

IESO Technical Panel Meeting

Minutes of Meeting

Date held: 16 April 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	
Dave Forsyth	Consumer	Present	
Sarah Griffiths	Other Market Participant	Present	
Robert Lake	Residential Consumer	Present	
Phil Lasek	Industrial Consumer	Present	
Robert Reinmuller	Transmitter	Present	
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			
Tam Wagner	IESO	Present	
Ioan Agavrioloai	IESO	Present	
Cara Degelman	Resolute Forest Products	Present	
Peter Giardetti	Resolute Forest Products	Present	
Tony Ruberto	Resolute Forest Products	Present	
George Vegh	McCarthy Tetreault	Present	
Adam Cumming	IESO	Present	
Robert Doyle	IESO	Present	
James Hunter	IESO	Present	

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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

Chair's Remarks:

The Chair introduced Robert Reinmuller and thanked him for joining the Technical Panel representing transmitters. His term will run to October 2020, the same as Mr. Young's. The Chair said David Dent had submitted his resignation from the Panel, and the IESO was not seeking to fill the vacancy at this time. One of the recommendations of the Advisory Group on IESO Governance and Decision-Making was to review the composition of the panel, and the Chair said the IESO would be pursuing that matter in discussion with the Panel itself and others.

The Chair reviewed the agenda. Sarah Griffiths moved its adoption, and members agreed with no revisions.

The Chair invited comments on the minutes. Ms. Griffiths asked whether the last paragraph on page 10 was intended to refer to the IESO, not Hydro One. The Chair noted that the comment had been attributed to Mr. Giardetti, and Cara Degelman, Resolute Forest Products, clarified that the paragraph should have referred to Thunder Bay Hydro. The minutes were approved as amended.

Agenda Item 2: Engagement Update

Jason Grbavac, IESO, referred members to the Technical Panel schedule in the meeting package. He recalled that the purpose of the published update is to address initiatives and engagements that are most immediately relevant to the Panel. A more comprehensive update on active engagements, including announcements and materials for upcoming meetings, is available on the IESO website.

Mr. Grbavac said the schedule for Panel members will be updated with potential Market Rule amendments the Panel can expect to see in the course of the year. He elaborated on the items on the current table, noting that:

- The Market Rule amendment submission from Resolute Forest Products was on the agenda for the day's meeting, and its future schedule would depend on Panel members' deliberations.

- An information update on a potential review of Market Rules for the next Transitional Capacity Auction will be brought forward at the Panel's May meeting. Mr. Grbavac said the IESO had developed a Phase I design and other items leading up to a meeting April 18. He invited questions on the Auction, and there were none.
- As already noted by the Chair, the recommendations of the Governance and Decision-Making Advisory Group will lead to a review and possible revision of the Technical Panel process and composition. Beginning with a presentation in May or June, the Technical Panel will be invited to help inform the IESO's decisions on an implementation plan and related Market Rule amendments.

Mr. Grbavac said the IESO does not expect Market Rule language to be brought forward for Technical Panel review this year. The Secretariat is preparing to deliver education and information updates to Panel members in the latter part of the year, to ensure that members are fully prepared for the amendments when they begin to appear.

The schedule also included an omnibus package toward the end of the year, aimed at consolidating and addressing minor rule amendments.

Sushil Samant asked whether Panel meetings were expected to run longer than scheduled because of extra items on the agenda. Mr. Grbavac said the Secretariat will make best efforts to communicate well in advance if it appears that a meeting agenda will require more than three hours to complete.

Julien Wu asked whether any changes to the IESO Board were foreseen. The Chair noted two recent appointments, Joe Oliver and Simon Chapelle.

In response to a second question from Mr. Wu, the Chair said the IESO will engage with members on the appropriate structure for the Technical Panel given the challenges coming up with Market Rule amendments on Market Renewal.

Vlad Urukov asked about upcoming changes to the Dispute Resolution Panel. Reena Goyal, IESO, said the changes would explicitly allow parties to choose an arbitrator or mediator for a dispute.

Agenda Item 3: IESO Introductory Statement–Resolute Market Rule Amendment Submission

The Chair explained that the agenda provided for a five-minute introductory statement by the IESO, followed by a five-minute introductory statement by Resolute. He said the day would be devoted primarily to answering Panel members' questions, concluding with consideration of next steps. He drew members' attention to an April 9 memorandum that laid out three potential approaches to the matter: members could request that the IESO post the proposed Market Rule amendment for stakeholder comment, resolve to vote on the merits of the proposal and

recommend for or against its approval by the IESO Board of Directors, or determine that they need more information or discussion among themselves to make a decision on the merits.

Jessica Savage, IESO recapped the discussion at the March 5, 2019 Technical Panel meeting and events that had occurred since. She cited two takeaways from the meeting: a list of questions for the IESO and/or Resolute to answer, and an agreement that the IESO and Resolute would endeavour to work together to arrive at language that addressed both parties' concerns.

On the first point, she said the two entities provided answers to Panel members' questions on March 27 and April 2, and members had had two weeks to consider those responses. Through the processes of formulating answers to the Panel's very detailed questions, the Secretariat determined it could not support Resolute's proposal if it were recommended to the Board of Directors. Ms. Savage said George Vegh, Resolute Forest Products, had claimed that the conduct of IESO staff had displayed an unwillingness to facilitate a resolution to the issue. In response, she encouraged members to consider their original direction: to work together to find language that addressed *both parties'* concerns. After spending two weeks assessing a complicated proposal to determine whether or to what extent they could support it, Ms. Savage said staff invited Resolute to discuss their analysis and position. Resolute's response, she said, was that having a meeting where staff simply repeated its opposition would not be a productive use of everyone's time.

In its April 2 memorandum, the IESO laid out its position that it could not support the Market Rule amendment, on the basis that it would have an adverse impact on the reliable, efficient operation of the IESO-controlled grid and introduce inconsistency in the manner in which market participants are treated. Ms. Savage explained that, when the IESO activates a Demand Response resource, it expects to see a corresponding reduction at the IESO-controlled grid as measured by the IESO revenue meter. If Resolute's proposal were adopted, the grid may never see the full reduction in consumption, since some portion of that load could occur behind the meter.

The Panel has engaged in considerable discussion about different meters and configurations, and about what information is or is not available to the IESO. In his April 9 submission, Ms. Savage said Mr. Vegh referred to an email from IESO staff, taking it to imply that the IESO can read more data than appears on the revenue meter. The IESO has never disputed that it has access to multiple meters, Ms. Savage said, but the meters to which Mr. Vegh referred were operational meters, distinct from the wholesale meters used for settlement in IESO-administered markets, that satisfy the requirements of Measurement Canada for legal trade. IESO's response to the Panel's questions on meter visibility were in the context of registered wholesale meters, used as a source of metering data under Market Rules Chapters 6 and 9.

Even if this issue could be resolved, Ms. Savage said the result would be an inefficient DR program, with ratepayers paying for something they weren't getting when an entity provided only a fraction of its promised Demand Response to the IESO-controlled grid.

Applying consistent methodologies is fundamental to the fair treatment of market participants, she noted. Resolute's proposal would give Demand Response participants access to a configuration that differed from other programs in IESO-administered markets, resulting in inconsistent treatment. On that basis, she said the Resolute proposal could not be supported.

Ms. Savage advised members that the Technical Panel's role in this matter was to determine whether or not to recommend Resolute's amendment to the Board. She said the Panel did not have the mandate to determine whether historical actions were consistent or inconsistent with current Market Rules, adding that Resolute's contention that staff unilaterally implemented a de facto Market Rule amendment was a separate dispute, the arbitration of which fell outside the Panel's role. The past is in the past, she said; the Panel's role is to make recommendations for the future.

Ms. Savage said Mr. Vegh had taken the position that the issue to be decided was not how the system should be configured, but how to preserve the integrity of the Market Rule process so it could be relied upon by the Technical Panel and market participants. She responded that preserving that integrity required that the IESO support the objectives of the Market Rules: to govern the IESO-controlled grid, and establish and govern an efficient, competitive, reliable market for electricity and ancillary services in Ontario.

In light of those objectives, Ms. Savage reiterated that the IESO could not support Resolute's proposed Market Rule amendment, on the basis that it would have an adverse impact on the reliable, efficient operation of the grid and introduce inconsistency in the manner in which participants are treated. She stressed that that conclusion did not make IESO staff bad actors: on the contrary, staff operated in good faith at all times. But she added that any contentions to the contrary were irrelevant to the Panel's consideration of the merits of the proposed amendment. Resolute's submission raised complicated issues, she said, as evidenced by the 17 pages of minutes resulting from the Panel's March 5 meeting, but answering Panel members' questions had helped inform staff's thinking and enabled them to more clearly articulate why the proposed amendment could not be supported.

Agenda Item 4: Resolute Introductory Statement–Resolute Market Rule Amendment Submission

George Vegh, counsel for Resolute Forest Products, asked the Technical Panel's indulgence in the event that he exceeded the five minutes allotted to his opening statement. He said Resolute introduced the proposed amendment to restore the pertinent Market Rule to its original intention. At the Panel's March 5 meeting, IESO staff said the amendment as presented could produce unintended consequences, and Resolute wanted to be sure to avert that outcome. So the first page of Resolute's subsequent submission set out a revision, adding a clause on entitlements and metering of facilities stating that "nothing in this Rule shall disqualify demand response metering configurations previously approved under the DR2, DR3, or CBDR programs."

The point of the proposed amendment, Mr. Vegh said, was to demonstrate that nothing had changed, consistent with what he said IESO staff had conveyed to the Technical Panel. The intent, he added, should be to facilitate the participation of current Demand Response providers. Resolute has been a DR provider since 2013, and nothing in the proposed amendment would change any of that; it would merely restore what staff said the rule would be.

Between 2013 and the point in 2017 when the current discussion began, Mr. Vegh said IESO staff never raised concerns about reliability, efficiency, or fairness. The question did not arise in 2015, when the Market Rule in question was brought before the Technical Panel. He said he was not suggesting that staff had deliberately misled the Panel; his assertion was that they didn't intend any changes, either. It wasn't until months later that the IESO began raising issues around Resolute's configuration, which Mr. Vegh said the IESO had approved in 2015.

Market Rules can change through experience and learning by doing, Mr. Vegh said. But there's a right and wrong way to put those changes in place. The right way, if the IESO has concerns about inefficiency or reliability issues in the way a rule is operating, is for staff to confirm their intuitions with data. With Demand Response-related operations dating back to 2013, Resolute would have heard previously about any specific issues, and if staff saw the need to change the rules, they could have brought a proposal to a Panel, along with the data that supported it. Then it would be up to the Technical Panel to consider the costs and benefits of the proposed change, the facts put forward to support it, and the impact on market participants, and participants would have had the opportunity to question those assumptions. He said that process was not followed in this case.

The wrong way to amend the Market Rules, Mr. Vegh contended, is for staff to make changes, then deny they've made any changes. He said it was a "surreal" experience at the Panel's March 5 meeting to hear the staff position that Resolute was trying to change the Market Rules pertaining to configuration, when Resolute hasn't changed anything on the ground: The configuration at the company's Thunder Bay facility has been the same since 2013, he said, and the proposed Market Rule amendment was intended to establish that nothing has changed.

Against that background, Mr. Vegh reiterated that Resolute was asking the Technical Panel to restore the Market Rule to its original intention. If staff believe the rule should change, he added, they have the ability to bring forward a proposed Market Rule amendment and try to substantiate it with real data and evidence, not a "post-facto rationalization of what they've done". He concluded that the Technical Panel is the only institution in the entire IESO structure with the mandate and ability to protect the integrity of the Market Rule process, and to ensure that amendments are undertaken in the right way.

Questions and Answers for IESO and Resolute

Robert Lake asked whether either the IESO or Resolute knew of any other market participant with a configuration similar to Resolute's. Ioan Agavriloai, IESO, said staff had not looked for

market participants with similar arrangements, but was convinced there were quite a few. That in itself raised concerns about consistency and opening the door to changes in participation in IESO-administered markets.

In response to a question from Mr. Wu on the original intent of the market design, Mr. Agavrioloai said he was unable to cite the percentage of market participants, but indicated the proposed amendment would affect any facilities with both load and generation behind the meter.

Mr. Wu noted that the facilities in question had been qualified by the IESO and asked whether the number was high or low. Mr. Agavrioloai said he couldn't cite a number, and rejected the assertion that the configuration had been accepted by the IESO, adding that the staff submission had laid out a qualification process under the Demand Response Auction that was based on participants' declarations of the demand response they could achieve. That provision, he added, was the result of feedback from the stakeholdering process on the DRA, and explained why IESO accepted a self-declaration from Resolute on the amount of demand response the Thunder Bay facility could provide. The determination of performance, which has implications for settlements and charges, is subject to an activation test.

James Hunter, IESO, said the IESO believes other market participants have behind-the-meter generators, but is not aware of any other participants that have reported or claimed to have discharged their capacity obligations in the way that Resolute has, in instances when they have failed an activation for that reason.

Ms. Griffiths asked whether those other market participants were approved to participate in DR2, DR3, and CBDR, and how many would have behind-the-meter generation that were not participating in the DR Auction today. She said it would have a bearing on unintended consequences if, for example, there were 20 large firms out there with behind-the-meter generation that had qualified under the previous programs. Mr. Agavrioloai said staff would be prepared to assemble that information for the Panel's review.

Ms. Griffiths asked whether staff, in its review of the proposed Market Rule amendment, had looked back on whether anyone had tried to qualify under DR2 or DR3 and had not participated, but might now somehow find a loophole in an approach similar to Resolute's. Ms. Savage said market participants have multiple configurations, and it's impossible for IESO staff to know how they all operate, whether they'll participate in a Demand Response Auction, or whether they will secure an obligation. She reiterated her earlier point that the Technical Panel's mandate was to look at future rulemaking, not review the past.

Ms. Griffiths said her intent was to look to the future by determining how many resources were approved in the past that might now be able to participate in the future if the proposed Market Rule were accepted. Ms. Savage said staff were concerned about the new configurations of participation that might emerge if the proposed Market Rule amendment were accepted. The discussion was not about the history, she said, but about the potential future impact on market

efficiency, reliability, and consistency. Mr. Agavriiloai said that was precisely why staff had proposed to look into other configurations that could lead to design change consequences, beginning with the knowledge that other market participants would be affected by the proposed amendment.

Mr. Hunter said the IESO had not conducted a full inventory of other DR market participants that might be affected because it does not review participants' metering configurations. The capacity qualification process is that market participants indicate how much demand response they can achieve, and the IESO measures that activity at the IESO revenue meter. That simplification was a significant difference between the DR and CBDR programs, he said: When market participants qualify their capacity, they commit to reduce it at the IESO revenue meter, so that the IESO doesn't have to juggle or compare arrangements or undertake a major qualification process.

Mr. Vegh said that Resolute's position was that nothing in the proposed amendment qualifies other configurations previously approved, so there's no concern about an infinite universe of configurations or possibilities. In the absence of data that he said IESO staff should have provided, he guessed that a half-dozen large loads had participated in previous DR programs and had their configurations approved, so it shouldn't be difficult to pull together the data. After months of studying the implications of the proposed Market Rule amendment, he said he would have expected IESO staff to look at the data rather than taking the position that they can't anticipate the future.

Mr. Vegh said Resolute's proposal was simple: that if a configuration has already been approved, the market participant is not disqualified. He reiterated that the IESO is free to bring forward a proposed Market Rule amendment if it wants to introduce different types of qualification, but asserted that the current proposed amendment did not have the open scope to which staff seemed to be responding.

Mr. Agavriiloai said it was simply not true that the IESO had Resolute's metering configuration under the Demand Response Auction program, as demonstrated by the absence of any metering and verification from the Market Rules and Manuals. Despite a tendency to "cling to the past", he said the rules of the DR Auction program remain clear to staff, as a basis for assessing the merits of the proposed Market Rule amendment.

Mr. Wu asked about the intent of the stakeholdering process for the DR Auction. Mr. Agavriiloai said he couldn't speak to whether Resolute had misunderstood the intent of the Market Rules, but the IESO's intent was clear. As Mr. Hunter previously stated, no other market participant has come forward to the IESO with a request to use anything but an IESO revenue meter for the purpose of participating in the DR Auction program. He said that in itself indicated that the vast majority of program participants understood the rules.

Mr. Wu asked how the current amendment process had been initiated – whether IESO staff had approached Resolute with changes in the way it could participate, or Resolute had approached

the IESO with enquiries about its status. Mr. Agavriloai said the discussion began in December 2017 when Resolute failed two activations and the discrepancy in the company's understanding of the intent of the Market Rules became apparent.

Mr. Vegh said Mr. Wu had not asked staff to speculate about what other Demand Response providers knew. Resolute was certainly not the party that initiated the discussion, he added, since the issue was with the way the IESO had represented the situation. In its submission to Technical Panel, Resolute quoted multiple statements by staff that Mr. Vegh said illustrated what they thought the changes would be. He speculated in turn that, if staff had come forward and said they planned to change the program, they would have heard from other participants.

As an example, Mr. Vegh cited a 2015 presentation by Jason Kwok, IESO, indicating that the Demand Response Auction program would include current DR providers as well as new ones. With that, he said Resolute assumed the IESO had "said what it meant", and there was no indication at the time that staff were considering disqualifying Resolute's configuration.

Mr. Vegh said there were also questions about the approval of the configuration. He said the documentation in the company's submission established that it was inaccurate to say the IESO was not involved in approving the configuration.

Mr. Hunter said those arguments were not pertinent to the question before the Technical Panel, since the Panel's mandate was not to litigate a private dispute between Resolute and the IESO. That dispute will be heard by an arbitrator, he said, and if the arbitrator decides Resolute was justified in relying on those communications, the arbitrator will report accordingly. Whether or not Technical Panel members were sympathetic to Resolute's private position, he said the Panel did not have access to the full record and was not equipped to litigate that dispute. The IESO's position was that, whether or Panel members believed the process was conducted properly, the IESO has always understood that the DRA program centres on demand response at the IESO revenue meter, which is why provisions to allow specific configurations were not included in either the CBDR or DRA programs. Regardless of the Panel's view of the history of the dispute, Mr. Hunter said significant operational changes would be needed if methodologies permitted under previous programs were reintroduced into the DRA, with operational, settlement, and metering implications leading to issues of efficiency and reliability. The ultimate question, he concluded, was whether the proposed change in market design should be supported by the Technical Panel, not whether the Panel agreed with Resolute's account of the history.

Mr. Vegh said he had been patiently allowing the Chair to allow staff to respond to every Mr. Vegh noted that Resolute had provided answers, and was now being told that issue was irrelevant. While IESO staff said they had no role in the Thunder Bay facility's configuration; Resolute's position was that they did, and Mr. Vegh said the emails established the point. While others commented on what was relevant to the amendment, he said it was Resolute's amendment, put forward with the proposition that nothing in the Market Rules disqualified configurations approved under previous programs. On that basis, he said the past approval was obviously relevant.

Referring back to Mr. Vegh's opening remarks, Robert Bieler clarified that the Technical Panel is not responsible for the administration of the IESO-controlled market. Its mandate is to convey its opinions on proposed amendments to the Market Rules and decide whether to recommend them for approval by the IESO Board. He said the current discussion appeared to centre on an administrative decision by IESO staff with respect to the configuration of a Resolute facility, and whether it applied under the current Demand Response program in the way that Resolute had been interpreting it. Resolute chose to put the question before the Panel by means of a proposed Market Rule amendment. Mr. Bieler said there were other means by which the company could have appealed an administrative decision. But since Resolute chose this path, he said the Technical Panel would have to consider the proposed language and whether it changed the way the DR program was intended to operate. Mr. Bieler expressed no opinion on that, but said he didn't appreciate going back through the history, adding that he agreed with Mr. Hunter that it had no relevance. He said it would be helpful to know whether other market participants had similar configurations, and asked for confirmation of his understanding that the discrepancy in the interpretation of the Market Rules was discovered when Resolute failed two activations in 2017. Mr. Agavrioloai confirmed that the two failed activations occurred in 2017.

Mr. Bieler asked whether any other market participants had failed their activations, and whether this was the first of what could become a domino effect if other market participants were called to activate a demand response and failed. Mr. Agavrioloai said staff hadn't anticipated that question, but could provide a response.

Mr. Vegh said that if a market participant intended to challenge a rule before the Ontario Energy Board, which he said Resolute was considering in this case, one of the requirements under the Market Rules was to first bring its concerns to the Technical Panel and the IESO Board. He said Resolute had proceeded accordingly, adding that the company did not understand the requirement to be a token gesture—the intent, he said, was for the Panel to consider the proposal on its merits. He said Resolute had brought its proposed amendment forward in good faith because it was required to do so, in order to follow through with other processes.

With respect to the role of the Technical Panel, he said Panel members are in a position where they must be able to rely on IESO statements on the purpose of specific market rules. Resolute's position, he added, was not to dispute the results of the activation, but to say the interpretation of the Market Rule should reflect its original purpose when it was adopted, to facilitate participation in the Demand Response Auction by past DR participants. He said that approach was consistent, actually required, under the existing process, and entirely consistent with the entitlement of market participants not to have the rules redacted to change their intent.

Joe Saunders asked whether Resolute had looked at any other available programs for their load before they went down this path. Mr. Vegh said Resolute began pursuing Demand Response in 2013, and was never prompted to pursue other processes. Mr. Saunders asked whether any

other programs were applicable to the company's operations. Mr. Vegh said Demand Response was the applicable program for this load.

Mr. Urukov asked whether Resolute had understood that the DR Auction was intended to allow all previously-allowed metering configurations when it was adopted in 2015, or whether the company was raising a communications issue where the IESO's intent had not been identified. Mr. Vegh said he considered it a matter of intent, since the configuration discussions with IESO staff were consistent with prior arrangements. He said he did not believe IESO staff were holding back, or intended to disqualify Resolute's configuration at the time, that that discussion arose years later. Had staff raised the issue previously, he said the Technical Panel would have received a different set of submissions and considerations on whether the Market Rule should have been adopted, and members could have considered the effects.

Still with the issue of intent, Mr. Urukov asked the IESO to clarify its position on what Resolute had characterized as substantial changes to what qualified under the Demand Response Auction. Mr. Hunter said members had already heard details of changes in historical demand response rules contemplating the submission and approval of a verification plan that would allow reconciliation of multiple DR providers. The intent was that a market participant would tell the IESO how it intended to report, and the IESO would assess whether the plan made sense in context of the program. Then it would be up to the market participant to do the reconciliation if they were activated, and the IESO would go back to the verification plan. The Market Manuals elaborate on the process, with details on how measurement and verification were to work that include a process for participants to provide the IESO with metering data—none of which applied under CBDR.

Mr. Hunter said Resolute's submission established that those conditions were removed from the eligibility definition, pointing to a significant change in the measurement and verification process. While it remained to be seen what changes Resolute believed had been introduced, Mr. Hunter said the new program represented a major shift from the IESO's perspective, eliminating a complicated technical process for market participants to achieve and demonstrate compliance. The new process is simple, he added: there's an IESO revenue meter, the resource is linked to that meter when it's registered, the IESO gathers a baseline based on the previous 15 to 20 business days, then compares the load reduction to that baseline. When the system calls for a load reduction in the grid, the IESO looks at the revenue meter that represents the facility, and the facility either achieves or misses its intended target.

Mr. Saunders asked whether the facility failed its two activations because of changes in the program or due to other factors. Mr. Vegh said there was a disagreement on whether Resolute was given one of the notices of activation, and actually received it. With the other, he said it was a mystery to Resolute why the activation was disallowed, and it took four to five months to get an explanation from the IESO. That disallowance was when Resolute first heard of a change in practice and realized the IESO was taking a different position under the new rule.

Mr. Vegh noted that, in his previous response, Mr. Hunter had identified the change in the measurement and verification plan as the only change in the transition from CBDR to the Demand Response Auction. There was no indication at the time of a significant change in the way Resolute's configuration would be interpreted, he said, and IESO staff acceptance of the configuration was documented. He said it was a "big interpretation" to state that a simplified measurement and verification process should signal a major change that had the effect of disqualifying a load.

Peter Giardetti, Resolute Forest Products, said the two failed activations occurred in April and May, 2017. Resolute received no explanation until August or September, and he said that was when it came to light that the failure traced back to the difference in interpretation. At the time of the May activation, he said the Thunder Bay mill was down, was receiving no power, had submitted an outage indicating to the IESO that it would not be participating in the DR program for the period, and had not submitted a bid for that day. When Resolute received its electricity bill in June, it realized it had failed another activation and contacted the IESO.

Mr. Hunter said one of the two failed activations was not pertinent to the proposed Market Rule amendment. Based on discussions with Resolute, he said the other failure—the one that did relate to the amendment—was a result of the company's interpretation. He reiterated that the Technical Panel was not the appropriate forum to air the IESO's dispute with Resolute, but asserted that the IESO did not approve Resolute's configuration—in the context of the current program, he said that claim by Resolute made no sense. The communications from IESO staff had to do with transitioning Resolute's registration status from CBDR to the DR Auction, but what was said and relied upon were aspects of the dispute currently under arbitration.

Mr. Vegh agreed he wasn't interest in debating the history, but said the conversations occurred between IESO registration personnel and Resolute. He added that the IESO registration system had been out of service at one point, necessitating further discussion with staff on the appropriate configuration. He said he had mentioned the second activation failure in the interest of providing a complete answer to the question.

Mr. Reinmuller asked whether the intent of the DR Auction program was for market participants to reduce load in order to protect the integrity of the system. Mr. Agavriloai said it was. As a transmitter representative, Mr. Reinmuller said Hydro One had been in circumstances not dissimilar to demand response, having to reduce load on 30 minutes' notice to maintain system frequency and reliability. Those transactions involve thousands of megawatts, and they all rely on revenue meters installed at the station level. In that circumstance, he said, the IESO and the grid have no concern about what an entity does behind the meter. The entity is obligated and tested annually on load change and frequency decline and must meet its committed thresholds, regardless of anything happening behind the metering devices at its stations. Without diminishing the implications for Resolute, he explained that, from a grid point of view, a metered entity is required to hit its targets in the interest of maintaining grid frequency and reliability.

With response timelines as short as a half-hour in which to safeguard grid stability, Mr. Reinmuller said Hydro One can't try to reconcile downstream activities based on which generators are in operation. So it must abide by the readings on a high-side, transmission-level metering device and meet the grid's requirements for shedding load.

Mr. Wu asked whether the requirement Mr. Reinmuller had described was governed by Market Rules or policies. Mr. Reinmuller said was a two-layer requirement, ingrained in the Market Rules and also derived from Market Participant Compliance Contract (MPCC) directives requiring utilities to reduce load as required to maintain grid reliability. Mr. Wu asked whether Hydro One would ever challenge those rules or directives. Mr. Reinmuller said the provisions were a matter of the fundamental physics of the power system, that while it might be possible in 50 or 100 years to use behind-the-meter generators in this way, the system isn't there yet.

Grid events happen very quickly, Mr. Reinmuller added, requiring grid managers to react very quickly to maintain frequency and balance load with generation. The easiest way to do that is to drop load, since it's a certainty that all utilities can count on. Most utilities also know which stations and feeders carry the most load, and can address demand response in a very organized, quick fashion when real-time events demand it.

Mr. Wu asked whether Mr. Reinmuller was describing a regulatory issue governed by Market Rules. Mr. Reinmuller said it was. Mr. Wu asked whether Hydro One would challenge the rule, and if so, how. Mr. Reinmuller said a challenge would be difficult, adding that he was describing an obligation his organization must meet today that means constantly identifying load that can be shed should the requirement arise. Should Hydro One fail to do so, the IESO would cite it for non-compliance and require corrective action—all of which reflects back to the physics of the power system and the need to balance load with generation.

Mr. Bieler asked whether Demand Response participants are compensated on a standby basis, or based on the reductions they actually contribute. Mr. Hunter explained that they receive availability payments based on their capacity obligations even if they are not activated. If an activation fails, the availability payment for the applicable period is clawed back. Mr. Bieler asked how much capacity Resolute had contracted for. Mr. Giardetti said he didn't recall the precise auction settlement terms, but that the total was between 50 and 54 megawatts.

Mr. Samant asked whether the proposed Market Rule amendment was intended to convey that metering configurations remained unchanged when the IESO made the transition between Demand Response programs. Mr. Vegh reiterated that the metering configurations had been approved under DR2 and DR3, and had not been disqualified under the Demand Response Auction.

Mr. Samant noted that the DR Auction was supposed to facilitate participation by previous demand response participants and asked whether it succeeded in that goal, and whether the implication was that a participant would receive the same capacity obligation under the new program. Mr. Vegh said DRA was an auction program, with no entitlement for a specific

reward. From Resolute's point of view, he said the salient issue was that the previous metering configuration was preserved.

Mr. Samant asked whether the commitment under the new program was to preserve the configuration or simply to facilitate participation, and whether it had succeeded on the issue of participation. Mr. Vegh said he couldn't speak for other market participants.

Mr. Samant said he assumed there was an obligation on market participants to understand the Market Rules. Mr. Vegh agreed with that assertion, adding that that was why Resolute was placing such emphasis on the wording of the Market Rules, which did not include any reference to disqualifying characteristics. Ms. Savage said a commitment to facilitate the participation of existing resources was not the same as saying the rules of the game would remain unchanged. Mr. Vegh replied that, in such a case, it's useful to know what the rules will be if entities are expected to make investments and participate in the market.

Mr. Agavriolo said staff believed they had met that expectation. Mr. Vegh asked him to identify any point where the explicit change was noted, adding that when a market participant is told that a rulemaking process is intended to facilitate participation, it doesn't set the expectation that the rules will change. It's legitimate for rules to change, he added, and staff could have gone through the program to identify configurations that weren't working as the IESO believed they should, then proposed a transparent, open amendment to address the issue. That process would have given market participants the opportunity to raise questions, and the Technical Panel the opportunity to think through the implications. In Resolute's view, the current dispute was about what the rules said and the way they were interpreted.

Mr. Bieler asked whether Resolute participates in any feed-in program in which it receives compensation for capacity it provides to the grid from its Thunder Bay unit. Mr. Giardetti said Resolute has a power purchase agreement for the generation, but that the grid receives the reduction when the Thunder Bay sheds load, regardless of which physical source it comes from. He added that the PPA covers what Resolute generates, but the company pays market price for all its power, regardless of source.

Mr. Bieler referred to the three configuration slides presented as background to the March 5, 2019 discussion, noting that he didn't see a scenario in which the grid received a load decrease of up to 60 megawatts. In two cases, the difference was made up by power supplied from Resolute's own facility, but he said buying power for the grid through a PPA was a different scenario that may or may not be required at the same time as a demand response activation.

Mr. Giardetti said the scenario in Mr. Bieler's example involved Resolute shutting down production capacity to reduce load in response to an activation—since the requirement is for demand *response*, it doesn't involve any change in generation. In that scenario, the IESO only sees a smaller number of megawatts because it's only reading one part of the channel, and missing the injection, he said. By drawing a box around the whole mill, including the generator, the grid would see the entire 50 MW.

While Resolute does not increase generation to make it look like it has reduced load, Mr. Giardetti said the one-meter configuration would give a market participant the ability to do something that was never intended under the DRA program—and that was why Resolute did not come up with this configuration on its own. It was discussed with the Ontario Power Authority and the IESO during the CBDR program because it had been transitioned over from earlier programs.

Mr. Saunders said that, from the perspective of the planning that takes place at the grid control centre, there's a difference between removing 50 MW as opposed to removing 30 and injecting 20 MW, since the injection is harder to plan for and may not be located where it is needed. Mr. Agavrioloai agreed that the two scenarios had different reliability implications for the IESO's effort to manage grid supply and demand, and that the intent of the Demand Response Auction program was to secure demand reductions at the IESO-controlled grid, without any regard or concern for what happens behind the meter. While it might well be that the current configuration was put in place to prevent Resolute from increasing generation to effect a reduction in demand, he said the current program focused strictly on the point of connection to the grid and the effective demand reduction period.

Mr. Giardetti said Resolute is obliged to tell the IESO how much power it will be injecting into the grid and when, and IESO has the right to accept or decline, as they do with any injection. The information exchange occurs two hours ahead of the potential injection, and is not a part of the DR program. Mr. Vegh said that process demonstrated the amount of facility data available to the IESO.

The Chair took note of the hour and invited any further questions from members. Mr. Urukov asked for comment on the feasibility of Resolute registering its generator separately, and Mr. Giardetti undertook to supply a response.

Ms. Griffiths asked whether the next item on the meeting agenda was an opportunity for the IESO and Resolute to each state the next steps they would like to see. The Chair said the IESO had anticipated a conversation on next steps among Panel members. Ms. Griffiths asked for Resolute's comment on that point, and the Chair suggested a 10-minute break before considering next steps.

Mr. Lasek asked whether Resolute's qualification as a market participant would change under the proposed Market Rule amendment. Mr. Hunter clarified that, when he'd said the IESO had never approved Resolute's meter configuration, he didn't mean the agency had considered, evaluated, and rejected it—he intended to convey that staff never looked at Resolute's or any other market participant's meter configuration. That's because the qualification process for the DR Auction program is participant-set: when participants tell the IESO what capacity they wish to take responsibility for offering into the program, the IESO does not conduct a substantive qualification review. It simply looks at the revenue meter to verify whether a reduction occurred upon activation.

In order for the Resolute amendment to be adopted, Mr. Hunter added, the IESO would have had to carry forward rules that did not currently exist in the DR Auction but were in effect in the historical program, and implement them into the DRA. Those included provisions requiring participants to submit a method of verification plan, as well as Market Manual procedures dictating how data measurement should be governed that would have been required for the IESO to be able to accommodate the legacy metering arrangements. Those provisions would also have had to be reflected in the Market Rules, which currently include no substantive qualification process.

Mr. Lasek asked whether that meant the modifications might not have qualified from the IESO's perspective. Mr. Hunter replied that, in the hypothetical in which the proposed Market Rule amendment was adopted and the related provisions from the historical programs were also replicated and reintroduced into the Rules, there would be a substantive qualification process under which the IESO would have to review the metering arrangement. The fact that a configuration was permitted under the OPA system would have no bearing, he explained, since CBDR was a provisional program to bring contract holders into the IESO market.

Ms. Griffiths said that view was a stretch, given that qualification under the Demand Response Auction were based on best practices in other jurisdictions' markets. She questioned whether it would be necessary to change the Market Manuals, adding that if that was a foreseeable outcome of Resolute's proposed Market Rule amendment, the concern should have been raised earlier in the discussion. Mr. Hunter replied that there was no other substantive qualification process in a system where market participants indicated their available capacity, and the IESO did not currently question that submission, so that the only way to verify available capacity was to activate it. He said there was no other best practice in the DR program.

Ms. Griffiths said the best practice was in allowing market participants to state their available capacity, then proceed to meet it. She reiterated that it was surprising to see the concern about Market Rule and Market Manual amendments expressed now, not during the March 5 Technical Panel or in the question and answer process that followed. Mr. Hunter said that information had been provided to the Technical Panel, and that he could demonstrate why the changes he had enumerated would absolutely have to be made: If the IESO lacked a method of understanding how a market participant like Resolute intended to achieve its capacity obligation, it would have no way to determine whether the participant had done so after viewing the revenue meter and spotting the discrepancy. That scenario would call for a verification plan or process that made it possible to manage the data and verify that the market participant had done what it said it would do, in the manner in which it had undertaken to do it. He said the discussion illustrated why it wouldn't be sufficient to simply allow a provision from a previous program in the current one: there would have to be enabling rules, as well.

Mr. Vegh said he was mystified at the idea that the IESO was not involved in approving configurations in light of the email record. But even if changes were required, he said the Rules were the rules and the Market Manuals were the interpretation—it wasn't a matter of changing

the rules to align with the Manuals. The Rules are what the IESO has the mandate to make, and they're binding, whereas the Market Manuals are administrative. Mr. Hunter said the Market Manual that contained the technical specification corresponding to the proposed Market Rule amendment created an obligation for participants to submit a method of verification plan, and for the IESO to approve it—which would now entail a change to the existing process. The technical manual detailing how the verification plan must operate would also have to be revised.

Mr. Vegh said that if it was a matter of tweaks or changes to the Market Manual, that level of work goes on all the time. In that case, he said the proposed Market Rule amendment entailed no change to the existing rule, and should therefore require only an administrative change.

Mr. Bieler noted a statement in the minutes of the March 5 Technical Panel meeting indicating that the measure of DR capacity for hourly demand from resources participating in the Demand Response Auction, like Resolute's Thunder Bay facility, was premised on establishing a baseline measurement based on the last 15 to 20 business days of activity at the IESO-controlled grid, that activations are measured at the ICG, and the difference between those two values determines the success or failure of the activation. On that basis, he said, the IESO would never have seen more than 30 MW at the meter, raising the question of how Resolute was ever approved for 60 MW. He said it appeared they had been "grandfathered" in from the previous regime, and asked whether the IESO had any means of determining their actual qualification. Mr. Hunter said the IESO had every reason to believe Resolute could achieve the 60-MW reduction—for example, if it refrained from operating its generators—but the IESO would not dictate to them, or investigate their operating practices or business decisions. Instead, the baselining process served that purpose.

Mr. Bieler said verification would have been as simple as reviewing the consumption data on the facility's power bill and seeing that they never consumed more than 30 MW. Mr. Agavriloai said those records show that Resolute's Thunder Bay facility sometimes consumes more than 50 MW of load, demonstrating that there would be no reasonable way for the IESO to surmise that they would only ever withdraw 30 MW or less. Mr. Giardetti said those record pertained to periods outside the Demand Response hours, and that very few data points during DR or on-peak periods showed consumption at that level.

Discussion of Next Steps for MR-00437

The Chair confirmed that the three Technical Panel members attending by phone were still present.

The Chair recalled Ms. Griffiths' question about Resolute's view of next steps, and invited Resolute to respond.

Mr. Vegh thanked Technical Panel members for taking the discussion very seriously, noting that many questions had been raised in the day's discussion and not all could be answered. He

said the discussion contained some important takeaways, including questions about reliability impacts under the DR program that he said Resolute had been asking since 2013. While the company wanted to see the matter resolved, he said the Technical Panel should take more time for deliberation and to receive further information if members felt that need. He stated that next steps should be in the Panel's hands, and committed the company to continue working cooperatively to ensure that Panel members have the information and deliberation time they need to reach the appropriate outcome.

The Chair invited members to advise on whether they felt they had enough information to make a recommendation to the Board, or whether they would want some of the outstanding questions answered first.

Mr. Reinmuller said he had no definite preference, and would listen to other Panel members' input to judge how far along they were in their understanding of the matter. He reiterated his previous statement about the implications for Hydro One and, looking beyond the net contribution of any market participant, suggested a parallel in terms of reliability.

Mr. Lake said the day's discussion had covered much of the ground that had already been addressed in the March 5 meeting and the subsequent Q&A. He said he had no need for further information.

Mr. Urukov said he had minor questions that would not prevent him from making a decision.

Mr. Saunders said he was getting a full understanding of the issue and would appreciate an in camera discussion among Panel members.

Mr. Bieler agreed that the Panel would benefit from some deliberation in camera, or failing that, from answers to some of the remaining questions. In the event that that was not possible, he said the Panel could proceed.

Ms. Griffiths said she was ready to make a decision, with no need for additional information. She said she could appreciate the need for further deliberation if that was the preference of other Panel members, but that the discussion should occur in a public forum, not in camera.

Mr. Forsyth said he had enough information to make a decision.

Mr. Samant said he had enough information but would prefer to convene an in camera meeting, upon adjournment of the day's public discussion or at a later date by phone, to ensure that Panel members were all on the same page.

Mr. Lasek said he was ready to make a decision and provide direction for future reference.

Mr. Collins said he would prefer to have remaining questions answered in an in camera session before making a decision.

Mr. Wu said he was ready to make a recommendation.

Ms. Savage said she would defer to other Technical Panel members' preferences for next steps.

The Chair said he was hearing some preference for more time to deliberate, with on consensus on whether a follow-up session should occur in camera or in open session. He asked whether members wanted to continue the discussion immediately with a hard stop at noon. Panel members discussed their departure plans, and the Chair said it appeared the group had another five minutes before people began to leave.

Mr. Bieler asked whether a Panel decision would require a majority vote or unanimity. The Chair said the eventual decision would be a majority vote on a recommendation to the Board of Directors, adding that the matter would still go to the Board even if the majority vote was against recommending it. The IESO's standard [best] practice would be to document the reasoning behind each Panel member's vote.

Mr. Bieler said he would willingly forego an in camera session and proceed directly to a vote. The Chair said he was still hearing some desire for further deliberation, and Mr. Wu agreed.

The Chair suggested the Panel convene an open session as soon as possible. In the meantime, he asked the IESO and Resolute to endeavour to provide answers to the questions raised in the course of the day's discussion. He also proposed posting the proposed Market Rule amendment for stakeholder comment, with a three-week deadline for replies. There were no objections.

Mr. Bieler asked whether a subsequent meeting would include a vote. The Chair said Panel members would deliberate and hear each other's views. Mr. Wu asked whether it would be possible to vote in an email that included the reasoning behind Panel members' decisions. The Chair said the IESO would reply on that point.

The meeting adjourned at 11:30 AM.