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RE: Comments on Proposed Offer Floor Prices and Dispatch of Flexible Nuclear from June 27, 2012 Floor Price Focus Group Presentation

Power Advisory LLC represents a consortium (the “Consortium”) of the following renewable energy generation developers: IPR-GDF Suez North America; NextEra Energy Canada ULC; Pattern Energy Group LP; and Samsung Renewable Energy Inc.

At the June 27, 2012 Floor Price Focus Group meeting, the Independent Electricity System Operator (“IESO”) presented proposed offer floor prices for variable generators (i.e., wind and solar PV generators) and for flexible nuclear generators, including dispatch down or curtailment of flexible nuclear generating units ahead of variable generators where appropriate.

The Consortium continues to support the IESO’s leadership towards addressing successful integration of variable generation into Ontario’s power system and into the IESO-Administered Markets (IAM), and thanks the IESO for requesting stakeholder comments. The Consortium is also pleased to see the IESO’s position of dispatching down flexible nuclear generating units ahead of variable generators where appropriate to help mitigate/address Surplus Baseload Generation (SBG). This position is consistent with points made in our December 19, 2011 submission commenting on the IESO’s Dispatch Order for Baseload Generation Discussion Paper.

Now that the IESO has proposed offer price floors for variable generators, it is important for the SE-91 process to continue moving forward and onto commencing the related market rule amendment process in July 2012 (specifically the July 17 Technical Panel meeting). By triggering the respective market rule amendment process, coupled with the proposed offer floor prices, the Ontario Power Authority (“OPA”) should now be in a position to discuss appropriate contract amendments.

Listed below are the Consortium's comments regarding the proposed offer floor prices and dispatching flexible nuclear generating units in accordance with dispatching variable generating units.

Proposed Offer Floor Prices

The IESO has proposed an offer floor price of -\$5/MWh for flexible nuclear generating units and an offer floor price of -\$10/MWh for variable generating units.

As stated in our December 19, 2011 submission commenting on the IESO's Dispatch Order for Baseload Generation Discussion Paper, the Consortium remains to be convinced that distinct offer floor prices are needed. None the less, the Consortium understands the IESO's intentions in setting distinct offer floor prices.

The Consortium believes there must be clear definition provided regarding what constitutes a 'flexible' nuclear generating unit. The IESO needs to provide a new classification to capture the definition and operating parameters of a 'flexible' nuclear generating unit. This will create greater transparency and certainty regarding how and when these units will be dispatched relative to all other registered generation facilities. This is very important in order to best ensure market outcomes are as predictable as they can be.

The Consortium also notes that the IESO has not proposed distinct offer floor prices for other baseload generation facilities (e.g., nuclear units that are not deemed 'flexible', run-of-river hydroelectric generating units, etc.). Therefore, we request clarification why this is the case.

The Consortium understands why the IESO is proposing to review offer price floors every six months, but does not support this position unless amendments to applicable OPA contracts mitigates any associated risks.

Dispatching Flexible Nuclear Generating Units Relative to Variable Generating Units

The IESO's June 27 presentation outlined the following high-level framework for dispatching flexible nuclear generating units relative to dispatching variable generating units.

- Dispatch process for nuclear generating units will remain the same as it is today but quantity and length of dispatch will change
- With a coordinated approach using nuclear and variable generating units, once a real-time dispatch is received, IESO will make an assessment of SBG and commit flexible nuclear generating units based on technical requirements and forecasted power system needs
- Other resources, including variable generating units, will fill in the remaining differences between the intervals through the 5-minute economic dispatch
- Therefore, this coordinated approach will reduce the instances of over-curtailment but will not eliminate all instances (e.g., as exports, variable generation output, and demand can all change after nuclear generating units are curtailed)

While the above framework may work, more substantive and procedural details are required and should be considered in order to provide greater transparency and certainty to the market at large and to generators and demand-side participants.

The Consortium suggests the following points to supplement the IESO's proposed framework highlighted in the above points.

- Define SBG and specific SBG events in the Market Rules or applicable Market Manuals (e.g., short-term SBG (i.e., hours), medium-term (i.e., days), and long-term SBG (i.e., weeks))
- Defined SBG and SBG events will provide transparency and greater certainty as to what baseload generating units, and quantity of foregone energy, could/should be curtailed to address the specific SBG event
- SBG events should be forecast and published by the IESO for appropriate timeframes (e.g., hours, days, weeks) in order to provide the market with as much information as possible in order to plan appropriate operations and offer strategies
- Action Lists should be developed and published by the IESO in order to sequentially define what actions will occur, both within the IAM and out-of-market actions by the IESO's control room, to address specific SBG events
- Considering the appropriate SBG forecast given a specific timeframe, IESO should consider not waiting for the real-time dispatch process to initiate appropriate actions to address specific SBG events (e.g., could initiate actions in the medium-term or long-term before waiting on real-time dispatch)
- Variable generating units can provide operational flexibility and therefore are appropriate to receive dispatch instructions in the real-time dispatch process when needed to help address a short-term SBG event

Overall, the Consortium recommends the IESO consider a more detailed, transparent, and certain framework to dispatching not only flexible nuclear and variable generating units but all baseload generating units in order to help mitigate and/or address applicable SBG events.

Closing Comments and Recommendations

The Consortium supports the IESO's leadership towards addressing integration of variable generation within the IAM and thanks the IESO for requesting comments from stakeholders.

The Consortium respectfully offers the following specific recommendations:

- Contract amendment discussions with the OPA and applicable variable generation developers/operators should begin immediately, considering that specific offer price floors and applicable draft market rules have been proposed and are now being discussed with stakeholders
- IESO should clearly define what SBG is and what constitutes different SBG events
- IESO should forecast SBG for different SBG events and associated timeframes, and provide appropriate Action Lists (i.e., sequentially define what actions will occur, both within the IAM and out-of-market actions by the IESO's control room) to address specific SBG events – these will provide transparency, clarity, and additional certainty to the market and better assist generators and demand-side participants to plan their operations and offer/bid strategies

Sincerely,

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