Below are the IESO's responses to stakeholder feedback on the Market Entry and Prudential Security batch of market rules and market manuals.

ID	Stakeholder	Section or Manual	Feedback	IESO Response
1	Electricity Distributors Association	General	Based on IESO's comments during the MRP engagement, our expectation has been that amendments to the Market Rules and Market Manuals would be drafted and posted for comment once the Detailed Designs were completed with stakeholder feedback incorporated. While the IESO has provided a response to comments on Prudential Security, the IESO has not engaged in a discussion with LDCs, nor has the IESO updated the Detailed Design to reflect stakeholder comments. Further, the IESO will receive stakeholder comments on the complete first draft Detailed Design package up until December 2, 2020. While we acknowledge that "Batch 1" amendments are substantially administrative in nature, matters such as prudential security could have material impacts on LDCs. We therefore request that the IESO update its stakeholder engagement plan to reflect updated processes, and outline how IESO's Implementation Phase may be dependent on information from outside processes (e.g., regulatory processes as discussed below.)	Market Renewal is a large p continues to finalize some a concurrently moving ahead design that have been avail The IESO acknowledges that between the batches and a recommendation from Tech batches have been presente engage the entire suite of p in all of the batches. Furthe are available at <u>Market Rule</u> Stakeholders have told the highest importance, includin stakeholder reviews of mar 2021, as will the Technical stakeholder community with and manuals, and to keep p IESO has started work early updated stakeholder engag
2	Electricity Distributors Association	Chapter 2 - Prudential Support	An LDC's actual exposure in the market will be, in part, determined by electricity prices that will be paid by its customers. To date, we do not have guidance from the OEB with respect to what new price produced by the IESO will replace HOEP for LDC customers (i.e., consumers that are not IESO Market Participants). Without this input, it is difficult for the EDA to comment at this time with respect to the appropriateness of the IESO's proposed amendments to recalculate prudential support following the implementation of MRP.	Thank you for your comme within the Market Renewal stakeholders, including the We will continue working w provide transparency and in Renewal process.



e project with a number of phases. While work e areas of the detailed design, the IESO is ad with market rules and manuals for pieces of the railable for almost a year.

that there are many important interconnections as a result, we will not be seeking a formal echnical Panel on any of the batches until all of the nted, and stakeholders have had an opportunity to f proposed Market Renewal Amendments reflected her details on the IESO's recommended approach ules Amendment Process for MRP.

ne IESO to focus and dedicate time to the areas of iding the market rules and manuals. External market rules and manuals will continue throughout al Panel review process. In an effort to provide our with the most time and engagement with the rules p pressing ahead for broader project timelines, the arly. The IESO remains committed to sharing agement plans during this implementation phase.

nent. There are many known interdependencies al project, which include working with many ne Ontario Energy Board, about requisite changes. with this broader stakeholder community to d integrate stakeholder feedback into the Market

ID	Stakeholder	Section or Manual	Feedback	IESO Response
3	Electricity Distributors Association	Chapter 2 - Prudential Support	Based on the IESO's draft Market Settlement Detailed Design, NDLs will be charged for consumption based on the sum of the DAM Ontario Zonal Price and the Load Forecast Deviation Charge (LFDC). The amendments proposed by the IESO would calculate prudential support for NDLs based on the higher of a) the average DAM Ontario Zonal Price, and b) the average RT Ontario Zonal Price. The EDA seeks additional analysis from the IESO as to whether the prudential support required reflects the LDCs' actual exposure in the market. In particular, we question the appropriateness of basing prudential support on the RT Ontario Zonal Price if NDLs are not settled at the RT Ontario Zonal Price. The LFDC may increase or decrease (and can be negative) based on the difference between the NDL quantity scheduled in the DAM and the actual quantity withdrawn in real-time, and variations between the DAM Ontario Zonal Price and the RT Ontario Zonal Price. The accuracy of IESO forecasts determine these variables. In addition, we note that the prudential support calculations do not consider the new Congestion Rent and Loss Residual amount that will be owed to consumers on a monthly basis. Overall, we believe it is appropriate for LDCs and the IESO to review scenarios in order to be convinced of the appropriate amount of prudential support, and to consider input from the OEB with respect to prices that would be charged to LDC customers.	The IESO has proposed tha day-ahead and real-time Or prudential support obligatio loads. Although consumption settled at the real-time Ontain an important input into the The load forecast deviation contribute to the exposure Additionally, the IESO does making a significant impact be posted by market participant changes to the prudential s and manuals may impact m
4	Electricity Distributors Association	Chapter 2 - Prudential Support	We recommend that the IESO engage with LDCs to evaluate and determine the appropriate amount of prudential support in a working group setting. The EDA and the IESO have identified a number of topics to be addressed during the implementation phase, including other matters related to LDC readiness. We believe a working group approach is required to address outstanding concerns with the Detailed Designs and to prepare for the review of draft Market Rule and Market Manual Amendments.	Thank you for your feedbac the Local Distribution Comp Renewal engagement, so th transparently.
5	Electricity Distributors Association	Chapter 2 - Prudential Support	The EDA also requests that the IESO revisit its decision with respect to the acceptability of surety bonds as prudential support, which may support reduced costs for LDCs. The EDA asserts that surety bonds would save LDCs, and ultimately customers, a significant amount of money while continuing to mitigate risk. It should be noted that there has been no default by any LDC in recent memory.	In the 2016 Prudential Fram concluded that surety bond would meet the IESO's requ Renewal, the IESO does no forms of collateral. For refe Framework Report.
6	OPG	1.5 - Market Registration Procedures	Section 3.0: The following three phrases are all used in IESO material: •'Register Equipment' (first sentence of Section 3.0, MM1.5), •'Register equipment' (Stage 5 process diagram on IESO website), and •'Register Facility' (per Register Facility Help File title) If all these phrases are intended to mean the same thing, please choose one phrase and be consistent throughout all documentation.	Revisions have been made a December 4, 2020 and to p the Register Help File to the Renewal Implementation.



hat the price basis term will be informed by the Ontario Zonal prices for the purposes of setting the tions for physical transactions for non-dispatchable tion from non-dispatchable loads are not directly ntario Zonal price, real-time pricing outcomes are ne calculation of the load forecast deviation charge. On charge represents a settlement charge that can e a non-dispatchable load has in the IESO market. es not view congestion rents and loss residuals as ct on the bottom line of the prudential support to icipants. Finally, the IESO will look for opportunities pants with a greater understanding of how the support calculations described in the market rules market participants' prudential support obligations.

ack. The IESO will continue to work closely with npany (LDC) community throughout the Market that those issues and concerns can be addressed

amework Report, the IESO investigated and nds are not an acceptable form of collateral that quirements. As part of the scope of Market not intend to revisit the appropriateness of different eference and rationale, refer to the <u>2016 Prudential</u>

e accordingly in Market Manual 1.5 dated provide clarity in the future, the IESO will rename he Register Equipment Help File as part of Market

ID	Stakeholder	Section or Manual	Feedback	IESO Response
17	OPG	1.5 - Market Registration Procedures	Section 3.3.3.2 Period of Steady Operation: (Market Rules: Chapter 7, section 2.2.6H.2) OPG recommends that hydroelectric resources be allowed to register for the period of steady operation parameter in addition to non-quick start generation resources.	Registration of the period o available to dispatchable hy that a hydroelectric resource elapse to avoid a safety, en a dispatch instruction. Howe hydroelectric resources have instruction will lead to such
18	OPG	1.5 - Market Registration Procedures	 Section 3.3, page 35: The following sentence is ambiguous: "Registered market participants submitting such dispatch data may do so only for a dispatchable non-quick start generation resource associated with a generation unit that has a primary or alternate fuel type value other than Uranium and a pseudo-unit." Is the 'non-quick start generation resource' associated with: 1) 'a generation unit that has a primary or alternate fuel type value other than Uranium', and 2) 'a pseudo-unit' OR Is the 'non-quick start generation resource' associated with 'a generation unit' that has: 1) 'a primary or alternate fuel type value other than Uranium', and 2) 'a pseudo-unit' OR A bulleted list would be a better way to show the intended relationship, but some way of disambiguating the intent is needed. 	Revisions have been made i Start-up offers and speed-n 1) A dispatchable non-quick generation unit whose prim Uranium: 2) A pseudo-unit.



I of steady operation parameter will not be made hydroelectric resources. The IESO acknowledges urce may require a number of dispatch intervals to environmental or legislative violation in response to owever, as dictated by the market rules,

ave the ability to reject a dispatch instruction if that ch a violation.

le in Market Manual 1.5 dated December 4, 2020. I-no-load offers may only be submitted for: ick start generation resource associated with a imary or alternate fuel type is not registered as

ID	Stakeholder	Section or Manual	Feedback	IESO Response
21	OPG	1.5 - Market Registration Procedures	 Section 3.3.5.1: Please clarify what is meant by a "dispatchable hydroelectric generation resource". Does this include a station with multiple resources or just a single resource? The time lag parameter needs to be available for use at both the station level and resource level. Time lags between cascading hydro stations can change daily/hourly as a result of changing flow conditions on the grid. This parameter should be included as "Daily Dispatch Data" rather than as "Resource Data" so that time lag durations can be updated to reflect changing river flow conditions. Furthermore, market participants should have the ability to modify the Time Lag and the MWh ratio parameters intra-day as changing as these interrelationships can change during day as flow/head conditions and unit operating/efficiency points change. OPG provided detailed comments on these items in its review submission for the Offers, Bids and Data Inputs design section (e.g. Comments #17, 18, 20) and as of November 9, 2020 the IESO has not provided any responses. This section of the Market Manual 1.5 may require revision based on resolution of these review comments. 	A dispatchable hydroelectric represent a single generation comprised of two dispatchal singular aggregated resource solely for the resource (that The time lag parameter is as but can be evaluated by the the station (facility) level. If enabled when a market part share a forebay. As described in the Offers, market participants will hav By submitting time lag as a option to submit revised tim time lag determined during lag can be adjusted daily, c
22	OPG	1.5 - Market Registration Procedures	 Section 3.3.5.2: This section shows only four forbidden regions but the IESO agreed in its responses to market participant feedback on the Offers, Bids and Data Inputs design section that up to five would be allowed. Forbidden regions upper and lower limits should be part of Daily Dispatch Data rather than Resource data. This is needed to allow for changes in the MWh values based on changes to operating conditions/head and the best efficiency point for operations. OPG provided detailed review comments on this item in its review submission for the Offers, Bids and Data Inputs design section (e.g. Comments #12 and 20) and as of November 9, 2020 the IESO has not provided any response. This section of the Market Manual 1.5 may require revision based on resolution of these review comments. 	This section was updated to registered by a market part 2020. As described in the C document, registered mark resources will be permitted regions as dispatch data. R to validate these dispatch c



ric generation resource may be modeled to tion unit or multiple generation units. For a facility hable hydro generation units, represented as a urce, the time lag parameter will be submitted nat it to say, not for each individual unit).

s submitted as dispatch data at the resource level he day-ahead market and pre-dispatch engines at Dispatch data evaluation at the station level is articipant registers that two or more resources

s, Bids and Data Inputs detailed design document, ave the ability to submit time lag as dispatch data. a registration parameter, participants will have the time lag as a dispatch data, up to the maximum ng registration. Therefore, dynamic changes to time or hourly if required.

to reflect that up to five forbidden regions may be articipant in Market Manual 1.5 dated December 4, Offers, Bids and Data Inputs detailed design rket participants for dispatchable hydroelectric ed to submit upper and lower limits of forbidden Registration data for forbidden regions will be used data submissions.

ID	Stakeholder	Section or Manual	Feedback	IESO Response
23	OPG	1.5 - Market Registration Procedures	 Section 3.3.5.4: The start indication value parameter should be assessed/assigned at the unit level. OPG provided a detailed review comment on this item in its review submission for the Offers, Bids and Data Inputs design section (e.g. Comments #16) and as of November 9, 2020 the IESO has not provided any response. This section of the Market Manual 1.5 may require revision based on resolution of these review comments. The first sentence of this section states: "The start indication value represents the minimum quantity of energy, in MW, that a generation unit for a resource must be scheduled to in the dayahead market and pre-dispatch scheduling processes." This definition is not consistent with that provided in the Facility Registration Detailed Design (Section 3.6.1) which states: "The start indication value will be a new optional registration parameter that represents the minimum quantity of energy a resource must be scheduled to determine whether the generation units associated with resource have used up one or more of their maximum number of starts per day." OPG recommends that the first sentence of Section 3.3.5.4 of Market Manual 1.5 be revised to better reflect that actual purpose of the start indication value parameter. This section refers to a 'maximum number of starts per day', but this is not one of the data fields included in this new version of the Market Manual. This same phrase appeared in Figure 3-2 of the previous version but was also not described in the previous version. Should the figure that was 3-2 in the prior version be included in this version of this manual? 	The start indication value m by unit) as contemplated by as dispatch is conducted on The maximum number of si only. This parameter is design Data Inputs detailed design batch.
7	OPG	1.5 - Market Registration Procedures	Section 3.1 (among other places): Sometimes the term 'Owner' is capitalized (e.g., " organizations having an Owner Role" in section 3.1), and sometimes it is not (e.g., "facility owner" in section 3.1.1). If there is a difference in meaning when the term is capitalized vs. when it is not, this should be defined/elaborated somewhere (and usage should be consistent with definitions).	Revisions have been made a December 4, 2020.
8	OPG	1.5 - Market Registration Procedures	Section 3.1.1 - Table 3-10 The term 'embedded generators' is used, but not italicized (though it is a defined term). The manual should be reviewed for usage of defined terms, and all instances should be properly formatted.	Revisions have been made December 4, 2020.



e may be submitted at the resource level only (not by its definition in chapter 11 of the market rules, only on resources.

f starts per day will be a dispatch data parameter escribed in greater detail in the Offers, Bids and gn document and will be addressed in a future

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ID	Stakeholder	Section or Manual	Feedback	IESO Response
			The first entry in Table 3-10 says: "During the connection assessment process, Participants must confirm with the IESO the number of resources required at their facility. The IESO will determine the number of resources based on the number of transformers at the facility."	
9	OPG	1.5 - Market Registration Procedures	The statement that the IESO will make the determination seems somewhat contradictory with the description here and elsewhere that Participants may request a particular number of resources. Suggested language to improve the clarity of this is as follows: "During the connection assessment process, the IESO will make a preliminary determination of the number of resources based on the number of transformers at the facility, and market participants must confirm with the IESO the number of resources required at their facility."	Revisions have been made December 4, 2020.
10	OPG	1.5 - Market Registration Procedures	 The first entry in Table 3-10 says: " As part of the Register Equipment procedure, the proponents or market participants are required to provide" Suggestion: remove the word 'the' in front of 'proponents' to parallel the usage of 'market participants' that follows: " As part of the Register Equipment procedure, proponents or market participants are required to provide" 	Revisions have been made December 4, 2020.
11	OPG	1.5 - Market Registration Procedures	 Table 3-10, 'Prepare Operational Philosophy Document' entry: This section says: "Market participants must prepare a document attesting their facilities' operating conditions". It appears that the word 'to' has been removed from the previous language inappropriately, as it seems this section should read: "Market participants must prepare a document attesting to their facilities' operating conditions" 	Revisions have been made December 4, 2020.
12	OPG	1.5 - Market Registration Procedures	Section 3.2 (bottom of Page 26): "If any data is determined to be inaccurate, incomplete or missing, the IESO will reject it and the Equipment Registration Specialist would need to resubmit updated data." Suggestion: change 'would' to 'will' to be consistent 'IESO will reject'/'ERS will need to'	Revisions have been made December 4, 2020.
13	OPG	1.5 - Market Registration Procedures	Section 3.2.5: "Tests are scheduled as mutually agreed between the IESO and the market participant. In order to complete the Register Equipment procedures, all participant and facility tests must be verified and approved by the IESO." This instance of 'participant' is not italicized, though it seems clear that this is intended to refer to 'market participant', which is a defined term. Suggestion: either italicize 'participant' as a stand-alone reference to the intended 'market participant' or add 'market' to make 'market participant' and italicize the entire term.	Revisions have been made December 4, 2020.



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14	OPG	1.5 - Market Registration Procedures	 Section 3.3 (page 30): Reference to Table 3-3 should be a reference to Table 3-12: "market varies by the groupings set out in Table 3-3." Reference to Table 3-4 should be a reference to Table 3-13: " data parameters and resource data parameters using Online IESO, as shown in Table 3-4." Other instances of incorrect table references were noted, so a review/update of all links/references is suggested. 	All table numbers were revie December 4, 2020.
15	OPG	1.5 - Market Registration Procedures	 Section 3.3, Table 3-13 (pages 32-33): Suggestions Please organize the rows of the table to present the 'resource data parameter' fields in the same order as they appear in the sections below that describe them. It appears some (though not all) of the sections below Table 3-13 have references to sections of the Market Rules. It would create a parallel between the structure of this manual and the structure of the Market Rules if the terms in this manual appeared in the same order as they appear in the Market Rules. Please consider organizing in this way. Rather than including only an 'X' in each entry in the table to indicate where a data parameter applies to generation resources of a particular classification, it would be helpful to readers to include references to the sections below where each particular parameter is described. 	Revisions have been in Marl includes a new column in th where possible, sections on reflect the order found in th
16	OPG	1.5 - Market Registration Procedures	Section 3.3.2, Page 35: "In all cases, the IESO also records a start date of the quick-start flag value to handle time dependent revisions that effect settlement processes." From context, it appears the word 'affect' would be a better choice, but it is an ambiguous case, and either word could be what is intended. Recommend reviewing to either confirm 'effect' is what is intended rather than 'affect', or switch to 'affect'.	Revisions have been made a December 4, 2020.
19	OPG	1.5 - Market Registration Procedures	Section 3.3.4 (Page 37): "Modelling of an combined cycle" Here, 'an' should be replace with 'a'.	Revisions have been made a December 4, 2020.
20	OPG	1.5 - Market Registration Procedures	Section 3.3.4.1 (Page 38): "The number of pseudo-units to be registered is equal to the number of combustion turbine resource at the combined cycle facility (refer to Figure 3- 2)." Here, 'resource' should be made plural, 'resources'.	Revisions have been made a December 4, 2020.



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arket Manual 1.5 dated December 4, 2020. This the table with the applicable section numbers and on resource data parameters were re-organized to the market rules.

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24	OPG	1.5 - Market Registration Procedures	 Section 4.2, pages 56-57 This bulleted list can be improved (made more succinct and readable) by adopting a parallel structure for each bullet, and eliminating redundant words: "For example, facility maintenance is required in the following circumstances: market participation changes, such as: resource type (generation resource, load resource, etc.); bid/offer type resource data parameter changes for generation resources (dispatchable [regular]22, non-dispatchable, self-scheduling, intermittent); bid/offer type resource data parameter changes for load resources (dispatchable [regular]23, day-ahead price responsive24, non-dispatchable); changes to operating reserve class (10-minute or 30-minute); facility type (generation facility, load facility, etc.); combined cycle facility modelling changes (pseudo unit model, etc.); physical site modifications (e.g., changes in MW output, ramp rates, governor models, data monitoring, and voice communication equipment, etc.); and changes in operational control, as defined by the registered market participant." 	Revisions have been made December 4, 2020.
			 Suggested update: "For example, facility maintenance is required in the following circumstances: market participation changes, such as: o resource type (generation resource, load resource, etc.); o bid/offer type data parameter for generation resources (dispatchable [regular]22, non-dispatchable, self-scheduling, intermittent); o bid/offer type data parameter for load resources (dispatchable [regular]23, day-ahead price responsive24, non-dispatchable); o operating reserve class (10-minute or 30-minute); o facility type (generation facility, load facility, etc.); o combined cycle facility modelling (pseudo unit model, etc.); physical site modifications (e.g., changes in MW output, ramp rates, governor models, data monitoring, and voice communication equipment, etc.); and changes in operational control, as defined by the registered market participant." 	



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			IESO Response
OPG	1.5 - Market Registration Procedures	 Section 4.2, page 57: "As a guideline to Participant with existing facilities, the IESO will issue a RAN for changes such as, but not limited to:" Suggestions: Make 'Participant' plural, and Change 'such as' to 'including': "As a guideline to Participants with existing facilities, the IESO will issue a RAN for changes including, but not limited to:" 	Revisions have been made a December 4, 2020.
OPG	1.5 - Market Registration Procedures	Section 4.2, page 58: Last three bullets in this section should be formatted as normal paragraph text, rather than as part of the bulleted list.	Revisions have been made a December 4, 2020.
OPG	1.5 - Market Registration Procedures	General recommendation: Whenever `i.e.' or `e.g.' are used, they should be followed by a comma. This has been done inconsistently in this document.	Revisions have been made a December 4, 2020.
	OPG	OPG Procedures OPG 1.5 - Market Registration OPG 1.5 - Market Registration OPG 1.5 - Market Registration	OPG1.5 - Market Registration ProceduresRAN for changes such as, but not limited to:" Suggestions: • Make 'Participant' plural, and • Change 'such as' to 'including': * "As a guideline to Participants with existing facilities, the IESO will issue a RAN for changes including, but not limited to:"OPG1.5 - Market Registration ProceduresSection 4.2, page 58: Last three bullets in this section should be formatted as normal paragraph text, rather than as part of the bulleted list.OPG1.5 - Market Registration ProceduresGeneral recommendation: Whenever `i.e.' or `e.g.' are used, they should be followed by a comma. This



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