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| **MODIFICATION PROPOSAL FORM** |
| **Proposer** | **Date of receipt** | **Type of Proposal** | **Modification Proposal ID** |
| **SEMO** | **17 July 2012** | **Standard** | **Mod\_16\_12** |
| **Contact Details for Modification Proposal Originator** |
| **Name** | **Telephone number** | **Email address** |
| **Aodhagan Downey** | **01-2370124** | **aodhagan.downey@sem-o.com** |
| **Modification Proposal Title** |
| **Inconsistent Technical Capabilities when Higher Operating Limit is zero and less than Lower Operating Limit** |
| **Documents affected** | **Section(s) Affected** | **Version number of T&SC or AP used in Drafting** |
| **T&SC** | **Appendix N** | **V10 + Mod\_18\_10v2** |
| **Explanation of Proposed Change***(mandatory by originator)* |
| The Code contains rules to resolve situations where there are inconsistent or infeasible technical constraints. According to Appendix N.17.2.e, a Generator Unit’s Output must be not less than its Lower Operating Limit (LOL) and not greater than its Higher Operating Limit (HOL). If a Generator Unit’s HOL is less than its LOL, it follows that there is no value of Output that would satisfy the above condition and the schedule would be infeasible. To resolve this infeasibility, N.29 specifies that one of the conflicting constraints will be disregarded. In the case where the HOL of a Generator Unit is less than its LOL, the HOL is reset to equal the LOL (see Table 1 for an example). In this case, if the Generator Unit is committed, the only value of Output that it can feasibly run at is its LOL (which equals its HOL). Table - Example of inconsistent LOL and HOL under current Code provisions

|  |  |  |  |
| --- | --- | --- | --- |
| Example | T&SC paragraph | Inconsistent | Revised |
|  |  | LOL | HOL | LOL | HOL |
| A | Current N.29.4 | 200 | 100 | 200 | 200 |
| B | Current N.29.4 | 200 | 0 | 200 | 200 |

In example B, where a Generator Unit declares itself unavailable and their HOL is calculated as 0MW, if their LOL is non-zero, it is not desirable for the HOL to be reset to the LOL as the Generator Unit is not available. This Modification Proposal includes an additional provision in N.29 for the case where HOL = 0MW and LOL > 0MW. In this case, it is proposed that the LOL be reset to equal zero (see Table 2 for the revised example). Table - Example of inconsistent LOL and HOL under proposed provisions

|  |  |  |  |
| --- | --- | --- | --- |
| Example | T&SC paragraph | Inconsistent | Revised |
|  |  | LOL | HOL | LOL | HOL |
| A | Current N.29.4 | 200 | 100 | 200 | 200 |
| B | New N.29.5 | 200 | 0 | 0 | 0 |

This was included in the original design of the MSP Software; however, it was not implemented as specified. It was raised as a defect to the MSP Software and has been implemented as of Feb 2012. During the formulation review of MSP Software as part of the certification process conducted in early 2012, it was raised that the TSC does not specify this rule and it should be updated to include it. |
| **Legal Drafting Change***(Clearly show proposed code change using* ***tracked*** *changes, if proposer fails to identify changes, please indicate best estimate of potential changes)* |
| Pre-processing of Data inputs for the MSP SoftwareInconsistent Technical Capabilities* 1. If Technical Capabilities applying to a Generator Unit within a run of the MSP Software are internally inconsistent so as to allow no solution for that Generator Unit within its Technical Capabilities, then the MSP Software shall disregard one or more Technical Capability limits as required to allow a solution to be found for that Generator Unit, subject to the limits that:
1. the Generator Unit shall not be scheduled to operate at a level in excess of the greatest Higher Operating Limit (see Appendix N.37) implied by any of the inconsistent Technical Capability limits, or zero where no such limit can be inferred;
2. the Generator Unit shall not be scheduled to operate at a level less than the lowest level implied by the lowest allowable level implied by any of the inconsistent Technical Capability limits, or zero where no such limit can be inferred;
3. the Generator Unit shall not be scheduled to operate for a period of time beyond the greatest operating time limit implied by any of the inconsistent Technical Capability limits;
4. if the Higher Operating Limit of a Generator Unit is greater than zero and less than the relevant Lower Operating Limit (see Appendix N.40), then its Higher Operating Limit shall be reset to equal its Lower Operating Limit; and
5. if the Higher Operating Limit of a Generator Unit is equal to zero and the relevant Lower Operating Limit is greater than zero, then its Lower Operating Limit shall be reset to zero.
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| **Modification Proposal Justification***(Clearly state the reason for the Modification)* |
| To document more fully the treatment of inconsistent higher and lower operating limits. |
| **Code Objectives Furthered***(State the Code Objectives the Proposal furthers, see Section 1.3 of T&SC for Code Objectives)* |
| * 1. The aim of this Code is to facilitate the achievement of the following objectives:
1. to facilitate the efficient discharge by the Market Operator of the obligations imposed upon it by its Market Operator Licences;
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| **Implication of not implementing the Modification Proposal***(State the possible outcomes should the Modification Proposal not be implemented)* |
| If this Modification Proposal is not Approved, the MSP Software will not be operating strictly in line with the Code in the circumstance where HOL = 0MW and LOL > 0MW. |
| **Working Group***(State if Working Group considered necessary to develop proposal)* | **Impacts***(Indicate the impacts on systems, resources, processes and/or procedures)* |
| Not required | No impacts if approved. If the change is rejected, the MSP Software may need to be modified to align with the existing provisions of the Code and this would be a CMS change. |
| ***Please return this form to Secretariat by email to*** ***modifications@sem-o.com*** |

**Notes on completing Modification Proposal Form:**

1. **If a person submits a Modification Proposal on behalf of another person, that person who proposes the material of the change should be identified on the Modification Proposal Form as the Modification Proposal Originator.**
2. **Any person raising a Modification Proposal shall ensure that their proposal is clear and substantiated with the appropriate detail including the way in which it furthers the Code Objectives to enable it to be fully considered by the Modifications Committee.**
3. **Each Modification Proposal will include a draft text of the proposed Modification to the Code unless, if raising a Provisional Modification Proposal whereby legal drafting text is not imperative.**
4. **For the purposes of this Modification Proposal Form, the following terms shall have the following meanings:**

**Agreed Procedure(s): means the detailed procedures to be followed by Parties in performing their obligations and functions under the Code as listed in Appendix D “List of Agreed Procedures”.**

**T&SC / Code: means the Trading and Settlement Code for the Single Electricity Market**

**Modification Proposal: means the proposal to modify the Code as set out in the attached form**

**Derivative Work: means any text or work which incorporates or contains all or part of the Modification Proposal or any adaptation, abridgement, expansion or other modification of the Modification Proposal**

**The terms “Market Operator”, “Modifications Committee” and “Regulatory Authorities” shall have the meanings assigned to those terms in the Code.**

**In consideration for the right to submit, and have the Modification Proposal assessed in accordance with the terms of Section 2 of the Code (and Agreed Procedure 12), which I have read and understand, I agree as follows:**

**1. I hereby grant a worldwide, perpetual, royalty-free, non-exclusive licence:**

* 1. **to the Market Operator and the Regulatory Authorities to publish and/or distribute the Modification Proposal for free and unrestricted access;**
	2. **to the Regulatory Authorities, the Modifications Committee and each member of the Modifications Committee to amend, adapt, combine, abridge, expand or otherwise modify the Modification Proposal at their sole discretion for the purpose of developing the Modification Proposal in accordance with the Code;**
	3. **to the Market Operator and the Regulatory Authorities to incorporate the Modification Proposal into the Code;**

**1.4 to all Parties to the Code and the Regulatory Authorities to use, reproduce and distribute the Modification Proposal, whether as part of the Code or otherwise, for any purpose arising out of or in connection with the Code.**

**2. The licences set out in clause 1 shall equally apply to any Derivative Works.**

**3. I hereby waive in favour of the Parties to the Code and the Regulatory Authorities any and all moral rights I may have arising out of or in connection with the Modification Proposal or any Derivative Works.**

**4. I hereby warrant that, except where expressly indicated otherwise, I am the owner of the copyright and any other intellectual property and proprietary rights in the Modification Proposal and, where not the owner, I have the requisite permissions to grant the rights set out in this form.**

**5. I hereby acknowledge that the Modification Proposal may be rejected by the Modifications Committee and/or the Regulatory Authorities and that there is no guarantee that my Modification Proposal will be incorporated into the Code.**