhsh, Payam	Hydro One Networks	A
Fraser, Peter	Ontario Energy Board	A
Gavrilidis, Anna	Sherwood Electromotion Inc	TC
Gursoy, Berk	Brookfield Renewable Power	A
Haggerty, Dennis	Erie Shores Wind Farm LP	TC
Hurd, Dave	Brookfield Power	A
Hayden, Dan	EPCOR	A
Jehn, Laura	TransAlta Corporation	A
Jenkins, Allan	Ministry of Energy & Infrastructure	A
Kaushik, Kshitij	Skypower	TC
Kennedy, Sarah	Canadian Hydro Developers Inc.	TC
Kuber, Kathryn	Ministry of Energy & Infrastructure	A
Lamont, Michelle	Enbridge Ontario Wind Power	TC
Letourneau, Keshav	Eolelectric Incorporated	TC
Levy, Tom	Canadian Wind Energy Association (CanWEA)	TC
O'Rourke, Brian	SNC Lavalin	A
Pelland, Sophie	Natural Resources Canada	TC
Pennie, J.C.	Windrush Energy	A
Rabadi, Adi	Invenergy Canada	A
Rangooni, Justin	Canadian Wind Energy Association (CanWEA)	TC
Sharma, Pankaj	Hydro One Networks Incorporated	A
Simpson, Bob	Enbridge Ontario Wind Power	TC
Sorensen, Kevin	Gilead Power	A
Tuenter, Hans	Ontario Power Generation	A
Tremblay, Martin	Garrard Hassan	A
Urukov, Vlad	Ontario Power Generation	A
Venkatesh, Bala	Ryerson University	A
Vallejo, Patricia	NextEra Energy Resources	TC
Wallaert, Gerrud	Acciona Energy North America	TC
Yang, Bunli	E4	A
Agavriiloai, Ioan	IESO	A
Falvo, Mike	IESO	A
Finkbeiner, Darren	IESO	A

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Harrison, Susan	IESO	A
Khan, Khaqan	IESO	A
Lafoyiannis, Peter	IESO	A
Lam, Tim	IESO	A
Robitaille, Dave	IESO	A
Romeo, Rick	IESO	A
Vert, Jim	IESO	A
Scribe: Tim Lam, IESO. Please report any corrections, additions or deletions to the following email address: tim.lam@ieso.ca .		

All meeting material is available on the IESO web site at:
http://www.ieso.ca/imoweb/consult/consult_windpower-sc.asp

Document output of each agenda item below:

Item 1 Welcome and Introductions

Khaqan Khan (IESO) welcomed the group and reviewed the objectives of the Wind Power Standing Committee (WPSC). Members were requested to introduce themselves.

The agenda was reviewed with one additional item added. A wind proponent with an RES contract requested the WPSC address a letter sent by the OPA to wind proponents with an RES 1 or RES 2 contract a few weeks ago. This item was addressed during Agenda Item 4. The chair also noted that Agenda Item 7: Status updated on NERC IVGTF may be deferred depending on the time.

Updates were provided on the following Action Items:

Action Item #45: GE has been contacted and their response will be posted on the WPSC webpage when it becomes available.

Action Item #48: Two issues brought up at the June 2009 WPSC meeting regarding specific telemetry requirements for embedded generators, and the possibility of connecting all or part of a generation project under an 'interim connection agreement' while waiting for transmission enhancements were forwarded to SE-57: Embedded and Renewable Generation. This action item was also addressed in Agenda Item 3. This action item is closed.

Item 2 The Ontario Energy Board's (OEB) Generation Connection Reforms

Peter Fraser (OEB) reviewed changes made to OEB policies, specifically the Distribution System Code (DSC) and Transmission System Code (TSC), based on the Green Energy Act (GEA). There was particular focus on the process and responsibilities for renewable generation to connect to the distribution system, or as renewable generation clusters connecting to the transmission system.

Member Questions, Comments and Discussion

- Regarding the Generation Connection Process outlined in slide 14, a member asked who is responsible for conducting the Initial Feasibility Assessment (IFA - second step). It was noted that, in general, distributors would be the ones responsible for conducting the IFA. A Hydro One representative further noted that Hydro One currently conducts IFAs at no additional cost to developers.
- Regarding the second last slide and the requirement to pay Capacity Allocation Deposit(s), a member requested clarification under the amended RESOP contract status. The member was referred to the footnote in the slide that says, "Although the extension options require the payment of a security to the OPA, these projects will nevertheless be obliged to pay capacity allocation deposits per the DSC." Furthermore, it was noted that these rules were finalized before the OPA amended their deposit rules.
- Regarding slide 12 and Connection Application/Connection Impact Assessment prerequisites, clarification was requested regarding what constitutes "approved infrastructure". It was noted that the OPA requires all approvals, including leave-to-construct and environmental assessment (EA), for the infrastructure to be considered approved. For example, the Bruce-to-Milton transmission line has a leave-to-construct, but has not received its EA, and is therefore not considered to be approved infrastructure.

Item 3 Facilitating Wind Generation Facilities (updates on existing and proposed performance requirements for generators)

Mike Falvo (IESO) gave an overview of proposed changes to the IESO market rules governing generation performance requirements and the rationale for these changes. The proposed market rule amendments have been posted for stakeholder review at the following link:

http://www.ieso.ca/imoweb/pubs/mr2009/MR-00359-R00-R01_AP.pdf

Member Questions, Comments and Discussion

- A member inquired about field tests associated with the new requirements. The IESO responded that performance requirements need to be validated with either a field test or a type test from the manufacturer. It was noted that at present there is no standard test, but that the proposed rule amendments should make clear what is to be tested.

- Clarification was provided regarding the application of the proposed performance standards. New facilities or existing facilities that undergo major modifications are to be assessed on updated standards. Existing facilities are expected to maintain existing performance standards unless there is an industry-wide standard change (e.g. NERC), in which case upgrades may be required.
- Related to Action Item #48, a member asked if the IESO plans to streamline the Connection Assessment (CA) process by allowing wind generation to have a temporary Special Protection Scheme (SPS) in order to connect under an interim connection agreement (similar to what is being done in MISO). The IESO responded that under the [Ontario Resource and Transmission Assessment Criteria](#) document, on which all grid-enhancement plans are assessed, SPSs are assessed based on impact to the system if implemented. It was further noted that under the Feed-in-Tariff (FiT) process Transmission Availability Test (TAT), there will be a high level screening where an SPS may be identified as being required to connect a renewable project. If this SPS is identified as being a Type III SPS¹, the project would be allowed to proceed. Further along in the FiT process at the System Impact Assessment stage, the identified SPS would be further defined.
- A transmitter representative asked if the proposed performance requirements would apply to a transformer station (TS) with an expected reverse power flow of greater than 50 MW. The IESO stated that the proposed rule changes apply only to generation facilities and deal specifically with generator performance issues (speed/frequency, low-voltage ride through, reactive/dynamic power requirements). It was further noted that a TS that becomes a large injector will be assessed based on overall grid assessments.

Item 4 OPA's Feed-in-Tariff (FiT) Initiatives and RES 1 & 2 Contract, Pricing and Dispatch Discussion

Jason Chee-Aloy (OPA) provided an update on Ontario's Renewable Energy Feed-In Tariff (FiT) Program and reviewed the program's key objectives and overall process. It was noted that a revised FiT contract was to be posted on the OPA website² later in the day.

Member Questions, Comments and Discussion

- Clarification was requested on the timing of the Distribution Availability Test (DAT) with respect to ensuring that under the revised OEB Distribution System Code, the queue is cleared before the first DAT is conducted. In response, it was noted that the OPA is working on this issue with the OEB and Hydro One, and that a webinar on this topic is being scheduled.
- Clarification was requested regarding the status of the Bruce to Milton transmission project (still waiting for its environment assessment (EA)) and its impact on FiT applications either passing Transmission Availability Test (TAT), DAT or proceeding to the Economic Connection Test (ECT).

¹ Type III SPS: A category of special protection scheme whose misoperation or failure to operate results in no *significant adverse impact* outside the *local area*.

² <http://fit.powerauthority.on.ca/Page.asp?PageID=924&ContentID=10263>: Contract and Exhibits

The OPA does not expect Bruce to Milton will receive its EA by the end of the FiT program launch period.

- The OPA is continuing discussions with the Ontario government regarding domestic content requirements to provide additional clarity. At present, the OPA does not expect any changes to be made to the Exhibit B (FiT Contract) tables regarding domestic content.
- A WPSC member inquired whether FiT contract prices could be changed under a scenario of increasing electricity prices being paid by Ontario consumers in the future. The OPA responded that FiT prices will be reviewed in 2 years, and that overarching rules are in place to address contract prices.
- A member asked for an estimate of the available transmission capacity currently on the system for FiT projects to connect. At present, approximately 2500 MW of capacity is available. The OPA expects all of this capacity will be filled by the end of the FiT program launch period.
- It was emphasized that FiT applications looking to pass the TAT/DAT should specify a connection point, and that developers should contact their prospective local distribution company (LDC) or transmitter to discuss specific plans. The OPA will consider applications submitted without a specified connection point to be a strong indication that the project application intends to proceed to an ECT.

Additional Agenda Item – RES 1 & 2 Contracts, Pricing, and Dispatch

Jason Chee-Aloy and Dave Robitaille (IESO) led a discussion to address concerns that wind generation facilities under RES 1 & 2 contracts raised in response to IESO direction and an OPA letter concerning OPA minimum contract pricing requirements and associated submission of offer prices by wind facilities being intermittent/self-scheduling facilities, operating in the Ontario electricity market. It was noted that Michael Killivay (OPA) should be the primary contact at the OPA on this matter as the Director of Contract Management. An action item was taken to schedule a meeting between the OPA, IESO and wind facilities under RES 1 or 2 to discuss potential solutions.

Action Item: IESO to schedule a meeting with the OPA and RES 1 or 2 wind facility representatives to discuss the contract, pricing and dispatch of these wind facilities.

Jason (OPA) acknowledged the contributions of WPSC in resolving wind related issues. He further recommended that moving forward OPA's FiT and other wind contract related issues should also be discussed and resolved through WPSC forum. The IESO noted that such issues can be resolved through this or other IESO forums and OPA's recommendation will be forwarded to the IESO management.

Action Item: IESO to forward OPA's recommendation to the IESO management (re: moving forward, OPA's FiT and other wind contract related issues should also be discussed and resolved through WPSC forum)

Item 5 Status Update on Embedded Generation (SE-57) Initiatives

Darren Finkbeiner (IESO) provided a verbal update on current and upcoming SE-57 initiatives. It was noted that SE-57 also addresses issues relating to renewable generation and surplus baseload generation (SBG). Three main issues are currently being dealt with under SE-57:

- Surplus Baseload Generation
- Centralized Forecasting of Renewable Generation
- FiT Integration

Member Questions, Comments and Discussion

- Regarding centralized forecasting of wind resources, a member asked if the telemetry data required to drive the forecasts would be provided publicly. The IESO hopes to make it available but needs to have this discussion with wind generation facility owner/operators. In general the IESO believes in the principle that more publicly available data is beneficial to the market (market transparency).
- Regarding centralized forecasting, a member asked if the 'generator-pay model' is still the proposed method to pay for the forecast. Yes, the 'generator-pay model' is still the proposed method of payment. For more information see: <http://www.ieso.ca/imoweb/pubs/consult/se57/se57-20091202-Presentation.pdf>
- Target implementation date for centralized wind forecast is mid 2010.

Item 6 GEA/FiT Initiatives & Connection Assessment Processes

Ioan Agavriloai (IESO) gave a presentation on IESO's connection assessment and approval (CAA) and market entry (ME) processes for new generation facilities. He encouraged proponents/developers to get in touch with the IESO at any time throughout the process for information/clarification of requirements.

Member Questions, Comments and Discussion

- There is a \$30,000 fee for the IESO's System Impact Assessment (SIA).
- Referring to slide 4, a member asked for a definition of 'material changes to the project' that would trigger a need to re-apply and re-start the CAA process. No definition exists, as the criteria that trigger the need for a new CAA will vary from project to project. It is important to inform the IESO of any changes to the configuration of a project, so that the IESO can assess as quickly as possible what, if any, additional assessment is required.

Item 7 Status Update on NERC IVGTF (Phase II)

Khaqan Khan (IESO) deferred this agenda item to a future WPSC meeting due to other priority items and time constraints.

Item 8 Round Table/Future Agenda Items/Wrap up and next steps

A member raised the issue of performance requirements (low-voltage/low-frequency ride through) for distributed generation. This item will be forwarded to SE-57 Embedded Generation for their consideration.

Action Item: Forward to SE-57 the issue of performance requirements for distributed/embedded generation.

Next year's meeting dates are tentatively scheduled for the end of each calendar quarter (March, June, September and November). A confirmation email will be sent to WPSC members and participants.

Action Item Summary				
#	Date	Action	Status	Comments
45	January 28, 2009	GE's response to Tom Adam's wind power geographic study to be posted on WPSC web page, upon availability. (for more information on this topic, see minutes of January 28, 2009 WPSC meeting)	Open	
48	June 16, 2009	Forward two issues (telemetry requirements and 'interim connection agreements') to SE-57: Embedded and Renewable Generation.	Closed	Addressed in Agenda Item 3 and forwarded to SE-57.
49	November 19, 2009	IESO to schedule a meeting with the OPA and RES 1 or 2 wind facility representatives to discuss the contract, pricing and dispatch of these wind facilities.	Open	
50	November 19, 2009	IESO to forward OPA's recommendation to the IESO management (re: moving forward OPA's FiT and other wind contract related issues should also be discussed and resolved through WPSC forum).	Open	
51	November 19, 2009	Forward to SE-57 the issue of performance requirements for distributed/embedded generation.	Open	