

Single Electricity Market

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| Final REcommendation ReportMod\_19\_19 determining use of complex commercial data in settlement when required information is not available28 November 2019 |

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Document History

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| **Version** | **Date** | **Author** | **Comment** |
| 1.0 | 28 Nov 2019 | Modifications Committee Secretariat | Issued to Modifications Committee for review and approval |
| 2.0 | 11 Dec 2019 | Modifications Committee Secretariat | Issued to Regulatory Authorities for final decision |

Reference Documents

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| **Document Name** |
| [Trading and Settlement Code](https://www.sem-o.com/rules-and-modifications/balancing-market-modifications/market-rules/TSC-Part-B.docx) |
| [Modification Proposal Form](https://www.sem-o.com/documents/market-modifications/Mod_19_19/Mod_19_19DetermininguseofComplexCommercialOfferDatainSettlementwhenRequiredInformationisnotAvailable.docx) |
| [Presentation](https://www.sem-o.com/documents/market-modifications/Mod_19_19/Mod_19_19Presentation.pptx) |
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# MODIFICATIONS COMMITTEE RECOMMENDATION

## Recommended for approval– majority Vote

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| **Recommended for Approval by Majority Vote** |
| Rochelle Broderick | Supplier Alternate | Approve |
| Kevin Hannafin | Generator Member | Approve |
| Siobhain O’Neill | Assetless Alternate | Approve |
| Ian Mullins | Supplier Alternate | Approve |
| Sinead O’Hare | Generator Member | Approve |
| Jim Wynne | Supplier Member  | Approve |
| Robert McCarthy | DSU Alternate | Approve |
| Cormac Daly | Generator Member | Reject |
| Andrew Burke | Supplier Member | Approve |
| Paraic Higgins (Chair) | Generator Member | Approve |

# Background

This Modification Proposal was raised by EirGrid and was received by the Secretariat on the 10th October 2019. The first proposal was raised and voted on at Meeting 94 on 24th October 2019.

During post Go-Live operations, there have been numerous instances where System Operator flags and/or NIV tags have not been determined or were otherwise not available, and affected units have been assumed to be not flagged or tagged, including:

* during planned system outages;
* where RTD is not running due to failure (e.g. data conflicts); or
* when Imbalance Pricing fails (either due to failure or performance implications on the 5 min calculation cycle).

The value of System Operator Flags and NIV Tags in pricing is critically important for use in settlement, as it determines the Commercial Offer Data used in imbalance settlement calculations and can also have significant impact on Imperfections Costs. The logic to determine the prices for use in imbalance settlement is summarised as follows:

* If the Issue Time of the Dispatch Instruction associated with the Bid Offer Acceptance is before the Gate Closure 2 time (i.e. the rolling half hourly gate closure) for the period containing the Effective Time of the instruction, then the unit is settled using Complex Commercial Offer Data (which is subject to restrictions via the binding “Balancing Market Principles Code of Practice”);
* If SO flagged or NIV tagged in any Imbalance Pricing Period in an Imbalance Settlement Period, then the associated unit is settled using Complex Commercial Offer Data (which is subject to restrictions via the binding “Balancing Market Principles Code of Practice”); or
* Otherwise, the associated unit is settled using Simple Commercial Offer Data (which is not subject to any restrictions and can often be significantly higher than the corresponding Complex Commercial Offer Data).

This modification changes the logic for selecting Commercial Offer Data for Settlement. This means that where System Operator flags and NIV tags are not available for all Imbalance Pricing Periods in an Imbalance Settlement Period (e.g. during planned or unplanned outages), the default logic will be that units are settled on Complex Commercial Offer Data in that Imbalance Settlement Period.

# PURPOSE OF PROPOSED MODIFICATION

**3A.) justification of Modification**

There have been numerous occasions when System Operator flag and NIV tag information has not been available for whole Imbalance Settlement Periods since the new SEM arrangements went live. The reasons for which vary from market system outages (both planned and unplanned) as well the occurrences of pricing failing to run for prolonged periods of time. The knock on effect of this in settlement is that units which are inc’d or dec’d during these Imbalance Settlement Periods are settled on their Simple offers, regardless of whether or not the action is for energy or non-energy reasons. Simple offers are not governed under the Balancing Market Principles Code of Practice (BMPCOP) and some of these offers can be very expensive compared with the Complex offers which are intended to be used for non-energy actions, which are governed under the BMPCOP. This has resulted in significant increases to Imperfections costs over the first year of the new SEM arrangements. Given the general increase to imperfections costs over the last year and the subsequent increase in Imperfections charge for tariff year 2019/20 it is important to try to reduce imperfections costs where possible. This modification will prevent the knock on increase to Imperfections costs when there is insufficient information to apply the Complex COD logic based on System Operator flags and NIV tags for non-energy actions.

The logic in in the legal drafting applies for situations where Imbalance Pricing has failed for all 5-minute periods within the half hour and therefore the normal basis of using flags and tags for the logic of applying Complex COD cannot be used. If there is data available for any 5 minute period within the half hour, the normal logic will apply.

**3B.) Impact of not Implementing a Solution**

If this modification is not implemented there will continue to be a significant increase to Imperfections costs whenever there is insufficient information to apply the Complex COD logic based on System Operator flags and NIV tags for non-energy actions. This will result in higher imperfections charges for Suppliers and ultimately higher electricity charges for the All Island consumer.

**3c.) Impact on Code Objectiv****es**

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| (a) to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner; (e) 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. | This modification seeks to address the issue whereby generators are paid on their Simple commercial offer data at times when they should be paid on their complex commercial offer data only because there is insufficient data to apply the Complex COD logic based on System Operator flags and NIV tags for the purposes of settlement calculations. This puts further financial pressure on Imperfections costs management and Supplier charges;This modification seeks to address the issue whereby generators are paid on their Simple commercial offer data at times when they should be paid on their complex commercial offer data only because there is insufficient data to apply the Complex COD logic based on System Operator flags and NIV tags for the purposes of settlement calculations. This would reduce what is ultimately paid by the All Island consumer through supply charges – otherwise these charges would be larger due to settling on Simple COD when Complex COD should be used.  |

# Working Group and/or Consultation

N/A

# impact on systems and resources

There will be an impact on the settlement systems where additional logic will need to be added for determining when Complex COD is to be used in the QBOA calculations.

# Impact on other Codes/Documents

N/A

# MODIFICATION COMMITTEE VIEWS

## Meeting **94 – 24 october 2019**

The proposer delivered a [presentation](https://www.sem-o.com/documents/market-modifications/Mod_19_19/Mod_19_19Presentation.pptx) giving an overview of how the logic for flagging for 30 minute periods based on 5 minute data works currently and how it would change based on the proposed approach where 5 minute data is either all available, all unavailable or available for part of a given 30 minute period. The proposal looks to change the logic if SO flags and NIV flags are not available for an entire 30 minute period so that Complex Commercial Offer Data would apply where this would currently result in Simple Commercial Offer Data applying. It was noted that where some or all five minute data is available there is no change proposed and also that this change is targeted to the data used for Settlement and does not impact Imbalance Pricing.

Suggested wording was then summarised by the proposer who noted that they were proposing amended wording from that in the original proposal. This is because the originally proposed wording could be interpreted as impacting half hour periods where there is some 5 minute Flagging and Tagging data available which is not the intention. The alternative wording presented is considered to more precisely reflect that the change only impacts where there is no data available for any Unit or for any part of a 30 minute period.

A Generator Alternate suggested using data from a previous Settlement period as a proxy for determining which offer data to use where information is not available as opposed to the proposal to use Complex Commercial Offer Data. SEMO noted that this would be complex to implement and that it wasn’t immediately clear as to what data would be used if the Unit in question did not have an action in the immediately preceding period and also that if the period where there was data available was far removed from that which it was being used as a proxy for it would be difficult to make a case for it being representative of the whether that action was energy or non-energy in line with the market power mitigation decision.

It was confirmed that there had been 4 occasions so far where an issue had arisen with a value of approximately 1 million across these depending on prices differential at the time of the event for each units affected. There was not an issue for sporadic unavailability but there was an issue for extended outages and the proposal aims to target those. It was also noted that some outages resulted in smaller impacts and others larger impacts on cost.

The RA Member noted that these system outages need to be rare. It was agreed that there is a significantly material issue for Imperfections costs here and the modification needs to be progressed. The committee agreed to move to a vote.

# Proposed Legal Drafting

A change to the Legal Drafting proposed in Appendix 1, has been agreed at meeting 94 and the approved changes to the Code will be as follows:

F.3.3.2 For the purposes of calculating settlement quantities in an Imbalance Settlement Period, γ, in calculating Accepted Bid Quantity and Accepted Offer Quantity, and determining the relevant Bid Offer Price, in respect of a Bid Offer Acceptance, the Market Operator shall use the following Commercial Offer Data:

 (a) If the Bid Offer Acceptance Time is before the Gate Closure 2 in respect of the Imbalance Settlement Period containing the Bid Offer Opening Time, the most recently submitted valid Complex Bid Offer Data for the relevant Trading Day as at the Bid Offer Acceptance Time;

 (b) If any Bid Offer Acceptance for Generator Unit, u, at rank, k, has, after applying the Flagging and Tagging process in accordance with Chapter E (Imbalance Pricing), a Net Imbalance Volume Tag (TNIVukφ) with a value less than one, or a System Operator Flag (FSOukφ) with a value less than one, for any Imbalance Pricing Period, φ, within the Imbalance Settlement Period, γ, the most recently submitted valid Complex Bid Offer Data for the relevant Trading Day as at the Bid Offer Acceptance Time,

 where:

 (i) FSOukφ is the System Operator Flag for Generator Unit, u, and rank, k, in Imbalance Pricing Period, φ, determined in accordance with Chapter E (Imbalance Pricing) and where in the absence of a value for the period resulting from the process outlined in Chapter E (Imbalance Pricing) a value of one shall be used; and

 (ii) TNIVukφ is the value of the Net Imbalance Volume Tag for Generator Unit, u, and rank, k, in Imbalance Pricing Period, φ, determined in accordance with Chapter E (Imbalance Pricing) and where in the absence of a value for the period resulting from the process outlined in Chapter E (Imbalance Pricing) a value of one shall be used;

 (iii) If for all Generator Units, u, and all Imbalance Pricing Periods, φ, within the Imbalance Settlement Period, γ, there is insufficient data to carry out the steps described in paragraph F.3.3.2(b), then the most recently submitted valid Complex Bid Offer Data for the relevant Trading Day as at the Bid Offer Acceptance Time shall be used for all Generator Units in that Imbalance Settlement Period.

 (c) Otherwise, the most recently submitted valid Simple Bid Offer Data for the Imbalance Settlement Period as at the Bid Offer Acceptance Time.

# LEGAL REVIEW

N/A

# IMPLEMENTATION TIMESCALE

It is proposed that this Modification implemented as the Modifications Committee have Recommended it for Approval. This Modification requires system changes and as such it is recommended that it is made effective from the first Settlement Day following delivery of the associated system changes.

# Appendix 1: Mod\_19\_19 Determining use of complex commercial offer data in settlement when required information is not available

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| **MODIFICATION PROPOSAL FORM** |
| **Proposer***(Company)* | **Date of receipt***(assigned by Secretariat)* | **Type of Proposal***(delete as appropriate)* | **Modification Proposal ID***(assigned by Secretariat)* |
| **EirGrid TSO** | **10 October 2019** | **Standard** | **Mod\_19\_19** |
| **Contact Details for Modification Proposal Originator** |
| **Name** | **Telephone number** | **Email address** |
| **Anne Trotter** |  | **Anne.trotter@eirgrid.com** |
| **Modification Proposal Title** |
| **Determining use of Complex Commercial Offer Data in Settlement when Required Information is not Available** |
| **Documents affected***(delete as appropriate)* | **Section(s) Affected** | **Version number of T&SC or AP used in Drafting** |
| **T&SC Part B** | **Section F.3.3.2** | **V1.0** |
| **Explanation of Proposed Change***(mandatory by originator)* |
| During post Go-Live operations, there have been numerous instances where System Operator flags and/or NIV tags have not been determined or were otherwise not available, and affected units have been assumed to be not flagged or tagged, including:* during planned system outages;
* where RTD is not running due to failure (e.g. data conflicts); or
* when Imbalance Pricing fails (either due to failure or performance implications on the 5 min calculation cycle).

The value of System Operator Flags and NIV Tags in pricing is critically important for use in settlement, as it determines the Commercial Offer Data used in imbalance settlement calculations and can also have significant impact on Imperfections Costs. The logic to determine the prices for use in imbalance settlement is summarised as follows:* If the Issue Time of the Dispatch Instruction associated with the Bid Offer Acceptance is before the Gate Closure 2 time (i.e. the rolling half hourly gate closure) for the period containing the Effective Time of the instruction, then the unit is settled using Complex Commercial Offer Data (which is subject to restrictions via the binding “Balancing Market Principles Code of Practice”);
* If SO flagged or NIV tagged in any Imbalance Pricing Period in an Imbalance Settlement Period, then the associated unit is settled using Complex Commercial Offer Data (which is subject to restrictions via the binding “Balancing Market Principles Code of Practice”); or
* Otherwise, the associated unit is settled using Simple Commercial Offer Data (which is not subject to any restrictions and can often be significantly higher than the corresponding Complex Commercial Offer Data).

This modification changes the logic for selecting Commercial Offer Data for Settlement. This means that where System Operator flags and NIV tags are not available for all Imbalance Pricing Periods in an Imbalance Settlement Period (e.g. during planned or unplanned outages), the default logic will be that units are settled on Complex Commercial Offer Data in that Imbalance Settlement Period. |
| **Legal Drafting Change***(Clearly show proposed code change using* ***tracked*** *changes, if proposer fails to identify changes, please indicate best estimate of potential changes)* |
| F.3.3.2 For the purposes of calculating settlement quantities in an Imbalance Settlement Period, γ, in calculating Accepted Bid Quantity and Accepted Offer Quantity, and determining the relevant Bid Offer Price, in respect of a Bid Offer Acceptance, the Market Operator shall use the following Commercial Offer Data: (a) If the Bid Offer Acceptance Time is before the Gate Closure 2 in respect of the Imbalance Settlement Period containing the Bid Offer Opening Time, the most recently submitted valid Complex Bid Offer Data for the relevant Trading Day as at the Bid Offer Acceptance Time; (b) If any Bid Offer Acceptance for Generator Unit, u, at rank, k, has, after applying the Flagging and Tagging process in accordance with Chapter E (Imbalance Pricing), a Net Imbalance Volume Tag (TNIVukφ) with a value less than one, or a System Operator Flag (FSOukφ) with a value less than one, for any Imbalance Pricing Period, φ, within the Imbalance Settlement Period, γ, the most recently submitted valid Complex Bid Offer Data for the relevant Trading Day as at the Bid Offer Acceptance Time, where: (i) FSOukφ is the System Operator Flag for Generator Unit, u, and rank, k, in Imbalance Pricing Period, φ, determined in accordance with Chapter E (Imbalance Pricing) and where in the absence of a value for the period resulting from the process outlined in Chapter E (Imbalance Pricing) a value of one shall be used; and (ii) TNIVukφ is the value of the Net Imbalance Volume Tag for Generator Unit, u, and rank, k, in Imbalance Pricing Period, φ, determined in accordance with Chapter E (Imbalance Pricing) and where in the absence of a value for the period resulting from the process outlined in Chapter E (Imbalance Pricing) a value of one shall be used; (iii) If there is insufficient data to carry out the steps described in paragraph F.3.3.2(b) for all Generator Units, u, and all Imbalance Pricing Periods, φ, within the Imbalance Settlement Period, γ, then the most recently submitted valid Complex Bid Offer Data for the relevant Trading Day as at the Bid Offer Acceptance Time shall be used for all Generator Units in that Imbalance Settlement Period. (c) Otherwise, the most recently submitted valid Simple Bid Offer Data for the Imbalance Settlement Period as at the Bid Offer Acceptance Time. |
| **Modification Proposal Justification***(Clearly state the reason for the Modification)* |
| There have been numerous occasions when System Operator flag and NIV tag information has not been available for whole Imbalance Settlement Periods since the new SEM arrangements went live. The reasons for which vary from market system outages (both planned and unplanned) as well the occurrences of pricing failing to run for prolonged periods of time. The knock on effect of this in settlement is that units which are inc’d or dec’d during these Imbalance Settlement Periods are settled on their Simple offers, regardless of whether or not the action is for energy or non-energy reasons. Simple offers are not governed under the Balancing Market Principles Code of Practice (BMPCOP) and some of these offers can be very expensive compared with the Complex offers which are intended to be used for non-energy actions, which are governed under the BMPCOP. This has resulted in significant increases to Imperfections costs over the first year of the new SEM arrangements. Given the general increase to imperfections costs over the last year and the subsequent increase in Imperfections charge for tariff year 2019/20 it is important to try to reduce imperfections costs where possible. This modification will prevent the knock on increase to Imperfections costs when there is insufficient information to apply the Complex COD logic based on System Operator flags and NIV tags for non-energy actions.The logic in in the legal drafting applies for situations where Imbalance Pricing has failed for all 5-minute periods within the half hour and therefore the normal basis of using flags and tags for the logic of applying Complex COD cannot be used. If there is data available for any 5 minute period within the half hour, the normal logic will apply. |
| **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)* |
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| (a) to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner; (e) 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. | This modification seeks to address the issue whereby generators are paid on their Simple commercial offer data at times when they should be paid on their complex commercial offer data only because there is insufficient data to apply the Complex COD logic based on System Operator flags and NIV tags for the purposes of settlement calculations. This puts further financial pressure on Imperfections costs management and Supplier charges;This modification seeks to address the issue whereby generators are paid on their Simple commercial offer data at times when they should be paid on their complex commercial offer data only because there is insufficient data to apply the Complex COD logic based on System Operator flags and NIV tags for the purposes of settlement calculations. This would reduce what is ultimately paid by the All Island consumer through supply charges – otherwise these charges would be larger due to settling on Simple COD when Complex COD should be used.  |

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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 is not implemented there will continue to be a significant increase to Imperfections costs whenever there is insufficient information to apply the Complex COD logic based on System Operator flags and NIV tags for non-energy actions. This will result in higher imperfections charges for Suppliers and ultimately higher electricity charges for the All Island consumer. |
| **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.)* |
| N/A | There will be an impact on the settlement systems where additional logic will need to be added for determining when Complex COD is to be used in the QBOA calculations. |
| ***Please return this form to Secretariat by email to*** balancingmodifications@sem-o.com |