



## Single Electricity Market

### FINAL RECOMMENDATION REPORT

**MOD\_14\_21 EXTENSION OF SYSTEM SERVICE FLAG TO  
INCLUDE UNITS PROVIDING REPLACEMENT RESERVE IN LINE  
WITH THE DETAILED DESIGN**

**12 JANUARY 2022**

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## Document History

Version	Date	Author	Comment
1.0	12 Jan 2022	Modifications Committee Secretariat	Issued to Modifications Committee for review and approval
2.0	19 Jan 2022	Modifications Committee Secretariat	Issued to Regulatory Authorities for final decision

## Reference Documents

Document Name
<a href="#">Trading and Settlement Code Proposal</a>
<a href="#">Proposal v2</a>
<a href="#">Presentation</a>
<a href="#">Presentation</a>

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## 1. MODIFICATIONS COMMITTEE RECOMMENDATION

### RECOMMENDED FOR APPROVAL– UNANIMOUS VOTE

Recommended for Approval by Unanimous Vote		
Kevin Hannafin	Generator Member	Approve
Patrick Larkin	Assetless Alternate	Approve
Robert McCarthy	DSU Member	Approve
Paraic Higgins (Chair)	Generator Member	Approve
David Caldwell	Supplier Alternate	Approve
Ian Mullins	Supplier Member	Approve
Bryan Hennessy	Supplier Member	Approve
Brigid Reilly	Supplier Alternate	Approve
Eamonn Boland	Renewable Generator Alternate	Approve
Rochelle Broderick	Supplier Member	Approve
Stacy Feldmann	Generator Member	Approve
Cormac Daly	Generator Member	Approve
Nick Heyward	Flexible Participant Alternate	Approve

## 2. BACKGROUND

This Modification Proposal was raised by EPUKI and received by the Secretariat on the 23<sup>rd</sup> August 2021. The Proposal was raised and discussed at Meeting 106 on 7<sup>th</sup> September 2021 and Meeting 107 on the 21<sup>st</sup> October 2021. A version 2 of the proposal was received by the Secretariat on 30<sup>th</sup> November 2021. This was raised and voted on at Meeting 108 on 2<sup>nd</sup> December 2021.

Currently the market rules are not delivering the detailed design as intended as flexible peaking generators are unreasonably and unfairly exposed to Reliability Obligation Difference Payments (RODPs) due to actions by the TSOs at times of system stress.

SEM-15-103 established clear principals and criteria that ISEM needed to deliver including:

**Security of supply:** promotes the objective of security of supply by ensuring that only reliable capacity is rewarded, and unreliable capacity which fails to deliver at times of system stress will be penalised.

**Delivering system services:**

System Services: For any capacity utilised for DS3 System Services such as capacity providing reserve, difference payments will be paid based on the difference between the contracted utilisation

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payment (*likely to be zero – implying no difference payments in respect of the provision of DS3 System Services*) for that service and the Strike Price.

Section 3.3.80 of the Detailed Design states that the SEM Committee wished to make it clear that capacity providers who are providing reserve or other system services in accordance with TSO instruction will have the relevant part of their RO commitment settled with reference to their reserve/system services income.

In section 3.3.97 the SEM Committee also recognises that work needs to be done to determine appropriate arrangements to ensure that capacity providers directed to provide operating reserve or other DS3 System Services are not inappropriately disadvantaged when acting on instruction of the TSO. In this context the RAs will work with the TSOs to develop proposed arrangements and algebra.

A significant number of flexible peaking generators have been penalised not because they failed to deliver (as they were available), rather during system stress events these units were either not dispatched (despite being more economical than other TSO options) or were not System Service Flagged and therefore have been subject to RODPs. This exposure is significant and disproportionately and unfairly impacts flexible peaking units. It is likely, given the concerns of the TSOs in relation to system distress in the coming winters, that this exposure is likely to increase unless the issue is addressed urgently.

### **Market Design Development**

In December 2016, a Market Rules presentation (by the MRG team) identified this issue from the detailed design as follows:

#### **‘Problem trying to resolve:**

- The detailed design allows for any capacity utilized for DS3 System Services such as capacity providing reserve to count towards obligations.
- Units which are desynchronised and providing replacement reserves, who would not normally clear in the market and who may not be able to clear in the market if they tried without creating unintended outcomes.’

This means that peaking generating units would be subject to RODPs if this problem is not resolved and the problem is likely to escalate over winter 2021/22 and beyond.

Subsequent to this, within the Market Rules Working Group Comments and Feedback which were circulated 20170111 No 894 (ESB) it was identified that there are units that have the ability to be dispatched on to provide reserve after Gate Closure but may not be dispatched by the TSOs in a scarcity event due to an operational constraint (e.g. the combined OCGT output limitation for replacement reserve). As such there is no explicit instruction from the TSO to the unit. Consequently, as per the current algebra the unit is exposed to the non-performance charge even though it is being held/utilised for reserve.

The updated algebra was designed to enable a capacity provider to be flagged based on information from the most recent Indicative Operations Schedule to identify whether a Generator Unit’s scheduled output is bound by the presence of an Operational Constraint relating to the provision of Replacement Reserve, and where they determine that the Generator Unit is so bound, shall set the System Service Flag (FSSup) for that Generator Unit,  $u$ , equal to zero for that Imbalance Pricing Period,  $\phi$ .

This flagging process does not identify all units affected by the problem. The consequence of this is that some flexible peakers have been exposed to RODPs even though they were available and priced in merit relative to actions taken by the TSOs.

The TSOs, as part of their Operational Constraints, identify resources as providers of Replacement Reserve. As a group their total output is curtailed to enable a minimum of 450MWs of Replacement Reserve. These resources are effectively being utilised continuously for DS3 System Services when

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they are available. These units are the flexible peakers that represent the problem the market design was trying to resolve in December 2016 as defined above.

The impact of the Cross Zonal Actions for System Security reasons is an example of the exposure that flexible peakers have experienced.

Taking the 12<sup>th</sup> Jan 2021 as an example of a Cross Zonal Action.

- the BM price was €1,474.23 at 17:00 to 17:30 and €1,720.50 from 17:30 to 18:30
- The price was set by the Cross Zonal Action taken for System Security Reasons in NI
- Actual Available Capacity from the Replacement Reserve providers averaged 961MWs but 701MWs of this capacity was not dispatched.
- In the first hour, some of this capacity was flagged as providing replacement reserve. No units were flagged in the final half hour.
- It is evident that the RODPs recovered from the capacity holders exceeded the amount required to keep Suppliers whole. The Socialisation Fund has reached an estimated €24.2M for September 2021, due to the difference charges being above difference payments and termination charges received (SEM-21-063).

The intention of the detailed design was not to penalise capacity when it is available and reliable but was designed to penalise unreliable capacity and units that cannot provide flexibility to the TSOs. These Replacement Reserve units (peaking plants) were available but not dispatched and either wholly or partially not flagged leaving them exposed to RODPs.

Another example of when this exposure would arise would be an Administered Scarcity Pricing event. The current FSS is unlikely to identify all providers of Replacement Reserve as it is focused purely on the identification of the specific binding constraint.

The identification of the potential inequitable treatment of peaking plants (Replacement Reserve Resources) as capacity providers in circumstances when they are not dispatched was raised during the establishment of the market rules (Market Rules Working Group Comments and Feedback circulated 20170111 - No. 855 (BNM)). It highlighted that the capacity revenue stream is the main income for this type of unit. If the frequency of unmanageable RODPs increases, it will lead to the erosion of this capacity revenue and could undermine their economic viability.

The TSOs have indicated that they expect very tight generation capacity margins this winter. Therefore, there is a material risk that the frequency of RODPs will increase, reducing their economic viability.

The solution proposed is to simply expand the system services flag to include those generator units that are classified as a resource in the latest published TSOs Operational Constraints Update as a Replacement Reserve Resource and are available at or above their obligated capacity quantity only if their incremental price is at or below the Strike Price set. Thus, protecting peaking units from RODPs if they are providing replacement reserve and are 'in merit'.

### 3. PURPOSE OF PROPOSED MODIFICATION

#### 3A.) JUSTIFICATION OF MODIFICATION

We have had a significant number of pricing events since November 2020. High prices are a sign of a functioning market, but the nature of the Irish network means that the TSO only selects those peaking units from the location of the shortage. In addition, the TSO has been holding back energy from peaking units due to the fact that they are flexible and can provide replacement reserve at all times.

The impact for peaking units is that it is likely to become uneconomic for them to continue to operate as they continue to be subject to this largely uncontrollable dispatch risk, leading to large RODPs.

This is of particular concern given the TSOs expecting winter 2021 to have very tight generation capacity margins. This is contrary to the detailed system design objectives. Instead of flexibility being rewarded, it is being discriminated against due to their nature as a very flexible resource to the TSOs in a constrained market.

### **3B.) IMPACT OF NOT IMPLEMENTING A SOLUTION**

Failure to implement this Modification will continue to see unfair discrimination against peaking assets and undermine their economic viability and would be inconsistent with the clearly stated aims set out in SEM-15-103.

### **3C.) IMPACT ON CODE OBJECTIVES**

Part B

- (b) to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner;
- (c) to facilitate the participation of electricity undertakings engaged in the generation, supply or sale of electricity in the trading arrangements under the Single Electricity Market;
- (f) to ensure no undue discrimination between persons who are parties to the Code; and
- (g) to promote the short-term and long-term interests of consumers of electricity on the island of Ireland with respect to price, quality, reliability, and security of supply of electricity.

## **4. WORKING GROUP AND/OR CONSULTATION**

N/A

## **5. IMPACT ON SYSTEMS AND RESOURCES**

N/A

## **6. IMPACT ON OTHER CODES/DOCUMENTS**

N/A

## **7. MODIFICATION COMMITTEE VIEWS**

### **MODIFICATIONS MEETING 106 – 7 SEPTEMBER 2021**

The Proposer gave a background on this Modification noting that following positive engagement with the RAs this Modification would be a replacement for [Mod\\_04\\_21](#). This Modification highlighted that the design was not delivering, and this had unintended consequences.

The Proposer went through the slides advising that flexible peaker plants were not always covered by System Service Flags all the time and another step was needed. It was explained that the peakers are able to deliver power when needed but end up not necessarily dispatched. It was noted that this Modification would have been a subset of Mod\_01\_21 but focused more on low utilization plants.

A Flexible Participant Alternate commented that this Modification highlights an issue with the implementation of the detailed design which states it didn't expect to disadvantage any provider directed to provide operating reserve *or other DS3 System Services* when acting on instruction of the TSO. It was advised that a lot of available batteries did not get dispatched either noting there was a disparity also with other types of units. The Proposer agreed that the Modification had a narrow focus and it would be specifically targeted. A suggestion was made that TSOs could look at batteries continually dispatched down. A SO Alternate advised that the operation of batteries is a separate subset, which is still evolving.

A Generator Member noted that the Modification was about the high-level design ensuring that flexible units providing replacement reserve would not be exposed.

A Supplier Member stated that there was limited consideration on the consequences of this Modification and advised that there should be no undue consequences from putting this Modification forward. It was queried if an action should be taken to look at actions and price stacks and think about how units are dealt with overall. It was advised that this Modification won't change that but it is trying to address units that have replacement reserve applied to them and the system already has all levels of constraints taken into account.

A discussion ensued on the Amber Alert which occurred on the 6<sup>th</sup> of September. The TSO expressed empathy for peaking plants, in the event that they are available but not run and get exposed to RO difference charges, but questioned for an event, such as an amber alert, where a peaker fails to synchronize when dispatched on, should they be zeroed at the time of that event or for a longer time period (peakers may only be dispatched on for peak) and what would happen if they declared available after the event – how should the TSO treat that? The Proposer responded advising that the unit should declare when it is available and if the unit trips it is subject to a charge. If the unit comes back, the Proposer believed this should be a question for the control room. There was agreement that this was a legitimate question.

A DSU Member voiced a concern there was some ambiguity with the Modification and asked for clarity if it was in relation to reserves or provision of other system services. A minor drafting of the clause was also pointed out with a suggestion of inclusion of limb 3 in the paragraph.

A Supplier Alternate advised there were a couple of points to note with this Modification. The first was to be aware of the overarching security of supply, the second was a concern around dispatchable units being unduly exposed and thirdly if the Capacity Market Code needed to be updated in line with this.

The Secretariat and SEMO gave assurance that relevant parties on the Capacity team would be liaised with in relation to any sections which may affect them.

A discussion on the Socialization Fund took place and how it would be affected. A Supplier Member voiced a concern that although Mod\_01\_21 or Mod\_04\_21 may not affect it in isolation in accumulation it could make an impact we never expected.

SEMO advised that Mod\_01\_21 did not go through and Mod\_02\_21 did not have any impact on the socialization fund. It was advised that the new Modification Mod\_15\_21 would require new analysis along with this one.

RAs gave their perspective on the Modification noting that the central issue was around the unit System Service Flag not being applied and a need to understand why this is not happening. A question was raised if the System Service Flag was operating correctly?

A brief discussion around flags ensued with a query raised if there is an action that a flag can go against. SEMO agreed to look into the current implementation and further details to be provided at the next meeting. There was a need to understand how the System Service Flag is created and if a change is required, what will the change do.

There was agreement from the Proposer that a version 2 of this Modification should be submitted.

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## **MODIFICATIONS MEETING 107 – 21 OCTOBER 2021**

The Proposer delivered a [presentation](#) on this Modification noting that there would be some formatting alterations to the legal drafting as included in the slide pack. Giving a background on this Modification the Proposer noted that the high-level design was very clear and units that are providing replacement reserve should not be exposed to penalties.

A Generator Alternate thanked the Proposer for the clarity given by the presentation and also provided sympathy for the apparent discrimination which was occurring. It was advised that in terms of what was proposed there should be an attempt to implement the high-level design and from the slides presented it didn't look like this is what was being done. It was suggested that this Modification highlighted the problem, but the solution offered may not be the correct one.

It was noted by a Generator Member that flexible units should be protected against the scenarios highlighted. Clarity was requested on the matter of the application of the system service flag by the TSO particularly with regards to this being applied a lot less in NI. SO Observer provided an overlook of the application of the system flag for Replacement Reserve Units explaining that it is different from other Reserve Types and flag is only applied when the whole amount available from all Generator Units included in the weekly CGT Operational Constraints is scheduled. It was advised that the issue with units was happening both in the North and South and the flag was not binding as much in NI due to the characteristics of the NI portfolio.

A Supplier Member queried that if flagging is not achieving the high-level design is it a systems issue or a interpretation issue? A concern was raised that the high-level design wasn't being implemented. It was noted that both issues of high-level design and system implementation could be fixed at the same time with this Modification. A SO Observer advised that the change would not be easy as calculations needed to be done in a dynamic way and prices are not known at the time when scheduling is done. It was noted that further impact assessment was needed.

A Generator Member agreed with the point above that the flag was not applied and units were exposed unfairly. A SO Member advised that they have been looking at ways to incorporate the changes to avoid those units which are not available gets charged.

A DSU Member echoed the views made previously by Flexible Participant Alternate regarding the design should protect fast acting units and availability is already taken into account in the calculation so that should satisfy the concerns of the TSOs that only available units will not get charged. It was felt there were 2 issues at play noting that rules don't flag units and materials don't reflect dynamic actions.

A Generator Member suggested if EirGrid could provide a comprehensive report on Replacement Reserve which could be used to look at settlement for price events.

The RAs provided an overview of their position stating that they had engaged with the Proposer SEMO and the TSO and an ex-post solution via Settlement has also been explored; however if that were to be the case the RAs stressed out that they would be keen to see an added condition where the unit being exempt from the charges would be in merit either against the Strike Price or against the Imbalance Price to maintain the incentives on bidding appropriately.

SEMO advised they had been looking at temporary manual solutions in Settlement where there is some flexibility to modify the flag as long as there is clarity on the criteria to be applied. It was advised that this could be a manual process in the interim and at the same time the impact assessment could be developed for an enduring solution and the criteria to apply the flag agreed.

A Generator Member echoed the concerns of other Members and felt that this Modification was too much of a free pass and should not be a default option.

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It was suggested that the Modification could be voted on with approval to include the drafting that it would only apply when units are in merit. The Proposer provided clarification that in their opinion being in merit would refer to units bidding below the balancing price rather than the strike price.

A number of Members voiced concerns over voting on this Modification noting there were still issues to be ironed out. A reference was made to Mod\_32\_18 and the discussions held at the time around what in merit should mean especially with units with multiple bids. Also, the terminology around availability should be specified as there are a number of availability variable and the Mod needs to include the correct terms.

The Proposer noted all of the comments made above and agreed to grant further discussion in order to draft a version 2 of this Modification. An agreement was made to hold an Industry call jointly with SSE on Mod\_15\_21 which touches on similar items and which will be held in November on a date to be confirmed.

### **MODIFICATIONS MEETING 108 – 2 DECEMBER 2021**

The Proposer delivered a [presentation](#) on this Modification giving thanks to Members for accepting V2 of this proposal at short notice and appreciated that there was only a short amount of time to review it.

The Proposer advised that there was frequent engagement with Participants and various comments were taken on board. A number of adjustments were made to the legal drafting and this proposal would intend to ensure the System Service Flag is applied to the resources identified as providing Replacement Reserves in the TSO Operational Constraints publication when they are available and in merit.

A Supplier Member recognized that the intention of this Modification was a positive one with most of the problems focused on one area. It was suggested that if this were to become an enduring provision that better governance should be placed onto the Operational Constraint document which currently was not a codified publication in the T&SC. A SO Alternate advised that the document was mentioned in the Balance Market Principle Statement but it was something that would need to be reviewed further. A discussion ensued about other documents referred by the Code but with governance outside of the Code.

SEMO noted that documents that are not under the control of market governance were not codified and under the responsibility of the relevant body in this case the TSO. A reference to it would be sufficient and they were satisfied with that. TSO agreed to take an action to find where the obligation for the publication of the Operational Constraints document comes from.

A Supplier Member voiced a concern that if this was not published then it could go unnoticed. TSO agreed to take an action to review this. A Generator Member noted that this was a crucial document that they receive once a week and it is not expected to vanish without appropriate replacement. Also, the new legal drafting provides a stronger and more detailed requirement than the original one which was very generic.

A Generator Member stated that there was insufficient time to review the PINC algebra and clarity was requested on whether it covered all simple or complex offers. The Proposer confirmed PINC referred to Simple Offers and agreed that the Final Recommendation Report could make some reference to it.

A Generator Member asked if the Modification addressed issues regarding gaming. SEMO explained that the requirements to avoid gaming were linked to assurances with regards to the application of the availability up to the Obligated Quantity and for the unit to be in merit. The Proposer had demonstrated that both were satisfied in the current drafting.

An error in the meeting agenda classified this Proposal incorrectly as an Agreed Procedure Proposal when in fact it was a Code modification. Due to this the vote also included TSO/MDP/SO Members. At the earliest point available the Secretariat brought this to the Committee's attention and advised that as

a Code Proposal it would follow the process requiring a Final Recommendation Report and RA Decision rather than an Agreed Procedure Notification. The vote was corrected to voting Members only as per a Code Modification and an additional vote process was not required as the original vote was unanimous. The Secretariat offered its sincere apologies for this error and thanked the Members for their patience.

## 8. PROPOSED LEGAL DRAFTING

*At the Modifications Committee the Proposer suggested that the PINC should refer to the simple bids. However, after consideration and discussing this with a number of participants and the MO the Proposer does not believe that this is necessary.*

*By its nature the PINC is the price that would go into the pricing stack. If the PINC is greater than the strike price the unit will not be protected. It is irrelevant if that price is simple or complex.*

*Therefore, the final Legal drafting remains unchanged with the addition only of the definition of variables as per the following:*

Part B Appendix N

2 For each Imbalance Pricing Period,  $\phi$ , the System Operators shall:

~~i. use information from the most recent Indicative Operations Schedule to identify whether a Generator Unit's scheduled output is bound by the presence of an Operational Constraint relating to the provision of Replacement Reserve, and where they determine that the Generator Unit is so bound, shall set the System Service Flag ( $FSS_{u\phi}$ ) for that Generator Unit,  $u$ , equal to zero for that Imbalance Pricing Period,  $\phi$ . Otherwise, the System Operators shall set the System Service Flag ( $FSS_{u\phi}$ ) for that Generator Unit,  $u$ , equal to one for that Imbalance Pricing Period,  $\phi$ .~~

i. where the Generator unit,  $u$ ,

- i. is listed by the TSO in its latest published Operational Constraints Update as a resource providing Replacement Reserve; and
- ii. its Incremental Price ( $PINC_{u\phi}$ )  $\leq$  Strike Price ( $PSTR_m$ )

then the System Service Flag ( $FSS_{u\phi}$ ) for that Generator Unit,  $u$ , shall be set equal to zero for that Imbalance Pricing Period,  $\phi$ .

Where:

- (a)  $PINC_{u\phi}$  is the Incremental Price for the Quantity in the single set of Price Quantity Pairs shall be the Price from the set of Incremental Price Quantity Pairs applicable at that Quantity in that Imbalance Pricing Period,  $\phi$ .
- (b)  $PSTR_m$  is the Strike Price for Month,  $m$ , which contains Imbalance Settlement Period,  $y$

ii. Where not covered by (i), the System Operators shall set the System Service Flag ( $FSS_{u\phi}$ ) for that Generator Unit,  $u$ , equal to one for that Imbalance Settlement Period

## 9. LEGAL REVIEW

N/A

## 10. IMPLEMENTATION TIMESCALE

It is recommended that this Modification is implemented on a Trading Day basis following implementation of System changes.

## 1 APPENDIX 1: MOD\_14\_21 EXPANSION OF THE SYSTEM SERVICE FLAG TO INCLUDE UNITS PROVIDING REPLACEMENT RESERVE IN LINE WITH THE DETAILED DESIGN

<b>MODIFICATION PROPOSAL FORM</b>			
<b>Proposer</b> <i>(Company)</i>	<b>Date of receipt</b> <i>(assigned by Secretariat)</i>	<b>Type of Proposal</b> <i>(delete as appropriate)</i>	<b>Modification Proposal ID</b> <i>(assigned by Secretariat)</i>
<b>EP Kilroot &amp; EP Ballylumford</b>	<b>30<sup>th</sup> November 2021</b>	<b>Standard</b>	<b>Mod_14_21v2</b>
<b>Contact Details for Modification Proposal Originator</b>			
<b>Name</b>	<b>Telephone number</b>	<b>Email address</b>	
<b>Paul Hutchinson</b>		<b>Paul.hutchinson@epuki.co.uk</b>	
<b>Modification Proposal Title</b>			
<b>Expansion of the System Service flag to include units providing Replacement Reserve in line with the detailed design</b>			
<b>Documents affected</b> <i>(delete as appropriate)</i>	<b>Section(s) Affected</b>	<b>Version number of T&amp;SC or AP used in Drafting</b>	
<b>Appendices Part B</b>	<b>N.2</b>	<b>Version 23, November 2020</b>	
<b>Explanation of Proposed Change</b> <i>(mandatory by originator)</i>			
<p><b>Background</b></p> <p>Currently the market rules are not delivering the detailed design as intended as flexible peaking generators are unreasonably and unfairly exposed to Reliability Obligation Difference Payments (RODPs) due to actions by the TSOs at times of system stress.</p> <p>SEM-15-103 established clear principals and criteria that ISEM needed to deliver including:</p>			

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- the BM price was €1,474.23 at 17:00 to 17:30 and €1,720.50 from 17:30 to 18:30
- The price was set by the Cross Zonal Action taken for System Security Reasons in NI
- Actual Available Capacity from the Replacement Reserve providers averaged 961MWs but 701MWs of this capacity was not dispatched.

- In the first hour, some of this capacity was flagged as providing replacement reserve. No units were flagged in the final half hour.
- It is evident that the RODPs recovered from the capacity holders exceeded the amount required to keep Suppliers whole. The Socialisation Fund has reached an estimated €24.2M for September 2021, due to the difference charges being above difference payments and termination charges received (SEM-21-063).

The intention of the detailed design was not to penalise capacity when it is available and reliable but was designed to penalise unreliable capacity and units that cannot provide flexibility to the TSOs. These Replacement Reserve units (peaking plants) were available but not dispatched and either wholly or partially not flagged leaving them exposed to RODPs.

Another example of when this exposure would arise would be an Administered Scarcity Pricing event. The current FSS is unlikely to identify all providers of Replacement Reserve as it is focused purely on the identification of the specific binding constraint.

The identification of the potential inequitable treatment of peaking plants (Replacement Reserve Resources) as capacity providers in circumstances when they are not dispatched was raised during the establishment of the market rules (Market Rules Working Group Comments and Feedback circulated 20170111 - No. 855 (BNM)). It highlighted that the capacity revenue stream is the main income for this type of unit. If the frequency of unmanageable RODPs increases, it will lead to the erosion of this capacity revenue and could undermine their economic viability.

The TSOs have indicated that they expect very tight generation capacity margins this winter. Therefore, there is a material risk that the frequency of RODPs will increase, reducing their economic viability.

The solution proposed is to simply expand the system services flag to include those generator units that are classified as a resource in the latest published TSOs Operational Constraints Update as a Replacement Reserve Resource and are available at or above their obligated capacity quantity only if their incremental price is at or below the Strike Price set. Thus, protecting peaking units from RODPs if they are providing replacement reserve and are 'in merit'.

**Legal Drafting Change**

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

Part B Appendix N

2 For each Imbalance Pricing Period,  $\varphi$ , the System Operators shall:

- ~~ii. use information from the most recent Indicative Operations Schedule to identify whether a Generator Unit's scheduled output is bound by the presence of an Operational Constraint relating to the provision of Replacement Reserve, and where they determine that the Generator Unit is so bound, shall set the System Service Flag ( $FSS_{u\varphi}$ ) for that Generator Unit,  $u$ , equal to zero for that Imbalance Pricing Period,  $\varphi$ . Otherwise, the System Operators shall set the System Service Flag ( $FSS_{u\varphi}$ ) for that Generator Unit,  $u$ , equal to one for that Imbalance Pricing Period,  $\varphi$ .~~

i where the Generator unit,  $u$ ,

- iii. is listed by the TSO in its latest published Operational Constraints Update as a resource providing Replacement Reserve; and
- iv. its Incremental Price ( $PINC_{u\varphi}$ )  $\leq$  Strike Price ( $PSTR_m$ )

then the System Service Flag ( $FSS_{u\varphi}$ ) for that Generator Unit,  $u$ , shall be set equal to zero for that Imbalance Pricing Period,  $\varphi$ .

- i. Where not covered by (i), the System Operators shall set the System Service Flag ( $FSS_{u\varphi}$ ) for that Generator Unit,  $u$ , equal to one for that Imbalance Settlement Period

**Modification Proposal Justification**

(Clearly state the reason for the Modification)

We have had a significant number of pricing events since November 2020. High prices are a sign of a functioning market, but the nature of the Irish network means that the TSO only selects those peaking units from the location of the shortage. In addition, the TSO has been holding back energy from peaking units due to the fact that they are flexible and can provide replacement reserve at all times.

The impact for peaking units is that it is likely to become uneconomic for them to continue to operate as they continue to be subject to this largely uncontrollable dispatch risk, leading to large RODPs.

This is of particular concern given the TSOs expect winter 2021 to have very tight generation capacity margins. This is contrary to the detailed system design objectives. Instead of flexibility being rewarded, it is being discriminated against due to their nature as a very flexible resource to the TSOs in a constrained market.

**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)

<p>Part B</p> <p>(b) to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner;</p> <p>(h) to facilitate the participation of electricity undertakings engaged in the generation, supply or sale of electricity in the trading arrangements under the Single Electricity Market;</p> <p>(i) to ensure no undue discrimination between persons who are parties to the Code; and</p> <p>(j) to promote the short-term and long-term interests of consumers of electricity on the island of Ireland with respect to price, quality, reliability, and security of supply of electricity.</p>	
<p><b>Implication of not implementing the Modification Proposal</b></p> <p><i>(State the possible outcomes should the Modification Proposal not be implemented)</i></p>	
<p>Failure to implement this modification will continue to see unfair discrimination against peaking assets and undermine their economic viability and would be inconsistent with the clearly stated aims set out in SEM-15-103.</p>	
<p><b>Working Group</b></p> <p><i>(State if Working Group considered necessary to develop proposal)</i></p>	<p><b>Impacts</b></p> <p><i>(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.)</i></p>
<p>This modification is a development on Mod_04_21 – Extension of the System Service Flag to cover Cross Zonal Actions for System Security. This Mod was presented at the Balancing Modification Committee Meeting 103 on 11<sup>th</sup> February.</p> <p>It was not voted on at this meeting but was deferred for further analysis at the Working Group meeting held on 22<sup>nd</sup> March 21. At this meeting it was agreed that Mod_01_21 and 02_21 be progressed to be voted on at the April 21 BM Mod Meeting with further deliberation required for Mod_04_21. It was deferred at the BM Committee Meeting 104 and an update was presented at the Mods Meeting held on the 17<sup>th</sup> June. An updated presentation on Mod_14_21 was given at the Oct 21 Committee and a further update was discussed at the industry wide call held on the 8<sup>th</sup> Nov. There has been constructive engagement with the RAs, TSOs and SEMO to progress this modification both pre and post these meetings.</p>	

***Please return this form to Secretariat by email to [balancingmodifications@sem-o.com](mailto:balancingmodifications@sem-o.com)***