Stakeholder Feedback and IESO Response

Market Renewal Program: Market Settlements, Metering, Market Billing and Funds Administration market rule amendment proposal posted on December 1, 2022

The IESO posted updated Market Settlements, Metering and Market Billing and Funds Administration batch draft market rules and market manual amendments on December 1, 2022 and received written feedback.

Related materials have been posted on the IESO **MRP stakeholder engagement webpage** for this engagement. If interested, please visit the webpage to reference the feedback submissions directly as the below uses excerpts and/or a summary of the stakeholder feedback for the purposes of providing an IESO response.

Please contact IESO Engagement at **engagement@ieso.ca** if you have any questions.

Atura Feedback and IESO Responses

ID	Section	Feedback	IESO Response
1	MR Ch.11 Definitions - Broad Constrained Area (BCA)	The term Broad Constrained Area is referenced in the MRP Design Documents and in materials provided in the December 2022 & January 2023 Engagement Webinars.	Broad Constrained Area (BCA) is not intended to be a defined term and the draft has been amended accordingly.
		However, the term is not defined in Chapter 11 nor is it listed in section 22.10 of Chapter 7 - Designation of Constrained Areas. However, the term BCA is found in section 5 of Chapter 9. Can the IESO confirm if this is intentional and provide an explanation?	outside of headings, is accompanied with the relevant cross-reference and the intent and meaning should be clear even in the absence
		provide an explanation.	In regards to Chapter 7, since BCAs are not designated, compared to Narrow Constrained Areas and Dynamic Constrained Areas, BCA's were intentionally excluded from section 22.10 of Chapter 7. Resources meet BCA conditions based only on the information within a particular run of the pre-dispatch or dayahead calculation engine, and hence there is no designation of a constrained area nor a defined term for BCA.

ID	Section	Feedback	IESO Response
2	MM 14.2 s.5.2.1 - Changes to Reference Levels	A resource may request for a temporary revision to the fuel cost component of a reference level for a resource provided that supporting documentation(s) are submitted to the IESO to substantiate the request. Section 5.2.1 of MM 14.2 outlines a list of acceptable documentation.	
		fuel procurement are typically conducted over Instant Messaging ("IM") or via text messages.	service price adder that was registered as part of the registered reference level, if applicable. This net amount will ensure that these fees
		Can the IESO confirm if copies of quotes or firm purchases with gas marketers via IM or text are acceptable documentation?	are not counted twice in a reference level value.
		To the extent that firm gas transportation services are limited or have been fully utilized for the dispatch day, a resource has the following options to fuel the resource:	Market participants are encouraged to provide specific examples of the types of fuel quotes or information about balancing costs or other fees incurred they will have available when submitting fuel cost change requests to MRP stakeholder engagement for analysis by the
		 i. procure (a) interruptible transportation services to deliver fuel to the resource at a incremental cost, plus (b) the gas commodity costs; or 	market power mitigation team.
		 ii. incur balancing or other fees from its distribution company to consume gas not delivered but supplied by the distribution company. 	

ID	Section	Feedback	IESO Response
		Can the IESO confirm if the costs outlined above are acceptable for a reference level change?	
3	MM 14.1 s.14.1 - Alternative Reference Quantity Value	Section 5.8 of MM 14.1 outlines a list of acceptable documentation to substantiate a request to use alternative reference quantity value including copies of planned and forced outages and equipment de-ratings.	No, a resource will not be expected to resubmit the same planned and forced outage/derate information. The calculation of reference quantity values will account for outage data from the Control Room Operations Window (CROW) outage system.
		Can the IESO confirm if a resource is expected to re-submit the same planned and forced outages/derate information submitted through the IESO's CROW outage system or will the revised Reference Quantity Value be automatically populated into the IESO Market Power Mitigation process/system?	However, should there be an occasion where relevant outage data impacted the available supply for a resource, but was not integrated into the reference quantity value calculations, that outage data could be submitted after the fact to support a request for an alternate reference quantity value as specified in MM 14.1 s.5.8. For example, outages or derates to a particular facility might indirectly impact the available supply for a resource.
4	December 2022 & January 2023 Engagement Webinars (slide 16 of Market Power Mitigation (Part 2 of 3) presentation - Designated	Based on the materials provided in the December 2022 & January 2023 Engagement Webinars (slide 16 of the Market Power Mitigation (Part 2 of 3) presentation), it	It is possible for a resource to be in multiple designated constrained areas for the same dispatch day.
	Constrained Areas	appears that it is possible for a resource to have multiple designation of constrained areas for a single dispatch day.	Narrow Constrained Areas (NCAs) are designated based on significant positive congestion over an annual study period. Dynamic Constrained Areas (DCAs) are
		Can the IESO please confirm if this scenario is possible?	designated on a rolling basis based on assessments of a much shorter, 5-day study period. Because NCAs and DCAs are

ID	Section	Feedback	IESO Response
			designated on different bases, it would be possible, for example, that a resource in a large NCA could also be in a smaller DCA within the NCA.
5	MM 5.5 s.2.4.1 and MR Ch.9 s.3.3 - DAM Balancing Credit	Per section 2.4.1 of MM 5.5 and section 3.3 of Chapter 9, the IESO may dispatch a GOG-eligible resource to a quantity less than DA schedule for reliability reasons and a resource would be eligible for a DAM balancing credit settlement amount.	The IESO will use reasons codes, which will continue to be provided in data files to market participants, to identify this IESO initiated event.
		Presumably this will be triggered manually by the IESO control room operators. How will the settlement system identify this IESO initiated event?	

ID	Section	Feedback	IESO Response
6	General Comments/Feedback	Settlement Systems: The introduction of the two-settlement system (DAM & RTM) and the Market Power Mitigation process introduces (i) significant volumes of data to be collected/stored, and (ii) an overwhelming amount of complex calculations of settlement charges to implement and reconcile. Atura would like support from the IESO in the Sandbox environment to confirm the	The IESO is committed to working closely with stakeholders during participant testing and training activities. More details on testing timelines and how the IESO will support market participants during testing activities will be shared for feedback in the coming months.

ID	Section	Feedback	IESO Response
		settlement charges and ensure the settlement system is developed accurately prior to production.	Participants can begin preparing for testing and training activities now by reviewing the Day-In-The-Life summaries and the Readiness Checklist, as published on the Market Participant Readiness Market Participant Readiness webpage.

Electricity Distributors Association Feedback and IESO Responses

ID	Section	Feedback	IESO Response
7	MR Ch.6 s.10.3.2 – Revenue Meter Registration	The IESO has not addressed the reason or need for the deletion of 'Periodic Energy Metering' section 10.3.2. Please provide an explanation and rationale for deleting this section which references non-dispatchable load facilities. Please provide a description of the impacts to LDCs, if any.	This section of the market rules allows for metering data for legacy metering installations to be collated to 5 or 15 minute intervals. This section is no longer operative as all legacy metering installations have been replaced. The IESO proposes to delete this section as a matter of clean-up.
Mar	ket Rules – Market Settlements, Market	Billing and Funds Administration	
Mar ID	rket Rules – Market Settlements, Market Section	Billing and Funds Administration Feedback	IESO Response
	·	Feedback LDCs have several concerns with section 2.1.4 Market Remediation which require IESO attention.	1) Further details on day-ahead market scheduling failures, including the IESO's notification process will be provided with the release of the proposed market rule
ID	Section	Feedback LDCs have several concerns with section 2.1.4 Market Remediation which	Further details on day-ahead market scheduling failures, including the IESO's notification process will be provided with

LDCs and the future notification processes that the IESO may undertake in the event of any DAM failures, e.g., how the IESO might communicate and notify the LDCs of a DAM failure, and the actions that are required on the part of LDCs in response.

- 2) We request the IESO provide examples with respect to new hourly physical transaction settlement amount for NDLs in the event of a DAM failure. This should be included as part of a market manual.
- 3) It is unclear to distributors if the IESO will be publishing RTM Ontario zonal prices as part of regular business processes, or only in the event of a DAM failure.

We also note that there is a requirement to coordinate with the OEB in the event of a DAM failure – e.g., appropriate accounting practices, guidelines, and settlement procedures during DAM failure events. This will include how LDCs are to communicate events with customers (e.g., replacement of prices on bills, etc.).

- 2) Thank you for your feedback. The IESO will consider including this type of example in future training materials or engagements.
- 3) The IESO will be publishing, as part of regular business processes, real-time market Ontario zonal prices via the new, "Real-Time 5-Minute Ontario Zone Energy Price Report". The corresponding market rule and market manual amendments detailing this report will be provided with the release of the Market System and Operations batch.

9 MR Ch.9 s.3.1.5a – HPTSA – Real-Time Balancing, Physical Bilateral Contracts Please clarify settlement with respect to physical bi-lateral contracts where the location is specific to a non-dispatchable load, specifically, when it is appropriate to exclude the load forecast deviation charges for such settlements.

The settlement of physical bi-lateral contracts where the location is specific to a non-dispatchable load is based on the day ahead market Ontario zonal price. The load forecast deviation charge is not included in the settlement of such physical bi-lateral contracts.

ID	Section	Feedback	IESO Response
10	MR Ch.9 s.3.2.2 – HPTSA – Non- Dispatchable Resources, Non- Dispatchable Loads	Please confirm that DAM_LMPzh and LFDCh each reflect hourly prices. LDCs would like confirmed if HPTSA_NDLk,h is an amount that will be produced, and for each settlement hour. LDCs are seeking additional analysis from the IESO. The IESO should provide details with respect to the expected magnitude of the LFDCh relative to the DAM_LMPzh such that the OEB and LDCs can assess the relative impact that this new charge will have and consider appropriate accounting practices (e.g., variance accounts, etc.). To fully quantify the impacts, the IESO should produce the impacts for one of the smallest LDCs and one of the largest LDCs in the province. We are concerned that the magnitude of true-up between these various processes may produce a material impact. Please provide a sample quantification of reasonable materiality between the two processes.	The IESO confirms that DAM_LMPzh and LFDCh are hourly values and the HPTSA_NDLkh will be produced for each settlement hour. The IESO is working with the OEB and the LDC community, through the LDC-IESO MRP Preparedness Group, to identify how MRP charge types relate to existing charge types so that appropriate guidance can be provided to LDCs, as well as to better understand their concerns with regard to changes to market settlements.
11	MR Ch.9 s.3.2.4.1 – HPTSA – Non- Dispatchable Resources, Non- Dispatchable Generation, including self-scheduling storage	We note the addition of NDG settlement is a change from the detailed design phase. Please confirm that HPTSA_NDGk,h does not apply to embedded retail generators. We also note that this is a change from the revised design contemplated for energy storage resource (e.g., self-scheduling storage, with the load side being settled as a PRL). With respect to non-dispatchable	The IESO confirms that HPTSA_NDG does not apply to embedded retail generators. The IESO provided an overview of the adjustments needed to the storage participation model for MRP at its Quarterly Implementation update in December 2021. While a self-scheduling storage resource will need to participate in the DAM as a price responsive load for its withdrawals of

storage, please confirm that the load side will have DAM participation requirements (i.e., as a PRL), while the generator side will not have DAM participation requirements (i.e., selfschedules).

We note that consideration of energy storage appears to be an "after thought" in the MRP. Given that the IESO will continue to treat energy storage as two separate resources (e.g., load resource plus generation resource), it is important to ensure that changes impacting loads and generation are also evaluated from the perspective of an energy storage resource.

energy, this requirement can be fulfilled by submitting standing dispatch data, much like self-schedules may be submitted for its injections of energy.

Additional information in regards to nondispatchable storage will form part of the future Market Systems and Operations batch.

12 MR Ch.9. s.4.7.2 – Internal Congestion Rent and Loss Residuals Please verify and confirm that 'M' refers to the set of all loads except NDLs and that 'M1' is the set of all NDLs. We noted a discrepancy in the formulas between the detailed design phase and these draft market rule amendments.

LDCs are seeking additional analysis from the IESO. The IESO should provide details with respect to the expected magnitude of the Internal Congestion Rent and Loss Residuals for one of the smaller LDCs and one of the largest LDCs using real case scenarios. These impacts will assist the OEB and LDCs to assess the relative impact that this new charge will have and consider appropriate accounting practices (e.g., variance accounts, etc.). LDCs are

The IESO confirms that 'M' refers to the set of all loads except NDLs and that 'M1' is the set of all NDLs as specified in sections 4.7.1.2 and 4.7.1.3. The IESO has amended the superscript for the relevant formulas to improve clarity.

The IESO is working with the OEB and the LDC community, through the LDC-IESO MRP Preparedness Group, to identify how MRP charge types relate to existing charge types so that appropriate guidance can be provided to LDCs, as well as to better understand their concerns with regard to changes to market settlements.

ID	Section	Feedback	IESO Response
		concerned that the magnitude of true-up between these various processes may produce a material impact. Please provide a sample quantification of reasonable materiality between the two processes.	
13	MR Ch.9 s.4.7.3 – Internal Congestion Rent and Loss Residuals	Please verify and confirm that the superscript 'M' refers to the set of all loads (including PRLs). We note a discrepancy in the formulas between the detailed design phase and these draft market rule amendments.	'M' is defined in section 4.7.1.3 and excludes NDLs. The IESO has amended the superscript for the relevant formulas to improve clarity.

ID	Section	Feedback	IESO Response
14	MR Ch.9 s.4.8 – External Congestion Rent and Loss Residuals	External congestion residuals were not contemplated as part of the detailed design phase, and therefore, these formulas are new to LDCs in their review. Currently, we do not note any concern with respect to the formulas. However, we note the merits of additional peer review to ensure there are no errors/corrections required for the formulas. Additional materials supporting these changes (like those prepared during the detailed design phase) are recommended to help stakeholder awareness and knowledge of these changes and their implications. Further, we note that while one congestion rent and loss residual was considered during the detailed design phase, there are now multiple residual line-items to be accounted for in settlement. We request that the IESO provide as much detail as possible with respect to the expected magnitude of these line items relative to other settlement amounts, so that appropriate accounting considerations can be anticipated (e.g., variance accounts, etc.).	

ID	Section	Feedback	IESO Response
15	MR Ch.11, Definitions - Ontario zonal price	More precise language for this definition is required.	The IESO has updated the definition of Ontario Zonal price to clarify.

We note that the price that is applicable to non-dispatchable loads (under normal conditions when DAM is functioning), is the DAM Ontario zonal price **plus** the load forecast deviation charge.

Also, we note that the RTM Ontario zonal price will be applicable to NDG resources only (under normal conditions when DAM is functioning).

This definition needs to be more prescriptive and illustrative, leaving no room for interpretation across the province.

Non-dispatchable generators are subject to the real-time market locational marginal price and not the Ontario zonal price.

ID	Section	Feedback	IESO Response
16	General Comments/Feedback	 The EDA notes that this batch of draft market rule amendments is incomplete and does not include: Market Manual 5: Settlements, Part 5.6: Non-Market Settlement Programs Market Manual 5: Settlements, Part 5.7: Settlement Process (MRP updates to follow RSS publication) Market Manual 5: Settlements, Part 5.8: Settlement Invoicing (MRP updates to follow RSS publication) Market Manual 5: Settlements, Part 5.10: Settlement Disagreements (MRP updates to follow RSS publication) 	The IESO will release the specified market manuals as part of the Market and System Operations batch of market rules and market manuals in July 2023. We do not anticipate any meaningful changes to those manuals that would detract from engaging with the materials that have already been posted. The IESO continues to work proactively with LDCs and OEB staff to ensure that the Board is able to assess changes that may be needed to its codes and standards. To facilitate these discussions, the IESO invites the EDA to come forward with the specific

IESO Charge Types and Equations

The delay of these materials, particularly charge types and equations, could pose a significant issue for MRP implementation, as LDCs and the Ontario Energy Board do not have the required information to detail changes to wholesale market accounting, settlement, invoicing and customer billing. Moreover, the IESO currently does not have a schedule for when this information would be published.

LDCs require instructional information, as contemplated by these Market Manuals, to ensure that wholesale market settlement systems as well as customer invoicing/billing, and accounting practices are updated in time for the planned launch of MRP. We further note that a detailed review of regulatory instruments (e.g., OEB costs, accounting quidance, etc.) cannot proceed until the full package of planned changes are released for review.

LDCs continue to require the following information related to MRP implementation:

- Scope, timelines, process to decide on:
 - o enabling legislative amendments; and
 - o amendments to regulatory policy (e.g., the mechanics of the Regulated Price Plan (RPP)) and regulatory instruments (e.g., OEB codes including Retail Settlement

sections of OEB codes and standards that it expects will need to change.

Additional information in regards to publishing and reporting of new information will form part of the future Market Systems and Operations batch.

Clarity with respect to the 'transition period' will form part of the future final alignment batch.

ID	Section	Feedback	IESO Response
ID	Section	Code (RSC), Standard Supp Code (SSSC), accounting provided (SSSC), accounting provided (e.g., DAM & RTM prices, LFDC etc.) • Communications with custome non-RPP customers, as HOEP or replaced with new wholesale in (i.e., impacts on LDCs' custome uncertain) • Communication with embedded generators as HOEP will be reprovided to the re	ly Service actices, etc.) w information Cs, CRLRs, ers, particularly will be narket price er bill is still d retail placed by new enpacts to non- is still settlement of
		embedded generation with IESClarity with respect to "transition from existing market to future	on period"

Ontario Power Generation Feedback and IESO Responses

ID	Section	Feedback	IESO Response
18	MR Ch.6 - General	 There is inconsistency with the section reference format used, i.e., "ss.x" vs "s.x" in the Market Rules chapters. OPG recommends alignment to one reference format for Market Rules Chapters 6 to 9. 	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For reference, please find below the convention that the IESO will be following:
		The section reference format within this chapter is not consistent with reference	

format of s.x/ss.x, e.g., "section 2.1.5" in Section 2.1.1. OPG recommends updating throughout chapter for alignment.

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Reference to:	Convention
Single chapter, single section	MR Ch.8 s.3.4
Single chapter, multiple consecutive sections	MR Ch.1 ss.1.1-1.6 MR Ch.7 ss.22.2 – 22.4
Single chapter, multiple non- consecutive sections	MR Ch.5 ss.2.3 and 5.7 MR Ch.7 ss.22.1.3, 22.5.2, 22.6.3, 22.6.5 and 22.19.3
Single chapter, multiple optional sections	MR Ch.8 s.3.4.2 or 3.4.3
Multiple chapters	MR Ch.6 s.10.4 and MR Ch.10 s.6C MR Ch.4 and MR Ch.5
Appendix of a specific chapter	MR Ch.9 App.9.2 s.10
Cross-reference to a section within the same document/chapter	section 3.10.2

19 MR Ch.6 s.10.3.2, 1.1A.1.5, 1.5.1.5 OPG recommends aligning the replacement text within the three deleted sections, and with the text in Sections 10.3.2.1 and 10.3.2.2:

1) Section 10.3.2 has been replaced with "[Section deleted – intentionally left blank]".

This section has been amended to incorporate this feedback.

ID	Section	Feedback	IESO Response
		 Sections 1.1A.1.5 and 1.5.1.5 have been replaced with "[Intentionally lef blank – section deleted]". 	t
20	MR Ch.6 s.1.5.1.4	OPG recommends removing the reference to Section 1.5.1.5, as it is a deleted section.	This section has been amended to incorporate this feedback.

Market Rules – Hydroelectric Resources – Optional Registration Requirements

ID	Section	Feedback	IESO Response
21	MR Ch.7 s.2.2.6A.5, MM 1.5 s.3.2.5	Market Manual 1.5 Section 3.3.2.5 indicates that a Market Participant (MP) is required to submit a time lag for each adjacent downstream linked forebay in a cascade group. The IESO will calculate the remaining time lag values for all other linked forebays.	This interpretation is correct. This section has been amended to incorporate this feedback.
		Considering the above requirement, an MP would be required to submit one time lag per forebay (time lag between a forebay and the adjacent downstream forebay in the cascade), rather than multiple time lags per forebay (time lag between a forebay and any subsequent downstream forebays in the cascade), as the remaining time lags would be calculated by the IESO.	
		Please clarify if the above interpretation is correct and revise Section 2.2.6A.5 if required.	

ID	Section	Feedback	IESO Response
22	MR Ch.8 - General	The Market Rules section reference format in this chapter is not consistent with reference format of s.x/ss.x, e.g., "section 2.1.23.1" in Section 2.1.3.1. OPG recommends updating throughout chapter for alignment.	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO is following, please refer to the IESO response for comment ID: 18.
23	MR Ch.8 s.2.1.2	This section mentioned offering a service where selling MP for a physical bilateral contract can assume responsibility for the buying MP's settlement obligations other than energy.	This provision is not new; it was moved from section 3.1.7 of Chapter 9 to Chapter 8. OPG's interpretation is correct.
		OPG interprets that to mean the selling MP can allocate uplifts from the area.	
		Is this correct? If not, please provide the correct interpretation.	
24	MR Ch.8 s.3.4.2 (previously Section 4.4.2)	What is the rationale for the deletion of Section 4.4.2.1? This section had allowed a calculation for the transmission transfer capability based on the original Section 4.4.1 (now Section 3.4.1), and sets all IESO payments to zero under the new Section 3.4.2.	Currently, a transmission transfer capability reduction to zero can occur partway through an hour, and the rules allow for TR payments for such hour before the payments are reduced to zero.
		payments to zero under the new section 3.4.2.	Under MRP, a reduction of the transmission transfer capability to zero in the day-ahead market will occur for the entire hour and therefore the current section 4.4.2.1 is no longer required.

ID	Section	Feedback	IESO Response
25	MR Ch.8 s.3.8.6	The format for the Market Rules chapter references in the subsections is not consistent with the format of MR Ch.x.	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO is following, please refer to the IESO response for comment ID: 18.
26	MR Ch.8 s.3.12	"Market commencement date" has been replaced with "MRP commencement date". "MRP commencement date" is not italicized, and therefore not a defined term. Is there a location within the Market Rules and/or Market Manuals where the date for Market Renewal Program (MRP) commencement is specified?	The IESO intends to define this term as part of the final alignment batch of market rule amendments.
27	MR Ch.8 s.3.12.1.1	The format for the Market Rules chapter references in the section is not consistent with the format of MR Ch.x App.x.	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO is following, please refer to the IESO response for comment ID: 18.
28	MR Ch.8 s.3.16.3	Suggest italicizing "business day".	This section has been amended to incorporate this feedback.
29	MR Ch.8 s.3.18.1	The format for the Market Rules section references in the subsections is not consistent with format of s.x used in Section 3.18.1.1.	References to sections within the same document/chapter use the "section X.X" format. No changes are required.
30	MR Ch.8 s.3.20.4	OPG recommends renumbering the subsections from "3.20.2.x" to "3.20.4.x" to align with the revision in the section numbering.	This section has been amended to incorporate this feedback.

ID	Section	Feedback	IESO Response
31	MR Ch.9 - General	 The section reference format within this chapter is not consistent with reference format of s.x/ss.x, e.g., "section 2.1.1A2" in Section 2.1.1. Suggest updating throughout chapter for alignment. There is inconsistency with the section reference format used, i.e., "s.x" vs "ss.x". Suggest alignment to the same section reference format. There is a comma between "MR Ch.x, s.x" within some sections, which is inconsistent with the set reference formatting for Market Rule chapter and section, i.e., "MR Ch.x s.x". 	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO will be following, please refer to the IESO response for comment ID: 18.
32	MR Ch.9 s.4.4 and 4.5	Section 4.5 outlines the Day-Ahead Market (DAM) Generator Offer Guarantee (GOG) settlement process and does not include consideration for reliability commitment. Section 4.5 outlines the Real-Time (RT) GOG	
		settlement process and does include consideration for reliability commitment.	The DAM-GOG settlement process does not differentiate between a reliability commitment and an operational
		The definition for reliability commitment in Chapter 11 indicates that the commitment process is a manual constraint determined by the IESO.	commitment as the calculations are the same. In contrast, the RT-GOG process needs to consider advancements and extensions that are adjacent to a reliability commitment and which will be calculated as
		Is it correct to assume that there is requirement for manual constraints in the	separate commitments.

ID	Section	Feedback	IESO Response
		DAM, but there could be requirement for manual constraints in the RT? Hence, the RT GOG settlement process could contain a reliability commitment component, while it is excluded from the DAM GOG settlement process?	
33	MR Ch.9 s.4.4.1.1.c and 4.5.5.c	Section 4.4.1.1.c: "day-ahead commitment period is the set of contiguous settlement hours with day-ahead schedules from the start of minimum generation block run-time to the end of the day-ahead operational commitment or extended pre-dispatch operational commitment, as applicable."	otherwise it would receive RT-GOG.
		Section 4.5.5.c: "If a GOG-eligible resource not associated with a pseudo-unit: such predispatch operational commitment immediately follows a day-ahead market operational commitment or reliability commitment,"	
		Section 4.4.1.1 outlines the provision to qualify the PD extension for a Day-Ahead Market (DAM) Generator Offer Guarantee (GOG); however, 4.5.5 shows that PD extension qualifies for Real-Time (RT) GOG under Variant #3 formulation.	
		Please clarify if the pre-dispatch (PD) extension commitment indicated above would receive a DAM-GOG or a RT-GOG.	

ID	Section	Feedback	IESO Response
34	MR Ch.9 s.4.5.3, 4.5.4 and 4.5.5	Can the IESO please clarify what defines Variant #2 and Variant #3 in calculating the RT GOG for non-pseudo units?	The IESO has amended the section to correct the description of variant #3.
35	MR Ch.9 s.4.5.4 and 4.5.5	The Section 4.5.4 description for Variant #2 is identical to Section 4.5.5.a description for Variant #3. Section 4.5.5.b refers to a dayahead operational schedule in the RT-GOG. Please clarify what defines Variant #2 and Variant #3 in calculating the RT-GOG for non-pseudo units.	The IESO has amended the section to correct the description of variant #3.
36		The applicable ramp-down period is captured in the definition of 'T' and the relevant sections have been amended to incorporate this feedback. The ramp-down settlement amount (RDSA) payment only applies to hours that are scheduled below MLP.	
		This feedback is related to previous Market Manual 5.5 Section 2.23 feedback: For a non-quick start (NQS), non-pseudo unit that is ramping down at below the Minimum Load Point (MLP) and is not following RDRL for the time period below MLP, will it be eligible for Ramp-Down Settlement amount for the entire ramp down period? Please confirm that the resource is not eligible for RT-GOG and RT Make Whole Payment (MWP) in the ramp-down period.	The resource is not eligible for RT MWP or RT GOG during the ramp down period.

ID	Section	Feedback	IESO Response
37	MR Ch.9 s.6.3.18	This section states: After a recalculated settlement statement referred to in section 6.3.17 is issued, other than in respect of a final recalculated settlement statement, each market participant shall have six business days in which to notify the IESO of errors or omissions in the recalculated settlement statement in accordance with section 6.8.	There is insufficient time to implement a change to the notice of disagreement timeline in advance of the May 1, 2023 RSS commencement date. The IESO will consider the proposal for an increased notice of disagreement timeline as part of possible future enhancements.
		The Recalculated Settlement Statement (RCSS) will be issued on the same day by month by version. It is possible for MPs to receive a high volume of RCSS statements on the same day. Based on the Physical Resettlement Calendar released by the IESO in anticipation of an in-service date of November 1, 2023 for Replacement of the IESO Settlement System (RSS), on December 15, 2024, the IESO could issue up to 210 statements from past trade dates within the two year period, i.e., all the different versions of RCSS-1 to RCSS-Final statements for past seven trade months. It would be very extremely challenging for MPs to review and process such a high volume of RCSS statements within six business days. OPG proposes to extend to 20 business days for RCSS Notice of Dispute (NOD) process.	
38	MR Ch.9 s.6.8.12	This section outlines various scenarios where Notice of Disagreement (NOD) cannot	Subsequent to the completion of an independent process review, if there is a disagreement, it would progress directly to

ID	Section	Feedback	IESO Response
		be submitted (e.g., if the submission deadline passed).	the dispute resolution process outlined in MR. Ch. 3.
		Section 6.8.12.10 references Market Rules Chapter 7 Section 22.8 for the explanation that no NOD will be accepted subject to the independent review process. In this case, would the NOD be open again once the Independent Review Process is completed? During the Independent Review process, would the settlement be calculated based of the as-registered reference levels?	independent review process until such process is complete.
39	MR Ch.9 s.6.16.5.1.b	Should the reference to Chapter 8 Section 3.19.6 be Chapter 8 Section 3.19.7?	This section has been amended to incorporate this feedback.
40	MR Ch.9 s.4.10	For an NQS non-pseudo-unit resource generator failure where AQEI=0, if PD_QSI=DAM_QSI then GFC_MPC=0. Does the above imply that there is no GFC_MPC charge if the resource's DAM schedule is equal to the PD schedule, based	A resource will not incur a generator failure charge for hours that in which it received a DAM schedule as the resource will be required under the two-settlement process to 'buy-back' the MWhs that were not injected.
ID	Section	on the formula provided? Feedback	IESO Response

The section reference format within this

reference format of s.x/ss.x, e.g., "section

2.4" in Section 1.3.2. Suggest updating

throughout chapter for alignment.

chapter is not consistent with

41

MR Ch.9, Appendices -

General

We have corrected all inconsistencies in the

chapters. For details on the convention that

the IESO will be following, please refer to

the IESO response for comment ID: 18.

reference format used for Market Rules

ID	Section	Feedback	IESO Response
42	MR Ch.11, Definitions - General	There is an extra space in some instances of Market Rules chapter and section references within the definitions, i.e., "s. x" and "Ch. x". Please ensure alignment of the section references between the Market Rules and Market Manuals, i.e., "s.x" vs "ss.x".	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO will be following, please refer to the IESO response for comment ID: 18.
43	MR Ch.11, Definitions: Advanced Pre-Dispatch Operational Commitment, Day- Ahead Operational Commitment, Day- Ahead Operational Commitment, standalone pre-dispatch operational commitment	OPG is unable to locate Chapter 7 Sections 5B.2.2.1, 4B.2.2.2, 5B.2.2.2 and 5B.2.2.5 referenced in the definitions.	Chapter 7 is part of the market rules and manuals that are currently being drafted as part of the future Market Systems and Operations batch. These sections will be available when the market manuals and market rules for Market System and Operations batch are published.
44	MR Ch.11, Definitions - Cascade group	"Cascade group means one or more forebays in a cascade river system" Can the IESO please provide clarity on why a cascade group could be composed of more than two forebays.	The number of forebays in a cascade group is based on the market participant's infrastructure on that cascade river system.

ID	Section	Feedback	IESO Response
45	MR Ch.11, Definitions - Start-Up Notice	Chapter 7 Section 10.1 has been left blank in the Consolidated Batch.	Chapter 7 is part of the market rules and manuals that are currently being drafted as part of the future Market Systems and
		Recommend revising the reference used for this definition.	Operations batch. These sections will be available when the market manuals and market rules for Market System and Operations batch are published.
46	MR Ch.11, Definitions - Time Lag	In Market Manual 1.5 Section 3.3.2.5, the definition of time lag uses the term "forebay" instead of "hydroelectric generation facility".	This content was aligned through the republication of MM 1.5 with the Settlement batch content.
		OPG recommends alignment of terms used within the time lag definition between Chapter 11 (from Consolidated Batch) and Market Manual 1.5.	

ID	Section	Feedback	IESO Response
47	MM 1.5 - Conventions	There appears to be a double space between ' and (in the sentences in the redlined version of the draft Market Manual 1.5: 1. "representative format: 'MR Ch.1 ss.1.1-1.2' (i.e. market" 2. "representative format: 'MM1.5 ss.1.1-1.2' (i.e. market"	This section has been amended to incorporate this feedback.
48	MM 1.5, s. 2.2.1, Table 2-2	There is a new paragraph under Ontario Energy Board Licence section that provides exemption to the OEB licence requirement.	These requirements were inadvertently removed during a reorganization of Market Manual 1.5. We have reintroduced the OEB

ID	Section	Feedback	IESO Response
		Is this exemption solely reference to the Capacity Auction process? Does this exemption apply to other areas of market participation?	license requirements into Table 2-2. Certain market participant types do not require an OEB license in relation to activities those classes of market participant are authorized to perform.
49	MM 1.5, s. 2.2.4	The RAN acronym is not defined in its first mention in the market manual.	The RAN acronym has been defined in section 1.3.2 in the Roles and Responsibilities section.
50	MM 1.5, s. 3.3.2	"This section applies to dispatchable hydroelectric generation resources with a primary fuel type of Water." OPG recommends either removing "hydroelectric" or "with a primary fuel type of Water" from the above sentence.	This section has been amended to incorporate this feedback.
51	MM 1.5, s. 3.3.2.4	There are two restrictions for the registration of a dispatchable hydroelectric generation resource on the same forebay: • all resources registered on a forebay must have the same registered market participant; and • all resources registered on each forebay within a cascade group must have the same owner. 1) What is the rationale for the different organization relationship requirement in the restrictions above, i.e., the same owner vs the same registered market	will be at the forebay level. Further information will form part of the future Market Systems and Operations batch. St 2) Since third parties can be hired to serve the role of registered market participants, failing to have an ownership requirement

ID	Section	Feedback	IESO Response
		participant? This difference will disqualify cascade resources from sharing a forebay if the resources have different owners but have the same registered market participant.	The IESO is considering the ownership requirement further to ensure this does not unduly limit participants.
		2) OPG recommends the organization relationship requirement be aligned for the two restrictions, with the requirement to be having the same registered market participant. This would avoid inadvertently disqualify qualifying resources from sharing the same forebay.	
		 OPG recommends revising associated definitions, e.g., forebay, if required to address any changes above. 	
52	MM 1.5, s. 3.3.2.5	The term "linked resources" has been revised to "linked forebay". Is there any impact to the Market Power Mitigation reference levels due to this change? The Storage Horizon Opportunity Cost is calculated based on resources, not the forebay which could include multiple resources.	The current approach for MM 14.2 appropriately refers to resources that share a forebay in a manner consistent with the updated content in MM 1.5 and no changes are required. For more information on how the Storage Horizon Opportunity Cost is calculated for linked forebays/cascade groups, please refer to MM 14.2: Reference Levels and Reference Quantities.
53	MM 1.5, s. 3.3.4.2	The acronym MLP has been previously defined in Section 3.3.3.3, suggest to remove "minimum loading point" from the first sentence of Section 3.3.4.2 and replace with the MLP acronym.	All instances of MLP, except for those that appear in an equation, have been updated to use the expanded term. This aligns with the approach that being used for defined terms in all manuals in the ongoing batches.

ID	Section	Feedback	IESO Response
54	MM 1.5, s. 3.3.5	The reference in this section is revised to Market Rules Chapter 7 Section 2.2.22, but this section (in the Consolidated Draft) references a transitional scheduling generator. The original reference to Market Rules Chapter 7 Section 2.2.27 is more appropriate, as it references eligibility for generator offer guarantee.	MR Ch.7 is one of the market rules chapters that are currently being drafted as part of the future Market Systems and Operations batch. These sections will be available when the market manuals and market rules for Market System and Operations batch are published.
55	MM 1.5, s. 3.6.1	OPG suggests a space between in the highlighted term "generation resources or dispatchable non-quick star generation facilities"	This manual has been updated to incorporate this feedback.
56	MM 1.5, List of Acronyms	Editorial suggestions: 1) CAA is only used once in the market manual, suggest removal from this list; 2) Suggest including NERC in the list.	This manual has been updated to incorporate this feedback.
57	MM 1.5 - General	1) There is inconsistency with the use of "ss.x" and "s.x" in the market rules and market manuals references in Market Manuals 1.5, 4.4, 5.3 and 5.5, i.e., mixed use of "ss" and "s" within the documents. OPG suggests convention alignment for the four market manuals for consistency.	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO will be following, please refer to the IESO response for comment ID: 18.
		2) Market Manuals 1.5 and 5.5 have a "Conventions" section, while Market Manuals 4.4 and 5.3 have a "Market Manual Conventions" section. Suggest alignment for consistency.	

ID	Section	Feedback	IESO Response
58	MM 4.4 - Document Change History	Issue 22.0 dated September 15, 2021 is revised to Issue 61.0. Should the revision be referencing Issue 21.1, in alignment with Baseline 46.0?	This section has been amended to reference Issue 21.1, in alignment with Baseline 46.0.
59	MM 4.4 - Conventions	There appears to be a double space between ' and (in the sentences in the redlined version of the draft Market Manual 4.4: 1) "representative format: 'MR Ch.1 ss.1.1-1.2' (i.e. market" 2) "representative format: 'MM1.5 ss.1.1-1.2' (i.e. market"	This section has been amended to incorporate this feedback.
60	MM 4.4 – Conventions	OPG suggests replacement of "in" with "and" in: "Terms and acronyms used in this market manual in its appended documents"	This section has been amended to incorporate this feedback.
61	MM 4.4, s. 1.2	The underscore symbol is used in the market manual title, is this intentional? "MM 5.8: Settlement Invoicing." The settlement of payments related to TR auction is addressed in Market Manual 5.8. This can result in significant changes to the TR auction settlement process. 1) Has this change been previously communicated and/or stakeholdered with market participants?	No the underscore is not intentional and has been removed. MM 5.8 is one of the manuals that are currently being drafted as part of the future Market Systems and Operations batch. There are not anticipated to be any significant changes to MM 5.8 and any updates would be alignment in nature (e.g. utilizing new defined terms).
		If there are changes to the TR settlement process with the move	

ID	Section	Feedback	IESO Response
		from Market Manual 5.7 to Market Manual 5.8, when would the revised Market Manual 5.8 be available for stakeholder review? 3) Market Manual 5.8 is currently titled "Financial Market Settlement Invoicing", but is listed as "Settlement_Invoicing" in the	
		section. Please revise for alignment.	
62 MM 4.4 s	MM 4.4 s. 1.2 and 4.2	 The Market Manual 5.5 title within the two sections ("Settlement Amounts Associated with the IESO Administered Markets") does not match the Market Manual 5.5 title in the Market Settlements, Metering and Billing Batch release ("IESO-Administered Markets Settlement Amounts"). For Section 4.2, the reference to Market Manual 5.5 is missing in "the physical markets settlement statement process detailed in Settlement Amounts Associated with the IESO-Administered Markets." The market manual title is bolded, which is inconsistent with the formatting of the market manual titles in other sections. 	For comments 1) and 2), these sections have been amended to incorporate this feedback. For comment 3), the Summary of Changes to Market Manual 4.4 section 4.2 incorrectly indicated that Market Manual 5.5. would be obsoleted, with new Market Manual 5.11 created. Please disregard the previous entry in the Summary of Changes to Market Manual 4.4 section 4.2.
		 In the Summary of Changes to Market Manual 4.4 Section 4.2, there is mention of obsolescence of Market Manual 5.5 and its content be 	

ID	Section	Feedback	IESO Response
		restructured to a new Market Manual 5.11. When is this update being implemented? Market Manual 4.4 from the December 2022 Market Settlements, Metering and Billing Batch makes references Market Manual 5.5, not Market Manual 5.11. OPG recommends revising Market Manual 4.4 in anticipation of this change for alignment.	
63	MM 4.4, s. 3.0	Should the reference below be MR Ch.8 s.3.11.7? • "allocated to the first round (MR Ch.8 s.3.11.9)."	Yes, it should and this reference has been amended accordingly.
64	MM 4.4, s. 4.0	The section refers to a new Market Manual 5.8, which is resultant from the merging of the current Market Manuals 5.7 and 5.8. Market participants would not be able to determine the appropriateness of the revision in Section 4.0 if the new Market Manual 5.8 is not available for review. When would the new Market Manual 5.8 be available for stakeholder review?	MM 5.8 is one of the manuals that are currently being drafted as part of the future Market Systems and Operations batch. There are not anticipated to be any significant changes to MM 5.8 and any updates would be alignment in nature (e.g. utilizing new defined terms).
65	MM 4.4 Appendix B	OPG suggests that multiple market rules references to reside within a single set of brackets for format alignment with other sections in the market manual, e.g.: • (MR Ch.8 s.3.7.2)(MR Ch.8 s3.12.1.5) to (MR Ch.8 ss.3.7.2 and 3.12.1.5).	This section has been amended to incorporate this feedback. The market rules reference to Chapter 7, section 4.B.1 – publication of the DAM Hourly Intertie Energy Price Report is to a new, proposed market rule as part of the future Market System and Operations batch.

ID	Section	Feedback	IESO Response
		There is reference to Market Rules Chapter 7 Section 4.B.1. OPG is unable to locate this section in the MRP Consolidated Draft.	
66	MM 4.4 Appendix E	OPG suggests to include specific references mentioned in the section body in the reference section, and delete sections that are not mentioned: • (MR Ch.8 ss.3.16.1.1 – 3.16.1.4 and 3.16.3.1 – 3.16.3.4) vs (MR Ch.8 s.3.16.1 and MR Ch.8 s.3.16.3).	This section has been amended to incorporate this feedback.
67	MM 4.4 Appendix G, Table G-1	Editorial suggestions for descriptions: "MR Ch8. Ss3.8.1.For all amounts":	This section has been amended to incorporate this feedback. In regards to MM 4.6, the current MM 4.6 is being retired and market remediation content will be incorporated into MM 4.2: Operation of Day-Ahead Market, MM 4.3: Real-Time Scheduling of the Physical Markets and MM 4.5: Market Suspension & Resumption. This section has been amended to refer to the correct market manual.

ID	Section	Feedback	IESO Response
		3) What is the treatment for the current Market Manual 4.6 "Real-Time Generation Cost Guarantee Program"?	t
68	MM 4.4 List of Acronyms	Editorial suggestions: 1) LMP is not used in the market manual, suggest deleting from the list; 2) TTC is only used once in the market manual, suggest deleting from the list.	This section has been amended to incorporate this feedback.

ID	Section	Feedback	IESO Response
69	MM 5.3 Table of Changes	 Suggest adding in punctuation after: "Market Settlements & Metering" "Market Billing and Funds 	This section has been amended to incorporate this feedback.
		Administration"	The document was previously named 'Submission of Physical Bilateral
		2) What is "Document name change" in reference to?	Contract Data' and now the document is titled 'Physical Bilateral Contract Data'.
		3) There is reference to the "Market Settlements & Metering" Detailed Design document, however, the detailed design document is titled "Market Settlement". Recommend revising for alignment.	 3. This section has been amended to incorporate this feedback.
70	MM 5.3 s.1.2	OPG suggests listing the market rules sections in numeric order and include section headings for clarity.	This section has been amended to incorporate this feedback.

ID	Section	Feedback	IESO Response
71	MM 5.3 s.1.4	When would Market Manual 5.10 be available for stakeholder review?	MM 5.10 is one of the manuals that are currently being drafted as part of the future Market Systems and Operations batch. There are not anticipated to be any significant changes to MM 5.10 and any updates would be alignment in nature (e.g. utilizing new defined terms).
72	MM 5.3 s.2.2	"one of the above two forms" in the last sentence implies an "OR" condition. However, the two bullet points above the last sentence is connected by "and", which implies "AND" condition. The bullet points are also prefaced by "The derived quantity of energy option:", where the option is singular. Can the IESO please clarify the implication of the "OR" condition in the last sentence?	This section has been amended to incorporate this feedback.
73	MM 5.3 s.5.0	There is reference to Market Manual 5.7 in this section. The Summary of Change "Market Manuals – Settlements" section (page 25) indicates that there will be a future release of Market Manual 5.7. However, the description for Market Manual 4.4 Section 4 indicated that Market Manual 5.7 will be superseded by a new Market Manual 5.8, which is resultant from the combination of the current Market Manual 5.7 and 5.8. 1) Please clarify the status of Market Manual 5.7.	MM 5.7 is one of the manuals that are currently being drafted as part of the future Market Systems and Operations batch. There are not anticipated to be any significant changes to MM 5.7 and any updates would be alignment in nature (e.g. utilizing new defined terms).

ID	Section	Feedback	IESO Response
		Should the reference in this section be to Market Manual 5.8 instead of Market Manual 5.7?	
74	MM 5.3 List of Acronyms	The two acronyms in this list are not used in the market manual, this section can be deleted.	This section had been included because the acronyms were used in Figure 3-1. We have now replaced the previous figure with a new one that spells out PBC and PBCD. The List of Acronyms table has now been deleted.
75	MM 5.3 - General	 The Summary of Change indicated that procedural workflows and steps have been removed and replaced with the applicable training guide. It is important to ensure the hyperlinks within the market manual remain active so that market participants can easily access the required information. The roles and responsibilities section 	with the approach for other manuals, they have been removed as the roles of the parties are adequately outlined in the rules and manual.
		has been removed. Is there another location (within the Market Rules or Market Manuals) where this information is conveyed?	

ID	Section	Feedback	IESO Response
76	MM 5.5 – General	There was removal of certain charge types in this draft version Market Manual 5.5, such as Global Adjustment and Regulated Embedded Generation. From	Settlement amounts provided for in applicable law will be captured in MM 5.6, which is one of the manuals that are currently being drafted as part of the future

ID	Section	Feedback	IESO Response
		the "Summary of Change" document, the removed Market Manual 5.5 Section 1.6.6 Transmission Service Charges for Embedded Generation will be moved to Market Manual 5.6. This is also applicable for Section 1.6.7. The "Summary of Change" did not mention the removal of Section 1.4.6.8 Global Adjustment.	Market Systems and Operations batch. There are not anticipated to be any significant changes to MM 5.6 relative to the same content currently in MM 5.5 and any updates would be alignment in nature (e.g. utilizing new defined terms).
		 Please provide the release date of the revised Market Manual 5.6 for review. Where can market participants find the replacement for the removed Section 1.4.6.8? 	
77	MM 5.5 s.1.2	OPG suggests alignment for market rules reference format ("ss.x" vs "s.x") and the use of sections headings for all Market Rules sections in the list.	We have corrected all inconsistencies in the reference format used for Market Rules chapters. For details on the convention that the IESO will be following, please refer to the IESO response for comment ID: 18.
			Regarding section headings for market rule references, we have added them only where the reference is to a section that has a heading in the market rules.
78	MM 5.5 s.2.0	 Editorial suggestions within this section: 1) Italicize defined term in "Day-ahead market settlement includes settlement amounts for energy" 2) Italicize defined term in "Real-time balancing settlement includes settlement amounts that can be" 	 This section has been amended to incorporate this feedback. This section has been amended to incorporate this feedback. The acronyms have been retained to maintain consistency with similar headings in the manual and to provide

ID	Section	Feedback	IESO Response
		 3) Remove the acronym from the section headings of Sections 2.1.1, 2.1.2, 2.1.3 and 2.3, as the acronyms are defined in the body; 4) Remove italicization in "day-ahead market settlement of physical bilateral contracts (PBCs) (HPTSA_PBC{1}); and"; 5) Remove italicization in "is less than the market participant's day-ahead schedule." 	 an easier reference for the settlement amounts while navigating through the document. 4) The italicization has been retained as these are defined terms and this is also consistent with the changes made in response to (2) in this comment. 5) The italicization has been retained as these are defined terms.
79	MM 5.5 s.2.2.2.1	There is a reference to Market Rules Appendix 7.5 Section 6.3.1, however, this section has been intentionally left blank in the MRP Consolidated Draft and is not available for market participant review. Please clarify if the reference used is appropriate.	The reference to Appendix 7.5, section 6.3.1 is to the draft <u>Day-Ahead Market Calculation Engine</u> section of the market rules, which has been published but since it has not yet been provisionally approved by the IESO Board, it has not been incorporated into the MRP Consolidated Draft. The calculation engine rules will be incorporated in a future version of the MRP Consolidated Draft.
80	MM 5.5 s.2.13, Table 2- 21	There is an extra line break in the second row, second column cell.	This section has been updated to incorporate this feedback.
81	MM 5.5 s.2.23	"as described in MR Ch.9 s.4.6, will be calculated for settlement hours where the GOG-eligible resource's real-time schedule is less than its minimum loading point, indicating the GOG-eligible resource's intent to de-synchronize from the IESO-controlled grid."	 OPG's interpretation is correct. Resources will not be eligible for RT GOG for hours in which it is dispatched below MLP. The applicable ramp-down period is captured in the definition of 'T' and the relevant sections have been

ID	Section	Feedback	IESO Response
		There is a change to the definition for 'Ramp-Down' period in calculating the RT_RDSA for Market Renewal. The section indicates that the 'Ramp-Down' period as the "real-time schedule is less than its minimum loading point", but it does not clearly state if all dispatches below MLP would be considered part of the 'Ramp-Down' period, with consideration for resource injection, ramping direction and changes in ramp rate during these intervals. OPG interprets that whenever a GOG-eligible resource is dispatched below MLP, regardless of resource injection, ramping direction and ramp rate, those intervals are ineligible for RT GOG. Please confirm if this interpretation is correct.	amended to incorporate this feedback.
		OPG recommends the IESO to provide a clearer definition of what is the 'Ramp-Down' period in Chapter 9 Section 4.6, with consideration given to resource injection, ramping direction, and ramp rates.	
82	MM 5.5 s.4.4	OPG suggests adding in a semi-colon after each bullet point in the settlement amount listing.	This section has been updated to incorporate this feedback.
83	MM 5.5 s.5	There is reference to Market Manual 4.6: Market Remediation in this section. Please see comment to Market Manual 4.4, Appendix G, Table G-1 and provide clarity	The relevant content in Market Manual 4.6: Market Remediation has been re-located to Market Manual 4.2, 4.3 and 4.5. These market manuals are currently being drafted

ID	Section	Feedback	IESO Response
		on the status and release date for the new Market Manual 4.6.	as part of the future Market Systems and Operations batch.
84	MM 5.5 - General	OPG recommends the IESO to clearly define DAM_GOG and RT_GOG eligibility, with respect to the DAM and the RT market settlement process, in Market Manual 5.5.	The eligibility for DAM_GOG (e.g. section 4.4.1 and 4.4.2 of Chapter 9) and RT_GOG (e.g. section 4.5.1 and 4.5.2 of Chapter 9) can be found clearly defined in the Market Rules.
85		Status of Market Rules and Market Manuals As summarized from the feedback above, please clarify the future status and/or provide the release date the following Market Rules and Market Manual sections referenced in the Market Settlements, Metering and Billings Batch: • Market Rules Chapter 7 Section 4.B.1; • Market Rules Appendix 7.5 Section 6.3.1; • Market Manual 4.6: Market Remediation; • Market Manual 5.6; • Market Manual 5.7; • Market Manual 5.8; • Market Manual 5.10; • Market Manual 5.11.	MR Ch.7 and MM 5.6, 5.7, 5.8, 5.10 and 5.11 are currently being drafted as part of the future Market Systems and Operations batch. There are not anticipated to be any significant changes to these market manuals and any updates would be alignment in nature (e.g. utilizing new defined terms). MM 4.6 has been cancelled. and market Remediation content will reside in MM 4.2, MM 4.3 and MM 4.5.
86		Hydroelectric Resource Make Whole Payment: 1) For a hydroelectric generator that has a MinDEL requirement in RT scheduling, is there an opportunity to only make RT	The real-time calculation engine will respect constraints applied by the pre-dispatch calculation engine to meet minimum daily energy limit (MinDEL). If a resource is scheduled above MinDEL by the real-time

ID	Section	Feedback 1	IESO Response
		Make Whole Payment ineligible for hours where a minimum constraint is passed from Pre-Dispatch calculation engine to the RT calculation engine?	calculation engine for the trading day because it was economic, it will be eligible for RT MWP even if MinDEL was binding in pre-dispatch. Therefore, the current design of using real-time schedules to assess MinDEL is appropriate.
87		Questions for December 14, 2022 Presentation "Market Renewal Program: Market Settlements — Settlements Rules and Manuals (Part 1 of 3)", Slide 83: 1) What is the ramp rate information (energy ramp up MW and ramp hour) for the DAM_GOG example on Slide 83? 2) The averaged hourly MW output is at of 40 and 80 for 04:00 and 05:00, respectively. However, assuming that the sync time is at 04:00, the resource needs to be at 100MW at 06:00 the hourly MW output is an averaged MW output for the hour, OPG calculates the average hourly output to be at 25MW and 75MW for 04:00 and 05:00, respectively.	The examples provided in the December 14, 2022 presentation are for illustrative purposes and is not reflective of the resource ramp rates. Ramp rates are submitted by market participants as part of their price curves.
88		Impact to Market Renewal Program from Replacement of the IESO Settlement System:	Impact to Market Renewal Program from Replacement of the IESO Settlement System:
		 The MRP Settlements Batch Market Manuals have not incorporated changes from RSS Implementation, 	The approach taken by the IESO has been to reduce the administrative burden of market participants. The RSS

such as the updated NOD process and new RCSS statements. OPG strongly recommends the IESO to streamline the two set of changes to minimize market participant administrative burden (time and resources) in reviewing the manuals.

2) When would the updated MRP Market Rules and Market Manuals that include RSS revisions be available for stakeholder review? manuals have been published as part of that initiative and will be in effect from May 1 2023 until MRP Go Live. Now that RSS rule and manual changes have been approved, MRP will update those manuals and they will be released as part of the MSO batch this summer and will take effect at MRP Go live. In this way market participants can appreciate the manuals that will be in effect for the relevant periods of time without unnecessary duplication of efforts.

2) The IESO utilized an earlier version of the RSS market rules for the Settlements batch and has now updated the settlements batch to incorporate all of the final and approved RSS market rule amendments. The RSS changes related to other chapters (e.g. Chapter 3) will form part of the baseline for the final alignment batch.

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RSS Implementation Concerns

OPG would like to share four areas of concern (testing, communication, timeline and documentation) regarding the RSS Implementation process.

Testing

 The absence of a second official sandbox testing environment for RSS is a missed opportunity for the IESO and MPs to

RSS Implementation Concerns

Testing

1) The IESO appreciates the sentiment that a second official sandbox testing would increase confidence in a smooth implementation, but notes that there is insufficient time to do so in advance of the May 1, 2023 RSS commencement date. The IESO notes that after the first

ID

- identify any critical system issues prior to the May 1, 2023 in-service date. This risk was evident from the September 2022 RSS Market Trials and can lead to significant administrative burden for MPs post-RSS implementation, such as requiring manual
 - 2) Statement and Data File Format specifications along with the Charge Types and Equations document are important inputs within the settlement process. OPG understands that the delayed release of the Charge Types and Equations document is due to external factors outside of the IESO's control, but would like to highlight 3) The IESO can confirm that the identified that this delay would have significant impact on the development work on the MP's end in meeting RSS Implementation requirements.

reconciliation and filing of multiple NODs.

- 3) OPG would like confirmation that issues identified during the September 2022 Market Trials have been resolved and MPs. be provided the opportunity to perform re-4) testing to provide confidence in the issue resolution. Currently, it is not clear that posted sample statements and Data files will be adequate to complete system testing.
- 4) OPG requires the updated Settlement Schedule and Payments calendar to reflect the change from 23 months to 22 months with regard to the final RCSS. The correct schedule is required to complete system testing.

- sandbox testing, market participants were provided sample statements and data files to facilitate their own testing and processes. Additionally, there is training being provided by customer relations to further promote market participant readiness.
- 2) The IESO provided market participants with Settlement Statement and Data File Format specifications along with the Charge Types and Equations to support RSS in July of 2022. Further updates to each document as part of MRP is anticipated as part of the MSO batch.
 - issues during the September 2022 Market Trials have been resolved. The IESO is committed to assist market participants with the implementation of RSS. If there are specific files or information that would be of assistance, please let the IESO know.
 - The IESO has recently published the SSPC for 2023. The IESO notes that final RCSSs will likely not appear on the SSPC until 2025.

Communication

1) Prior to RSS go-live, there have been many opportunities to provide feedback to the initiative, including the posting of rules, stakeholder engagements, market participant readiness activities. Post go-live, the

Communication

- 1) OPG proposes the inclusion of a feedback section in the RSS Implementation webpage where MPs can provide dedicated feedback to the initiative.
- 2) There does not appear to be formal communication to MPs when updates are made to the IESO RSS Implementation webpage. OPG proposes that the IESO provide formal notification to all MPs whenever updates are provided, either through dedicated email or through the weekly IESO bulletin. This will ensure timely communication of new information for RSS Implementation for all MPs, particularly as the May 1st Implementation date draws near.
- 3) The updated RSS Market Rules include a new defined term: RSS commencement date. RSS commencement date refers to the date on which MR-00475-R00 comes into effect. However, it is unclear the exact location where the RSS commencement date is identified on the IESO website. The uncertainty in confirmation of the RSS commencement date could create issues for system implementation.

Timeline

1) The RSS deployment timeline for May 2023 is challenging for MPs, as it overlaps with simultaneous review MRP Settlement Batch of Market Rules *Documentation*

- IESO will consider other activities to support MPs, including OPG's proposal.
- 2) The IESO currently provides notifications through the IESO bulletin and separate communications to notify market participants of changes on the RSS implementation page. The IESO will continue this practice.
- 3) As with all market rule amendments, the date on which the RSS rules come into force is as specified in the relevant IESO Board Resolution. The RSS Commencement Date is May 1, 2023.

Timeline

- 1) The IESO acknowledges that there are multiple large initiatives underway and remains committed to engaging with and supporting market participants to facilitate market participant readiness. If there is any specific information, documents, or sessions that would be of assistance, please let the IESO know.
- 2) The IESO will consider the notice of disagreement process timelines surrounding MRP Go-live as part of the final alignment batch.

- **IESO Response**
- and Market Manuals. These initiatives place demand on the same resources at the same time.
- 2) The overlapping RSS and MRP Settlement project timelines, along with changes to the schedules (e.g., changes in documentation release dates) results in challenges and difficulties in engaging external vendors due to uncertainties in the schedule and shortfall in resourcing.
- 3) As indicated previously, MRP Go-Live may double to triple the number of NODs and will trigger more RCSS statements. If multiple versions of RCSS statements are issued on the same day, there may be problems with reviewing all the documents with a NOD deadline of six days. Would the IESO consider extending the RCSS review period from six to 20 days or lift the NOD deadline restriction for the first 3-6 months after MRP Go-Live? This is in reference to the feedback to Market Rules Chapter 9 Section 6.3.18.
- 1) The IESO anticipates that the MRP updates to the new market Manual 5.10 will be provided as part of the MSO batch. There are not anticipated to be any significant changes to MM 5.10 and any updates would be alignment in nature (e.g. utilizing new defined terms).
- 2) The RSS updates to Market Manual 5.5 was published on March 24th, 2023.

IESO is always available to provide support leading up to and post go-live. Please feel free to reach out with any specific concerns or questions.

Documentation

- 1) The MRP initiative does not appear to have considered RSS changes in its documentation of Market Manual 5: Settlements, Part 5.10.
- 2) When would Market Manual 5, Part 5.5 "Physical Market Programs" be available for stakeholder review?

Overall, there is high risk to a successful RSS Implementation due to the absence of an official retesting period, inconsistent communication, and challenging timelines.

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Market Renewal Implementation Concerns

- 1) There is increased shadow settlement. system calculation complexity and dataset volume due to the detailed charge type definitions. Per review of the market manual, OPG found that the specified charge types that provides the breakdown details of the settlement amounts defined in the MRP Design document increased settlement system calculation complexity and dataset volumes. For example, Congestion Management Settlement Credit calculations only had one charge type; the proposed DAM Make Whole Payment (MWP) consists of four charge types and the proposed Real-Time Market MWP consists of eight charge types. OPG strongly recommends the IESO to allocate sufficient time for sandbox testing and implementation.
- Market participants may have further comments when all the charge type reviews are completed. Does the IESO plan to have multiple review cycles for

Market Renewal Implementation Concerns

IESO Charge Types and Equations will be published with the draft Market and System Operations batch of market rules in July 2023. Stakeholders will have the opportunity to provide feedback on the draft batch once published.

The Format Specifications for Settlement Statement Files and Data Files will be published in Q2 2024.

As illustrated on the Market Renewal Program Project Status webpage, testing activities are anticipated to start in 2024 and continue into mid-2025. Further details on testing timelines will be shared as they become available.

- Settlement charge types between now and Market Renewal Implementation?
- 3) Market Participants are waiting for the release date for the two following documents:
 - Format Specifications for Settlement Statement Files and Data Files (IMP_SPEC_0005);
 - b. IESO Charge Types and Equations (IMP_LST_0001); OPG requests that the IESO to provide estimated delivery dates to both files, in particular IMP-SPEC-0005, as significant vendor support is required to address the changes and modifications outlined therein, which can result in cascade impact on settlement tools development and testing. Further delay in their release would negatively impact MP readiness for System Testing.
- 4) Can the IESO please provide dates for Market Renewal Settlements sandbox testing.

General Feedback:

OPG acknowledges and thank the IESO's efforts in providing the engagement presentation and settlement examples to explain the Settlement Market Rules. The

Thank you for your feedback. Please send any requests for clarification or specific scenarios to IESO Engagement, this input will be valuable as the IESO continues to presented settlement scenario samples were very helpful for MPs to understand the new Market Rules as well as future settlement system implementations. OPG also acknowledges that is a difficult and complex task to develop and communicate a whole set of market rules and manuals for a new settlement process.

OPG proposes the IESO to continue scenario

OPG proposes the IESO to continue scenario studies with MPs to provide additional clarification of the new settlement structure, taking into account MP's operation requirements, as this aids MP's development of systems and processes. OPG looks forward to continued dialogue with the IESO regarding the new settlement system for MRP.

develop a full suite of Market Renewal training materials.

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- 1) From Market Rules Chapter 9, OPG interprets that a DAM commitment period can never overlap with a RT commitment period. This would indicate that a scheduled period cannot receive both DAM-GOG and RT-GOG payments. For example: an NQS resource is committed for 100 MW in the DAM schedule and 200 MW in the RT schedule. Since that time period already has a DAM commitment schedule, would the 200 MW of RT generation receive a DAM-GOG or RT-GOG? If the resource receives a DAM-GOG, then Component 1 of the DAM-
- The day-ahead market commitment period and real-time commitment period are two distinct periods which do not overlap.
- 2) In the case where the resource has a minimum loading point that is equal to or less than 100 MW, the day-ahead market commitment period will be assessed for a DAM-GOG payment and the incremental MW above day-ahead schedule may be eligible for RT-MWP. The resource would not receive any additional payment under RT-GOG as those costs would have already been

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IESO Response

GOG would only consider the DAM schedule and the DAM MWP.

a. Please confirm if this interpretation is correct or provide clarification if not.

Reliability Commitment

- 1) There is a Reliability Scheduling and Commitment Pass for NQS that is scheduled in Pass 2 in the DA Calculation Engine. For this type of scheduling commitment in the calculation engine, is there a cap on the DAM-GOG payment?
- 2) Please outline the differences between a reliability commitment, a manual reliability commitment and an operational commitment.
- 3) How would a Market Participant determine a manual reliability commitment from the information provided in the IESO reports?
- 4) Is the manual reliability commitment process applicable in both DAM and RT time frames?
- 5) Would a manual reliability commitment period be longer or shorter than the Minimum Generation Block Run Time (MGBRT)?
- 6) In the current Day-Ahead Commitment Process (DACP), the DACP reliability commitment period can be longer than the MGBRT. For Market Renewal,

compensated under DAM-GOG or RT-MWP.

3) In the case where the resource is scheduled in the day-ahead market to ramp up and where its minimum loading point is greater than 100MW, and the hour is committed in real-time at 200 MW, then the resource will receive RT-GOG compensation, but the 100MW ramp up day-ahead schedule will be excluded from the RT-GOG calculation

Reliability Commitment

- 1) All GOG-eligible resources that are committed by the day-ahead market calculation engine and scheduled in Pass 3, including those that are scheduled in the Reliability Scheduling and Commitment pass (Pass 2) are eligible for DAM-GOG payments and are not capped. However, reliability commitment may be subjected to mitigation. More information on the relevant mitigation thresholds can be found in sections 2.4.10, 2.4.11, 3.4.10 and 3.4.11 of Appendix 9.4.
- Operational commitments are those that are scheduled economically by either the day-ahead market calculation engine or the pre-dispatch calculation engine whereas reliability

- please provide scenarios where a DAM manual reliability commitment would be scheduled longer than MGBRT.
- 7) Do the DAM-GOG and RT-GOG formulas for operational commitment apply to all manual reliability commitment requested by the IESO?
- 8) The manual reliability commitment process does not go through the calculation engines. Does the IESO cap the DAM-GOG/RT-GOG payment for manual reliability commitment? For example, if the resource submits an energy offer at \$2000, does the resource receive \$2000 in payment without deduction (i.e., the MWP process would not lead to reduction in the payment)?
- 9) OPG recommends the IESO to clearly identify, within the Market Rules Chapter 9, instances of manual reliability commitment vs reliability commitment for the DAM-GOG and the RT-GOG processes, as the wording in the Market Rules for reliability commitment in DAM and RT does not clearly state if the reliability commitment is automated or manual. Currently it is difficult to make the distinction of when a manual reliability commitment is applied.

- commitments are the result of the IESO applying a constraint in order to maintain reliability. There is no distinction between a reliability commitment and a manual reliability commitment.
- 3) Reliability commitment will be provided in the Day-Ahead Commitments Report and the Pre-Dispatch Binding and Advisory Schedules Report with the codes DARCMT and PDRCMT respectively. More information on these codes will be provided as part of the Market System and Operations batch.
- 4) Yes, the reliability commitment process is applicable in both the DAM and RT time frames.
- 5) If the reliability commitment is a standalone pre-dispatch operational commitment or a day-ahead operational commitment, the resource will be committed for its minimum generation block run-time. However, if the reliability commitment is an advanced pre-dispatch operational commitment or an extended pre-dispatch operational commitment then minimum generation block run-time would have already been completed and the manual constraints could be shorter in duration.
- A resource would be committed for a period longer than minimum

generation block run-time in cases where the underlying reliability concern is for a duration that is longer than the minimum generation block run-time and where the day-ahead market calculation engine did not schedule the required resource(s).

- 7) The DAM-GOG and RT-GOG formulas are the same for reliability commitment.
- 8) Please see response in bullet (1) above.
- 9) Please see response in bullet (2) above.