

Market Rule Amendment Proposal Form

Part 1 Market Rule Information

| Identification No.: | MR-00451-R00 |
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| Subject: | Market Renewal Program: Facility Registration |
| Title: | Facility Registration |
| Nature of Proposal: | Alteration Deletion Addition |
| Chapter: | 7 |
| Appendix: | |
| Sections: | 1.1, 2.1, 2.2, 2.2A, 2.2B, 2.2C, 2.3 |
| Sub-sections proposed for amending: | 1.1.1, 1.1.1 [new], 1.1.1.2 [new], 1.1.1.3 [new], 1.1.1.4 [new], 1.2.1.3, 1.2.4 [new], 2.1.1, 2.1.1.2, 2.1.1.3, 2.1.1.4 [new], 2.1.1.5 [new], 2.1.1.6 [new], 2.1.2, 2.1.2.1, 2.1.2.2, 2.1.2.3, 2.1.3, 2.2, 2.2.1, 2.2.2, 2.2.3, 2.2.3.1, 2.2.3.3, 2.2.3.4, 2.2.3.5, 2.2.3.6, 2.2.3.7, 2.2.3C [new], 2.2.4, 2.2.5, 2.2.6, 2.2.6.1, 2.2.6.2, 2.2.6.4, 2.2.6.5, 2.2.6.6, 2.2.6.7, 2.2.6.8, 2.2.6.10, 2.2.6A, 2.2.6A.1 [new], 2.2.6A.2 [new], 2.2.6A.3 [new], 2.2.6A.4 [new], 2.2.6B, 2.2.6D, 2.2.6E, 2.2.6F, 2.2.6G, 2.2.6G.1 [new], 2.2.6G.2 [new], 2.2.6H, 2.2.6H.1 [new], 2.2.6H.2 [new], 2.2.6I, 2.2.6J [deleted], 2.2.6K, 2.2.7, 2.2.7.2, 2.2.7.4, 2.2.7.5, 2.2.8, 2.2.8.2, 2.2.9, 2.2.9.1, 2.2.9.3, 2.2.11, 2.2.12, 2.2.14, 2.2.15, 2.2.16, 2.2.19, 2.2.21, 2.2.22, 2.2.25 [new], 2.2.25.1 [new], 2.2.25.2 [new], 2.2.25.3 [new], 2.2.26 [new], 2.2.A.1, 2.2A.3, 2.2B all [deleted], 2.2C all [deleted], 2.3, 2.3.1, 2.3.1.1, 2.3.1.2, 2.3.2, 2.3.2.1, 2.3.2.2, 2.3.2.2c, 2.3.2.3, 2.3.2.4, 2.3.2.5, 2.3.2.6, 2.3.2A, 2.3.3, 2.3.4, 2.3.5. |

Part 2 Proposal History

| Version | Reason for Issuing | Version Date |
|---------|------------------------------|------------------|
| 1.0 | Draft for Stakeholder Review | October 13, 2020 |
| | | |

| Approved Amendment Publication Date: | |
|--------------------------------------|--|
| Approved Amendment Effective Date: | |

Part 3 Explanation for Proposed Amendment

Provide a brief description of the following:

- The reason for the proposed amendment and the impact on the *IESO-administered markets* if the amendment is not made.
- Alternative solutions considered.
- The proposed amendment, how the amendment addresses the above reason and impact of the proposed amendment on the *IESO-administered markets*.

Part 4 Proposed Amendment

Chapter 7

- 1. Introductory Rules
- 1.1 Purpose
- 1.1.1 This Chapter sets forth rules governing the
 - 1.1.1.1 registration of *facilities* and any associated *resources*;
 - 1.1.1.2 use of *boundary entities* and *boundary entities reources*;
 - 1.1.1.3 real-time operations of the *electricity system*, and
 - <u>1.1.1.4</u> the market-clearing and pricing process in the <u>real-time market and pre-</u> <u>dispatch physical operations and <u>day-ahead market physical</u> <u>transactions</u>physical markets.</u>

1.2 Application

- 1.2.1 The rules in this Chapter apply to:
 - 1.2.1.1 the *IESO*;
 - 1.2.1.2 any person who causes or permits electricity or any *physical service* to be conveyed into, through or out of the *integrated power system*;

- 1.2.1.3 any registered market participant that submits dispatch data with respect to any <u>resource</u>registered facility; and
- 1.2.1.4 *transmitters*.
- 1.2.2 [Intentionally left blank section deleted]
- 1.2.3 In this Chapter, a reference to the term "area" in the context of *operating reserve* shall be construed as a reference to a portion of the *IESO control area* designated as such by the *IESO* and within which the *IESO* may impose limits on the amount of *ten-minute operating reserve* that can be scheduled from <u>resources registered facilities</u> located within that portion for the purpose of meeting the total requirement for *ten-minute operating reserve* within the *IESO control area*.
- <u>1.2.4</u> Sections 1 and 2 of Chapter 7 apply to *physical transactions* in the *real-time market* and *day-ahead market*.
- 2. Registration for Physical Operations in the Day-Ahead and Real-Time Market
- 2.1 Requirements for Operating on the Grid
- 2.1.1 No person shall <u>conduct *physical transactions* in the *day-ahead market* or <u>participate</u> in the *real-time markets* or cause or permit electricity or any *physical service* to be conveyed into, through or out of the *integrated power system* unless:</u>
 - 2.1.1.1 that person is authorised to be a *market participant* in accordance with Chapter 2;
 - 2.1.1.2 the *facility* to or from which the electricity or *physical service* is to be so conveyed or the *boundary entity* to which the electricity or *physical service* relates has either been registered by the *IESO* as a *registered facilityresource* pursuant to section 2.2 or section 2.2A, as the case may be, or is exempt from registration under section 2.1.3; and
 - 2.1.1.3 subject to section 2.1.1A, where such *registered facilityresource* associated with is a generation facility that is connected electrically to a neighbouring *control area,* and the electricity or *physical service* is to be conveyed out of the *integrated power system* over a *radial intertie*:
 - a. the person complies with the requirements of Appendix 7.7;
 - b. the person has entered into a *connection agreement;*
 - c. the IESO has entered into an interconnection agreement with the control area operator, security coordinator or interconnected transmitter for the relevant radial intertie; and

- d. the *interconnection agreement* referred to in section 2.1.1.3(c) supports the implementation of the requirements of Appendix $7.7 \pm$
- 2.1.1.4 that person has provided to the *IESO* the documentation and data, as applicable to determine reference levels as prescribed by Appendix 7.8;
- 2.1.1.5 that person has disclosed to the *IESO*, all of their *market associates* for the following *resources*:
 - a. generation resources;
 - b. price responsive loads;
 - c. dispatchable loads; or
 - d. hourly demand response resources; and
- 2.1.1.6 that person has disclosed to the *IESO* all of their *market control entities* for the following *resources*:
 - a. dispatchable generation resources; or
 - b. dispatchable loads;
- 2.1.1A Section 2.1.1.3 shall not apply in respect of:
 - 2.1.1A.1 the delivery of electricity or a *physical service* out of the *integrated power system* over a *radial intertie* where such delivery is required to provide support in the case of an *emergency* in a *control area*;
 - 2.1.1A.2 the delivery of electricity or a *physical service* out of the *integrated power system* over a *radial intertie* where such delivery is required to provide support in the case of an *outage* in a *control area*; or
 - 2.1.1A.3 the delivery of electricity or a *physical service* out of the *integrated power system* over an *intertie* that is configured as a *radial intertie* following and as a result of a *contingency event*.
- 2.1.2 A *market participant* shall not submit, and the *IESO* shall not accept, any *dispatch data* with respect to a *facility* or *resource*, including a *boundary entity resource*, unless:
 - 2.1.2.1 that *facility* or *resource*, including a *boundary entity resource*, has been registered is a *registered facility* for the provision –of the *physical service(s)* to which the *dispatch data* relate;
 - 2.1.2.2 that *market participant* is the *registered market participant* for that registered facility<u>resource</u>; and
 - 2.1.2.3 the *dispatch data* are consistent with: (i) the registration information defining the capabilities of the *registered facilityresource*; (ii) the *market participant's* reasonable expectations of the current actual capabilities of the *registered*

facilityresource; and (iii) any revision in registration information requested by the *IESO* under section 7.5.6.2 or other provision of these *market rules*.

- 2.1.3 Subject to sections 2.3 and 10.2.6, no person that intends to participate in the *IESO-administered markets* or to cause or permit *electricity* or any *physical service* to be conveyed into, through or out of the *integrated power system* shall be required to register the <u>a</u> *facility* to or from which the *electricity* or *physical service* is to be so conveyed as a *registered facility* and any associated *resources* registered with the *IESO* if such *facility* is embedded within a *distribution system*, a *load facility* or a *generation facility* and that:
 - 2.1.3.1 in the case of a *generation facility*, has a maximum rated *generation capacity*, net of auxiliary requirements, of less than 1 MW;
 - 2.1.3.2 in the case of a *load facility*, has a maximum load capacity of less than 1 MW; or
 - 2.1.3.3 in the case of a *distribution system*, has a maximum load capacity of less than 1 MW.

2.2 Registered Facilities and Associated Resources Registration

- 2.2.1 The *IESO* shall establish a process for registering a *facility* and any associated *resources* or for using a *boundary entity resource* as a *registered facility* and for registering a *market participant* as a *registered market participant*. Such process shall include, but not be limited to, the certifications referred to in sections 2.2.3.3 and 2.2.3.4 and the testing and inspection referred to in section 2.2.3.5.
- 2.2.1A [Intentionally left blank section deleted]
- 2.2.2 A *market participant* may apply request to register a *facility* or any associated *resources* or to use *boundary entity* resourceas a registered facility:
 - 2.2.2.1 for the delivery or withdrawal of specific *physical services* pursuant to the provisions of this section 2.2.
 - 2.2.2.2 [Intentionally left blank section deleted]
- 2.2.3 The *IESO* shall approve an <u>application request to register</u> for registration of a *facility* and <u>any associated resources</u> or to use a *boundary entity* <u>resource</u> as a <u>registered facility</u> if:
 - 2.2.3.1 the applying *market participant* submits:
 - a. the registration information required by this section 2.2;
 - b. in the case of a *facility connected* to the *IESO-controlled grid*, a copy of the *connection agreement* pertaining to the *facility* and entered into with the applicable *transmitter*, and

- c. in the case of a *generation facility* or a *dispatchable load facility* embedded within a *distribution system*, a copy of the *connection agreement* pertaining to the *facility* and entered into with the applicable *distributor*,
- 2.2.3.2 the *IESO* is satisfied on reasonable grounds that the *facility* is capable of operating as described in the registration information or as otherwise provided by the *market rules* in respect of the relevant *physical service*;
- 2.2.3.3 the applying market participant certifies to the *IESO* that all of the *facilities* and equipment to which its application request for registration relates comply with all applicable technical requirements, other than those referred to in section 6.2 of Chapter 2, set forth in these *market rules* applicable to all *market participants*, the class of *market participant* of which the applying *market participant* forms part and the *IESO-administered market* in which the applying *market participant* wishes to participate;
- 2.2.3.4 the applying market participant certifies to the *IESO* that it has adequate qualified employees or other personnel and organizational and other arrangements that are sufficient to enable the applying market participant to perform all of the functions and obligations applicable to market participants, the class of market participant of which the applying market participant forms part and the *IESO-administered market* in which the applying market participant forms participant wishes to participate in respect of all of the facilities, and equipment and any associated resources to which its application request for registration relates;
- 2.2.3.5 the applying market participant successfully completes such testing and permits such inspection as the *IESO* may require for the purposes of testing or inspecting whether all of the facilities and equipment to which its application-request for registration relates meet all applicable technical requirements, other than those referred to in section 6.2 of Chapter 2, set forth in these *market rules* applicable to all *market participants*, the class of *market participant* of which the applying *market participant* forms part and the *IESO-administered market* in which the applying *market participant* wishes to participate;
- 2.2.3.6 the applying market participant certifies to the *IESO* in writing that all of the *facilities* and equipment to which its <u>request application</u> for registration relates complies with the requirements identified in any applicable *preliminary assessment* or *system impact assessment* associated with that *market participant's facilities* or equipment; and
- 2.2.3.7 the applying market participant certifies to the *IESO* that all of the *facilities* and, equipment and any associated *resources* to which its <u>request</u> application for registration relates does not differ materially from the configuration or

technical parameters that were used by the *IESO* as the basis for which it issued any applicable approvals for such new or modified *connection* in accordance with section 6.1.14 to 6.1.18 of Chapter 4, unless the applicable *market participant* or *connection applicant* has obtained the approval of the *IESO* for the change in configuration or technical parameter in accordance with section 6.1.22 of Chapter 4;

- 2.2.3.8 [Intentionally left blank section deleted]
- 2.2.3A [Intentionally left blank section deleted]
- 2.2.3B [Intentionally left blank section deleted]
- 2.2.3C The *IESO* may reject values submitted by a *market participant* in accordance with this section 2.2 if the *IESO* determines that the *facility*-specific or *resource*-specific information submitted does not conform to the technical capabilities of the *facility* or any associated *resources*;
- 2.2.4 The *market participant* designated in the registration information as the *market participant* authorised to submit *dispatch data* with respect to a *registered facilityresource* shall be the *registered market participant* for that *registered facilityresource*. The *registered market participant* designated for a *registered facilityresource* may not be changed without the prior approval of the *IESO*.
- 2.2.5 The *IESO* shall define the form and content of information, as further specified in the applicable *market manual*, required for registration as a *registered facility* with associated *resources* where applicable in accordance with this sections 2.2.6 to 2.2.8.
- 2.2.6 Where the *facility* sought to be registered is within the *IESO control area*, the information required for registration as a *registered facility* or as an associated *resource*, as the case may be, shall, subject to any lesser requirements that may be *published* by the *IESO* in respect of the information required for registration of a given class or size of *facility* or any associated *resource*, include, but not be limited to:
 - 2.2.6.1 the identity of the owner and the operator of the *facility* and its associated <u>resources</u>;
 - 2.2.6.2 the identity of the *market participant* authorised to submit *dispatch data* with respect to the *facilityresource*;
 - 2.2.6.3 for a *connected facility*, information demonstrating that the *facility* has met the *connection* requirements set forth in Chapter 4;
 - 2.2.6.4 information demonstrating that the *market participant* designated as the *registered market participant* for the *facility* and its associated *resources* has the operational control necessary to assure delivery or withdrawal of the relevant *physical services* as described in the registration information;

- 2.2.6.5 for a *connected facility*, the location of the *facility* and the identity of the *primary RWM* that will measure the flow of *energy* between the *facilityresource* and the *IESO-controlled grid*;
- 2.2.6.6 for a *facility* embedded within a *distribution system* or within a *connected facility* within the *IESO control area* that is *connected* to the *IESO-controlled grid*, the location of that *facility*, the identity of the *primary RWM(s)* through which *energy* will flow between that *facilityresource* and the *IESO-controlled grid* and information demonstrating that *energy* can flow to and from the identified *primary RWM*(s) with allocations and loss factors specified in the registration information;
- 2.2.6.7 standing technical data defining the ability of the *facility* <u>and its associated</u> <u>resources</u> to deliver or withdraw each *physical service* for which registration is sought including, where relevant, the trade-off functions among *energy* and *operating reserves;*
- 2.2.6.8 for a *facilityresource* that will be subject to the *IESO's dispatch instructions*, certification that the *facilityresource* has a minimum rated *generation capacity*, net of auxiliary requirements, or a minimum *dispatchable load* capacity, of 1 MW. Individual *generation units* or *loads facilities* or units may be aggregated to meet this minimum capacity requirement if they meet the aggregation requirements of section 2.3; and
- 2.2.6.9 [Intentionally left blank section deleted]
- 2.2.6.10 for any *resources* associated with a cogeneration facility or enhanced combined cycle facility choosing to be either a *dispatchable* or *self-scheduling generation facilityresource*, and the *registered market participant* wishes the compliance bands used to determine whether or not the *facilityresource* is in compliance with its *dispatch instructions* or its current schedule, information as outlined in the applicable *market manual* concerning the impact that the production or supply of the other forms of useful *energy* within the *facility* has on *energy* production. The *IESO* may audit this information, which is to be used to determine appropriate compliance bands as outlined in section 3.3.8, at any time.
- 2.2.6A A *registered market participant* for a <u>hydroelectric</u> generation facility resource may submit, with any supporting documentation that the *IESO* may request, the following facility resource specific information as applicable:
 - 2.2.6A.1 *forbidden regions*; and period of steady operation.
 - 2.2.6A.2 start indication value. A market participant that elects to submit a start indication value shall provide one or more MW values for each resource that is associated with dispatchable hydroelectric generation resource;
 - 2.2.6A.3 the intention to submit *hourly must run*; and

2.2.6A.4 shared daily energy limits.

If the information regarding *forbidden regions* is submitted, the *market participant* shall respect such information when submitting *dispatch data* for the *real-time market*. If the *dispatch data* submitted does not respect such information the *IESO* shall reject the *dispatch data* submission for the affected resource and for the corresponding *dispatch hour* or *dispatch hours* and shall advise the submitting *registered market participant* accordingly.

- 2.2.6B A *registered market participant* for a *dispatchable generation <u>facility resource</u>* shall submit to the *IESO* the *minimum loading point*, the *minimum generation block run-time*, and the *minimum run-time* for the *generation <u>facility resource</u>* if the *minimum loading point* for the <u>facility resource</u> is greater than zero MW and if the *minimum generation block run-time* for the <u>facility resource</u> is greater than one hour.
 - 2.2.6B.1 [Intentionally left blank section deleted]
 - 2.2.6B.2 [Intentionally left blank section deleted]
 - 2.2.6B.3 [Intentionally left blank section deleted]
- 2.2.6C [Intentionally left blank section deleted]
- 2.2.6D The *IESO* may request, and the *registered market participant* for a *dispatchable generation facilityresource* shall submit to the *IESO*, the following information for the *generation facility:*
 - 2.2.6D.1 *start-up time*; and
 - 2.2.6D.2 minimum shut-down time.
- 2.2.6E If no <u>resource facility</u> specific data is submitted to the IESO for <u>the a</u> generation facility's <u>resource's</u> minimum loading point, forbidden regions, or period of steady operation in accordance with sections 2.2.6A, and 2.2.6B, the *IESO* shall assign default values of zero for that data.
- 2.2.6F If <u>resourcefacility</u> specific data is submitted to the *IESO* in accordance with sections 2.2.6A, 2.2.6B, 2.2.6G or 2.2.6J the *IESO* shall respect the data as submitted in its determination of the <u>day-ahead schedule</u> in accordance with Chapter 7A, the <u>pre-dispatch schedule</u> in accordance with section 4B of Chapter 7, and the <u>real-time</u> schedule in accordance with section <u>4E of Chapter 76 and day-ahead schedule in accordance with section 5</u>.
- 2.2.6G In accordance with the applicable *market manuals*, a *registered market participant* that operates a combined cycle facility that is not aggregated under section 2.3 shall submit to the *IESO*.
 - 2.2.6G.1 the required data for <u>each resource of that combined cycle facility, including</u> the steam turbine <u>minimum loading point</u>, and

- 2.2.6G.2 for those *registered market participants* that wish to designate <u>resources in</u> their non-aggregated combined cycle *facility* as a *pseudo-unit* in the dayahead commitment process set out in section 5.8, the required data for that *pseudo-unit*. including the *steam turbine percentage share* in:
 - a. the day-ahead market in accordance with section XX of Chapter 7A;
 - b. <u>the *pre-dispatch scheduling* process in accordance with section 4A of</u> <u>Chapter 7; and</u>
 - c. the *real-time market* in accordance with section 4D of Chapter 7.
- 2.2.6H A registered market participant for a dispatchable hydroelectric-generation facilityresource shall submit to the *IESO* where applicable: the daily cascading hydroelectric dependency for that generation facility.

2.2.6H.1 time lag; and

2.2.6H.2 period of steady operation;

- 2.2.61 Subject to section 2.2.6G, the *IESO* shall determine, in accordance with the applicable *market manual*, the *pseudo-unit* technical parameters based on the <u>resource facility</u> specific data submitted under section <u>32.2.6J</u>.
- 2.2.6J [Intentionally left blank section deleted] A registered market participant for a dispatchable generation facility that is not a quick-start facility may submit on a daily basis the minimum loading point, the minimum generation block run-time, the maximum number of starts per day and the minimum generation block down time, and, for facilities designated as a pseudo-unit under section 2.2.6G, the combustion turbine single cycle mode, and the *IESO* shall use this data in the day-ahead commitment process set out in section 5.8.
- 2.2.6K A *registered market participant* for a *dispatchable generation* <u>facility</u><u>resource</u> shall submit to the *IESO* the elapsed time to dispatch for the <u>generation</u> <u>facility</u><u>resource</u>.
- 2.2.7 Where To registeruse a boundary entity and its associated boundary entity resources is sought to be registered, a valid interconnection agreement over the relevant interconnection must have been entered into prior to the approval of the applicationrequest. In addition, the information required for registration of theto use the boundary entity resources as a registered facility shall include, but not be limited to:
 - 2.2.7.1 identification of the *intertie RWM*(s) through which the *physical services* will be delivered to or withdrawn from the *IESO-controlled grid*, which shall determine the *intertie zone* within which the *boundary entity* is deemed to be located;
 - 2.2.7.2 information confirming that the *market participant* authorized to submit *dispatch data* with respect to the *boundary entity <u>resource</u>* holds all licences, permits or other authorizations that may be required to permit such *market*

participant to deliver or withdraw the *physical services* to or from the *intertie zone* within which the *boundary entity* <u>resource</u> is deemed to be located;

- 2.2.7.3 information demonstrating compliance with applicable requirements of all relevant *standards authorities* and completion of the necessary transmission service arrangements with affected *control areas*;
- 2.2.7.4 the identity of the *market participant* authorized to submit *dispatch data* with respect to the *boundary entity_resource*; and
- 2.2.7.5 information defining the maximum quantities of each *physical service* that the *market participant* authorized to submit *dispatch data* in respect of the *boundary entity resource* is entitled to inject into or withdraw from the *IESOcontrolled grid* in respect of the *boundary entity resource* including, where relevant, the trade-off functions among *energy* and *operating reserves*.
- 2.2.8 In addition to the information required by section 2.2.6 or 2.2.7, as the case may be, the registration information for a *facilityresource* or *boundary entity* that will provide *operating reserves* shall include information in a form approved by the *IESO* demonstrating-in the case of a *facility*, the ability of the *facilityresource* or, in the case of a *boundary entity*, the ability of the resources comprising the *boundary entity*, to:
 - 2.2.8.1 provide *energy* and *operating reserves* according to the trade-off functions described in, and with the response times indicated in, the registration information; and
 - 2.2.8.2 deliver, when the *facility<u>resource</u> or <i>boundary entity* is called upon to do so by the *IESO*, *energy* at the specified rate (in MWh/hour or MW) in accordance with its *operating reserve offer* for at least one hour.
- 2.2.9 A market participant may <u>apply request</u> to register as a self-scheduling generation facility <u>and any associated *resources*</u> any generation facility:
 - 2.2.9.1 <u>whose with a name-plate rating of individual *resources* equipment collectively add up to of 1 MW or more but less than 10 MW;</u>
 - 2.2.9.2 that is a *commissioning generation facility* of any name-plate rating and that is sought to be registered pursuant to section 2.2A.1; or
 - 2.2.9.3 that is a *cogeneration facility* or *enhanced combined cycle facility* with <u>awhose total</u> name plate rating of <u>individual equipment collectively add up</u> <u>to</u>10 MW or more provided that the *IESO* determines that there are no adverse impacts on the *reliable* operation of the *IESO-controlled grid* of the *facility* being registered as a *self-scheduling generation facility*.
- 2.2.10 A self-scheduling generation facility may be registered:
 - to provide *energy* and *reactive support service* and *voltage control service*; and
 - as a *certified black start facility*.

- 2.2.11 The *IESO* shall approve an <u>application request</u> for registration as a *self-scheduling generation facility* and any associated *resources* if the information required by this section 2.2 is provided and the *IESO* determines that *self-scheduling* of the *facility* and any associated *resources* will not have a material adverse effect on power system *security*.
- 2.2.12 A *self-scheduling generation facility* whose <u>request application</u> for *facility* registration has been approved by the *IESO* is a *registered facility* with associated *resources* registered by the *IESO*.
- 2.2.13 A *market participant* may apply to register an *intermittent generator* if it has a nameplate rating of not less than 1 MW.
- 2.2.14 An intermittent generator <u>and any associated *resources*</u> may not be registered to provide any *physical service* other than *energy* and *reactive support service* and *voltage control service*.
- 2.2.15 The *IESO* shall approve an <u>request application</u> for registration as an *intermittent generator* if the information required by this section 2.2 is provided and the *IESO* determines that intermittent operation of the *facility* will not have a material adverse impact on power system *security*.
- 2.2.16 An *intermittent generator* whose application request for *facility* registration has been approved by the *IESO* is a *registered* facility with associated *resources* registered by the *IESO*.
- 2.2.17 For the purposes of this Chapter, a *distribution system connected* to the *IESO-controlled* grid must be a registered facility that is registered by the *IESO*.
- 2.2.18 The *IESO* shall develop procedures and requirements for registering a *distribution system* as a *registered facility*. Such procedures shall include, but not be limited to, the certifications referred to in sections 2.2.3.3 and 2.2.3.4 and the testing and inspection referred to in section 2.2.3.5.
- 2.2.19 A *market participant* may <u>request apply</u> to register a *transitional scheduling generator* if it has a nameplate rating of not less than 1MW.
- 2.2.20 A transitional scheduling generator may be registered:
 - to provide *energy* and *reactive support service* and *voltage control service* and
 - as a *certified black start facility*.
- 2.2.21 The *IESO* shall approve an <u>application request</u> for registration as a *transitional scheduling generator* and its associated *resources* if the information required by this section 2.2 is provided, and the *generator* and its associated *resources* areis under contract with *OEFC* and will participate in the <u>day-ahead market</u> and <u>real-time market</u> for *energy*.
- 2.2.22 A transitional scheduling generator whose request application for facility registration has

been approved by the *IESO* is a *registered facility* with associated *resources* registered by the *IESO*.

- 2.2.23 Within one month of the coming into effect of the amendments to the contract with *OEFC* required as a result of electricity industry restructuring in Ontario in respect of a *transitional scheduling generator*, the *registered market participant* for the *transitional scheduling generator* shall change registration for the applicable *generation facility* to one of the other *generation facility* registrations.
- 2.2.24 [Intentionally left blank section deleted]
- 2.2.25 A *market participant* for a *load resource* may request to change its classification as either a *dispatchable load, non-dispatchable load,* or *price responsive load* as follows:
 - 2.2.25.1 <u>a request to change from a *non-dispatchable load* to a *dispatchable load* shall <u>be submitted at least six months prior to the effective date of the change;</u></u>
 - 2.2.25.2 <u>a request to change from a *non-dispatchable load* to a *price responsive load* shall be submitted at least one month prior to the effective date of the change; and</u>
 - 2.2.25.3 <u>a request to change from a *dispatchable load* or *price responsive load* to a *non-dispatchable load* shall be submitted at least seven *business days* prior to the effective date of the change.</u>
- 2.2.26 Once the change to a *non-dispatchable load* takes effect in accordance with subsection 2.2.25.3, the *market participant* shall not change its classification back to a *dispatchable load* or a *price responsive load* in accordance with subsections 2.2.25.1 or 2.2.25.2, as the case may be, for at least 12 months from the effective date of the change.

2.2A Registration of Commissioning Generation Facilities

- 2.2A.1 A *market participant* may apply to register a *commissioning generation facility_*-as a *self-scheduling generation facility*, in accordance with section 2.2, for the purpose of being permitted to convey electricity or a *physical service* into, through or out of the *integrated power system* or of participating in the *real-time markets* during the period in which the *commissioning generation facility* is undergoing the commissioning tests referred to in section 2.2A.4.
- 2.2A.2 The *IESO* shall approve an application for *facility* registration of a *commissioning generation facility* as a *self-scheduling facility* if it is satisfied that the requirements of section 2.2 have been met. Any such registration shall expire upon completion by the *commissioning generation unit* of the final commissioning test submitted to and approved by the *IESO* pursuant to section 2.2A.4.
- 2.2A.3 Upon expiry of the registration referred to in section 2.2A.2, a *market participant* shall not participate in the *real-time markets* nor cause or permit electricity or any *physical service* to be conveyed into, through or out of the *integrated power system* in respect of

a former *commissioning generation facility* unless such former *commissioning generation facility* has been registered as a *generation facility*, other than pursuant to this section 2.2A, in accordance with section 2.2.

- 2.2A.4 Where a *commissioning generation facility* has been registered by the *IESO* pursuant to section 2.2A.2, the *market participant* for that *commissioning generation facility* shall, while such registration is in effect:
 - 2.2A.4.1 ensure that the commissioning generation facility:
 - a. complies with all of the provisions of these *market rules* applicable to *self-scheduling generation facilities*; and
 - b. where it will seek to be registered, other than pursuant to this section 2.2A, in accordance with section 2.2 as other than a *self-scheduling generation facility*, complies with all of the applicable requirements of section 7.3 of Chapter 4; and
 - 2.2A.4.2 submit to the *IESO*, for approval and in accordance with section 2.2A.5, information detailing the commissioning test plans for the *commissioning generation facility*.
- 2.2A.5 The detailed commissioning test plans, referred to in section 2.2A.4.2 shall be submitted to the *IESO* for approval and shall be scheduled in accordance with the procedures applicable to the *outage* coordination process described in section 6 of Chapter 5 and with any applicable *market manual* and shall include, but not be limited to:
 - 2.2A.5.1 the time required for the *commissioning generation facility* to synchronize to and de-synchronize from the *IESO-controlled grid*;
 - 2.2A.5.2 *energy* and reactive output levels;
 - 2.2A.5.3 the timing of and ramp rates associated with changes in *energy* and reactive output levels; and
 - 2.2A.5.4 run-back or trip tests for the *commissioning generation facility*.
- 2.2A.6 Except as otherwise provided in this section 2.2A, where a *commissioning generation facility* has been registered by the *IESO* pursuant to section 2.2A.2, the *IESO* shall, while such registration is in effect, treat the *commissioning generation facility* as a *self-scheduling generation facility* for all purposes under these *market rules* including, but not limited to, the submission of *dispatch data* and *settlement*.

2.2B [Intentionally left blank – section deleted]

Generation Facility Eligibility for the Real-Time Generation Cost Guarantee

2.2B.1 [Intentionally left blank – section deleted]

| A registered market participant for a generation facility shall be eligible for |
|---|
| A registered market participant for a generation racinty shall be engible for |
| the supervised of a set of a set of the set |
| the guarantee of certain elements of its costs, calculated in accordance with |
| |
| section 4.7B of Chapter 9, provided the following criteria are met: |
| section 4.7 b or onapter 7, provided the following criteria are met. |

2.2B.1.1 [Intentionally left blank – section deleted]

the facility is not a quick-start facility;

2.2B.1.2 [Intentionally left blank – section deleted]

the facility is a dispatchable generation facility; and

2.2B.1.3 [Intentionally left blank – section deleted]

[Intentionally left blank – section deleted];

2.2B.1.4 [Intentionally left blank – section deleted]

the *registered market participant* has submitted to the *IESO* the following data for the *generation facility*, in accordance with the applicable *market manual*, and the *IESO* accepts the data as reasonable:

2.2B.1.4A [Intentionally left blank – section deleted]

 the minimum run-time, minimum loading point, and minimum generation block run-time;

2.2B.1.4B [Intentionally left blank – section deleted]

the incremental fuel costs and incremental operating and maintenance costs determined in accordance with sections 2.2B.4, 2.2B.5 and 2.2B.6; and

2.2B.1.4C [Intentionally left blank – section deleted]

any other data, as reasonably requested by the *IESO* that is relevant to determine eligible costs in accordance with section 2.2B.4, from the *registered market participant*, any *affiliate*, service provider or contractual counter-party.

2.2B.2 [Intentionally left blank – section deleted]

The *IESO* may, at any time, audit the data submitted in accordance with section 2.2B.1.4, and the *registered market participant* shall provide the requested audit information in the time and manner specified by the *IESO*. If, as a result of such an audit, the *IESO* determines that the audit information provided does not support the submitted data, including, without limitation, that the *IESO* does not accept the data as reasonable, the *IESO* shall recover any resulting over-payments made to the *market participant*. Notwithstanding the foregoing sentence, where the *registered market participant* has submitted data in accordance with this section 2.2B and sections 10A.1 and 11.2.1 of Chapter 1, the *IESO* shall not retroactively revise pre-approved cost values determined in accordance with section 2.2B.5 when calculating any amount to be recovered from that *registered market participant*.

2.2B.3 [Intentionally left blank – section deleted]

For purposes of sections 2.2B.1.4 and 2.2B.2, the *registered market participant* shall retain supporting documentation related to cost submissions, including data that may be required by the *IESO* to determine pre-approved cost values and methodologies, in accordance with the applicable *market manual*, for a period of 7 years from the date when a cost is paid.

Submitted Eligible Costs

2.2B.4 [Intentionally left blank – section deleted]

Submitted eligible costs pursuant to section 2.2B.1 shall be limited to:

- 2.2B.4.1 ______ incremental fuel costs, incremental operating and maintenance costs resulting from wear and tear caused by [Intentionally left blank – section deleted]the operation of a facility; and
- 2.2B.4.2 [Intentionally left blank section deleted]

all other incremental operating and maintenance costs as set out in section 4.7B.5.2 of Chapter 9;

from either the point of ignition or synchronization to the *IESO-controlled grid* as applicable, until the *facility* reaches its *minimum loading point*, where that *facility* has met the eligibility criteria specified in sections 2.2B.1, 5.7 and 6.3A, as specified and further detailed in the applicable *market manual*.

2.2B.5 [Intentionally left blank – section deleted]

Subject to section 2.2B.6, for each cost specified in section 2.2B.4, the *IESO* shall determine pre-approved cost values and methodologies that are either universal or *facility*-specific, and calculate the submitted eligible costs in accordance with section 4.7B.5 of Chapter 9. The pre-approved cost values and methodologies shall remain in effect until revised by the *IESO*. The *IESO* shall review the pre-approved cost values and methodologies at least once every 3 years. The first review shall be completed no later than 3 years from the effective date of this section.

2.2B.6 [Intentionally left blank – section deleted]

In circumstances where pre-approved cost values and methodologies are not established under section 2.2B.5, the IESO may at its sole discretion allow a registered market participant to submit the incremental fuel costs and incremental operating and maintenance costs for each facility under section 2.2B.1.4B, in accordance with the applicable market manual.

2.2C [Intentionally left blank – section deleted]

Generation Facility Eligibility for the Day-Ahead Production Cost Guarantee

2.2C.1 [Intentionally left blank – section deleted]

| | A <i>registered market participant</i> for a <i>generation facility</i> shall be eligible for the guarantee of certain elements of the <i>facility's</i> costs, calculated in accordance with section 4.7D of Chapter 9, provided the following criteria are met: |
|---|--|
| 2.2C.1.1_ | [Intentionally left blank – section deleted] |
| | the facility is not a quick-start facility; |
| 2.2C.1.2_ | [Intentionally left blank – section deleted] |
| | the <i>facility</i> is a <i>dispatchable generation facility</i> with a elapsed time to <i>dispatch</i> greater than one hour; |
| 2.2C.1.3 | [Intentionally left blank – section deleted] |
| 2.2C.1.4_ | [Intentionally left blank – section deleted] |
| | the <i>registered market participant</i> has, according to the timelines and in the form specified in the applicable <i>market manual</i> , submitted to the <i>IESO</i> the following information for the <i>generation facility</i> : the start-up costs; and the speed no-load costs; and |
| 2.2C <u>.</u> 1.5_ | [Intentionally left blank – section deleted] |
| the <i>registered market participant</i> has, according to the timelines and in the form specified in the applicable <i>market manual</i> , submitted to the <i>IESO</i> the following information for the <i>generation facility</i> : the <i>minimum loading point</i> : and the <i>minimum</i> | |

2.2C.2 [Intentionally left blank – section deleted]

2.3 Aggregated Registered FacilitiesGeneration Units or Loads as Resources

2.3.1 A market participant may apply request to the IESO to aggregate several facilities resources associated with either generation units or loads for one or more of the following the purposes: of (i) participating in the day-ahead market, or (ii) delivering or withdrawing one or more physical services in the real-time energy market, or the procurement markets or both. Upon IESO approval, the aggregated facilities resources associated with either generation units or loads shall, except as specifically stated in the registration information or the IESO's approval of the aggregation, be treated as a single resource facility for the provision or withdrawal of the approved physical services:

generation block run-time and the IESO accepts all such information as reasonable.

2.3.1.1 <u>either for the provision or withdrawal of the approved *physical services* by the *registered market participant* for purposes of the submission of *dispatch data*; and</u>

- 2.3.1.2 by the *IESO*, for purposes of the scheduling and *dispatch* processes described in this Chapter and for the purposes of scheduling processes of the *day-ahead market* described in Chapter 7A.
- 2.3.1A [Intentionally left blank section deleted]
 - 2.3.1A.1 [Intentionally left blank section deleted]
 - 2.3.1A.2 [Intentionally left blank section deleted]
- 2.3.2 The *IESO* shall approve a <u>request</u> application for the aggregation of <u>resources</u> associated with either <u>generation units</u> or <u>loads</u> facilities into a single registered facility resource unless:
 - 2.3.2.1 the registration information for the <u>resources associated with either</u> <u>generation units or loads facilities</u> proposed to be aggregated fails to satisfy the conditions of section 2.2;
 - 2.3.2.2 the registration information fails to demonstrate one or more of the following in respect of the <u>resources associated with either generation units or</u> <u>loadsfacilities</u> proposed to be aggregated;
 - a. that they are all located within the IESO control area;
 - b. subject to section 2.3.2A, that they are all *connected* to the *IESO-controlled grid* at the same *connection point*;
 - c. that <u>the *resource* is they are all</u> under the operational control of a single *market participant* and that such *market participant* is authorized to submit *dispatch data* for <u>itall of them</u>;
 - d. that operational communication between each of them and the *IESO* meets all applicable standards and protocols; or
 - e. that they all have relevant metering systems to be used for *settlements* purposes that satisfy the requirements of Chapter 6; or
 - 2.3.2.3 one or more of the <u>resources associated with generation units or loads</u> facilities proposed to be aggregated is or includes a <u>resource generating unit</u> or a <u>load facility</u>:
 - a. whose *offer* or *bid* information or whose in service or out of service status affects the numerical value of operating *security limits* in any manner;
 - b. whose *offer* or *bid* information or whose in service or out of service status is information required by the *IESO* for conducting detailed *security* and resource adequacy assessment;
 - c. whose *offer* or *bid* information or whose in service or out of service status is information required to be submitted to the *market assessment unit* or the *market surveillance panel* in furtherance of their respective functions

and obligations under the *Electricity Act, 1998, the Ontario Energy Board Act, 1998* and these *market rules*; or

- d. whose *offer* or *bid* information, in service or out of service status or other information is required by *applicable law*, by *license*, by the *Ontario Energy Board* or by a *standards authority* to be submitted to or obtained by the *IESO*.
- 2.3.2.4 the applying market participant fails to provide the certification referred to in section 2.2.3.3 in respect of any of the *facilities*;
- 2.3.2.5 the applying market participant fails to provide the certification referred to in section 2.2.3.4 in respect of any of the *facilities*; or
- 2.3.2.6 the applying market participant fails to successfully complete the testing or to permit the inspection referred to in section 2.2.3.5 in respect of any of the *facilities.*
- 2.3.2A Notwithstanding section 2.3.2.2b, the *IESO* may approve an <u>application request</u> for the aggregation of <u>resources associated with either generation units or loads</u>facilities into a single <u>registered facilityresource</u> that are not all <u>connected</u> to the <u>IESO-controlled grid</u> at the same <u>connection point</u>, provided that, in the sole judgement of the <u>IESO</u>, they can be represented as a single point of injection or withdrawal without compromising the <u>reliability</u> of the <u>IESO-controlled grid</u>. Aggregation for the purposes of calculating <u>transmission service charges</u> is specified in the then current <u>Ontario Energy Board</u> Transmission Rate Order.
- 2.3.3 If a proposed aggregation of *resourcesfacilities* meets one or more of the above conditions, the *IESO:*
 - 2.3.3.1 shall provide to the *market participant* whose application is denied the reasons for such denial.
 - 2.3.3.2 [Intentionally left blank]
 - 2.3.3.3 [Intentionally left blank]
- 2.3.4 Approval of the aggregation of *facilities resources* shall be withdrawn by the *IESO* where, for any reason, one or more of the aggregation *facilities resources* commences to meet any one or more of the conditions described in section 2.3.2. The *IESO* shall give notice of the withdrawal to the *market participant* authorized to submit *dispatch data* in respect of the aggregated *facilities resources* and shall cease to treat those *facilities resources* as a single *registered facility resource* as of the date and time specified in the notice for such purpose. The date and time so specified shall not be less than 2 days from the date and time at which the notice of withdrawal is given to the *market participant*. If the *market participant* subsequently wishes to thereafter reaggregate the *resourcesfacilities*, it shall be required to re-apply to the *IESO* for approval of the aggregation in accordance with section 2.3.1.

2.3.5 A market participant authorized to submit dispatch data for aggregated resourcesfacilities may give notice to the IESO that it no longer wishes to aggregate those resourcesfacilities. The IESO shall acknowledge receipt of the market participant's notice and shall cease to treat those resources facilities as a single resourceregistered facility as of the date and time specified in the acknowledgement of receipt for that purpose. The date and time so specified shall be as soon as reasonably practicable following the date of receipt by the IESO of the market participant's notice. If the market participant subsequently wishes to re-aggregate the resourcesfacilities, it shall be required to re-applysubmit a new request to the IESO for approval of the aggregation in accordance with section 2.3.1.