

Non-Emitting Resources Subcommittee (NESRC) – July 24, 2018

Meeting Summary

Date: July 24, 2018	Time: 9:00 am – 3:00 pm	Location: Vantage Venues, Toronto
Invited	Company	Attended (A); Teleconference (TC);
Adam Rosso	Boralex	TC
Amir Shalaby	Market Surveillance Panel	A
Arasi Vickneaswaran	Ministry of Energy	TC
Art Hunter	J.A. Hunter Inc.	TC
Asier Ania	Boralex	A
Bonnie Hiltz	Sussex Strategy Group	A
Brandy Giannetta	CanWEA	A
Brian Im	EnergyHub	TC
Chris Benedetti	Sussex Strategy Group	A
Colin Anderson	AMPCO	A
Curtis Etemadi	Boralex	TC
David Butters	APPPrO	A
David Thornton	EDF Renewables	A
David Withrow	Customized Energy Solutions	TC
Deborah Langelaan	ENGIE Canada Inc.	A
Elio Gatto	Axium Infrastructure	A
Elizabeth Dumm	Algonquin Power & Utilities	A
Emma Liut	Constant Power Inc.	TC
Frederic Belanger	HQEM	TC
Frank Bajc	GC Energy	TC
Garry Spence	EverGreen Energy Corp	A
Jake Brooks	APPPrO	TC
Jason Chee-Aloy	Power Advisory LLC	A
Jennifer Tuck	NextEra Energy	A
Jesse Long	wpd Canada	TC
Jim Fonger	Ameresco	A
JJ Davis	Kruger Energy Inc.	A
Joe Slater	Kelvin Thermal Energy Inc.	TC
John Mikkelsen	TransCanada Energy	A
John Wright	Northland Power	A
Jon Sandler	Baseload Power	A

Date: July 24, 2018	Time: 9:00 am – 3:00 pm	Location: Vantage Venues, Toronto
Invited	Company	Attended (A); Teleconference (TC);
Julien Wu	Brookfield Renewable Power Inc.	A
Karen Wharton	Great Circle Solar	A
Lindsay Miller	University of Windsor	A
Lucas Reindler	Bright Diamond Consulting	TC
Lynn Wizniak	OPG	A
Margaret Blagbrough	Power Advisory LLC	TC
Margaret Kuntz	TransCanada	A
Mark Tinkler	Customized Energy Solutions	A
Maurice Malka	TSI-eco	TC
Michael Pohlod	Peak Power Inc.	A
Michel Fortin	OCCCAE	A
Nkechi Ogbue	Ecobee Inc.	TC
Pat Dalzell	Bruce Power	A
Paul Luukkonen	AMP Solar Group	A
Paul Norris	Ontario Waterpower Association	A
Peter Inman	Powerful Solutions	A
Rachel Ingram	Rodan Energy	TC
Rob Coulbeck	Goreway Power Station	A
Roslyn McMann	BluEarth	TC
Rupp Carriveau	University of Windsor	A
Sarah Simmons	Power Advisory LLC	A
Scott Newton	Mississippi River Power Corp.	TC
Stewart Jensen	Hydrostor Inc.	A
Stuart Bowman	Hydrogeneration Inc.	TC
Svetlana Helc	Ontario Power Generation	A
Utilia Amaral	Nest Labs/Stem	A
Wesley Johnston	CanSIA	TC
Judy Chang	The Brattle Group	A
Kathleen Spees	The Brattle Group	A
Adam Butterfield	IESO	A
Brennan Louw	IESO	A
Conrad Fox	IESO	A
Jason Grbavac	IESO	A
Mark Hartland	IESO	A
Peter Versteeg	IESO	A
Tom Chapman	IESO	A

Meeting materials can be found on the IESO website at: <http://www.ieso.ca/en/sector-participants/market-renewal/non-emitting-resources-subcommittee>

Introduction and Welcome – Jason Grbavac and Tom Chapman, IESO

The IESO welcomed the NERSC members and introduced the agenda for the meeting.

Summary of RFI Phase 1 – Adam Butterfield, IESO

The IESO led stakeholders through a review of the purpose and summary of responses for the RFI.

Summary of Phase 1 – Tom Chapman, IESO

The IESO led stakeholders through a summary of the NERSC Phase 1 work, including identifying key areas of risk for resources in the existing and future market design.

A participant asked what impact the new government will have on IESO Market Renewal and planning. Another participant noted that Market Renewal was one of the reasons given for the recent cancellation of projects.

The IESO responded that Market Renewal and planning are largely driven by system needs in terms of efficiency and reliability and there has not been any indication that the IESO should not continue to work to meet these needs.

A participant asked if the IESO has briefed the ministry on the work of the NERSC.

The IESO replied that it had not yet briefed the ministry but noted that the new government was still working out its briefing schedule.

A participant asked what the IESO has learned from the NERSC work so far and how this has informed the High Level Design for the various work streams.

The IESO responded by providing examples: 1) The challenges around hydro modeling has led to discussions between IESO design teams and the Ontario Waterpower Association, OPG, and others. 2) Follow-up discussions with variable generators on how they will participate in the Day-Ahead Market has led to a preliminary decision that the IESO will continue to use a centralized wind forecast. 3) NERSC discussions have been instructive to the ICA team on multi-year commitments and the design of the ICA. 4) Information from NERSC flows to groups such as the Energy Storage Advisory Group and is helping with some of the challenges with energy storage.

A participant noted that insights from the NERSC work such as how resources can provide ancillary services may not make it into the High Level Design, and asked how these would be captured and addressed going forward.

The IESO responded that it plans to work with stakeholders to structure a path forward and prioritize how to address these issues.

Introduction to the Phase 2 Modeling Approach – Tom Chapman, IESO

The IESO led stakeholders through the objectives, modeling approach, study questions, and stakeholder feedback for the NERSC Modelling Exercise as part of the Phase 2 work plan.

A participant asked if the modelling exercise would assess only revenue adequacy without looking at the total impact on price and whether those prices are affordable.

Brattle responded that while total cost is important, the modelling exercise will assess the relative costs of specific components of the electricity system.

A participant asked if inputs for the modeling tool included a price for carbon.

The IESO replied that a carbon price could be dialed high or low in the model in each scenario.

A participant asked how distributed energy resources are integrated into planning exercises at the IESO and if the NERSC could help find a place for these resources in future modeling exercises.

The IESO replied that this is good feedback and noted that the current NERSC modelling exercise contains a decentralized scenario that may help NERSC better understand the potential role and impact of distributed energy resources.

A participant asked how the NERSC modeling effort will interface with the new Long-Term Energy Plan as it gets formed.

The IESO replied that the modelling exercise is intended to help resources understand potential revenue streams after Market Renewal under a range of potential scenarios. This is different from the work done by the planning group which assesses long-term system needs and costs.

Introduction to Market SIM and the Proposed Study Approach – Kathleen Spees and Judy Chang, IESO

The Brattle Group led stakeholders through an introduction to the Market SIM modelling tool, study scope, as well as some illustrative results.

A participant asked how Market SIM would incorporate existing power purchase agreements.

Brattle responded that resources with power purchase agreements would be incorporated as a pre-determined portion of the supply mix and power purchase agreements will in some cases influence how these resources offer into the market.

A participant asked what time intervals would be used by the Market SIM model and noted that intra-hour volatility is important.

Brattle responded that the model will look at hourly granularity as this provides enough flexibility to look at the intra-day economics of storage and hydro including opportunity cost components.

A participant asked if transmission expansion would be held constant in the Market SIM model.

Brattle replied that they are not proposing to optimize transmission buildout.

A participant asked if the impact of blockchain on demand response and distributed energy resources would be modelled in the scenarios.

Brattle responded that this was out of scope for the study.

A participant asked how the Market SIM model would factor in inerties.

Brattle replied that neighboring jurisdictions will be included using a simplified approach where import and export markets exist for various products.

A participant asked if the model looked at locational considerations and congestion.

Brattle replied that they will look at both capacity and energy on a zonal basis.

NERSC Modeling Scenarios Facilitated Discussion – Judy Chang and Kathleen Spees, Brattle

The Brattle Group led stakeholders through a discussion to identify drivers of sector evolution and develop a list of scenarios to explore with the Market SIM tool. The scenarios developed through this exercise will be presented at a future NERSC meeting for stakeholder feedback.

Conclusion and wrap up – Jason Grbavac, IESO

The IESO thanked all participants and welcomes feedback from all stakeholders. Feedback should be sent to engagement@ieso.ca.

Meeting adjourned at 3:00 pm.

The next NERSC meeting is scheduled for August 16, 2018.