

Market Rule Amendment Submission

This form is used to request an amendment to, or clarification of, the *Market Rules*. Please complete the first four parts of this form and submit the completed form by email or fax to the following:

Email Address: <u>Rule.Amendments@theIMO.com</u> Fax No.: (416) 506-2847 Attention: Market Rules Group **Subject:** *Market Rule Amendment Submission*

All information submitted in this process will be used by the *IMO* solely in support of its obligations under the *Electricity Act, 1998*, the *Ontario Energy Board Act, 1998*, the *Market Rules* and associated policies, standards and procedures and its licence. All submitted information will be assigned the *confidentiality classification* of "public" upon receipt. You should be aware that the *IMO* will *publish* this *amendment submission* if the *Technical Panel* determines it warrants consideration and may invite public comment.

Terms and acronyms used in this Form that are italicized have the meanings ascribed thereto in Chapter 11 of the *Market Rules*.

PART 1 – SUBMITTER'S INFORMATION

Please enter contact information in full

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PART 2 – MARKET RULE AMENDMENT SUBMISSION INFORMATION

Subject: Data, Sched	luling, Dispatch		
Title: Treatment of Enhanced Combined Cycle Facilities within the IMO-Administered Markets			
Nature of request (please indicate with X): X_AlterationDeletionAddition Clarification			
Chapter: 7	Appendix:	Sections:	
Sub-sections proposed for amending/clarifying :			

¹ This number is a maximum of 12 characters and does not include any spaces or underscore.

PART 3 – DESCRIPTION OF THE ISSUE

Provide a brief description of the issue and reason for the proposed amendment. If possible, provide a qualitative and quantitative assessment of the impacts of the issue on you and the *IMO-administered markets*. Include the Chapter and Section number of the relevant market rules.

The purpose of this rule amendment is to enable the suitable treatment of Enhanced Combined Cycle facilities within the IMO-administered markets.

An Enhanced Combined Cycle facility operates much like a Combined Cycle plant. A Combined Cycle facility is a generating facility that utilizes one or more combustion turbines and one or more steam turbines to generate electricity. Fuel is burned in the combustion turbines to produce electricity and hot exhaust gases. The exhaust gases pass through dedicated heat recovery steam generators (HRSG) which produce high-pressure, superheated steam that is used in the steam turbines to generate more electricity. An Enhanced Combined Cycle facility is *distinct* from a Combined Cycle facility in that in addition to acquiring the heat source from one or more of the combustion turbines utilized in one or more of the steam turbines, it also obtains the *heat source from an independent industrial process/processes*. Similar to cogeneration facilities (as per MR-00161-R00), 'electricity production is dependent on the operation of the independent process'.

Enhanced Combined Cycle facilities that have power purchase agreements (PPA) with the Ontario Energy Financial Corporation (OEFC) are currently operating within the IMO-administered markets under a Transitional Scheduling Generator (TSG) classification. The TSG status has enabled these non-utility generators (NUGS) to meet the terms of their PPA and effectively function within the IMO-administered markets. Upon completion of possible negotiations with OEFC, PPA holders may obtain a different facility classification other than the TSG.

MR-00161-R00 provides existing and new cogeneration facilities with 3 options (dispatchable, self-scheduling and intermittent), offering NUG facilities sufficient flexibility to operate effectively within the IMO-administered markets while keeping within the terms of the PPA. There are facilities, however, that cannot be accommodated under the cogeneration definition (i.e., Enhanced Combined Cycle), but never the less should be afforded similar options that are provided under MR-00161-R00.

To accommodate Enhanced Combined Cycle facilities within the IMO-administered markets, market rules must be developed to allow existing and new Enhanced Combined Cycle facilities to function effectively within the IMO-administered markets. Market participants with Enhanced Combined Cycle facilities can elect from one of three options:

1) Re-register/register as a dispatchable generation facility

Enhanced Combined Cycle facilities can re-register/register as a dispatchable generation facility. An additional compliance band would be included representing the MW impact of the heat source from an industrial process/processes on electricity production. All other market rules that are currently in place for dispatchable generation facilities would apply to Enhanced Combined Cycle facilities. Market participants will be obligated to meet dispatch schedule subject to the greater of:

i. +/- 10 MW; or
ii. +/- 2% of the dispatch instruction; or
iii.a specified compliance band based on the impact of the heat source from an industrial

PART 3 – DESCRIPTION OF THE ISSUE

process/processes on energy production.

2) Re-register/register as a self-scheduling facility

The current market rules permit facilities with a nameplate of 1 MW and more but less than 10 MW to register as a self-scheduling generation facility. Effective September 2003, cogeneration facilities with a nameplate of 10 MW or more will also be able to register as self-scheduling generation facilities. Option 2 of this rule amendment proposal seeks to meet the same end. Existing and new Enhanced Combine Cycle facilities with a nameplate of greater than 10 MW can register as a self-scheduling generation facility provided that there are no adverse impacts on the reliable operation of the IMO-controlled grid. All other rules that are currently in place for self-scheduling generation facilities will apply to Enhanced Combine Cycle facilities. Market participants will be obligated to meet dispatch schedule subject to the greater of:

i) +/- 10 MW; or

ii) +/- 2% of the dispatch instruction; or

iii) a specified compliance band based on the impact of the heat source from an industrial process/processes on energy production.

2) Re-register/register as an intermittent generator

Enhanced Combined Cycle facilities can re-register/register as an intermittent generator provided that these facilities meet current eligibility criteria defined in the market rules and that there are no adverse impacts on the reliable operation of the IMO-controlled grid.

For Options 1 and 2, the compliance band will be determined at facility re-registration/registration based on the information submitted by the market participant and will be subject to random audits by the IMO. Deviations that occur from the scheduled versus the actual dispatch will also be audited to determine if it is caused by the impact of the heat source from an industrial process/processes.

PART 4 – PROPOSAL (BY SUBMITTER)

Provide your proposed amendment. If possible, provide suggested wording of proposed amendment.

Chapter 11 (definition)

<u>cogeneration facility</u> means a <u>generation facility</u> that produces both electric energy and either steam or other forms of useful energy (such as heat), which are used for industrial, commercial, heating, or cooling purposes, and qualifies for treatment as a Class 43.1 facility or has qualified as a Class 34 facility under the Income Tax Act, R.S.C. 1985, c.1. (MR-00161-R00)

combined cycle facility means a *generation facility* in which electricity is generated by one or more combustion turbines or engines, and by one or more steam turbines for which steam is supplied by recovery of waste heat from one or more of the combustion turbines or engines. (Proposed definition under MR-00121-Q00)

enhanced combined cycle facility means a *combined cycle facility* in which the steam utilized to generate electricity in one or more of the steam turbines is supplied by recovery of waste heat from (i) one or more of the combustion turbines or engines and/or (ii) an industrial process/processes. (Proposal)

Chapter 7

2.2 Registered Facilities

- 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:
 - 2.2.6.9 for cogeneration facilities choosing to be either dispatchable or self-scheduling generation facilities, 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 of the other forms of useful energy within the facility has have 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_x; (MR-00161-R00)
 - 2.2.6.10<u>for enhanced combined cycle facilities</u> choosing to be either <u>dispatchable</u> or <u>self</u>-<u>scheduling generation facilities</u>, and the <u>registered market participant</u> wishes the compliance bands used to determine whether or not the <u>facility</u> is in compliance with its <u>dispatch instructions</u> or its current schedule, information as outlined in the applicable <u>market manual</u> concerning the impact of the heat source from an industrial process/processes on <u>energy</u> production. The <u>IMO</u> may audit this information, which is to be used to determine appropriate compliance bands as outlined in section 3.3.8, at any time. (Proposal)

- 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; or
 - 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* 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 <u>IMO-controlled grid</u> of the *facility* being registered as a *self-scheduling generation* <u>facility</u>. (MR-00161-R00)
 - 2.2.9.4 that is an *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*. (Proposal)

3.3 Dispatch Data Submissions

3.3.8 Notwithstanding any other provision of this section 3.3, a *registered market participant* shall as soon as practical submit to the *IMO* revised *dispatch data* for any *registered facility* in respect of which it is the *registered market participant* if, for any *dispatch hour* in the current *pre-dispatch schedule*, the quantity of any *physical service* scheduled for that *registered facility* differs from the quantity the *registered market participant* reasonably expects to be delivered or withdrawn by more than the greater of (i) 2 percent, and (ii) such absolute amount as may be determined by the *IMO* based on considerations of *reliability* and *facility* specific characteristics, and (iii) in the case of a *cogeneration facility* that is either a dispatchable or *self-scheduling generation facility*, such amount based on the impact that the production of the information outlined in section 2.2.6.9, and (iv) in the case of an *enhanced combined cycle facility* that is either a dispatchable or *self-scheduling generation facility* has on *energy* production, and the *IMO*: (green: MR-00161-R00; red: Proposal)

3.7 Self-Scheduling Generators

- 3.7.2 <u>A registered market participant for a registered facility that is a self-scheduling cogeneration</u> facility shall ensure its facility operates in accordance with its dispatch data within the tolerances for updating dispatch data outlined in section 3.3.8. (MR-00161-R00)
- 3.7.3 <u>A registered market participant for a registered facility that is an self-scheduling enhanced</u> combined cycle facility shall ensure its facility operates in accordance with its dispatch data within the tolerances for updating dispatch data outlined in section 3.3.8. (Proposal)

PART 5 - FOR IMO USE ONLY

Technical Panel Decision on Rule Amendment Submission			
MR number: MR-00241-Q00			
Date submitted to Technical Panel: August 20, 2003			
Accepted by <i>Technical Panel</i> as: <u>X</u> General Urgent Minor (please indicate with X)	Date: August 26, 2003		
Criteria for acceptance: Submission warrants consideration as it identifies ways of allowing the market to better meet the market design principle of market efficiency. Allowing market participants choices in how they participate in the IMO-administered market facilitates additional entrants to the market, thereby increasing supply and competition.			
Priority: High			
Criteria for assigning priority: alternate solutions that will address the issue and improve upon the operation of the market are likely available.			
Not accepted (please indicate with X):			
Clarification/interpretation required (please indicate with X):			
Technical Panel minutes reference: IMOTP 128-1			
Technical Panel Comments: The Technical Panel commented that the amendment submission should be considered with a high priority since it would help to promote and facilitate new market entrants into the market.			