

Single Electricity Market

|  |
| --- |
| Final REcommendation ReportMod\_24\_18 version 2.0 use of technical offer data on instruction profiling / qboa18 September 2018 |

COPYRIGHT NOTICE

All rights reserved. This entire publication is subject to the laws of copyright. This publication may not be reproduced or transmitted in any form or by any means, electronic or manual, including photocopying without the prior written permission of EirGrid plc and SONI Limited.

DOCUMENT DISCLAIMER

Every care and precaution is taken to ensure the accuracy of the information provided herein but such information is provided without warranties express, implied or otherwise howsoever arising and EirGrid plc and SONI Limited to the fullest extent permitted by law shall not be liable for any inaccuracies, errors, omissions or misleading information contained herein.

Document History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Comment** |
| 1.0 | 18 September 2018 | Modifications Committee Secretariat | Issued to Modifications Committee for review and approval |
| 2.0 | 21 September 2018 | Modifications Committee Secretariat | Issued to Regulatory Authorities for final decision |

Reference Documents

|  |
| --- |
| **Document Name** |
| [Trading and Settlement Code](http://www.sem-o.com/MarketDevelopment/MarketRules/TSC.docx) |
| [Modification Proposal](http://www.sem-o.com/MarketDevelopment/ModificationDocuments/Mod_24_18%20Use%20of%20Technical%20Offer%20Data%20in%20QBOA.docx) |
| [Presentation](http://www.sem-o.com/MarketDevelopment/ModificationDocuments/MOD_24_18.pptx) |
| [Modification Proposal V.2](http://www.sem-o.com/MarketDevelopment/ModificationDocuments/Mod_24_18%20Use%20of%20Technical%20Offer%20Data%20in%20QBOA%20v2.docx) |
|  |

Table of Contents

[1. MODIFICATIONS COMMITTEE RECOMMENDATION 3](#_Toc525036679)

[**Recommended for approval– majority Vote** 3](#_Toc525036680)

[2. Background 3](#_Toc525036681)

[3. PURPOSE OF PROPOSED MODIFICATION 4](#_Toc525036682)

[**3A.) justification of Modification** 4](#_Toc525036683)

[**3B.) Impact of not Implementing a Solution** 5](#_Toc525036684)

[**3c.) Impact on Code Objectives** 5](#_Toc525036685)

[4. ASSESSMENT OF ALTERNATIVES 5](#_Toc525036686)

[5. impact on systems and resources 5](#_Toc525036687)

[6. Impact on other Codes/Documents 5](#_Toc525036688)

[7. MODIFICATION COMMITTEE VIEWS 5](#_Toc525036689)

[**Meeting 85 – 16 august 2018** 6](#_Toc525036690)

[**Meeting 86 – 6 September 2018** 6](#_Toc525036691)

[8. Proposed Legal Drafting 7](#_Toc525036692)

[9. LEGAL REVIEW 7](#_Toc525036694)

[10. IMPLEMENTATION TIMESCALE 7](#_Toc525036695)

[1 Appendix 1: Mod\_24\_18 use of technical offer data in instruction profiling / qboa version 2.0 8](#_Toc525036696)

[Appendix O: Instruction Profiling Calculations 11](#_Toc525036715)

# MODIFICATIONS COMMITTEE RECOMMENDATION

## Recommended for approval– majority Vote

|  |
| --- |
| **Recommended for Approval by Majority Vote**  |
| Eamonn O’Donoghue | Interconnector member | Approved |
| Cormac Daly | Generator Member | Approved |
| Sinead O’Hare | Generator Member | Rejected |
| Paraic Higgins | Generator Member | Rejected |
| Jim Wynne | Supplier Member | Approved |
| Philip McDaid | Supplier Member | Approved |
| Kevin Hannafin | Generator Member | Rejected |
| William Steele (Chair) | Supplier member | Rejected |
| Robert McCarthy | DSU Alternate | Approved |

# Background

This Modification Proposal was raised by SEMO and was received by the Secretariat on 30 August 2018. The Modification Proposal was raised at Meeting 85 and voted on at Meeting 86.

As part of testing of the QBOA function as part of the MMS solution, and a review of system design and market rules as part of Certification activities, it has been identified that the drafting in Appendix O of the TSC is not specific in terms of the application of Technical Offer Data in Instruction Profiling.

Technical Offer Data is submitted in respect of a Trading Day, whereas Instruction Profiling (and associated QBOA calculation) is performed on a Settlement Day basis. Currently, the TSC draft is not sufficiently specific as to how Technical Offer Data is applied for Instruction Profiling on a Settlement Day basis. As shown in the diagram below, Instruction Profiling uses the Accepted Technical Offer Data at the start of the Settlement Day for all instructions profiled during that Settlement Day.



This Modification Proposal amends two clauses within Appendix O, to clarify which Technical Offer Data is used. A modification to the enduring text in that Appendix is intended to clarify that for a single Settlement Day run of the Instruction Profiling calculation, two sets of Trading Day Validated Technical Offer Data should be used with a change in the data occurring for any instructions with effective times after the change in the Trading Day (i.e. if an instruction has an effective time prior to this change, the previous Trading Day’s Technical Offer Data will be used for all of its profiling, this reflects the logic explained and approved in MOD\_15\_18). An interim measure is added to Chapter H in order to reflect the current system implementation which is to apply a single Technical Offer Data set for the whole Settlement Day, based on the set belonging to the first Trading Day within the Settlement Day. This is in order to align the rules and the systems for substantive compliance purposes in certification and in order to provide transparency as to the outcomes.

# PURPOSE OF PROPOSED MODIFICATION

**3A.) justification of Modification**

Currently, the TSC does not clarify which Technical Offer Data is used for each dispatch instruction profiled within Instruction Profiling, which is performed on a Settlement Day basis. The change of Technical Offer Data for the Bid Offer Acceptance Quantity calculation as part of the Imbalance Pricing process also occurs on a Settlement Day basis. This Modification Proposal includes a modification to the enduring Code text to clarify that the Technical Offer Data for each Trading Day which overlaps with the Settlement Day should be used (the existing text in Paragraph 26 already clarifies that the data used is that for the Trading Day containing the effective time of the instruction), and it also includes an interim modification which aligns with the current Central Market Systems implementation, which is intended to be in place until such time as the enduring approach is implemented in the Central Market Systems.

The approach used in both the enduring and interim modification proposals ensures that a single set of VTOD is used to process the profile for a Dispatch or Pseudo Dispatch Instruction, rather than having the potential for two sets of data to apply to a single profile. This ensures that there can be no conflicts arising through changing the data which applies to determining a trajectory of a profile in the middle of that profile.

However the Central Market Systems at the moment use a single set of VTOD to calculate all profiles considered within the run, and since the run is carried out on a Settlement Day (00:00 – 00:00) basis to align with the data requirements for the downstream settlement systems, the VTOD for the first Trading Day within the Settlement Day is used for the whole Settlement Day. This differs with the theoretical approach to determining which set of data is used, which is that a different set of data is used in the last hour of the Settlement Day because the Trading Day changes at 23:00. Including this as an interim modification prevents the need for following a potentially costly process of manual settlement/resettlement for amounts arising from differences between the rules and the system calculations, for what would be expected to be a relatively small exposure and in a relatively small number of cases.

The use of single set of Technical Offer Data across an entire settlement QBOA calculation run for a Settlement Day (00:00 to 00:00) does create a theoretical misalignment, as changes in Technical Offer Data occur on a Trading Day (23:00 to 23:00) basis. The situation where such misalignment would have the most noticeable impact would be if **BOTH** of the following occur:

* A Unit changes Technical Offer Data between two Trading Days; AND
* The Unit receives a Dispatch Instruction in the period from 23:00 and 00:00.

It would have a smaller impact on cases where a unit changes their Technical Offer Data between two Trading Days, and there are Bid Offer Acceptance orders closing and opening over that period keeping the unit at its previous output level. This is because the overall volume for all of the orders would be the same as if the new Technical Offer Data were used from 23:00 to 00:00, but the volumes in each individual order would be different due to the different trajectories of the profiles of closing orders. It is not expected that there would be a noticeable impact in cases other than these.

The Trading and Settlement Code already contains provisions which govern changes in Technical Offer Data for instructions which are effective prior to the start of a Trading Day but extend into the new Trading Day (i.e. the Technical Offer Data at the Effective Time of the instruction is applied). This already means that the “theoretical” Technical Offer Data for the Trading Day is not being applied in certain circumstances. The proposed modification is added to these provisions also to clarify which Technical Offer Data is used.

Because the areas considered in this proposed modification will not be fixed in time for I-SEM go-live, it is necessary to have interim arrangements which align the rules with the system implementation for a fixed period of time until the approach intended by the rules can be implemented in the systems. The approach taken is to maintain in the main body of the Code the intended approach, while having an interim arrangement in Chapter H which prevails over the period of time from market cutover until the fixed time stated on the clause. This should make it clear that the approach in the Code is intended to be implemented when it is possible to do so following priority items being fixed for I-SEM go-live.

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

The Trading and Settlement Code will continue to be ambiguous with respect to the application of Technical Offer Data within Instruction Profiling.

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

This Modification furthers Code Objectives A.2.1.4(a) and A.2.1.4(e):

*(a) to facilitate the efficient discharge by the Market Operator of the obligations imposed upon it by its Market Operator Licences;*

 *(e) to provide transparency in the operation of the Single Electricity Market;*

# ASSESSMENT OF ALTERNATIVES

N/A

# impact on systems and resources

No impact on systems as they will exist for the Cutover Time, initial timeline indicated for work required to implement the system which would achieve the outcomes of the main body of the text which will require resources, in the absence of this modification then there is a possibility of additional resource requirements for settlement processes.

# Impact on other Codes/Documents

N/A

# MODIFICATION COMMITTEE VIEWS

## Meeting  **85 – 16 august 2018**

Proposer delivered a [presentation](http://www.sem-o.com/MarketDevelopment/ModificationDocuments/MOD_24_18.pptxsummarising%20) on the requirement for this proposal. Proposer discussed the current testing and certification process and noted that it had highlighted that at present the Code is not specific on the application of which Technical Offer Data (TOD) applies to Bid Offer Acceptance Quantity (QBOA) calculations. Proposer pointed out that all QBOA calculations are carried out on a settlement day basis and that at present the systems apply TOD on a Settlement Day basis as a result.

A member queried the proposed approach and stated that the Trading Day and Settlement Day timings have been known from the outset, that the rules state that TOD should apply to a Trading Day and that the settlement system should have taken this into consideration. They proposed that the settlement system should be changed to adhere to the Code instead of changing the rules in this area.

Proposer was asked when the issue came to light. He confirmed that as a part of testing and certification it was noted that the interface did not have enough data in the downstream settlement based on the core part of the vendor product. Proposer stated that they considered this issue to be as a result of a misalignment between practical and theoretical considerations.

Another participant agreed that this proposal would not work as it exposed generators and suggested that it would make more sense to run 2 sets of Technical Offer Data such that the system would cater for the reflection of updated TOD that might occur within a Settlement Day.

Proposer agreed that some investigation should be done into different solutions and other potential workarounds. A Generator Member suggested aligning Trading and Settlement Days to the Trading Day start and end times. An observer noted that they recalled that there was a legal basis requiring the Settlement day to start at midnight thus it was thought that it would not be possible to align the Trading and Settlement Days.

Proposer advised that based on discussions with the Vendors it would take a number of months to make a system change to apply the TOD on a Trading Day basis if this were deemed necessary. SEMO member asked whether Participants were able to quantify the impact and suggested that if the impact was substantial that it may be worth considering alternative mitigations within the Uninstructed Imbalance mechanism.

Proposer gave a recap of everything discussed and stated they were not expecting that this would be so impactful for Participants. Proposer suggested that the proposal is deferred to allow both SEMO and Participants to investigate the potential magnitude of the issue and consider alternative approaches and/or mitigations. It was agreed that the proposal should be deferred to allow further investigation prior to resuming discussions at the next Modifications Committee meeting.

## Meeting  **86 – 6 September 2018**

The proposer delivered a [presentation](http://www.sem-o.com/MarketDevelopment/ModificationDocuments/MOD_24_18%20V2%20slides.pptx) summarising the requirement for this proposal. The proposer confirmed that the modification was deferred from the previous meeting and analysis was done on the potential impact in the interim. The proposer then summarised the changes between versions one and two before presenting the analysis that they had carried out.

Generator Member raised a concern that comparisons in the analysis were only done for the last six months and that it wasn’t possible to know how many incidents there would be with the new market arrangements. A number of committee members stated that they were uncomfortable with the concept of changing the Code to match the system where the change codifies a defect even as an interim approach. Generator Member suggested that if we are looking to change settlement systems to provide for multiple VTOD sets to be applied on a Settlement Day for the Trading Day boundary that we should explore the ability to change at other times during the day also. Proposer and SEMO Member believed that this would prove to be a significantly more difficult and expensive change due to requiring changes to submission systems as well as a larger change to Instruction Profiling but an action was taken to explore this.

A question was raised that there was no guarantee on when the enduring solution would be implemented and that instead of codifying the system approach in the interim, the SEM Committee should give SEMO some comfort through a derogation from being in breach of the code. The proposer confirmed that they would like to make legal drafting changes from the submitted proposal to apply the approach taken for other interim proposals so that the date is not specified as this allows for flexibility whatever arises, and that there is no precedence for receiving derogations to aspects of the Code, while there is precedence for achieving compliance through interim provisions.

MO member noted that the assumptions taken during the analysis are conservative in an effort to realistically illustrate the largest of potential exposures for Participants. MO member asked Generator Members if they had a chance to do analysis of their own and Generator Members confirmed that this had not been possible in the time available due to workload constraints.

The Committee agreed to vote subject to a legal drafting change to introduce the ‘Modification Deployment Date’ approach to end dating the interim provision similar to other Part B interim modifications.

# Proposed Legal Drafting

As set out in Appendix 1 with the following minor changes and additional definition to apply a similar approach as for other interim provisions.

H.15.1.1 Until the date that is the Mod\_24\_18 Deployment Date, paragraph 10 of Appendix O shall be replaced with:

H.15.1.2 Until the date that is the Mod\_24\_18 Deployment Date, paragraph 26 of Appendix O shall be replaced with:

|  |  |
| --- | --- |
| **Mod\_24\_18 Deployment Date** | means the date proposed by the Market Operator following discussion with the Modifications Committee, and approved by the Regulatory Authorities for the purpose of H.15, such date to be published on the Market Operator web site at least three Working Days in advance of the date concerned. |

# LEGAL REVIEW

N/A

# IMPLEMENTATION TIMESCALE

It is proposed that this Modification is implemented as the Modifications Committee have recommended it for approval and on a Trading Day basis following receipt of the Regulatory Authorities decision.

# Appendix 1: Mod\_24\_18 version 2.0 use of technical offer data in instruction profiling / qboa

|  |
| --- |
| **MODIFICATION PROPOSAL FORM** |
| **Proposer***(Company)* | **Date of receipt***(assigned by Secretariat)* | **Type of Proposal***(delete as appropriate)* | **Modification Proposal ID***(assigned by Secretariat)* |
| **SEMO** | **30/08/18** | **Standard** | **MOD\_24\_18 V2** |
| **Contact Details for Modification Proposal Originator** |
| **Name** | **Telephone number** | **Email address** |
| **Martin Kerin** |  | **Martin.Kerin@EirGrid.com** |
| **Modification Proposal Title** |
| **Use of Technical Offer Data in Instruction Profiling / QBOA Version 2** |
| **Documents affected***(delete as appropriate)* | **Section(s) Affected** | **Version number of T&SC or AP used in Drafting** |
| **T&SC Part B****Appendices Part B** | **Chapter H****Appendix O** |  |
| **Explanation of Proposed Change***(mandatory by originator)* |
| As part of testing of the QBOA function as part of the MMS solution, and a review of system design and market rules as part of Certification activities, it has been identified that the drafting in Appendix O of the TSC is not specific in terms of the application of Technical Offer Data in Instruction Profiling.Technical Offer Data is submitted in respect of a Trading Day, whereas Instruction Profiling (and associated QBOA calculation) is performed on a Settlement Day basis. Currently, the TSC draft is not sufficiently specific as to how Technical Offer Data is applied for Instruction Profiling on a Settlement Day basis. As shown in the diagram below, Instruction Profiling uses the Accepted Technical Offer Data at the start of the Settlement Day for all instructions profiled during that Settlement Day.This Modification Proposal amends two clauses within Appendix O, to clarify which Technical Offer Data is used. A modification to the enduring text in that Appendix is intended to clarify that for a single Settlement Day run of the Instruction Profiling calculation, two sets of Trading Day Validated Technical Offer Data should be used with a change in the data occurring for any instructions with effective times after the change in the Trading Day (i.e. if an instruction has an effective time prior to this change, the previous Trading Day’s Technical Offer Data will be used for all of its profiling, this reflects the logic explained and approved in MOD\_15\_18). An interim measure is added to Chapter H in order to reflect the current system implementation which is to apply a single Technical Offer Data set for the whole Settlement Day, based on the set belonging to the first Trading Day within the Settlement Day. This is in order to align the rules and the systems for substantive compliance purposes in certification and in order to provide transparency as to the outcomes. |
| **Legal Drafting Change***(Clearly show proposed code change using* ***tracked*** *changes, if proposer fails to identify changes, please indicate best estimate of potential changes)* |
| 1. 1.
	2.
	3.
	4.
	5.
	6.
	7.
	8.
	9.
	10.
	11.
	12.
	13.
	14.
	15. INTERIM RULES TO APPLY FOR A FIXED PERIOD OF TIME FOR APPENDIX O: INSTRUCTION PROFILING CALCULATIONS
		1. Instruction Profiling and Bid Offer Acceptance Quantity Outcomes for use of Validated Technical Offer Data on a Settlement Day Basis
			1. Until the date that is the Day 2 Deployment Date, paragraph 10 of Appendix O shall be replaced with:

 “10. The Market Operator shall, for each entire Settlement Day, use the following Registration Data and Accepted Technical Offer Data for the Trading Day containing the start of that Settlement Day, provided in accordance with Appendix H: “Data Requirements for Registration” and Appendix I: “Offer Data” respectively, to calculate all Instruction Profile types for that Settlement Day:* + - * 1. Registered Capacity / Maximum Generation;
				2. Hot Cooling Boundary;
				3. Warm Cooling Boundary;
				4. Block Load Flag;
				5. Block Load Cold, Block Load Warm and Block Load Hot;
				6. Loading Rate Hot 1, 2 & 3;
				7. Loading Rate Warm 1, 2 & 3;
				8. Loading Rate Cold 1, 2 & 3;
				9. Load Up Break Point Hot 1 & 2;
				10. Load Up Break Point Warm 1 & 2;
				11. Load Up Break Point Cold 1 & 2;
				12. Soak Time Hot 1 & 2;
				13. Soak Time Warm 1 & 2;
				14. Soak Time Cold 1 & 2;
				15. Soak Time Trigger Point Hot 1 & 2;
				16. Soak Time Trigger Point Warm 1 & 2;
				17. Soak Time Trigger Point Cold 1 & 2;
				18. Ramp Up Rate 1, 2, 3, 4 & 5;
				19. Ramp Up Break Point 1, 2, 3 & 4;
				20. Dwell Time Up 1, 2 & 3;
				21. Dwell Time Down 1, 2 & 3;
				22. Dwell Time Up Trigger Point 1, 2 & 3;
				23. Dwell Time DownTrigger Point 1, 2 & 3;
				24. Ramp Down Rate 1, 2, 3, 4 & 5;
				25. Ramp Down Break Point 1, 2, 3 & 4;
				26. Deloading Rate 1 & 2;
				27. Deload Break Point;
				28. Maximum Ramp Up Rate (applicable to Demand Side Units);
				29. Maximum Ramp Down Rate (applicable to Demand Side Units);
				30. Dispatchable Quantity (Maximum Generation applicable to Demand Side Units);
				31. Start of Restricted Range 1;
				32. End of Restricted Range 1;
				33. Start of Restricted Range 2;
				34. End of Restricted Range 2;
				35. Short Term Maximisation Capability;
				36. Registered Minimum Stable Generation;
				37. Registered Minimum Output;
				38. Pumping Capacity;
				39. Pumped Storage and Battery Storage Flag;
				40. Battery Storage Capacity; and
				41. Fuel Type.”
			1. Until the date that is the Day 2 Deployment Date, paragraph 26 of Appendix O shall be replaced with:

“10. The normal operating modes for a Synchronised Generator Unit are load up mode, ramp up mode, ramp down mode and deload mode. Each operating mode of a Generator Unit is described by a piecewise linear Operating Trajectory that describes the theoretical Output of a Generator Unit over time. The Technical Offer Data used to determine the piecewise linear Operating Trajectory shall be the Accepted Technical Offer Data for the Trading Day containing the start of that Settlement Day containing the Instruction Effective Time of the Dispatch Instruction.”Appendix O: Instruction Profiling Calculations10. The Market Operator shall, for each Settlement Day, use the following Registration Data and Accepted Technical Offer Data for each Trading Day which falls within that Settlement Day in whole or in part, provided in accordance with Appendix H: “Data Requirements for Registration” and Appendix I: “Offer Data” respectively, to calculate all Instruction Profile types for that Settlement Day:* + - * 1. Registered Capacity / Maximum Generation;
				2. Hot Cooling Boundary;
				3. Warm Cooling Boundary;
				4. Block Load Flag;
				5. Block Load Cold, Block Load Warm and Block Load Hot;
				6. Loading Rate Hot 1, 2 & 3;
				7. Loading Rate Warm 1, 2 & 3;
				8. Loading Rate Cold 1, 2 & 3;
				9. Load Up Break Point Hot 1 & 2;
				10. Load Up Break Point Warm 1 & 2;
				11. Load Up Break Point Cold 1 & 2;
				12. Soak Time Hot 1 & 2;
				13. Soak Time Warm 1 & 2;
				14. Soak Time Cold 1 & 2;
				15. Soak Time Trigger Point Hot 1 & 2;
				16. Soak Time Trigger Point Warm 1 & 2;
				17. Soak Time Trigger Point Cold 1 & 2;
				18. Ramp Up Rate 1, 2, 3, 4 & 5;
				19. Ramp Up Break Point 1, 2, 3 & 4;
				20. Dwell Time Up 1, 2 & 3;
				21. Dwell Time Down 1, 2 & 3;
				22. Dwell Time Up Trigger Point 1, 2 & 3;
				23. Dwell Time DownTrigger Point 1, 2 & 3;
				24. Ramp Down Rate 1, 2, 3, 4 & 5;
				25. Ramp Down Break Point 1, 2, 3 & 4;
				26. Deloading Rate 1 & 2;
				27. Deload Break Point;
				28. Maximum Ramp Up Rate (applicable to Demand Side Units);
				29. Maximum Ramp Down Rate (applicable to Demand Side Units);
				30. Dispatchable Quantity (Maximum Generation applicable to Demand Side Units);
				31. Start of Restricted Range 1;
				32. End of Restricted Range 1;
				33. Start of Restricted Range 2;
				34. End of Restricted Range 2;
				35. Short Term Maximisation Capability;
				36. Registered Minimum Stable Generation;
				37. Registered Minimum Output;
				38. Pumping Capacity;
				39. Pumped Storage and Battery Storage Flag;
				40. Battery Storage Capacity; and
				41. Fuel Type.
 |
| **Modification Proposal Justification***(Clearly state the reason for the Modification)* |
| Currently, the TSC does not clarify which Technical Offer Data is used for each dispatch instruction profiled within Instruction Profiling, which is performed on a Settlement Day basis. The change of Technical Offer Data for the Bid Offer Acceptance Quantity calculation as part of the Imbalance Pricing process also occurs on a Settlement Day basis. This Modification Proposal includes a modification to the enduring Code text to clarify that the Technical Offer Data for each Trading Day which overlaps with the Settlement Day should be used (the existing text in Paragraph 26 already clarifies that the data used is that for the Trading Day containing the effective time of the instruction), and it also includes an interim modification which aligns with the current Central Market Systems implementation, which is intended to be in place until such time as the enduring approach is implemented in the Central Market Systems.The approach used in both the enduring and interim modification proposals ensures that a single set of VTOD is used to process the profile for a Dispatch or Pseudo Dispatch Instruction, rather than having the potential for two sets of data to apply to a single profile. This ensures that there can be no conflicts arising through changing the data which applies to determining a trajectory of a profile in the middle of that profile.However the Central Market Systems at the moment use a single set of VTOD to calculate all profiles considered within the run, and since the run is carried out on a Settlement Day (00:00 – 00:00) basis to align with the data requirements for the downstream settlement systems, the VTOD for the first Trading Day within the Settlement Day is used for the whole Settlement Day. This differs with the theoretical approach to determining which set of data is used, which is that a different set of data is used in the last hour of the Settlement Day because the Trading Day changes at 23:00. Including this as an interim modification prevents the need for following a potentially costly process of manual settlement/resettlement for amounts arising from differences between the rules and the system calculations, for what would be expected to be a relatively small exposure and in a relatively small number of cases.The use of single set of Technical Offer Data across an entire settlement QBOA calculation run for a Settlement Day (00:00 to 00:00) does create a theoretical misalignment, as changes in Technical Offer Data occur on a Trading Day (23:00 to 23:00) basis. The situation where such misalignment would have the most noticeable impact would be if **BOTH** of the following occur:* A Unit changes Technical Offer Data between two Trading Days; AND
* The Unit receives a Dispatch Instruction in the period from 23:00 and 00:00.

It would have a smaller impact on cases where a unit changes their Technical Offer Data between two Trading Days, and there are Bid Offer Acceptance orders closing and opening over that period keeping the unit at its previous output level. This is because the overall volume for all of the orders would be the same as if the new Technical Offer Data were used from 23:00 to 00:00, but the volumes in each individual order would be different due to the different trajectories of the profiles of closing orders. It is not expected that there would be a noticeable impact in cases other than these.The Trading and Settlement Code already contains provisions which govern changes in Technical Offer Data for instructions which are effective prior to the start of a Trading Day but extend into the new Trading Day (i.e. the Technical Offer Data at the Effective Time of the instruction is applied). This already means that the “theoretical” Technical Offer Data for the Trading Day is not being applied in certain circumstances. The proposed modification is added to these provisions also to clarify which Technical Offer Data is used.Because the areas considered in this proposed modification will not be fixed in time for I-SEM go-live, it is necessary to have interim arrangements which align the rules with the system implementation for a fixed period of time until the approach intended by the rules can be implemented in the systems. The approach taken is to maintain in the main body of the Code the intended approach, while having an interim arrangement in Chapter H which prevails over the period of time from market cutover until the fixed time stated on the clause. This should make it clear that the approach in the Code is intended to be implemented when it is possible to do so following priority items being fixed for I-SEM go-live. |
| **Code Objectives Furthered***(State the Code Objectives the Proposal furthers, see Section 1.3 of T&SC for Code Objectives)* |
| This Modification furthers Code Objectives A.2.1.4(a) and A.2.1.4(e):*(a) to facilitate the efficient discharge by the Market Operator of the obligations imposed upon it by its Market Operator Licences;**(e) to provide transparency in the operation of the Single Electricity Market;* |
| **Implication of not implementing the Modification Proposal***(State the possible outcomes should the Modification Proposal not be implemented)* |
| The Trading and Settlement Code will continue to be ambiguous with respect to the application of Technical Offer Data within Instruction Profiling. |
| **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.)* |
|  | No impact on systems as they will exist for the Cutover Time, initial timeline indicated for work required to implement the system which would achieve the outcomes of the main body of the text which will require resources, in the absence of this modification then there is a possibility of additional resource requirements for settlement processes. |
| ***Please return this form to Secretariat by email to*** ***modifications@sem-o.com*** |