MODIFICATION PROPOSAL FORM			
Proposer *(Company)*	**Date of receipt** *(assigned by Secretariat)*	**Type of Proposal** *(delete as appropriate)*	**Modification Proposal ID** *(assigned by Secretariat)*
Energia	**27th January 2022**	**Standard**	**Mod_02_22**

Contact Details for Modification Proposal Originator		
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Modification Proposal Title
Cost Recovery when Under Test

Documents affected *(delete as appropriate)*	**Section(s) Affected**	**Version number of T&SC or AP used in Drafting**
T&SC Part B		**Version 25.0 (9 Nov 2021)**

Explanation of Proposed Change
(mandatory by originator)

Area of Concern

A key impact of the policy pathway towards a low carbon future and corresponding increasing RES generation on the system is that energy prices become more volatile and extreme as renewable penetration grows and at high levels of SNSP, and where there is constraints/curtailment, then Balancing Market (BM) prices will more frequently go negative. This change towards lower BM prices which is being driven by the 2030 & 2050 policy targets is creating a greater variance between market prices and actual operating costs for thermal generation, particularly in the context of the historically high and unpredictable wholesale gas prices that have been observed since the second half of 2021. This represents a real and highly material economic risk to thermal generation when operating 'Under Test' upon returning from an outage. This is because when 'Under Test' a Generating Unit (GU) only recovers costs in the BM at the level of the BM price. That means a GU will not fully recover their costs when 'Under Test' if the BM price is low / less than the thermal units actual operating costs. Given that lower and frequently negative BM prices can be expected more often as we move towards 2030 targets, the variance between market prices and actual operating costs will become an ever-increasing risk for thermal generation.

The consequence of failing to recover costs and exposure to large losses when 'Under Test' will drive GUs to defer/shift testing where possible to minimise such exposure. However, this may not reflect the TSOs desires to get the unit available and it may have other unforeseen impacts (e.g. it may have knock on consequences to scheduled outages on other units which may be delayed etc. until a previous unit has fully completed testing and declared available following an outage.

An example of this cost recovery issue was experienced on 21-22 October 2021 when a thermal plant (HPC2) was "under test" when returning from outage. A summary of how the operating costs for this unit when 'Under Test' were substantially under recovered is summarised in the table below:

Under Test period	**BM Revenues**	**Operating Costs (reflecting historically elevated gas market prices)**	**Loss Incurred**
21.10.21 (18:30) – 22.10.21 (21:30)	€856k	€1,527k	(€671k)

Rationale for change

Given the potential impact on cost recovery when 'Under Test' this is currently a real and serious issue for GUs in the market with real and potentially serious commercial implications. This is unfavourable, and uniquely unfair on GU's who costs may exceed the BM price at any point in time, particularly when it is beneficial to the system operation as a whole (including Security of Supply) to have generation complete testing and return to full availability for use in the system as soon as possible.

The current rules in respect of when a GU is Under Test were developed when there was much more conventional generation on the system than renewable generation. As ISEM moves towards increasing RES generation, the ISEM generation market dynamic is changing, and will continue to change, to reflect this and government and regulatory policy for in-market and out-of-market costs/supports/policies. Thus, the variance between market prices and operating costs of thermal GU's will become more pronounced. The resulting impact is that thermal GUs may continue not to be able to recover their actual operating costs when Under Test. This risk will lead to GUs to test when the cost is minimised which may not align with TSO requirements (especially in a tight system where the capacity is required to be back available) and impact outage timings for other units.

Proposed Change

In order to address this problem we propose to that a change in Settlement is introduced for units when 'Under Test' (i.e. the PN is set to the greater of QEX and zero in settlement when the Unit has an Under Test Flag).

This will address the identified issue and avoids an upstream change at FPN submission which may have a greater impact on TSO scheduler and systems. By making these proposed changes to Settlement within the TSC, when a GU is Under Test it will be able to recover its operating costs incurred when running under a testing profile agreed with the TSO and not incur an operating loss which can occur under the current market rules.

Legal Drafting Change

*(Clearly show proposed code change using **tracked** changes, if proposer fails to identify changes, please indicate best estimate of potential changes)*

D.7.3 Generator Units Under Test

D.7.3.7:: A Generator Unit Under Test shall have its Final Physical Notification Quantity set to the higher of its Ex-Ante Quantity and zero for each Imbalance Settlement Period, starting on the Imbalance Settlement Period in which the Under Test Flag first applies and ending on the Imbalance Settlement Period in which the Under Test Flag last applies in accordance with paragraph F.2.3.7.

F.2.3 Physical Notification Data

F.2.3.7: The Final Physical Notification Quantity (QFPNuy) for a Generator Unit ,u, which is Under Test shall be set to the higher of QEXuy and zero for each Imbalance Settlement Period, y, starting on the Imbalance Settlement Period in which the Under Test Flag first applies and ending on the Imbalance Settlement Period in which the Under Test Flag last applies.

Modification Proposal Justification

(Clearly state the reason for the Modification)

The principle underlying reason for justification of the modification proposal is that the current ruleset that applies when a GU is Under Test was derived in the context of a time when there was more conventional generation than renewable generation on the electrical system and BM prices were less volatile are more closely correlated to fossil fuel prices. As this balance changes in line with the move towards 2030 and 2050 targets, and the corresponding impact this is expected to have in respect of more volatile market prices (with a high risk of negative prices at high SNSP levels where curtailment and constraints are biting)

there will be an increasing variance between market prices and operating costs for thermal generators that needs to be reconsidered to ensure these thermal generators are not unduly penalised when acting prudently and returning as quickly as possible to market operation following a period of maintenance. In the absence of such change this will drive GUs to optimise testing such that they minimise exposure to net costs which may not align or assist TSO operation of the system and such misalignment could ultimately increase cost for customers.

If the current ruleset is not amended, the inability to recover costs when Under Test will have negative impacts. Given the stated requirement for an additional 2.2 GW of gas-fired generation on the system by 2030 to support policy targets, this potential situation seems inappropriate and therefore this risk needs to be addressed.

Additional Concerns and rationale

Further to the above it is also prudent to address some further considerations in respect of the proposal:

1. Testing Tariffs – the proposed modification is separate from testing tariffs / charges and there is no suggestion to amend these.

2. Impact on Imperfection Costs - it is our view that any costs that contribute to Imperfections should be accounted for in the Under Test tariff/charges, which as previously stated are not within the scope of this proposal.

3. Ex-Ante participation – This proposal has focused on BM prices v operating costs when Under Test. In respect of the potential for a GU to enter ex-ante markets when 'Under Test' it is assumed that they are not incentivised to do so due to higher risks due to:

- changing test profiles that happen in real time,
- trips given the unit is Under Test; and/or
- potentially not managing to get the unit started if early in the testing process.

If a GU does participate in ex-ante markets, they are incentivised to submit PNs that reflect that ex-ante position in order to avoid QBIAS volumes which can impact Premiums/Discounts in imbalance settlement. It is also a requirement for generators to submit PNs that reflect the ex-ante position.

4. Will the GU still follow the testing profile agreed with the TSO – GUs are incentivised to do so as the TSO will instruct them through dispatch instructions and failure to follow those instructions will result in uninstructed imbalance charges.

Code Objectives Furthered

(State the Code Objectives the Proposal furthers, see Section 1.3 of Part A and/or Section A.2.1.4 of Part B of the T&SC for Code Objectives)

The following Code Objectives will be furthered with this Modification Proposal:

(d) to promote competition in the Single Electricity Market;

(f) to ensure no undue discrimination between persons who are parties to the Code;

Implication of not implementing the Modification Proposal

(State the possible outcomes should the Modification Proposal not be implemented)

The current rules in respect of when a GU is Under Test were developed when there was much more conventional generation on the system than renewable generation. As ISEM moves towards increasing RES generation, the ISEM generation market dynamic is changing, and will continue to change, to reflect this and government and regulatory policy for in-market and out-of-market costs/supports/policies. Thus, the variance between market prices and operating costs of thermal GU's will become more pronounced. The resulting impact is that thermal GUs may continue not to be able to recover their actual operating costs when Under Test. This risk will lead to GUs to test when the cost is minimised which may not align with TSO requirements (especially in a tight system where the capacity is required to be back available) and impact outage timings for other units.

Working Group *(State if Working Group considered necessary to develop proposal)*	**Impacts** *(Indicate the impacts on systems, resources, processes and/or procedures; also indicate impacts on any other Market Code such as Capacity Market Code, Grid Code, Exchange Rules etc.)*
	A system change in Settlement will be required
Please return this form to Secretariat by email to balancingmodifications@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 either Part A or Part B Appendix D "List of Agreed Procedures". The Proposer will need to specify whether the Agreed Procedure to modify refers to Part A, Part B or both.**
T&SC / Code:	**means the Trading and Settlement Code for the Single Electricity Market. The Proposer will also need to specify whether all Part A, Part B, Part C of the Code or a subset of these, are affected by the proposed Modification;**
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 Part A or Chapter B of Part B of the Code (and Part A Agreed Procedure 12 or Part B 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:**

   1.1 **to the Market Operator and the Regulatory Authorities to publish and/or distribute the Modification Proposal for free and unrestricted access;**

   1.2 **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;**

   1.3 **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.**