

IESO Technical Panel Meeting

Minutes of Meeting

Date held: March 5, 2019		Time held: 9:00 am	Location held: IESO Office, Toronto
Invited/Attended	Sector Representation		Attended; Regrets
Robert Bieler	Consumer		Present
David Brown	Ontario Energy Board		Present
Ron Collins	Energy Related Businesses and Services		Present
David Dent	Other Market Participant		Present
Dave Forsyth	Consumer		Present
Sarah Griffiths	Other Market Participant		Present
Robert Lake	Residential Consumer		Present
Phil Lasek	Industrial Consumer		Regrets
Robert Reinmuller	Transmitter		Regrets
Sushil Samant	Generator		Present
Joe Saunders	Distributor		Present
Jessica Savage	IESO		Present
Vlad Urukov	Generator		Present
Julien Wu	Wholesaler		Present
Michael Lyle	Chair		Present
Observers / Presenters			
Jo Chung	IESO		Present
Robert Doyle	IESO		Present
Tam Wagner	IESO		Present
Richard Zaworski	IESO		Present
Cara Degelman	Resolute Forest Products		
Peter Giardetti	Resolute Forest Products		
Tony Ruberto	Resolute Forest Products		
George Vegh	McCarthy Tetrault		

March 5, 2019

Page 1

IESO Technical Panel

Please report any suggested comments/edits by email to engagement@ieso.ca.

Secretariat		
Reena Goyal	IESO	Present
Jason Grbavac	IESO	Present
Prepared by: Mitchell Beer / Smarter Shift Inc.		

Agenda Item 1: Introduction and Administration

The Chair welcomed Robert Reinmuller, Director, Transmission System Planning at Hydro One Networks, as the newest member of the Technical Panel (TP), representing the market participant transmitter constituency. He explained that Messrs. Reinmuller and Lasek would be absent for the day’s meeting, then introduced the four guests from Resolute Forest Products and several IESO staff in attendance.

Agenda:

There were no revisions to the agenda.

Minutes and Action Items:

The Panel reviewed the minutes from the January 29 and February 6 meetings. Mr. Lake proposed a minor amendment to the February 6 draft, adding the word “and” to a reference to metering. The minutes were approved as amended.

Chair’s Remarks:

With the IESO preparing for the next phase of Market Renewal, the Chair reported that Rob Doyle had been engaged to assemble a small team to deal with all rule amendments not related to the market renewal program.

The Chair reviewed the day’s agenda, noting that it consisted of an IESO staff overview of Resolute Forest Products’ market rule amendment submission, a presentation from Resolute, followed by an opportunity for Technical Panel members and other meeting participants to comment and ask questions. He said discussion of the two presentations would be confined to questions or comments from Panel members, with an opportunity for input from anyone present under Agenda Item 5.

The Chair noted the staff proposal that the matter be referred back to the Demand Response Working Group (DRWG) for further consideration, with the expectation that it would come back to Technical Panel in June. At that point, if the Panel decided to proceed further with the topic, it would vote on a Market Rule amendment in August for submission to the IESO Board later that month, in time for implementation for the next demand response auction in December.

George Vegh, said the Chair had characterized the IESO staff proposal to be what would happen during the current TP meeting, and noted that Resolute was proposing a different approach. The Chair clarified for Mr. Vegh that he said he had characterized the staff presentation as a proposal, noting that Resolute would have an opportunity to provide its perspective.

Agenda Item 2: Engagement Update

Jason Grbavac, IESO, recapped a busy month of engagement activities since the Panel's last meeting in February. He thanked stakeholders for their meeting participation and hard work.

The Market Renewal Working Group held its final meeting February 28. Mr. Grbavac said the working group was instrumental in providing advice and guidance on the market renewal process, culminating in the release of high-level designs for the energy stream late last year, and for the incremental capacity auction by the end of March. He thanked the Technical Panel members who also served on the MRWG, Julien Wu, Sarah Griffiths, and Sushil Samant, along with all the other stakeholders who participated in that phase of the market renewal process.

Mr. Grbavac said stakeholders had completed their review of all three high-level designs in the energy stream. IESO is now reviewing their feedback, and expects to post a response document in a few weeks. The high-level design for the incremental capacity auction will be subject to the same review process. Both streams will subsequently enter a detailed design phase that will involve internal review and engagement with external stakeholders.

There were no questions on the first part of the presentation.

Mr. Grbavac noted that Panel members had questions about the document the IESO previously used for engagement updates. The IESO has undertaken a review and redesign of its Market Renewal engagement page, with the intent of making it a more valuable resource for stakeholders looking for updates on the process, whether they're interested in high-level status or deeper details. He said the Secretariat will look forward to Panel members' comments on the redesign.

Ms. Savage said the IESO intended to focus its updates to Technical Panel on engagements that will likely result in proposed amendments to the market rules.

Mr. Lake asked whether the Minister of Energy and his staff are kept posted on the IESO's work. Ms. Savage said Ministry representatives are invited to Stakeholder Advisory Committee meetings.

Agenda Item 3: IESO Presentation: Resolute Market Rule Amendment Submission

Tam Wagner, IESO recapped the Technical Panel's February 6 meeting on the Resolute submission, as well as the subsequent meeting of the Demand Response Working Group (DRWG). She spoke to the technical implications of the submission and the IESO's position in response, suggesting based on internal review that the proposed amendment was not a clarification of the existing market rule, but rather a design change affecting the demand

response auction. That conclusion drove analysis of whether such a change would be desirable, and whether the language of the proposed amendment would achieve the intended outcome.

The IESO presentation :

- Does not support the Market Rule amendment submission in its current form due to its technical implications;
- Acknowledges that the availability to provide injections into the IESO grid could potentially have capacity value and could benefit ratepayers, and therefore would recommend further consideration by the DRWG;
- Believes further analysis is required to appropriately capture the broader impact of the proposed amendment and any unintended consequences of any design change.

Mr. Sanders asked whether the IESO was recommending against recognizing behind-the-meter generation fed back into the grid if providers are already compensated for that capacity under other programs. Ms. Wagner said that was the case from the IESO's perspective.

When Ms. Wagner presented a portrayal (slide 7) of a demand response activation, Mr. Urukov asked whether the graph contained actual or illustrative data. Ms. Wagner said the graph was intended as an illustration for non-dispatchable facilities, noting that all dispatchable facilities are offered through the IESO market.

A subsequent schematic (slide 8) showed the load configuration at Resolute's Thunder Bay facility, combining a non-dispatchable load and an onsite cogeneration plant. Ms. Griffiths asked whether those facilities have two separate registrations, and Ms. Wagner said they do. In response to a question from Mr. Forsyth, she clarified that the current site configuration contains a non-IESO revenue meter.

Ms. Wagner explained that the IESO's assessment of the technical implications of the Resolute proposal were based on withdrawals from the connection point for the IESO-controlled grid (ICG), which IESO calculates at 30 megawatts and Resolute places at 60 MW, including the cogeneration plant. Mr. Urukov asked whether all the capacity involved is drawn from Channel 1 of the IESO revenue meter. Richard Zaworski, IESO, confirmed that only Channel 1 of the IESO revenue meter is associated with non-dispatchable load.

Ms. Wagner presented a scenario (slide 10) in which the proposed amendment would increase the facility's total capacity from 30 to 55 MW and said recognizing self-generation for this purpose would constitute a change to the Market Rules. She acknowledged that the 25-MW injection in this scenario would represent a benefit to the IESO-controlled grid.

In a second scenario based on the proposed amendment (slide 11), using 60 MW as the baseline for the facility, the net capacity supplied through a demand response activation would be 25 MW, producing the risk of overstating the capacity delivered to the IESO-controlled grid. Mr. Forsyth said that would be because the IESO was only looking at one channel of the meter. Ms. Wagner said both channels would only show withdrawals under the scenario.

Mr. Sanders said the baseline assumption, based on the highest 15 to 20 days of data, would be 30 MW from the generator and 30 MW from the IESO grid. Ms. Wagner said that would be the case under the proposed amendment, but under the current Market Rules the focus would be on the 30 MW at the ICG connecting point. Mr. Sanders asked whether the concern was that Resolute could be recognized for 55 MW of demand response at a time when it was delivering no resource to the grid. Ms. Wagner said it was.

Ms. Wagner's third scenario (slide 12) showed the facility delivering 0 MW of capacity under Resolute's proposal, rather than the 30 MW that is recognized under the current Market Rules, resulting in an understatement of DR capacity delivered. The ultimate concern, she said, was the potential for different market participants with the same facility configuration but different capacities to receive different outcomes.

Mr. Lake asked whether the proposal was a back door to incremental capacity. Ms. Wagner said the IESO sees demand response as a reduction of withdrawal from the grid. IESO recognizes the benefit of incremental capacity injections to the grid, she added, and is pursuing that potential through the transitional capacity auction.

Mr. Urukov asked whether the proposed amendment captured the change at the load. Ms. Wagner said the proposal addressed the load at the facility rather than the net load, a significant distinction from an IESO perspective. Under current Market Rules, she added there is an opportunity to acknowledge the load at the facility, but the demand response auction specifically covers the withdrawal aspect, while any injection would fall under the energy market. So from the IESO's perspective, mechanisms to acknowledge the full capacity are already available under the existing Market Rules, leading to a potential business decision on how the facility's configuration would be reflected.

Mr. Sanders asked how a facility's capacity can be considered behind the meter under one program and in front of the meter under another. Ms. Wagner said any facility's treatment under the Market Rules must be consistent with others, to ensure fair treatment for all.

Mr. Lake asked how the proposal would treat a large customer with generation in a separate location that wheeled the power through to a registered site, and how different that would be from the Resolute proposal. Ms. Wagner said that scenario could be a consequence of the proposed amendment, and one the IESO would have to assess to ensure it was both intentional and appropriate. She said the IESO had developed and explored the three scenarios she had presented, realizing that other potential complications could emerge. That was one reason the IESO recommended referring the matter back to the DRWG for further review.

Ms. Griffiths said she had found the presentation very informative, adding that she wished it had been available at the most recent DRWG meeting. She said the more limited information available at that time may have explained why the IESO received no comments on the proposed amendment in the two weeks between meetings.

Ms. Griffiths asked whether the IESO factors the 30 MW of self-generation at the Resolute facility into its resource adequacy calculations. Later in the meeting, Ms. Wagner confirmed that it does.

Ms. Griffiths asked whether the cogeneration facility had any capacity contract of any kind in place. Ms. Wagner suggested that Resolute representatives could answer the question.

Mr. Lake asked whether, from a probability point of view, the grid would need demand response and incremental generation capacity at the same time in the event of a shortage. From a customer point of view, he said, he would be inclined to focus on incremental generation first, rather than forcing a factory to reduce load. Ms. Wagner said the answer would depend on the severity of the shortfall and the resources available. She added that incremental capacity was currently subject to stakeholder engagement, and the resulting implementation is still to be determined.

Ms. Griffiths said a demand response provider would expect to meet the requirement when it could offer a less expensive resource than the next available market participant. Mr. Sanders asked whether the same sequence would apply to voltage reductions. Ms. Savage said the IESO attempts to respond to shortages in priority order, but every situation is different and some circumstances require one or more simultaneous actions.

Ms. Griffiths asked whether IESO qualified the existing meter configuration at Resolute in the 2015, 2016, and 2017 auctions. Ms. Wagner said those auction results are currently under dispute. Ms. Griffiths asked whether the configuration would qualify, and Mr. Zaworski replied that the registration process includes qualification.

Ms. Griffiths asked whether the other participants that received obligations as a result of the 2015 auction were required to specify how they would provide their megawatts. Mr. Zaworski stated that, by registering physical resources, those participants would have indicated that they were physical participants with IESO revenue meters. Ms. Griffiths asked how that practice would apply to aggregators who assemble a number of different load sources and meet system obligations through a combination of load reductions and self-generation. Mr. Zaworski said auction participants have the option of providing a plan for how they'll meet a call for demand response, but no mandatory requirement.

Ms. Griffiths asked whether that meant the IESO wouldn't have known how Resolute planned to meet its obligation when it qualified in December 2015. Mr. Zaworski said the facility qualified for 55 MW of demand response, based on available metering data. The company's actual ability to deliver the capacity was only tested with an activation, and that was when it became clear that they were actually capable of delivering 30 MW.

Mr. Samant asked whether the IESO ever conducts capacity tests. Mr. Zaworski said it does, and confirmed that was when the gap was identified at Resolute.

Mr. Lake recalled an earlier system configuration in which interruptible power was divided in two categories, and consumers ended up subsidizing big industrial users that were unwilling or unable to respond when the system called for demand response. He asked whether the IESO's demand response contract calls for providers to be dropped from the program if they fail to respond once or twice. Mr. Zaworski said the contract contains pertinent provisions regarding participation if there are reliability concerns.

Mr. Samant asked whether the Market Manuals include specifications for input channels. Mr. Zaworski said provisions are in place for physical contributors based on registered, non-dispatchable loads that, by their nature, do not have injections. The Market Manuals provide for virtual resources to be registered by aggregators.

In reply to questions from Messrs. Samant and Wu, Mr. Zaworski said that a behind-the-meter generator can only be used to displace load, and any injections beyond load displacement are not compensated under the demand response program. He added that acknowledging a physical resource means identifying an IESO revenue meter with which it is associated.

Ms. Savage said it's up to market participants to tell the IESO what programs they expect to qualify for. While providers can decide whether to submit detailed plans, non-performance is addressed through a host of charges on the back end of the program. She added that an expanded set of up-front qualification requirements will be one feature as the incremental capacity auction evolves. But if a market participant fails to meet requirements, the IESO already has the scope to revisit its qualifications in future demand response auctions.

In reply to a question from Mr. Wu, Mr. Zaworski said the current situation arose when Resolute had its first test activation. Mr. Wu asked whether any other qualified providers had failed to meet a requirement. Mr. Zaworski said there were no other cases where the IESO's interpretation of the Market Rules was being challenged. He explained that test activations are conducted in a time series, and failures are not determined based on interpretations of the baseline but by the amount of demand response delivered. They are judged by performance.

Mr. Urukov asked whether the explicit reference to Channel 1 was based on Market Manual 12. Mr. Zaworski said there is no explicit channel reference for physical resources. The provision for virtual resources appears in Section 6.3, which covers processing of metering data to ensure it is treated in the same manner as a physical resource.

Mr. Collins asked whether the issue was that the demand response program doesn't pay for injections, and Resolute didn't find out until later on in the process that it couldn't inject the amount it originally offered. Ms. Wagner said the determination is based on activity at the IESO connection point and whether the behind-the-meter generator is being used to displace load. She noted that the Market Rule provides for withdrawals from the grid, so that's what the IESO looks for at the connection point.

From that starting point, she said the IESO is concerned about unintended consequences of the proposed Market Rule amendment, given that three different scenarios provided three different outcomes that were all consistent with the new language. She expressed concern that the proposal could represent a fundamental change in the design of the demand response auction.

Mr. Forsyth asked whether the Market Rules could be adjusted in a way that addressed Resolute's concerns while avoiding unintended consequences. Ms. Wagner said that determination would require further analysis and discussion with stakeholders.

The Chair suggested a 10-minute break between submissions.

Agenda Item 4: Resolute Presentation: Market Rule Amendment Submission

March 5, 2019

Page 7

IESO Technical Panel

Please report any suggested comments/edits by email to engagement@ieso.ca.

Mr. Vegh and Peter Giardetti, Resolute Forest Products, discussed the current configuration at the company's Thunder Bay facility, its functioning between 2013 and 2018, and the proposed Market Rule amendment. They said the purpose of the proposal was to restore the Market Rule as it was originally established by the Technical Panel and supported by IESO staff, with the intent of transitioning contracts from the earlier capacity-based demand response auction into the current set of rules. They suggested that Resolute's two-meter configuration had been reviewed and accepted by the IESO, and there has been no rule change to support what the company interpreted as a change in the staff's position in 2017.

Mr. Samant asked whether Resolute had received an activation in 2016. Mr. Giardetti said it had not.

Ms. Griffiths asked how the IESO had reviewed Resolute's qualification under the auction. Mr. Giardetti said the company had submitted data and configuration information during the registration process. He expressed Resolute's position that the IESO changed its interpretation of the rules in June 2017, and the company wasn't notified until August 2017.

Ms. Savage asked Resolute to elaborate on the events leading up to August 2017. Mr. Giardetti said a test activation took place in April 2017, and when Resolute's subsequent bill indicated it had failed the test, the company couldn't figure out why until August 2017, when it learned that the IESO had changed its interpretation of the facility's baseline from 55 to 30 MW. He reiterated that Resolute was aware of no market rule that had driven the change, adding that the company originally defined the capacity as demand response on instructions from the Ontario Power Authority.

Mr. Giardetti traced the shifts in Resolute's operations during the April 2017 activation, expressing the company's position that the net result was a 55-MW reduction in load—30 from the demand response meter, 25 through an injection within its own system—not an increase in generation. The IESO's interpretation only recognized the 30 MW on the withdrawal channel, he said.

Mr. Sanders asked who was responsible for reading the meter. Mr. Giardetti said a third party, Thunder Bay Hydro, played that role under past programs. Then, until August 2017, he said the company assumed the IESO was doing the math.

Mr. Sanders asked how Resolute ties the timelines together between the revenue in the IESO meter and its own. Tony Ruberto, Resolute, said the data is read at five-minute intervals, and the two meters are aligned. In reply to a question from Ms. Griffiths, Mr. Giardetti said he wasn't sure whether the IESO has access to the demand response revenue meter. Mr. Zaworski said the IESO only has visibility on its own meter, where it read a demand response withdrawal of 30 megawatts. Ms. Griffiths asked whether the IESO performed an audit, and Mr. Zaworski said there are no provisions to register the second non-IESO revenue meter under the Market Rules for demand response.

Ms. Griffiths asked whether that meant the IESO was only reading 30 MW of demand response capacity for 2016 and 2017. Mr. Zaworski said the IESO meter registers the net facility load, which is greater than 30 MW. But there is no way to determine whether that capacity can be

delivered without a test activation, based on historical performance over the previous highest 15 of 20 days.

Mr. Giardetti said the IESO could indeed see both channels for 2016 and 2017, and should have been able to view the difference between the withdrawals and injections. Mr. Ruberto said the meter was registered and certified under DR2 and DR3, and under CBDR before that. So it was visible to the IESO, he said; staff just weren't reading it as part of the demand response auction.

Mr. Samant asked whether there was an associate relationship on the meter. Mr. Ruberto said it was tied to Resolute's meter service provider.

Mr. Zaworski said the IESO's obligation in settling the physical market is related to its own revenue meter. Even if there was a process by which an additional meter was visible, the IESO would have to determine under what provisions in the Market Rules it would be required to see it.

In reply to questions from Ms. Griffiths, Mr. Zaworski said the IESO knew the second meter existed, and all parties agreed that it was associated with the generation load and registered separately. Mr. Giardetti said the meter was originally installed on instructions from the OPA, to separate Resolute's generation from demand response under CBDR and DR2.

Mr. Urukov asked how Resolute had applied the passages of the Market Manuals describing how proposed demand reductions should be achieved. Mr. Giardetti said Mr. Vegh would address that question.

Ms. Griffiths asked whether Resolute has a separate capacity contract for the generator, and Mr. Giardetti replied that a power purchase agreement (PPA) is in effect. Mr. Urukov asked how the revenue meter for that agreement is registered with the IESO. Mr. Ruberto said metering data is submitted daily, reinforced by monthly filings. Mr. Giardetti said the PPA involves combined heat and power, so there is a requirement and a complex process for showing that energy is being directed back into the paper mill. The PPA was originally signed with OPA, then transferred to the IESO, and it is still in effect.

Mr. Collins asked whether an injection into the grid would violate the PPA, and Mr. Giardetti said it would not: the agreement requires a certain percentage of useful heat output to be reapplied back into the mill, but not 100%. The condensing turbine in the cogeneration plant produces hot water as well as electricity, he explained, so the hot water can be used in the plant to either generate steam or displace energy. In reply to a follow-up question from Mr. Collins, Messrs. Giardetti and Ruberto reiterated that the company is only required to deploy a percentage of the useful energy locally.

Mr. Collins asked whether an injection would actually fulfill the contract more effectively by delivering electricity back to the grid. Mr. Giardetti said the contract addresses generation minus the station service load, with a separate revenue meter tracking net energy. From that perspective, he said there are actually two separate contracts involved.

Ms. Griffiths said she had read that there would be no issue if Resolute were incorporated in the distribution system, and that the company's position would be permissible if it were not

directly connected to the grid. Messrs. Giardetti and Vegh confirmed that was Resolute's view. Mr. Zaworski asked Ms. Griffiths to clarify the question, and she asked whether the company would be in violation of the demand response auction if it had connected through the Thunder Bay Hydro system. Mr. Zaworski replied that, had the facility been connected through the distribution system, and had an aggregator selected it as a contributor to its demand response portfolio, only the withdrawal quantity would have been eligible under the demand response auction.

In reply to a question from Mr. Sanders, Messrs. Giardetti and Ruberto said the CHP system is equipped with revenue-grade meters, powered off the company's PPA. Mr. Giardetti added that the meter captures the reduction in load that occurs when the generator is operating, enabling the facility to shift from withdrawing to injecting. On that basis, the company's position is that it is not violating the terms of the demand response program.

In reply to a question from Mr. Forsyth, IESO staff said Resolute would qualify if it were connected to the IESO grid both directly and separately. Mr. Forsyth asked what the difference would be, apart from the electrons flowing down different cables. Ms. Wagner said the capacity supplied on the second meter would stand outside the demand response auction and belong in the energy market.

Mr. Forsyth said the issues raised by this case had never come up through the evolution of the demand response auction, and asked whether they represented an oversight that should be corrected. Mr. Zaworski said the IESO's stakeholder engagement on the demand response auction heard a number of questions about the way loads are recognized, some of them similar though not identical to the situation at Resolute, and both the questions and the IESO's answers are on record. One of the questions from participants had to do with scenarios where there were various loads behind a generator. The IESO responded at the time that participants would have to register those loads independently of the generator in the physical market.

Mr. Urukov asked the Resolute representatives to respond to the third of the scenarios Ms. Wagner had presented. Mr. Giardetti said Resolute's position was that its demand response obligation served to reduce load. In the scenario in question, the hypothetical provider was increasing generation, which he said Resolute was not doing. While the IESO is currently considering a scenario under which the IESO might in future credit providers for delivering new supply, he said Resolute was only asking for recognition of its contribution to reducing load.

Mr. Forsyth said it was ironic that many market participants now receive credit for displacing load with battery storage, as long as they aren't injecting new supply into the system. Mr. Zaworski said those credits are possible under the terms of the demand response auction.

Ms. Griffiths commented that Resolute had faced a derate of about 50%, with no changes to the Market Rules or the Market Manuals, after participating in the demand response auction for at least two years, and in the programs that preceded it. Mr. Ruberto said the auction occurred in December 2015 and took effect in May 2016. In reply to a question from Ms. Griffiths, Mr. Giardetti said Thunder Bay Hydro would absolutely have been aware of Resolute's previous arrangement with the OPA, since the facility would have gone through the meter installation

process. Ms. Savage asked whether Resolute considered the demand response auction identical to the OPA programs in which it had previously participated; Mr. Giardetti said no, since the DRA is an auction.

Mr. Dent asked whether Resolute had any concern that its proposed amendment might be used or interpreted differently by market participants with similar configurations but different assets, and whether the situation warranted a closer look to prevent unintended consequences. Mr. Giardetti said any new registrant would have to submit a plan to the IESO, which would then have the option of reviewing and either accepting or rejecting it.

The Chair noted that the meeting was approaching its original end-time and observed that participants seemed willing to extend the meeting beyond its scheduled time. Technical Panel members agreed to continue discussions.

Mr. Vegh reviewed past IESO presentations on the demand response auction, stating that the purpose of his submission was to restore the Market Rule to the original intent that staff communicated to the Technical Panel on January 20, 2015. He expressed Resolute's view that, as the guardian of the Market Rules, the Technical Panel must uphold the integrity of a process in which market participants have invested a lot of money, on the expectation that decisions will be based on the rules. The standard process, he said, is for staff to put forward an amendment to the Market Rules if they see a gap in the way the existing provisions are being implemented. He added that the IESO's rules call for the Panel to vote on the proposed amendment, rather than referring it back to the DRWG.

Agenda Item 5: Q&A on Agenda Items 3 and 4

The Chair invited further discussion to determine next steps, adding that Resolute's characterization of the staff proposal was not in accordance with the staff memo to the Technical Panel. The intent was to refer it back to the DRWG, with the expectation that it would come back to the Panel for further consideration no later than June 29 and a vote in August.

Mr. Lake cited the operating terms in Market Manual 7.6, addressing measures initiated by the IESO to influence the timing of customer demand. He noted that the manual said nothing about injections into the system, and asked how Resolute's position was consistent with that definition. Mr. Vegh said he didn't have immediate access to the definition, but asserted that nothing in the proposed amendment referred to activation by injection. He added that the proposal focused on the Market Rules, not the Manuals, which he said are prepared by staff without input or oversight from the Technical Panel.

Mr. Urukov said the proposed amendment as drafted recognized the existence of a separate meter, but that the channel is defined under the Market Rules. Given the reference to Channel 1 he said he wasn't clear whether the amendment would produce a consistent solution. Mr. Vegh said the inconsistency was that the IESO's requirements have changed, given that the configuration at the Resolute facility was permitted when the demand response auction was conducted. He added that any decision to disqualify an activity under the demand response rules should be made explicitly via the Market Rules, not treated as a technical matter related to meter configuration. He expressed Resolute's view that the Market Rules set out the purpose,

the meter configuration is a means to that end, and the role of the Market Manuals is to implement and facilitate the rules, not to add supplementary requirements.

Mr. Sanders said it appeared that Resolute could be taking advantage of two programs simultaneously. He asked whether there were any provisions that, in Resolute's view, either prevented it from doing so or allowed it to. Mr. Vegh said Resolute would be open to "tweaking" the proposed amendment in order to avoid gaming or double-dipping, stating that he hadn't appreciated when the language was drafted that that would be a driving concern. He added that, if this is the IESO's position in relation to demand response, it should be applied consistently across the full range of rules, programs, and incentives, without any one market participant being singled out.

Mr. Samant asked for confirmation that the intent was to resolve the issue in time for the December 2019 demand response auction, not to set restitution for the 2018 auction. Mr. Vegh said the Technical Panel only has the ability to amend the Market Rules.

Mr. Samant asked whether the DRWG's initial response to the amendment, and the lack of stakeholder comment, might have been driven by the absence of a full IESO presentation at that time. Mr. Vegh said he couldn't speak to the IESO's position at that meeting, but said that the record available at that time was no reason to go back to the DRWG now.

Mr. Dent asked IESO staff whether they had any work in progress that would address the concern and recognize the potential system benefit of injecting incremental capacity. Ms. Wagner said the results of an upcoming stakeholder engagement on the transitional capacity auction could enhance the December 2019 demand response auction, and that any proposed Market Rule amendments on the transitional capacity auction would be brought back for Technical Panel review and assessment. A future enhancement could acknowledge injections and allow uncontracted capacity to participate in the transitional capacity auction in 2020. But in the first phase, she said the focus will be on uncontracted generation and recognizing the value that injections provide.

Mr. Vegh said that scenario would not apply to Resolute's configuration, where injections are treated as equivalent to demand response. He said demand response as it is currently configured has issues to address, the new considerations now being introduced are complex, the timeline for addressing them is ambitious, and they have nothing to do with what Resolute is proposing.

Mr. Dent asked whether Resolute would be affected by the potential rule changes Ms. Wagner had described. Mr. Vegh said Resolute would participate in the broader review if the IESO first restored the existing rule to what the company sees as its original interpretation. The auction is bound to be changed and reformed over time, he added, but Resolute should not have to wait for that process to unfold before the system is restored to what the company sees as the configuration the Technical Panel approved in 2015. Once that work is complete, he said it will be appropriate for the IESO to raise broader issues in the transition to the incremental capacity auction, with proper notice under the Market Rules, so that Resolute and any other market participants can participate in the process.

Mr. Urukov asked whether the upcoming stakeholder engagement would cover both dispatchable and non-dispatchable resources. Ms. Wagner noted that an engagement plan was in place to address the two phases of the transitional capacity auction. Mr. Giardetti said changes to the incremental capacity auction would be applied as contracts expire, and Resolute's PPA runs until 2023.

Mr. Dent asked whether the IESO's proposed rule changes would address the problem Resolute was raising. Mr. Vegh said he couldn't say until he saw the actual rule change.

Ms. Griffiths asked whether Resolute would advocate that its meter configuration be allowed under the transitional capacity auction, under rules that placed demand response in competition with injection. In that event, she said, other demand response participants might take the position that the treatment of behind-the-meter injection and non-injection resources should be a priority for the TCA. Mr. Vegh said Resolute's position under that hypothetical scenario would be that the status quo should be maintained, but that the question should be decided through the standard process for amending the Market Rules. If Resolute didn't like the result of that process, it could respond through whatever avenues were available, but would acknowledge that the amendment had gone through the appropriate process and airing. The key point embedded in the question, he added, was that Ms. Griffiths was describing a formal Market Rule amendment process.

Ms. Griffiths recalled asking at the DRWG meeting whether the IESO would come forward with an alternate amendment to the Market Rules if it agreed that Resolute's configuration should exist under the demand response auction. She said the IESO responded at the time that staff had not gone down that path, and was not planning to at that time. She asked again whether the existing demand response auction could serve as a mechanism for Resolute to maintain a status quo that has been in place since 2013, in a way that prevented the consequences Ms. Wagner had presented. Ms. Wagner said it would be difficult to put forward language that accommodated Resolute's request and addressed unwanted consequences, foreseen or not.

Ms. Savage recapped the discussion so far, recalling the Demand Response Working Group's extensive stakeholder engagement in 2014 and 2015 and the training session that was subsequently organized for stakeholders.

Mr. Zaworski returned to his earlier statement that the stakeholder engagement had covered circumstances that were similar but not identical to Resolute's, adding that a staff presentation to the stakeholdering group had highlighted the facility registration process under the demand response auction. He said the presentation laid out two avenues to register facilities, physical or virtual. In reply to a question about whether an existing load could participate in the demand response auction, the IESO advised at the time that an already-metered facility would first have to register its load in an IESO-administered market. That communication was sent to all stakeholders, Mr. Zaworski said.

Cara Degelman, Resolute Forest Products, asked for the date of the presentation. Mr. Zaworski said it took place on July 23, 2015. He recalled that the IESO had received multiple questions from stakeholders about embedded loads participating in the demand response auction, held a

stakeholder session and participated in further discussions on the topic, and did inform stakeholders of its position under the Market Rules.

Mr. Zaworski projected a slide from that presentation, which Ms. Savage characterized as an explanation of how a load must be metered to participate in the demand response auction. Responding to Resolute's position that IESO staff changed their minds on the interpretation of the rules in 2017, she said the July 2015 presentation supported the IESO's view that it was implementing the rules as they stand, and that the proposed amendment therefore recommended a design change.

Ms. Griffiths asked why that point wasn't included in the staff presentation. Ms. Savage said she hadn't anticipated the contention that the IESO had never discussed the matter with stakeholders, and saw the need to demonstrate that the discussion was on the record.

Mr. Vegh expressed surprise at the inclusion of the July 2015 reference in the discussion and said he did not accept the conclusion that the presentation constituted notice that Resolute's current configuration was not permitted. He questioned the process by which the IESO had requested and provided documentation in advance of the Technical Panel meeting and suggested a lack of fairness in pointing to one stakeholder communication to refute the company's position without advance notice.

Ms. Savage said her intention was not to be unfair, but to address the question of whether the proposed amendment constituted a change in design. Mr. Vegh reiterated his position that the IESO's treatment of the Thunder Bay facility represented a change in the Market Rule.

Mr. Urukov asked how Resolute had explained its load reduction to the IESO, and what comments it had received back when it explained its configuration. Mr. Vegh agreed to supply that documentation to the Technical Panel. Mr. Urukov underscored that the IESO "notionally accepted" the megawatts from Resolute, and asked what it had communicated back to the company. Ms. Wagner agreed to supply that documentation.

Mr. Bieler asked whether the issue should be brought forward to other demand response participants with a request that they give it their consideration, given that the initial call for stakeholder feedback received no responses. Without their input, he said, it will be difficult to anticipate the possible impacts of the proposed amendment, or to know whether other market participants have configurations similar to Resolute's. He also asked Technical Panel members serving on the DRWG whether the reference back to the working group was useful, given the Panel's February 6 decision to expedite consideration of the proposed amendment.

Mr. Samant said the DRWG meeting received the presentation from Resolute, but IESO staff had not presented its position before today. Mr. Sanders said he'd understood the proposed amendment would be brought back to this meeting in order to expedite it. Mr. Bieler said he'd hoped to hear perspectives from the DRWG and other market participants. Mr. Samant said Resolute had provided its position.

Ms. Griffiths said she'd spoken to numerous companies in her sector following the DRWG meeting, and the main question back was how the IESO could have been unaware of Resolute's configuration. Ms. Griffiths' sector colleagues are nervous at the prospect that a change in

interpretation can trigger a 50% reduction in the obligation for a resource that first entered the system under the OPA demand response program. The market participants in Ms. Griffiths' contact group had no suggestions on configuration, or on the range of resources that should be recognized under the demand response auction—and they didn't see that as the issue. On that basis, she said companies made a deliberate decision not to comment on the DRWG presentation.

Mr. Bieler said he could understand Resolute's position, but added that he couldn't see a solution that would be fair to the company while upholding the intent of the Market Rules. He suggested further deliberation, in the form of an in-camera conference call for Technical Panel members.

The Chair said the question before Panel members was whether to refer the proposed amendment back to the April meeting of the Demand Response Working Group, or bring it forward for further discussion at the next Technical Panel meeting. Mr. Bieler said he was hesitant to postpone the topic by a second Technical Panel meeting to wait for the DRWG. Mr. Vegh said the Panel had the option of deferring the topic to its next meeting, requesting further submissions from anyone affected by the proposed amendment, and potentially inviting stakeholders to address a specific set of questions.

Mr. Wu said he would support a follow-up in-camera conference call. Ms. Griffiths said the call should not be held in-camera. She suggested the Technical Panel assemble follow-up questions for IESO staff and Resolute, then reconvene for further discussion and a potential vote, potentially in two weeks.

Mr. Bieler asked whether a Technical Panel decision in April would get the issue to the IESO Board any sooner than a final resolution at the Panel's June meeting. The Chair said the design and the specific language of any Market Rule amendment might be two separate votes and processes. Mr. Bieler asked whether there were any Board meetings scheduled between the April and June Technical Panel sessions and the August Board meeting. The Chair said the Board was scheduled to meet June 12, adding that when staff looked at timelines leading into the December 2019 demand response auction, the timing of the August meeting was deemed suitable. Mr. Bieler said that schedule left limited room for contingencies. With the Board meeting approximately six times per year, Mr. Sanders said the Technical Panel should meet in advance of its next scheduled session, at least in-camera.

Ms. Griffiths asked whether the IESO could obtain an outside legal opinion on the proposed amendment, to assess any risk of the scenarios Ms. Wagner had presented. Mr. Dent asked whether outside advisors could recommend appropriate wording. Mr. Urukov said the language of the Market Manuals would also have to be adjusted to address any concerns. The Chair replied that if a clear design intent is expressed through a Market Rule amendment, the Manuals are revised accordingly.

Given the complexity of the issue, Mr. Bieler asked whether a mechanism was available to allow Resolute's demand response obligation to be grandfathered for a year, to allow additional time for the Technical Panel to consider amendments to the Market Rules and Manuals and their implications. Ms. Savage said Resolute could avail itself of the existing Market Rule exemption

provision. In reply to Mr. Bieler, she confirmed that process would restore Resolute's obligation to 55 MW pending a decision on any Market Rule amendments, as long as the proposal was accepted by the IESO's exemption panel.

Mr. Bieler asked whether the exemption panel would be interested in hearing an opinion from the Technical Panel on whether to grant an exemption. The Chair said he hadn't considered the question, but the Technical Panel could express an opinion. Mr. Vegh said independent legal assistance could be helpful, adding that Resolute hadn't anticipated the unintended consequences that could result from the proposed amendment. He offered to work with IESO staff on phrasing that would avoid those consequences.

Mr. Forsyth asked whether the IESO could use an interpretation bulletin to address the situation. Reena Goyal, IESO, said the issue Resolute was raising would be more appropriately addressed through a Market Rule exemption, and Mr. Vegh said he would prefer a more transparent mechanism than issuing an interpretation bulletin.

Ms. Griffiths asked whether staff would be willing to work with Resolute to address any unanticipated consequences from the proposed amendment. She added that, at present, Panel members had no way of knowing whether the amendment constituted the right rule, or what would.

The Chair said he was hearing two issues: the implications and design issues that had emerged, some of which might be addressed through Market Rule language, and the design language.

Ms. Griffiths asked for a two-week period in which the IESO and Resolute would work together to address unintended consequences, while Panel members take the opportunity to list the questions raised by the discussion. The Chair said he wasn't sure how far those discussions would advance in two weeks. Mr. Vegh said it shouldn't be that difficult to come up with something. A participant asked whether Resolute's contract gave it authority to curtail generation. Mr. Vegh declined to discuss specific contractual terms in a group setting, but undertook to return to the Panel with input.

The participant asked whether the IESO can force generators out of the system if their involvement becomes problematic. The Chair said the IESO has that authority as the system operator, but distinguished between the economic issue under discussion and problems with reliability.

Ms. Savage proposed that Panel members compile a list of questions while the IESO and Resolute work on language, then continue the discussion at the Panel's regular meeting in April. She said the slightly longer timeline would allow for further discussion, and to share materials far enough in advance that Panel members have time for advance review. Mr. Samant asked whether a presentation to DRWG would be worthwhile. Mr. Forsyth said the DRWG was looking to the Panel for a technical solution, and Ms. Savage noted that any Technical Panel recommendation would have to be posted ahead of final deliberations.

Ms. Griffiths proposed that Panel members submit questions to Jason Grbavac within a week, to allow time for the IESO and Resolute to respond well in advance of the April meeting. Mr. Vegh and Ms. Savage said that the proposed timing was reasonable.

March 5, 2019

Page 16

IESO Technical Panel

Please report any suggested comments/edits by email to engagement@ieso.ca.

Mr. Bieler thanked both teams for the in-depth information they had provided on the topic. On a point of personal privilege, he recalled attending the February 14 Stakeholder Advisory Committee meeting and hearing a member describe the Technical Panel as a rubber stamp for the IESO. He said the comment was unfortunate and suggested SAC members might need education on the Panel’s mandate. The Chair said the comment certainly didn’t come from IESO staff. Mr. Bieler said he and the SAC member had had a cordial conversation afterwards, but suggested there was still an opportunity for clarification. Ms. Griffiths said the minutes of the last two meetings should be sufficient to counter the misperception. Mr. Bieler agreed: “We just proved today that we don’t rubber stamp anything.”

Other Business

With no other business to discuss, the meeting adjourned at 12:35 PM.

Action Item Summary			
Date	Action	Status	Comments