



## Market Rule Amendment Proposal

### PART 1 – MARKET RULE INFORMATION

Identification No.:	<b>MR-00266-R00</b>		
Subject:	<b>Day-Ahead Market Facility Registration</b>		
Title:	<b>Requirements for Operating on the Grid</b>		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	7	Appendix:	
Sections:	2.1		
Sub-sections proposed for amending:			

### PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
1.0	Submitted for Technical Panel Review	1 Sep 04
2.0	Submitted for Technical Panel Review	30 Sep 04
3.0	Incorporate Technical Panel Comments and Publish for Stakeholder Review and Comment	6 Oct 04
4.0	Submit for Technical Panel Vote	5 Nov 04
5.0	Recommended by Technical Panel and Submitted for IMO Board Approval	17 Nov 04
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 *IMO-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 *IMO-administered markets*.

#### Summary

Market rule amendments are proposed to specify the requirements to be met by market participants wishing to register their load and generation facilities and boundary entities for day-ahead market physical transactions. These requirements include:

- Declaration of intent to participate in the day-ahead market;
- Submission of facility-related information to support the day-ahead market scheduling processes; and
- Where applicable, meeting additional voice communication requirements.

These requirements are incorporated into the existing market rule provisions for facility registration (section 2 of Chapter 7) as the registration requirements for the day-ahead market are incremental to the registration requirements for the real-time market.

#### Background

In consultation with market participants and other stakeholders, the IMO has developed a high level design of a day-ahead market<sup>1</sup>. The IMO Board has endorsed proceeding with the development of a day-ahead market and has directed the IMO to proceed with the detailed design and market rule amendments for the day-ahead market consistent with the high-level design. Market rule amendments are needed to incorporate the facility registration requirements for the day-ahead market. The facility registration design document<sup>2</sup> provides details on the facility registration requirements for the day-ahead market.

A key function of facility registration is the assessment of physical facilities or boundary entities to ensure that they meet the relevant reliability, performance, and technical standards required to participate in the IMO-administered markets. The facility registration process also ensures that IMO information systems contain accurate and current facility or boundary entity information. This process is essential for maintaining the reliability of the IMO-controlled grid and the efficient operation of the IMO-administered markets. The information provided during facility registration is used in market scheduling, dispatch, settlement and other market processes. These elements of facility registration are as applicable for participation in physical transaction activities in the day-ahead market as they are for participation and activities in the real-time market. Therefore any facility associated with physical

<sup>1</sup> High Level design strawman can be found on IMO web-site at:  
[http://www.theimo.com/imoweb/pubs/consult/mep/DAM\\_WG\\_Strawman-4\\_0.pdf](http://www.theimo.com/imoweb/pubs/consult/mep/DAM_WG_Strawman-4_0.pdf).

<sup>2</sup> Facility Registration Design Document can be found on IMO web-site at:-  
[http://www.theimo.com/imoweb/pubs/consult/mep/dam\\_wg\\_IMO\\_DES\\_0017\\_DAM\\_FacilityRegistration.pdf](http://www.theimo.com/imoweb/pubs/consult/mep/dam_wg_IMO_DES_0017_DAM_FacilityRegistration.pdf).

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transactions (i.e. buying or selling energy, selling operating reserve, importing energy or operating reserve, exporting energy) in the day-ahead market will need to be registered in the day-ahead market.

Physical transactions in the day-ahead market will have a corresponding balancing real-time market physical transaction. Therefore facilities registered for physical transactions in the day-ahead market must also be registered in the real-time market. Specifically:

- Market participants wishing to conduct physical transactions in the day-ahead market for facilities or boundary entities that are already registered in the real-time market will only need to meet the incremental facility registration requirements to support their day-ahead market participation and activities;
- Market participants wishing to conduct physical transactions in the day-ahead market for facilities or boundary entities that are not already registered in the real-time market will need to meet both the real-time market and the day-ahead market facility registration requirements.

The incremental facility registration requirements to support day-ahead market participation and activities are typically the provision of additional technical information to support the desired day-ahead market activity for a given facility.

Market participants that engage in virtual transactions in the day-ahead market will not be required to meet any facility registration requirements to support that activity as virtual transactions do not have any associated specific physical facility, expected delivery or expected consumption obligations.

The day-ahead market introduces the ability for market participants to submit multi-part offers and bids. These multi-part offers and bids allow the market participant to separate and recover fixed and variable costs associated with the offer of energy or bid for load-response, reflecting the physical limitations of a resource independent of the incremental or decremental energy cost. Multi-part offers and bids also allow these facilities to be optimally scheduled in a manner reflective of their physical limitations. Market participants wishing to submit multi-part offers and bids for a given facility would be required to provide information at the time of facility registration that would be used to validate multi-part offers or bids for that facility.

In order to satisfy load market participants' expressed needs for additional flexibility for participation and load response, the day-ahead market introduces a number of resource "components" that a market participant can register within a load facility. These proposed load resource components are:

- a price sensitive load component;
- a price sensitive multiple block load component;
- a price responsive dispatchable load component;
- a price-responsive non-dispatchable load component; or
- a price-responsive multiple-block load component.

Market participants would be required to declare their intent to participate in the day-ahead market by registering their load facility as having one or more the above load component types. The market participant would also be required to provide facility information to support the single or multi-part bidding permitted for each component.

Load facilities with a price-responsive load component(s) are expected to follow their day-ahead

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market schedule in real-time unless otherwise directed by the IMO. For this reason, these load facilities will require dedicated voice communication capability with the IMO.

The day-ahead market utilizes the existing dispatchable and non-dispatchable generation facility types and introduces a new dispatchable generation resource type: hourly committable generation.

No additional facility registration requirements for boundary entities to participate in the day-ahead market have been identified beyond the recognition that the same inertia points would be used for day-ahead market offers and bids as are used for real-time market physical imports and exports

No additional technical requirements regarding operational telemetry for load and generation facilities in regards to participation in the day-ahead market have been identified. These technical requirements are based on the facility size and impact on reliable operation of the IMO-controlled grid, and are therefore not expected to change as a result of participation in the day-ahead market.

A number of existing defined terms needs to be amended so that they apply to the day-ahead market. These defined terms include bid, offer, dispatch data, and physical markets. Amendments to these defined terms, along with new defined terms are included in MR-00286-R00 Day-Ahead Market Definitions.

**Discussion of Proposed Amendments – R00**

It is proposed that the market rule provisions regarding facility registration for the real-time and day-ahead markets be combined for the following reasons:

- (i) A separate section within the market rules for day-ahead market facility registration is not warranted given the integrated and incremental nature of the day-ahead market facility registration requirements relative to the existing real-time market facility registration requirements;
- (ii) Combining the market rule provisions will avoid duplication of facility registration provisions that would be common to both the real-time market and the day-ahead market, such as transfer of registration and de-registration; and
- (iii) Providing one place in the market rules with all the facility registration requirements will help existing and new market participants in the facility registration process.

This is enabled in the market rules by adding the day-ahead market facility registration requirements to the existing real-time market facility registration provisions of Chapter 7 section 2.

Amendments are proposed to the title of Chapter 7 section 2 to clarify, through explicit reference, that this section applies to facility registration for real-time market physical operations and day-ahead market physical transactions.

It is also proposed to expand the scope of the application of the market participant requirements for operating on the IMO-controlled grid to include participation in day-ahead market physical transactions (refer to section 2.1.1 below). This inclusion is necessary so that the subsequent participation requirements listed in section 2.1 would be applicable to day-ahead market physical transactions. These requirements include that the market participant is authorized, the facility associated with the day-ahead market physical transactions is registered, and that the registered market participant for the facility would submit dispatch data for the facility.

Amendments to section 2.1.3, unrelated to the day-ahead market, are also proposed to clarify which

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facility that size criteria apply to.

Please refer to MR-00266-R01-R04 for additional proposed amendments.

**PART 4 – PROPOSED AMENDMENT**

## 2. Registration for Real-Time Market Physical Operations and Day-Ahead Market Physical Transactions

### 2.1 Requirements for Operating on the Grid

2.1.1 No person shall participate in the *real-time markets*, submit bids or offers for physical transactions in the day-ahead market or cause or permit electricity or any *physical service* to be conveyed into, through or out of the *integrated power system* unless:

2.1.1.1 that person is ~~authorised~~authorized 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 *IMO* as a *registered facility* 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 facility* 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 *IMO* 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.

- 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 *IMO* shall not accept, any *dispatch data* with respect to a *facility* or *boundary entity* unless:
- 2.1.2.1 that *facility* or *boundary entity* 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*; and
  - 2.1.2.3 the *dispatch data* are consistent with: (i) the registration information defining the capabilities of the *registered facility*; (ii) the *market participant's* reasonable expectations of the current actual capabilities of the *registered facility*; and (iii) any revision in registration information requested by the *IMO* 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 *IMO-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 *facility* to or from which the *electricity* or *physical service* is to be so conveyed as a *registered facility* if such *facility* is embedded within a *distribution system*, a *load facility* or a *generation facility* and that:
- 2.1.3.1 ~~if such facility is 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 ~~if such facility is in the case of~~ a *load facility*, has a maximum load capacity of less than 1 MW; or
  - 2.1.3.3 ~~if such facility is in the case of~~ a *distribution system*, has a maximum load capacity of less than 1 MW.

**PART 5 – IMO BOARD COMMENTS**

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## Market Rule Amendment Proposal

### PART 1 – MARKET RULE INFORMATION

Identification No.:	<b>MR-00266-R01</b>		
Subject:	<b>Day-Ahead Market Facility Registration</b>		
Title:	<b><u>Registered Registration of Facilities</u></b>		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	7	Appendix:	
Sections:	2.2		
Sub-sections proposed for amending:	Various		

### PART 2 – PROPOSAL HISTORY – PLEASE REFER TO MR-00266-R00

Version	Reason for Issuing	Version Date
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 *IMO-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 *IMO-administered markets*.

Refer to MR-00266-R00 for background

**Discussion of Proposed Amendments – R01**

The proposed amendments to section 2.2 of Chapter 7 specify the new facility registration requirements for the day-ahead market.

Boundary Entities

It is proposed to clarify that the intertie points identified for registration of boundary entities will be the intertie points for which dispatch data (including real-time and day-ahead) would be submitted (section 2.2.7.1). This will ensure that imports/exports scheduled in the day-ahead market will be at the same intertie point as the real-time physical import or export. This alignment is necessary to effect the settlement of the import/export.

Load Facilities

New sections 2.2.25 to 2.2.29 contain the proposed load facility registration obligations, permissions and restrictions. If a market participant wishes to submit bids for a load facility in the day-ahead market, the participant must register that facility as having one or more of the following load component types (section 2.2.25):

- a price sensitive load component;
- a price sensitive multiple block load component;
- a price responsive dispatchable load component;
- a price-responsive non-dispatchable load component; or
- a price-responsive multiple-block load component.

A price-sensitive load component is a load that wishes to financially lock in a price for a specific quantity of consumption i.e. its load position in the day-ahead market, and is not expected to reduce consumption whether or not the bid clears the day-ahead market. A price-sensitive load is offering no commitment one way or the other, but is willing to take a forward financial position based only on its bid price. A price-sensitive multiple-block load component represents a discrete level of load consumption for a single load facility associated with a single delivery point established during registration to enable submission of multiple block bids for the load facility.

A price-responsive load is a load that is willing to limit their consumption when the day-ahead market price exceeds their bid price for a given level of consumption. Such a load would receive a day-ahead market financially-binding schedule. This includes both non-dispatchable and dispatchable loads. A price-responsive dispatchable load is a load component that is a price-responsive load in the day-ahead market, and dispatchable load in the real-time market. A price-responsive non-dispatchable load is a

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load component that is considered a price-responsive load in the day-ahead market, and is non-dispatchable in the real-time market. A price-responsive multiple-block load represents a discrete level of load reduction for a single load facility associated with a single delivery point established during registration to enable submission of multiple bids for the load facility.

A market participant would only be permitted to register one price responsive dispatchable load component or one price-responsive non-dispatchable load component for a single load facility (section 2.2.26). This restriction is necessary to prevent a gaming opportunity that could arise if more than one price responsive dispatchable load component or one price-responsive non-dispatchable load component were registered for a single load facility. This gaming could arise through the submission of multi-part bids for each of these components in such a manner that each load component would be eligible for CMSC payments resulting from the other component.

Market participants registering a load facility for the day-ahead market would be required to provide some additional facility information to support the day-ahead market bids submitted for the facility (section 2.2.27). For each load facility, the market participant would be required to provide the maximum facility demand, which is the maximum consumption for the facility as determined at the facility delivery point. This quantity is used to validate bids for the facility to ensure that the bid quantities do not exceed the consumption capability for the facility. A market participant wishing to submit multi-part bids for price-responsive load components would be required to provide the maximum demand reduction for each component (section 2.2.28). This maximum demand reduction is used to validate that the multi-part bid quantities are within the demand reduction capability of each price-responsive load component. Bids would be deemed valid in this regard provided the values of the parameters within the bid fall within the registration information values for those parameters.

It is also proposed that market participants registering a price-responsive non-dispatchable load component be required to meet additional voice communication requirements (section 2.2.29). Refer to MR-00266-R04 for additional information regarding this proposed obligation.

#### Generation Facilities

It is proposed to clarify that a market participant does not need to submit any additional information for a dispatchable generation facility if the MP intends that only day-ahead market single part offers be submitted for the facility (section 2.2.30). The IMO is able to validate offers and model the facility using existing registration information.

It is proposed to require a market participant notify the IMO if the participants intends to submit single part offers for a non-dispatchable generation facility. The IMO may request additional information for the facility for purpose of offer validation and facility modeling and the MP needs to provide the requested information (section 2.2.31). This IMO authority and participant obligation are necessary as existing information for a non-dispatchable generation facility has not been reviewed or verified by IMO as the information is not used in real-time market. This information could include ramp rates.

It is proposed to specify the additional information to be provided by a market participant for a generation facility for which multi-part offers will be submitted (section 2.2.32). This additional information is:

- Maximum generation capability
- Minimum generation limit
- Maximum loading ramp rate

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- Maximum unloading ramp rate
- Normal turnaround time
- Normal minimum run time
- Normal minimum down time

This information is used in IMO validation of offers for the facility and for ensuring the facility is scheduled in the day-ahead market consistent with the facility’s capabilities. Offers would be deemed valid in this regard provided the values of the parameters within the offer fall within the registration information values for those parameters.

It is also proposed to allow a market participant to register a dispatchable generation facility as an hourly committable generation facility provide the facility meets specified physical criteria (section 2.2.33). These criteria are characterized by short response times to requested changes in facility operating state.

Minor Changes

It is proposed to delete section 2.2.1A as it is no longer in effect. This section only was in effect while section 3a of Chapter 2 (Transitional Market Rules) was in effect. This latter section ceased to have effect on the market commencement date.

It is also proposed to add explanatory titles within section 2.2 specifying the type of facility to which the subsequent provisions apply. These titles are intended to assist reader in identifying facility-specific provisions.

**PART 4 – PROPOSED AMENDMENT****2.2 Registered Registration of Facilities**

2.2.1 The *IMO* shall establish a process for registering a *facility* or *boundary entity* 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] While section 3A of Chapter 2 is in effect, the registration process referred to in section 2.2.1 shall include the provisions of that section.~~

2.2.2 A *market participant* may apply to register a *facility* or *boundary entity* as 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; and/or

- 2.2.2.2 for the offering of *capacity reserve* pursuant to the provisions of section 10.
- 2.2.3 The *IMO* shall approve an application for registration of a *facility* or *boundary entity* as a *registered facility* 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 *IMO-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 *IMO* 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 *IMO* that all of the facilities and equipment to which its application 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 *IMO-administered market* in which the applying *market participant* wishes to participate;
- 2.2.3.4 the applying *market participant* certifies to the *IMO* 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 *IMO-administered market* in which the applying *market participant* wishes to participate in respect of all of the facilities and equipment to which its application for registration relates;
- 2.2.3.5 the applying *market participant* successfully completes such testing and permits such inspection as the *IMO* may require for the purposes of testing or inspecting whether all of the facilities and equipment to which its application 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 *IMO-administered market* in which the applying *market participant* wishes to participate;
- 2.2.3.6 the applying *market participant* certifies to the *IMO* in writing that all of the *facilities* and equipment to which its application 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;
- 2.2.3.7 the applying *market participant* certifies to the *IMO* that all of the *facilities* and equipment to which its application for registration relates does not differ materially from the configuration or technical parameters that were used by the *IMO* 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 *IMO* for the change in configuration or technical parameter in accordance with section 6.1.22 of Chapter 4; and
- 2.2.3.8 subject to sections 2.2.3A and 2.2.3B, in the case of a *facility* wishing to *register* as an *hour-ahead dispatchable load*, the *IMO* and the applying *market participant* agree on the methodology of determining compliance with *dispatch instructions* for that *facility*, including the means of measuring the actual reduction in *energy* withdrawals as well as the *hour-ahead dispatchable load baseline*.
- 2.2.3A The *IMO* may restrict the number of *facilities* that can be registered at any point in time as *hour-ahead dispatchable loads*.
- 2.2.3B The *IMO* may suspend the operation of the *market rules* applicable to *hour-ahead dispatchable loads*, if the operation has an adverse impact on the *IMO-administered markets* or the *reliable* operation of the *IMO-controlled grid*. The *IMO* shall promptly notify *market participants* and the *IMO Board* of such action, with reasons.
- 2.2.4 The *market participant* designated in the registration information as the *market participant* ~~authorised~~[authorized](#) to submit *dispatch data* with respect to a *registered facility* shall be the *registered market participant* for that *registered facility*. The *registered market participant* designated for a *registered facility* may not be changed without the prior approval of the *IMO*.
- 2.2.5 The *IMO* shall define the form and content of information required for registration as a *registered facility* in accordance with sections 2.2.6 to 2.2.8.
- 2.2.6 Where the *facility* sought to be registered is within the *IMO control area*, the information required for registration as a *registered facility* shall, subject to any lesser requirements that may be *published* by the *IMO* in respect of the

information required for registration of a given class or size of *facility*, include, but not be limited to:

- 2.2.6.1 the identity of the owner and the operator of the *facility*;
- 2.2.6.2 the identity of the *market participant* ~~authorised~~authorized to submit *dispatch data* with respect to the *facility*;
- 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* 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 *facility* and the *IMO-controlled grid*;
- 2.2.6.6 for a *facility* embedded within a *distribution system* or within a *connected facility* within the *IMO control area* that is *connected* to the *IMO-controlled grid*, the location of that *facility*, the identity of the *primary RWM(s)* through which *energy* will flow between that *facility* and the *IMO-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* 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 *facility* that will be subject to the *IMO's dispatch instructions*, certification that the *facility* has a minimum rated *generation capacity*, net of auxiliary requirements, or a minimum *dispatchable load* capacity, of 1 MW. Individual *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 for a *facility* that will be subject to the *IMO's dispatch instructions* as an *hour-ahead dispatchable load*, certification that the *facility* has a minimum *dispatchable load* capacity of 1 MW and information regarding the methodology of determining compliance with *dispatch instructions*, including the means of measuring the actual reduction in *energy* withdrawals as well as the *hour-ahead dispatchable load baseline*. Individual *facilities* or units may be aggregated to meet this

minimum capacity requirement if they meet the aggregation requirements of section 2.3.

- 2.2.6.10 for a *cogeneration facility* or *enhanced combined cycle facility* choosing to be either a *dispatchable* or *self-scheduling generation facility*, and the *registered market participant* wishes the compliance bands used to determine whether or not the *facility* 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 *IMO* may audit this information, which is to be used to determine appropriate compliance bands as outlined in section 3.3.8, at any time.

### Registration: Boundary Entity

- 2.2.7 Where a *boundary entity* is sought to be registered, a valid *interconnection agreement* over the relevant *interconnection* must have been entered into prior to the approval of the application. In addition, the information required for registration of the *boundary entity* as a *registered facility* shall include, but not be limited to:
- 2.2.7.1 identification of the *intertie RWM(s)* [for which dispatch data will be submitted and](#) through which the *physical services* will be delivered to or withdrawn from the *IMO-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* 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* 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*; 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* is entitled to inject into or withdraw from the *IMO-controlled grid* in respect of the *boundary entity* 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 *facility* or *boundary entity* that will provide *operating reserves* shall include information in a form approved by the *IMO* demonstrating in the case of a *facility*, the ability of the *facility* 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* or *boundary entity* is called upon to do so by the *IMO*, *energy* at the specified rate (in MWh/hour or MW) in accordance with its *operating reserve offer* for at least one hour.

### **Registration: Self-Scheduling Generation Facility**

- 2.2.9 A market participant may apply to register as a *self-scheduling generation facility* any *generation facility*:
- 2.2.9.1 with a name-plate rating of 1 MW or more but less than 10 MW;
  - 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 a name plate rating of 10 MW or more provided that the *IMO* determines that there are no adverse impacts on the *reliable* operation of the *IMO-controlled grid* of the *facility* being registered as a *self-scheduling generation facility*.
- 2.2.10 A *self-scheduling generation facility* may not be registered to provide any *physical service* other than *energy* and *reactive support service* and *voltage control service*.
- 2.2.11 The *IMO* shall approve an application for registration as a *self-scheduling generation facility* if the information required by this section 2.2 is provided and the *IMO* determines that *self-scheduling* of the *facility* will not have a material adverse effect on power system *security*.
- 2.2.12 A *self-scheduling generation facility* whose application for *facility* registration has been approved by the *IMO* is a *registered facility*.

### **Registration: Intermittent Generation Facility**

- 2.2.13 A market participant may apply to register an *intermittent generator* if it has a name-plate rating of not less than 1 MW.
- 2.2.14 An *intermittent generator* may not be registered to provide any *physical service* other than *energy* and *reactive support service* and *voltage control service*.

- 2.2.15 The *IMO* shall approve an application for registration as an *intermittent generator* if the information required by this section 2.2 is provided and the *IMO* 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 for *facility* registration has been approved by the *IMO* is a *registered facility*.

### **Registration: Distribution System**

- 2.2.17 For the purposes of this Chapter, a *distribution system connected* to the *IMO-controlled grid* must be a *registered facility*.
- 2.2.18 The *IMO* 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.

### **Registration: Transitional Scheduling Generators**

- 2.2.19 A *market participant* may apply 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 not be registered to provide any *physical service* other than *energy* and *reactive support service* and *voltage control service*.
- 2.2.21 The *IMO* shall approve an application for registration as a *transitional scheduling generator* if the information required by this section 2.2 is provided, and the *generator* is under contract with *OEFC* and will participate in the *real-time market for energy*.
- 2.2.22 A *transitional scheduling generator* whose application for *facility* registration has been approved by the *IMO* is a *registered facility*.
- 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.

### **Registration: Hour-Ahead Dispatchable Load**

- 2.2.24 An *hour-ahead dispatchable load* shall only be registered to participate in the *real-time energy market for energy*. An *hour-ahead dispatchable load* shall not be also registered as a *dispatchable load facility*.

### **Registration: Load Facility for Day-Ahead Market Physical Transactions**

2.2.25 A market participant intending that *physical transaction bids* be submitted for a *load facility*, shall, subject to the restriction set out in section 2.2.26, register that *load facility* as having one or more of the following load component types:

2.2.25.1 a *price sensitive load component*;

2.2.25.2 a *price sensitive multiple block load component*;

2.2.25.3 a *price responsive dispatchable load component*;

2.2.25.4 a *price responsive non-dispatchable load component*; or

2.2.25.5 a *price responsive multiple block load component*.

2.2.26 A market participant may register a *load facility* as having:

2.2.26.1 only one *price sensitive load component* for which the market participant intends that *single part bids* be submitted; and/or

2.2.26.2 only one *price responsive dispatchable load component* or one *price responsive non-dispatchable load component*.

2.2.27 A market participant applying to register a *load facility* under section 2.2.25 shall, in accordance with the applicable *market manual*, provide the *IMO* with the *maximum facility demand* for that *load facility* as determined at the *delivery point*.

2.2.28 A market participant applying to register a *load facility* under section 2.2.25 and intending that *multi-part bids* be submitted with respect to the *load facility*, shall, in accordance with the applicable *market manual*, provide the *IMO* with the *maximum load reduction* for each of the *price-responsive dispatchable load*, *price responsive non-dispatchable load* and *price responsive multiple block load components* of the *load facility*.

2.2. 29 A market participant applying to register a *load facility* as having a *price-responsive non-dispatchable load component* shall, for that *load facility*, meet the voice communication requirements specified in section 1.1.12 of Appendix 2.2 for that *load facility*.

### **Registration: Generation Facility for Day-Ahead Market Physical Transactions**

2.2.30 A market participant intending that only *single part offers* be submitted for a *dispatchable generation facility* in the *day-ahead market* is not required to provide any additional information to the *IMO*.

2.2.31 A market participant intending that only *single part offers* be submitted for a *non-dispatchable generation facility* in the *day-ahead market* shall, in accordance with the applicable *market manual*, notify the *IMO* of this intention. The *IMO* may request and the *market participant* shall provide additional information regarding

the generation facility for the purposes of validation of offers and modelling of the facility.

2.2.32 A market participant intending that multi-part offers be submitted for a generation facility shall, in accordance with the applicable market manual, provide the IMO with the following information regarding that facility:

- Maximum generation capability
- Minimum generation limit
- Maximum loading ramp rate
- Maximum unloading ramp rate
- Normal turnaround time
- Normal minimum run time
- Normal minimum down time

2.2.33 A market participant may apply to register a dispatchable generation facility as an hourly committable generation facility only if the generation facility has the following characteristics:

2.2.33.1 a normal turnaround time of less than or equal to one hour;

2.2.33.2 a maximum loading ramp rate such that the facility is capable of ramping from no load to full output within one hour;

2.2.33.3 a maximum unloading ramp rate such that the facility is capable of ramping from full output to no load within one hour;

2.2.33.4 a minimum run time of less than or equal to one hour; and

2.2.33.5 a minimum down time of less than or equal to one hour.

## PART 5 – IMO BOARD COMMENTS

Insert Text Here



## Market Rule Amendment Proposal

### PART 1 – MARKET RULE INFORMATION

Identification No.:	<b>MR-00266-R02</b>		
Subject:	<b>Day-Ahead Market Facility Registration</b>		
Title:	<b>Aggregated Registered Facilities</b>		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	7	Appendix:	
Sections:	2.3		
Sub-sections proposed for amending:	2.3.1		

### PART 2 – PROPOSAL HISTORY – PLEASE REFER TO MR-00266-R00

Version	Reason for Issuing	Version Date
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 *IMO-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 *IMO-administered markets*.

Refer to MR-00266-R00 for background

#### Discussion of Proposed Amendments – R02

It is proposed to clarify that the aggregation and treatment of facilities as single facility would apply uniformly to participation in physical transactions in the day-ahead market and the real-time market (section 2.3.1) and that the aggregation for a facility must be the same for both markets.

Aggregated facilities are treated as a single facility for market scheduling, dispatch and settlement purposes. As day-ahead market physical transactions have balancing transaction in the real-time market, it is necessary that facilities that are aggregated in the real-time market also be aggregated in the day-ahead market. This will ensure that day-ahead schedules for an aggregated facility have a corresponding schedule in the real-time for the exact same facility.

### PART 4 – PROPOSED AMENDMENT

## 2.3 Aggregated Registered Facilities

2.3.1 A market participant may apply to the *IMO* to aggregate several *facilities* for the purposes of [\(i\) participating in the day-ahead market, \(ii\) delivering or withdrawing one or more physical services in the real-time energy market, or \(iii\) the procurement markets](#) ~~or both~~. Upon *IMO* approval, the aggregated *facilities* shall, except as specifically stated in the registration information or the *IMO*'s approval of the aggregation, be treated as a single *registered facility* ~~for the provision or withdrawal of the approved physical services~~:

2.3.1.1 [for the provision or withdrawal of the approved physical services](#) by the *registered market participant* for purposes of the submission of *dispatch data*; and

2.3.1.2 by the *IMO*, for purposes of the scheduling and *dispatch* processes described in this Chapter [and for purposes of scheduling processes of the day-ahead market described in Chapter 12](#).

2.3.1A The aggregation of *facilities* for the purpose of:

2.3.1A.1 participating in a *capacity reserve* auction; and

2.3.1A.2 as described in section 10.2B.2, compliance by a *registered market participant* with the obligations of the *capacity reserve market*,

shall be governed by section 10.2.4.

2.3.2 The *IMO* shall approve an application for the aggregation of *facilities* into a single *registered facility* unless:

2.3.2.1 the registration information for the *facilities* 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 *facilities* proposed to be aggregated;

- a. that they are all located within the *IMO control area*;
- b. that they are all *connected* to the *IMO-controlled grid* at the same *connection point*;
- c. that they are all under the operational control of a single *market participant* and that such *market participant* is authorized to submit *dispatch data* for all of them;
- d. that operational communication between each of them and the *IMO* 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 *facilities* proposed to be aggregated is or includes a *generating unit* or a *load facility*:

- 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 *IMO* 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* 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 *IMO*.

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*.
- 2.3.3 If a proposed aggregation of *facilities* meets one or more of the above conditions, the *IMO*:
- 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* shall be withdrawn by the *IMO* where, for any reason, one or more of the aggregation *facilities* commences to meet any one or more of the conditions described in section 2.3.2. The *IMO* shall give notice of the withdrawal to the *market participant* authorized to submit *dispatch data* in respect of the aggregated *facilities* and shall cease to treat those *facilities* as a single *registered facility* 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 re-aggregate the *facilities*, it shall be required to re-apply to the *IMO* 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 *facilities* may give notice to the *IMO* that it no longer wishes to aggregate those *facilities*. The *IMO* shall acknowledge receipt of the *market participant's* notice and shall cease to treat those *facilities* as a single *registered 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 *IMO* of the *market participant's* notice. If the *market participant* subsequently wishes to re-aggregate the *facilities*, it shall be required to re-apply to the *IMO* for approval of the aggregation in accordance with section 2.3.1.

## PART 5 – IMO BOARD COMMENTS

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## Market Rule Amendment Proposal

### PART 1 – MARKET RULE INFORMATION

Identification No.:	<b>MR-00266-R03</b>		
Subject:	<b>Day-Ahead Market Facility Registration</b>		
Title:	<b>Introductory Rules</b>		
Nature of Proposal:	<input checked="" type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input type="checkbox"/> Addition
Chapter:	7	Appendix:	
Sections:	1.1		
Sub-sections proposed for amending:	1.1.1		

### PART 2 – PROPOSAL HISTORY

Version	Reason for Issuing	Version Date
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 *IMO-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 *IMO-administered markets*.

Refer to MR-00266-R00 for background

**Discussion of Proposed Amendments – R03**

It is proposed to expand the stated purpose of chapter 7 to include market rules for facility registration, and not just real-time operations. This amendment is proposed to make the market rules internally consistent and transparent for to facility registration.

**PART 4 – PROPOSED AMENDMENT****1. Introductory Rules****1.1 Purpose**

- 1.1.1 [This Chapter sets out rules governing the registration of \*facilities and boundary entities\*. This Chapter \[also\]\(#\) sets ~~forth~~ \[out\]\(#\) rules governing the \*real-time operations\* of the \*electricity system\*, and the market-clearing and pricing process in the \*physical markets\*.](#)

**PART 5 – IMO BOARD COMMENTS**

Insert Text Here



## Market Rule Amendment Proposal

### PART 1 – MARKET RULE INFORMATION

Identification No.:	<b>MR-00266-R04</b>		
Subject:	<b>Day-Ahead Market Facility Registration</b>		
Title:	<b>Voice Communication</b>		
Nature of Proposal:	<input type="checkbox"/> Alteration	<input type="checkbox"/> Deletion	<input checked="" type="checkbox"/> Addition
Chapter:	2	Appendix:	2.2
Sections:	1.1		
Sub-sections proposed for amending:	1.1.12 (new)		

### PART 2 – PROPOSAL HISTORY – PLEASE REFER TO MR-00266-R00

Version	Reason for Issuing	Version Date
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 *IMO-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 *IMO-administered markets*.

Refer to MR-00266-R00 for background.

**Discussion of Proposed Amendment – R04**

This amendment proposes to require that a market participant provide and maintain a normal priority path facility for voice communication with the IMO at any load facility registered as having a price-responsive non-dispatchable load component. Such a dedicated voice communication facility is necessary for a price-responsive non-dispatchable load because of the need for the IMO to be able to communicate directly with the facility operator in the event that the IMO needs to direct the facility not to follow its day-ahead market schedule. A price-responsive non-dispatchable load is expected to follow its day-ahead schedule unless otherwise directed by the IMO. Such direction to deviate from schedule may be necessary to address reliability issues e.g. local area under-generation or over-generation. The IMO has no means other than telephone to direct a non-dispatchable load to deviate from its schedule. The IMO is able to communicate with a dispatchable facility through the existing dispatch messaging capability.

**PART 4 – PROPOSED AMENDMENT****1.1 Voice Communication**

.....

1.1.12 Each market participant whose load facility is registered as having a price-responsive non-dispatchable load component shall provide and maintain a normal priority path facility at the load facility for communication with the IMO.

**PART 5 – IMO BOARD COMMENTS**

Insert Text Here