

Energy Work Stream – Stakeholder Engagement Sessions

July 18 & 19, 2018

Minutes of Meeting

Dates held: July 18 & 19, 2018	Time held: 1pm – 3pm (July 18), 9am – 3Pm (July 19)	Location: Holiday Inn, Toronto International Airport
Company	Name	Attendance Status (A) Attended; (WebEx) Attended via WebEx
Acciona	Kyritsis, Helen	WebEx
Acciona	Sajid, Mohammad Anis	WebEx
ADG Group Inc.	Cai, David	A
AMP	Luukkonen, Paul	A
AMPCO	Anderson, Colin	A
APPrO	Butters, Dave	WebEx
Bruce Power	Dalzell, Pat	A
Bruce Power	Xu, Jennifer	A
CanWEA	Giannetta, Brandy	WebEx
Capital Power	Villiger, Kurtis	WebEx
CRA	Cary, Robert	WebEx
Customized Energy Solutions	Withrow, David	WebEx
De Beers Canada and the OMA	Shields, George	WebEx
Emera Energy	Maddison, Michel	WebEx
EnerNOC, Inc.	Griffiths, Sarah	A
HQEM	Bélanger, Frédéric	WebEx
Goreway Power Station	He, Kevin	A
Goreway Power Station	Sutherland, Chris	A
ICF	Goldberg, Sam	A
Ivaco Rolling Mills	Abdelnour, François	A
MAG Energy Solutions	Bordeleau, Patricia	WebEx
MAG Energy Solutions	Pelletier, Simon	WebEx
MAG Energy Solutions	Viger, Louis-Philippe	WebEx
MAG Energy Solutions	Villeneuve, Alexandre	WebEx
Manitoba Hydro	Wells, David	A
Market Surveillance Panel	Deweese, Don	WebEx
Market Surveillance Panel	Shalaby, Amir	A
Nalcor Energy Marketing	Martin, David	WebEx
NextEra Energy	Tuck, Jennifer	A
Nexus Energy	Tardif, Francois	WebEx

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Ontario Citizens' Coalition for Clean Affordable Energy	Fortin, Michel	A
Ontario Energy Association	Hrab, Roy	A
Ontario Mining Association	Brownlee, Cheryl	WebEx
Ontario Mining Association	Stanley, Alan	WebEx
Ontario Ministry of Energy	Adi, Sana	WebEx
Ontario Ministry of Energy	Freeman, David	WebEx
Ontario Ministry of Energy	Qureshi, Musab	A
Ontario Ministry of Energy	Weir, Ben	WebEx
Ontario Ministry of Energy	Zerek, Peter	WebEx
Ontario Power Generation	Beard, Amy	A
Ontario Power Generation	Mo, Herman	A
Ontario Power Generation	Wizniak, Lynn	A
Peak Power	Pohlod, Michael	WebEx
Power Advisory LLC	Blagbrough, Margaret	WebEx
Power Advisory LLC	Cumming, Alison	A
Power Consumer	Jagt, Mandy	A
Powerful Solutions	Inman, Peter	A
Rankine Construction	Beekhuis, Jordan	WebEx
Resolute Forest Products	Degelman, Cara	A
Rodan Energy Solutions	Forsyth, Dave	A
Rodan Energy Solutions Inc.	Goddard, Rick	A
Rodan Energy Solutions Inc.	Quassem, Farhad	A
SMS Energy Engineering	Buckland, Sharon	WebEx
Tidal Energy Marketing	Johnsen, Wes	WebEx
TransCanada Energy	Kuntz, Margaret	WebEx
TransCanada Energy	Luthra, Amit	WebEx
TransCanada Energy	Van Norman, Tom	WebEx
TSI Services Management	Malka, Maurice	WebEx
TransAlta	Stonestreet, Cameron	A
Union Gas	Dent, Dave	WebEx
Workbench	Sears, Heather	A
FTI	Cavicchi, Joseph	WebEx
FTI	Harvey, Scott	A
FTI	Pope, Susan	A
IESO	Cary, Tim	A

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IESO	Diebel, Sarah	A
IESO	Doyle, Robert	A
IESO	Ellard, Barbara	A
IESO	Gojmerac, Mark	A
IESO	Kamstra, Pat	A
IESO	Louw, Brennan	A
IESO	Matsugu, Darren	A
IESO	Versteeg, Peter	A
IESO	Young, Jennifer	A
Prepared by Peter Versteeg, please report any corrections, additions or deletions by e-mail to engagement@ieso.ca		

All meeting materials are available on the IESO web site at: <http://www.ieso.ca/Sector-Participants/Market-Renewal/Market-Renewal-Day-Ahead-Market>

July 18 Session

Introduction – Rob Doyle, IESO

The IESO welcomed participants and introduced the first session’s presenter – Darren Matsugu.

Single Schedule Market (SSM) Design Elements Discussion – Darren Matsugu, IESO

The IESO outlined the day’s agenda and objectives and reviewed the work plan for Single Schedule Market stakeholdering. The IESO then led stakeholders through a discussion on various design elements including Load Pricing & Allocation of Residuals, Constraint Violations, and Intertie Congestion Pricing.

A participant asked if the SSM Zonal Pricing estimates on Slide 12 included Congestion Management Settlement Credits (CMSC) and Make-Whole payments.

The IESO replied that while the estimates do not include CMSC and make-whole payment, the IESO expects that these payments will be small given the proposed enhancements of the SSM.

A participant asked if the energy cost savings of \$246M on average annually from 2014-2017 on Slide 12 could be broken down into components.

The IESO replied that it is not able to provide a breakdown of the savings associated with each component in comparing today's market with the proposed SSM. The three factors presented (supply paid a locational price, realistic market demand, and CMSC eliminated) are causally linked and change together, making it problematic to separate the calculated savings into components.

A participant asked when the impact of SSM and locational marginal pricing on the global adjustment will be evaluated.

The IESO replied that it will provide a response to the MRWG on this question.

A participant asked if residuals could be negative.

The IESO replied that it might be possible for residuals in a single hour or interval to be negative, however based on network topology and other factors this would be very rare and in aggregate the residual is a positive amount.

A participant asked if it is possible to determine or approximate how much each zone pays in congestion rents and then to return residuals to those consumers zones in the analysis.

The IESO replied that this is a challenging question. The IESO can examine the data on an expenditure basis to try to find a reasonable approximation. The current proposal for allocating residuals uses a similar methodology.

FTI replied that allocating congestion rents is challenging because it is difficult to determine who is entitled to the inexpensive generation.

A participant asked what criteria determine decisions on Residual Allocation, why the preliminary decision is temporary and what this achieves, and if the key driver for allocation methodology is the preservation of the marginal incentive. The participant communicated their view that competitive pricing should be first priority in any decision on Residual Allocation.

The IESO replied that Residual Allocation in some form is a requirement and that the proposed preliminary decision is intended to ease the transition towards LMP. The decision is temporary because all current allocation options have shortcomings and in the long-term a larger dataset may be available that would provide opportunities for more informed decision-making.

The participant had remaining questions and suggested a follow-up discussion offline.

The IESO replied that it will take this offline for further discussions with the stakeholder.

Constraint Violation Discussion – Susan Pope, FTI

The IESO led stakeholders through a discussion of preliminary decisions on Constraint Violations as well as guidelines for Detailed Design.

A participant asked if penalty prices are administratively set and if they represent an Operating Reserve Demand Curve (ORDC).

FTI replied that penalty prices are administratively set and that an ORDC is one particular way of implementing penalty prices that is currently employed in Texas.

The IESO replied that an ORDC is one type of constraint option and that the guidelines will be used to inform assessments of various options in Detailed Design.

A participant asked why Constraint Violation pricing should be paid by consumers when penalty pricing is caused by generators that are unavailable. The participant further asked if penalty pricing would apply at a nodal, zonal, or market-wide level.

FTI replied that penalty pricing affects settlement for both loads and generators. For example, if a generator with a DAM schedule takes an outage between day-ahead and real-time and this leads to penalty pricing, that generator will pay the penalty price back in real-time at the nodal level. Similarly, a generator or importer that can respond to replace the lost supply is paid the penalty price.

The IESO replied that a load with a DAM position that locks in their price would be indifferent to the real-time price because the balancing occurs between Real-Time Market participants. Further, with graduated pricing, Constraint Violations would not necessarily lead to the Maximum Market Clearing Price if the violation is relatively small.

A participant asked if the scenario described by FTI created new financial risks for generators. For example, if a 100MW generator near Bruce has a DAM schedule and has to take a forced outage, and then Bruce goes offline and administrative pricing kicks in, the financial losses incurred to the smaller generator would be significant.

The IESO replied that it would like to further understand the potential for new commercial risks with the stakeholder as the objective is not necessarily to make scarcity pricing higher. The IESO noted that appropriate scarcity pricing and the cost of resolving Constraint Violations is important, but also that respecting these constraints are not new requirements for the system.

Intertie Pricing Discussion – Scott Harvey, FTI

FTI led stakeholders through a discussion of Intertie Congestion Pricing and introduced a new congestion pricing option based on stakeholder feedback.

A participant asked if pricing and settlement is managed by the Dispatch and Scheduling Optimization system, or if this requires intervention from operations.

FTI replied that pricing and settlement is managed automatically by IESO systems.

Market Power Mitigation Discussion – Tim Cary, IESO

The IESO led stakeholders through a discussion on Market Power Mitigation design considerations including Conduct and Impact Threshold guidelines, Cost-Based Reference Levels, Potential Constrained Areas, and Uncompetitive Interties.

A participant noted that developing Cost-Based Reference Levels for all generators requires significant work.

The IESO replied that a methodology for developing Cost-Based Reference Levels will have to be defined because they are required for any mitigation regime.

A participant asked if after-the-fact adjustments to resettle the market would occur if Cost-Based Referenced Levels were determined daily, and whether suppliers would be able to make changes to Reference Levels in real-time or after-the-fact.

The IESO replied that suppliers will have visibility into calculated Cost-Based Reference Levels, and that mechanisms will be in place to address issues ahead of time. In cases where issues are not addressed ahead of time, new dispute resolution mechanisms could resolve issues after-the-fact.

A participant asked if a dispute resolution with a supplier that was the marginal resource would extend to other Market Participants, and if the IESO would resettle the market.

The IESO replied that in this case it would make the adjustment only for the marginal resource and that it would not resettle the market.

A participant asked if the IESO's methodology would account for a hydroelectric supplier whose opportunity costs change on an hourly basis.

The IESO replied that it intends to mitigate suppliers based on their marginal costs, including opportunity costs. The methodology for determining reference levels – including how frequently they are to be updated – will be addressed in detailed design.

A participant asked why there was no congestion or narrowly constrained areas in the Northwest.

The IESO replied that there is bottled generation in the Northwest and congestion for moving power, but conditions with limited competition between generators to serve load occurs infrequently.

FTI replied that generally resources are constrained down in the Northwest, not up. With the SSM, these resources will see a low price instead of getting constrained off payments and the opportunity to raise prices above a competitive level will not occur often.

A participant asked if all generators, including merchant generators and those on contract, will be subject to Constrained Areas and if these measures apply in day-ahead or real-time.

The IESO replied that Constrained Areas will apply across all supply resources in all time-frames to ensure that prices and commitments are based on competitive inputs.

July 19 Session

Introduction – Jennifer Young, IESO

The IESO welcomed participants back and introduced the session's first presenter – Tim Cary.

Uncompetitive Interties Discussion – Tim Cary, IESO

The IESO led stakeholders through a discussion on Uncompetitive Interties and provided guidelines for Detailed Design.

A participant asked if the designation for Uncompetitive Interties would be in the daily or hourly timeframe, and if a process for designating Uncompetitive Interties is in place now.

The IESO replied that the designation would be across a longer timeframe and likely for an extended period. The review would be ongoing and once a designation is made it would be enforced until revoked. The current rules for Uncontested Export Interties contain similar language.

Day-Ahead Market (DAM) Design Elements Discussion– Mark Gojmerac, IESO

The IESO led stakeholders through a discussion of DAM design elements including Offer Obligations (formerly Reference Quantity), Virtual Transactions, Optimization for Energy Limited Resources (ELRs), Submission and Posting Deadlines, Reporting Obligations, and Market System Failure.

A participant asked if future Market Renewal presentations can be numbered for reference.

The IESO replied in the affirmative.

A participant asked if resources that do not submit offers into the DAM will be checked for physical withholding given that participation in the DAM is voluntary.

The IESO replied that an after-the-fact process will monitor for physical withholding, and part of this process will be a test for market power.

A participant asked if there was an obligation to offer into the DAM in order to offer into the Real-Time Market.

The IESO replied that, unless the ICA design imposes an offer obligation for resources that clear the ICA, there will be no obligation to offer into the DAM to participate in real-time.

A participant asked if Non-Utility Generators under contract will be required to offer into the DAM.

The IESO replied that the majority of the IESO's contracts do not have a must-offer provision and noted that how these resources will participate in the DAM is worthy of additional discussion with the IESO's contract management group.

A participant asked which RTOs schedule operating reserve in the DAM.

The IESO replied that almost all RTOs schedule operating reserve in the DAM.

A participant asked if a partial failure of the DAM was possible, and if this would in turn lead to a partial schedule.

The IESO replied that it would consider any invalid results including a partial schedule as a failure of the DAM.

A participant suggested that the DAM may be more likely to fail during rare scarcity events, and for this reason it may not be appropriate to use the previous four days to set pricing.

The IESO replied that this is a good observation and thanked the participant for the comment.

A participant asked if compensation for administered prices that do not adequately reimburse for costs incurred also applies to loads.

The IESO replied that dispatchable loads will be eligible for compensation but that it will have to determine if eligibility also applies for price responsive loads and non-dispatchable loads.

Enhanced Real-Time Unit Commitment (ERUC) Design Elements Discussion – Pat Kamstra, IESO

The IESO led stakeholders through a clarification on Make-Whole payments, preliminary decisions for design element 3 Timing & Frequency and design element 10 Offer Changes, as well as stakeholder feedback and IESO responses.

A participant noted that significant changes in system conditions could occur between the DAM results at 13:30 EPT and the first ERUC run extending into the next day at 20:00 EPT, and asked what format additional operational commitments would be in if they are needed.

The IESO replied that the operational commitment would likely be communicated in the form of a call from the control room and a corresponding report.

A participant, referring to the eligibility criteria for real-time Make-Whole payments, asked if there were additional penalties for late synchronization.

The IESO replied that a failure charge would apply if a NQS generator fails to meet its pre-dispatch commitment in real-time.

Progress Update: Optimization of Energy Limited Resources (ELRs) – Mark Gojmerac, IESO

The IESO led stakeholders through a discussion of typical hydro-electric operating characteristics, commonly used solution parameters used in other jurisdictions to recognize hydro-electric operating characteristics during DAM optimization, and a feasibility assessment of these solution parameters. The IESO informed stakeholders that it intends to follow-up with hydro-electric stakeholders to transform feasible solution parameters into high level design software requirements that the vendor would determine how to implement during detailed design.

Combined Cycle Plant Modelling – Pat Kamstra, IESO

The IESO led stakeholders through a discussion of the IESO Combined Cycle Plant Modelling approach as well as a jurisdictional scan of modelling methods. Stakeholder feedback on this topic is requested by August 17.

Settlement Topics – Mark Gojmerac, IESO

The IESO led stakeholders through a discussion of Settlement Topics including Two Settlement revenue and profit scenarios, as well as considerations for guidelines on real-time Make-Whole payments for Detailed Design.

A participant asked how pricing and Make-Whole payments for dispatchable loads will be affected when generators are scheduled in DAM and constrained-up in real-time.

The IESO replied that the guidelines to be developed for Detailed Design will be required to be comprehensive enough to apply to dispatchable loads as well.

FTI replied that it is important that overpayments are avoided because these increase uplift and can change bidding behaviour, which negatively affects markets.

A participant asked if numerical Two-Settlement examples for dispatchable loads can be developed.

The IESO replied that as part of the guidelines to be presented in September, it will provide numerical examples of Two-Settlement scenarios for dispatchable loads.

Conclusion and wrap up – Jennifer Young, IESO

The IESO thanked all participants and reiterated that all design decisions shared today are preliminary and that the IESO welcomes feedback from all stakeholders before moving to the final decision phase. Feedback should be sent to engagement@ieso.ca and is appreciated on or before August 13, 2018 on these discussions (August 17, 2018 for the Combined Cycle Plant Modelling discussion).

Action Item Summary

Responsible Party	Action Item
Single Schedule Market Design Elements Discussion	
IESO	Provide MRWG an assessment of the interaction between SSM and Locational Marginal Pricing on Global Adjustment.
Day-Ahead Market Design Elements Discussion	
IESO	Determine if compensation for administered prices also applies for non-dispatchable loads.
Settlement Topics	
IESO	Develop numerical examples of Two-Settlement scenarios for dispatchable loads.
Across Market Renewal	
IESO	Number future Market Renewal presentations for easier referencing.

Meeting sessions adjourned at 3:00 pm.

The next Energy Work Stream meeting is scheduled for September 20, 2018.