



# Single Electricity Market

## FINAL RECOMMENDATION REPORT

MOD\_08\_22 WEEKLY STRIKE PRICE CALCULATION  
20 OCTOBER 2022

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## Document History

Version	Date	Author	Comment
1.0	11 <sup>th</sup> Nov 2022	Modifications Committee Secretariat	Issued to Modifications Committee for review and approval
2.0	22 <sup>nd</sup> Nov 2022	Modifications Committee Secretariat	Issued to Regulatory Authorities for final decision

## Reference Documents

Document Name
<a href="#">Trading and Settlement Code</a>
<a href="#">Mod_08_22 Weekly Strike Price Calculation</a>

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## 1. MODIFICATIONS COMMITTEE RECOMMENDATION

### RECOMMENDED FOR APPROVAL– UNANIMOUS VOTE

Recommended for Approval by Unanimous Vote		
Bryan Hennessy	Supplier Member	Approve
Robert McCarthy	DSU Member	Approve
Ian Mullins	Supplier Member	Approve
Paraic Higgins (Chair)	Generator Member	Approve
Eamonn Boland	Renewable Generator Alternate	Approve
Cormac Fagan	Assetless Alternate	Approve
Paul McGuckin	Flexible Participant Member	Approve
Cormac Daly	Generator Member	Approve
David Caldwell	Supplier Alternate	Approve
Brigid Reilly	Supplier Alternate	Approve
Sean McParland	Generator Alternate	Approve
Andrew McCorrison	Generator Alternate	Approve

## 2. BACKGROUND

This Modification Proposal was raised by Tynagh Energy Limited and received by the Secretariat on the 2<sup>nd</sup> June 2022. The Proposal was raised at Meeting 111 on 16<sup>th</sup> June 2022, discussed at Meeting 112 on 6<sup>th</sup> September 2022 and voted on at Meeting 113 on the 20<sup>th</sup> October 2022.

Tynagh Energy is proposing a modification which will result in more frequent calculations of the Strike Price.

Since the inception of I-SEM, the Strike Price has been calculated on a monthly basis. However, given recent developments in global commodity markets we consider it necessary to move to more frequent calculations of Strike Price. Furthermore, we consider this modification to be aligned with the intended purpose of the Strike Price mechanism and the high-level design of the CRM.

In SEM-15-103, the SEM Committee decided to adopt a floating Strike Price calculated based on the cost of a hypothetical low efficiency peaking unit. In making this decision, the SEM Committee stated that the Strike Price would be set sufficiently high to avoid cases where capacity providers need to make difference payments even where the market price for energy is less than a unit's fuel costs. This can create distortions in the energy market where generators are required to bid below cost in order to avoid incurring difference charges.

Since September 2021, global gas commodity markets have experienced an unprecedented level of price volatility. This issue worsened in February 2022 with the Russian invasion of Ukraine. One consequence of commodity price fluctuations is the calculation of the Strike Price. Currently, the Strike Price is calculated on a monthly basis using monthly commodity values as inputs. Traditionally, this was sufficient, given that movements in gas commodity prices were unlikely to be significant in a single month. However, significant gas price volatility means that it is no longer appropriate to calculate the Strike Price on a monthly basis.

This modification proposes that the current methodology for calculating Strike Price is maintained, but that the calculation is carried out on a weekly basis. This will allow a more accurate calculation, as a result of more up-to-date inputs being used. Furthermore, this would reduce the likelihood of generators being exposed to an unavoidable downside as a result of the Strike Price being set too low.

We consider this to be an appropriate course of action particularly as the Strike Price is a floating parameter which is based on the value of commodities. Given the significant increase in volatility in inputs to the calculation, it is reasonable to expect this calculation to be carried out more frequently.

Failure to implement this modification will mean that the practical implementation of the Strike Price is misaligned with its purpose as set out in SEM-15-103, and continued market distortion.

### 3. PURPOSE OF PROPOSED MODIFICATION

#### 3A.) JUSTIFICATION OF MODIFICATION

The SEM-15-103 Decision Paper outlines the SEM Committee's decision to implement a floating Strike Price which will be set at a level which "should exceed the variable costs of most of those offering energy into the I-SEM energy market". If the Strike Price is not set at a level which reflects actual fuel costs, it is unlikely that the Strike Price will exceed the variable costs of many, if any, conventional generators. This is a result of the fact that the Strike Price is calculated on a monthly basis combined with a high level of price volatility in the coming months.

If the Strike Price is set dynamically based on generators' marginal costs, and the costs are experiencing a significant level of volatility, it is reasonable to calculate the Strike Price more frequently. In SEM-15-103, the SEM Committee states that "by ensuring that the Strike Price adjusts naturally to the fluctuations of fuel prices, it will ensure that the Strike Price does not fall below the marginal cost of plant". In order to remain consistent with the high-level design of the CRM, it seems imperative that the Strike Price be calculated more frequently in response to a level of volatility which is significantly higher than it has been since the beginning of I-SEM.

This price volatility and its impact on generators' marginal costs has been recognised by the SEM-O in March 2022 following significant price increases. In this instance, SEM-O sought feedback from stakeholders on whether or not to recalculate the Strike Price before ultimately deciding to not to take action. Additionally, the SEM Committee made the decision to postpone Round 18 of Directed Contracts in March 2022, before extending this postponement in April 2022. This decision was based on the high level of volatility in the commodities market. These actions clearly demonstrate a recognition of commodity volatility and its impact on market parameters. Accordingly, we believe that this should be extended to the Strike Price calculation by moving to a weekly rather than a monthly basis.

This proposal does not include any increase to Strike Price or a change in the calculation methodology, but merely a more dynamic Strike Price calculation. We consider this modification to be more consistent with the high-level design and intentions of the Strike Price mechanism.

One of the key purposes of the Strike Price is to provide a hedge for suppliers against high market prices and limit the ability of generators who hold Reliability Options to exert market power. However, if the Strike Price is set at a level which is not reflective of fluctuations in commodity prices and is set too low, generators are exposed to an unavoidable loss. This means that the Strike Price is no longer

a means to limit market abuse, but instead becomes a mechanism which penalises generators regardless of how they behave in the market.

Additionally, implementing this modification proposal should reduce the risk of market distortion. This risk was identified by the SEM Committee in SEM-15-103 who noted that setting the Strike Price too low distorts the wholesale energy market by forcing participants to bid below cost.

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

If this modification proposal is not implemented, the application of Reliability Options will continue to be misaligned with the high-level design of the CRM (as set out in the CRM). A floating Strike Price that does not respond to fluctuations in commodity prices cannot accurately reflect the marginal costs of generators in SEM. This creates risk of significant downside and market distortion, which was identified by the SEM Committee in SEM-15-103.

Additionally, failure to implement the modification proposal is detrimental to several of the TSC objectives as identified above. Specifically, in relation to operating the Single Electricity Market in a financially secure manner by not exposing market participants to significant downside regardless of behaviour in the market.

Additionally, not amending the process in the face of high volatility interferes with the TSC objective of facilitating participation in the SEM. By exposing generators to an unavoidable downside where they have no choice but to make a loss in the market, it is unclear how parties are expected to participate long-term in the market. Furthermore, the code objective of promoting competitiveness is affected due to the market distortion affect which has been outlined above.

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

A.2.1.4 The aim of this Code is to facilitate the achievement of the following objectives:

- (a) to facilitate the efficient discharge by the Market Operator of the obligations imposed upon it by its Market Operator Licences;
- (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;
- (d) to promote competition in the Single Electricity Market;
- (f) to ensure no undue discrimination between persons who are parties to the Code; and

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

N/A

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

n/a

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

N/A

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## 7. MODIFICATION COMMITTEE VIEWS

### MODIFICATIONS MEETING 111 – 16<sup>TH</sup> JUNE 2022

The Proposer provided a presentation on this Modification noting that its purpose was to calculate the Strike Price on a weekly basis rather than on a monthly basis. It was noted that the two driving factors for this Modification were commodity price increases and the volatility of commodity prices.

A Supplier Member voiced concerns about liquidity particularly for year end, the reflection of prices and the increased workload for SEMO. MO Member echoed these concerns noting there would be a substantial impact on resources because this multistep process would move from once a month to 4 times a month. Considerations also need to be given to the inputs to be used and the timelines for communicating the new price – at the end of the week would impact invoicing while at the beginning of the week would impact the settlement catch up after the weekend. This change had been informally raised to SEMO previously and initial investigations had been carried out on the system implications. At a high level there are a number of inputs and calculations that would need to be updated but these updates don't appear to carry major risks or difficulties, so the main issue remains with resourcing. Also, concerns were raised that this has been proposed out of the volatility experienced at this point in time; should the prices stabilize again, it is not clear if the process should return to monthly or if the onus on resources should be kept without apparent benefit as the price would be repeated week on week in the same way it has happened in the period from go live till recently. The Proposer appreciated the concerns raised.

Members recognized the logic of the Modification that Generators are operating at a loss on Strike Price and that is unfair; however, the monthly nature of this process gives certainty and protection to consumers. Questions were raised on the impact on consumer costs and if a retrospective fix could be used instead for specific events similar to what happened in September 2021.

The Proposer provided assurance that this risk was reviewed over a long period of time and would work in both directions. It was advised that the strike price in April was very high but very low in March and with a weekly adjustment these inconsistencies would have been smoothed out.

Supplier Member also added further concerns that the Strike Price was seen as a target price and based on his own analysis of the data from last October till May should the Strike Price be set on a weekly basis it would have meant a large increase in Imperfections and consumer's costs.

The Proposer replied that the prices are being driven by commodity prices not Strike Price.

A DSU Member summarized that this Modification is concerned with adjusting the volatility of the strike price and not changing it and although there seems to be a difference of opinion on what drives prices up the BCOP should ensure that rules are followed correctly.

A Supplier Member noted that this Modification could shift the risk from Generators to Suppliers. They noted that the Modification would mean the Strike Price is more accurate and captures a volatility in gas prices which was not previously there, meaning it would go both ways.

A Supplier Alternate supported the concept of a weekly calculation from an economic perspective but questioned how this Modification would be implemented in practice, stating that the methodology would need to be clearly defined and that a weekly calculation wouldn't necessarily capture day-to-day volatility.

Further support was given for the Modification providing SEMO were happy to facilitate it and there was enough liquidity. It was suggested that the process and methodology would need to be looked at further and maybe provide a distinction between different fuels: while this change would make sense for a fuel

whose cost changes regularly, such as methane, it wouldn't make sense for distillate which is not traded on a weekly basis.

The Proposer agreed to review the comments raised and work with SEMO directly to discuss the amount of work that would be needed. A request was made to have an assessment done.

### **MODIFICATIONS MEETING 112 – 6<sup>TH</sup> SEPTEMBER 2022**

Regrettably time did not allow for discussion of this Proposal. This Proposal will be added to the agenda for the next meeting taking place on Thursday, 20<sup>th</sup> October 2022. Secretariat offered apologies and has requested that Members pro-actively engage with the Proposer in advance of the next meeting to convey questions and comments on this Proposal.

### **MODIFICATIONS MEETING 113 – 20<sup>TH</sup> OCTOBER 2022**

The Proposer delivered a presentation on this Modification and advised that it was very straightforward. It was advised that this Modification, submitted back in June, demonstrated issues that were not recognized previously due to the changed circumstances. Further review was done on the Modification before it was re-submitted as there was some concerns that it would lead to a higher strike price. The Proposer provided assurance that following a review of the data as shown on the presentation, it was found that there was no correlation between strike price and higher Market Price as this followed the Gas price not the Strike Price.

The Proposer advised that there were a few other questions on resource costs and asked SEMO if it was possible to estimate it.

MO Member advised that a review of the impact on resources was completed. This is a process partially manual and partially automated in the system. It was advised that the SEMO team could absorb the additional manual workload to weekly, but the daily process proposed in Mod 10\_22 would be challenging.

Supplier Alternate questioned the impact of the Modification stating that currently the Strike Price is smoothed out over the month and changing it to a weekly process would create more volatility and potential issue for suppliers in terms of clearing.

Questions were also asked on the use of 'balance of the Month' prices. Assetless Alternate asked the Proposer if they were comfortable using the Day ahead price as suggested in the updated material, given that the strike price would be set for the week based on the day ahead price for one day and there can be significant volatility in day ahead prices day on day. The Proposer confirmed they were comfortable with this. It was agreed that Day Ahead prices would be more appropriate, and the proposer agreed that if carried out, the vote would be subject to that change being made in the FRR.

A sunset clause to change it back to monthly was also discussed with MO Member noting that each change was not an automatic switch and would require a new change request to be scheduled in the system releases. It was noted that the vendor indicated at high level that this is not a complicated implementation, but it would need details assessment to confirm that. The Proposer assured that a sunset clause was not essential and if, as indicated by SEMO, this was not feasible they were happy not to include one.

A Supplier Member gave support for the Modification and considered it to be of moderate impact.

MO Member advised that a detailed impact assessment would be sought once a recommendation for approval is voted for.

## **8. PROPOSED LEGAL DRAFTING**

The following changes were approved at the meeting replacing the original drafting in Appendix 1:

While it is not explicitly stated in the Trading and Settlement Code that the Strike Price will be calculated on a monthly basis, it is implied through references to calculating the Strike Price on a monthly basis and acronyms used throughout the Code ( $PSTR_m$ ). In order to implement this modification, it is proposed that all references to month and monthly, as relevant to the Strike Price, are changed to week and weekly. These changes are primary relevant in Section F.16 of the Code. As commodity prices are not provided on a weekly basis, it is proposed that Day ahead values are applied instead.

#### F.16.1 Setting of Strike Price Parameters

F.16.1.1 If requested by the Regulatory Authorities, the System Operators shall report to the Regulatory Authorities, proposing the data source for, or methodology for determining, any of the following parameters to be used in the calculation of the Strike Price:

- (a) The Day-Ahead Carbon Price ( $PCARBON_{m,da}$ ) for Week, w;
- (b) The Day-Ahead Natural Gas Fuel Price ( $PFUELNG_{m,da}$ ) for Week, w and
- (c) The Day-Ahead Oil Fuel Price ( $PFUELO_{m,da}$ ) for Week, w.

#### F.16.2 Calculation of Strike Price

F.16.2.1 The Market Operator shall calculate the Strike Price ( $PSTR_{m,w}$ ) in Month, m, Week, w, as follows:

$$PSTR_{m,w} = \text{Max} \left( \frac{1}{FTHEORYPU_y} \times \text{Max} \left( PFUELNG_{m,da} + (PCARBON_{m,da} \times FCARBONING_y), PFUELO_{m,da} + (PCARBON_{m,da} \times FCARBONIO_y) \right), PTHEORYDSU_y \right)$$

where:

- (a)  $FTHEORYPU_y$  is the Peaking Unit Theoretical Efficiency for Capacity Year, y, determined in accordance with section F.16.1;
- (b)  $PFUELNG_{m,da}$  is the Day ahead Natural Gas Fuel Price for Month, m, determined in accordance with section F.16.1;
- (c)  $FCARBONING_y$  is the Natural Gas Carbon Intensity Factor for Capacity Year, y, determined in accordance with section F.16.1;
- (d)  $PFUELO_{m,da}$  is the Day ahead Oil Fuel Price for Month, m, determined in accordance with section F.16.1;
- (e)  $FCARBONIO_y$  is the Oil Carbon Intensity Factor for Capacity Year, y, in determined accordance with section F.16.1;



- 
- (f) PCARBON~~m~~<sub>da</sub> is the Day ahead Carbon Price for Month, m, determined in accordance with section F.16.1; and
  - (g) PTHEORYDSU<sub>y</sub> is the Demand Side Unit Theoretical Price for Capacity Year, y, determined in accordance with section F.16.1.

*There are additional further references to  $PSTR_m$  throughout the Code which would need to be amended to refer to  $PSTR_w$  instead.*

## 9. LEGAL REVIEW

N/A

## 10. IMPLEMENTATION TIMESCALE

It is recommended that this Modification is implemented on a Settlement Day basis on the first Settlement Day following system implementation.

**1 APPENDIX 1: MOD\_08\_22 WEEKLY STRIKE PRICE CALCULATION**

<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>
Tynagh Energy Limited	2 <sup>nd</sup> June 2022	Standard	Mod_08_22
<b>Contact Details for Modification Proposal Originator</b>			
<b>Name</b>	<b>Telephone number</b>	<b>Email address</b>	
Harry Molloy		<a href="mailto:h.molloy@tynaghenergy.ie">h.molloy@tynaghenergy.ie</a>	
<b>Modification Proposal Title</b>			
<b>Weekly Strike Price Calculation</b>			
<b>Documents affected</b> <i>(delete as appropriate)</i>	<b>Section(s) Affected</b>	<b>Version number of T&amp;SC or Agreed Procedure used in Drafting</b>	
T&SC Part B	Section F.16.2		
<b>Explanation of Proposed Change</b> <i>(mandatory by originator)</i>			
<p>Tynagh Energy is proposing a modification which will result in more frequent calculations of the Strike Price.</p> <p>Since the inception of I-SEM, the Strike Price has been calculated on a monthly basis. However, given recent developments in global commodity markets we consider it necessary to move to more frequent calculations of Strike Price. Furthermore, we consider this modification to be aligned with the intended purpose of the Strike Price mechanism and the high-level design of the CRM.</p> <p>In SEM-15-103, the SEM Committee decided to adopt a floating Strike Price calculated based on the cost of a hypothetical low efficiency peaking unit. In making this decision, the SEM Committee stated that the Strike Price would be set sufficiently high to avoid cases where capacity providers need to make difference payments even where the market price for energy is less than a unit's fuel costs. This can create distortions in the energy market where generators are required to bid below cost in order to avoid incurring difference charges.</p> <p>Since September 2021, global gas commodity markets have experienced an unprecedented level of price volatility. This issue worsened in February 2022 with the Russian invasion of Ukraine. One consequence of commodity price fluctuations is the calculation of the Strike Price. Currently, the Strike Price is calculated on a monthly basis using monthly commodity values as inputs. Traditionally, this was sufficient, given that movements in gas commodity prices were unlikely to be significant in a single month. However, significant gas price volatility means that it is no longer appropriate to calculate the Strike Price on a monthly basis.</p>			

This modification proposes that the current methodology for calculating Strike Price is maintained, but that the calculation is carried out on a weekly basis. This will allow a more accurate calculation, as a result of more up-to-date inputs being used. Furthermore, this would reduce the likelihood of generators being exposed to an unavoidable downside as a result of the Strike Price being set too low.

We consider this to be an appropriate course of action particularly as the Strike Price is a floating parameter which is based on the value of commodities. Given the significant increase in volatility in inputs to the calculation, it is reasonable to expect this calculation to be carried out more frequently.

Failure to implement this modification will mean that the practical implementation of the Strike Price is misaligned with its purpose as set out in SEM-15-103, and continued market distortion.

#### Legal Drafting Change

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

*While it is not explicitly stated in the Trading and Settlement Code that the Strike Price will be calculated on a monthly basis, it is implied through references to calculating the Strike Price on a monthly basis and acronyms used throughout the Code (PSTR<sub>m</sub>). In order to implement this modification, it is proposed that all references to month and monthly, as relevant to the Strike Price, are changed to week and weekly. These changes are primary relevant in Section F.16 of the Code. As commodity prices are not provided on a weekly basis, it is proposed that Balance of Month values are applied instead.*

#### F.16.1 Setting of Strike Price Parameters

F.16.1.1 If requested by the Regulatory Authorities, the System Operators shall report to the Regulatory Authorities, proposing the data source for, or methodology for determining, any of the following parameters to be used in the calculation of the Strike Price:

- (a) The **Balance of Month** Carbon Price (PCARBON~~m~~**bw**) for Month, m;
- (b) The **Balance of Month** Natural Gas Fuel Price (PFUELNG~~m~~**bw**) for Month, m and
- (c) The **Balance of Month** Oil Fuel Price (PFUELO~~m~~**bw**) for Month, m.

#### F.16.2 Calculation of Strike Price

F.16.2.1 The Market Operator shall calculate the Strike Price (PSTR~~m~~**w**) in ~~Month, m~~, **Week, w**, as follows:

$$PSTR_{mw} = \text{Max} \left( \frac{1}{FTHEORYPU_y} \times \text{Max} \left( PFUELNG_{\#bom} + (PCARBON_{\#bom} \times FCARBONING_y), PFUELO_{\#bom} + (PCARBON_{\#bom} \times FCARBONIO_y) \right), PTHEORYDSU_y \right)$$

where:

- (h) FTHEORYPU<sub>y</sub> is the Peaking Unit Theoretical Efficiency for Capacity Year, y, determined in accordance with section F.16.1;
- (i) PFUELNG<sub>#bom</sub> is the **Balance of Month** Natural Gas Fuel Price for Month, m, determined in accordance with section F.16.1;
- (j) FCARBONING<sub>y</sub> is the Natural Gas Carbon Intensity Factor for Capacity Year, y, determined in accordance with section F.16.1;
- (k) PFUELO<sub>#bom</sub> is the **Balance of Month** Oil Fuel Price for Month, m, determined in accordance with section F.16.1;
- (l) FCARBONIO<sub>y</sub> is the Oil Carbon Intensity Factor for Capacity Year, y, in determined accordance with section F.16.1;
- (m) PCARBON<sub>#bom</sub> is the **Balance of Month** Carbon Price for Month, m, determined in accordance with section F.16.1; and
- (n) PTHEORYDSU<sub>y</sub> is the Demand Side Unit Theoretical Price for Capacity Year, y, determined in accordance with section F.16.1.

*There are additional further references to PSTR<sub>m</sub> throughout the Code which would need to be amended to refer to PSTR<sub>w</sub> instead.*

#### Modification Proposal Justification

*(Clearly state the reason for the Modification)*

The SEM-15-103 Decision Paper outlines the SEM Committee's decision to implement a floating Strike Price which will be set at a level which "should exceed the variable costs of most of those offering energy into the I-SEM energy market". If the Strike Price is not set at a level which reflects actual fuel costs, it is unlikely that the Strike Price will exceed the variable costs of many, if any, conventional generators. This is a result of the fact that the Strike Price is calculated on a monthly basis combined with a high level of price volatility in the coming months.

If the Strike Price is set dynamically based on generators' marginal costs, and the costs are experiencing a significant level of volatility, it is reasonable to calculate the Strike Price more frequently. In SEM-15-103, the SEM Committee

states that “by ensuring that the Strike Price adjusts naturally to the fluctuations of fuel prices, it will ensure that the Strike Price does not fall below the marginal cost of plant”. In order to remain consistent with the high-level design of the CRM, it seems imperative that the Strike Price be calculated more frequently in response to a level of volatility which is significantly higher than it has been since the beginning of I-SEM.

This price volatility and its impact on generators’ marginal costs has been recognised by the SEM-O in March 2022 following significant price increases. In this instance, SEM-O sought feedback from stakeholders on whether or not to recalculate the Strike Price before ultimately deciding to not to take action. Additionally, the SEM Committee made the decision to postpone Round 18 of Directed Contracts in March 2022, before extending this postponement in April 2022. This decision was based on the high level of volatility in the commodities market. These actions clearly demonstrate a recognition of commodity volatility and its impact on market parameters. Accordingly, we believe that this should be extended to the Strike Price calculation by moving to a weekly rather than a monthly basis.

This proposal does not include any increase to Strike Price or a change in the calculation methodology, but merely a more dynamic Strike Price calculation. We consider this modification to be more consistent with the high-level design and intentions of the Strike Price mechanism.

One of the key purposes of the Strike Price is to provide a hedge for suppliers against high market prices and limit the ability of generators who hold Reliability Options to exert market power. However, if the Strike Price is set at a level which is not reflective of fluctuations in commodity prices and is set too low, generators are exposed to an unavoidable loss. This means that the Strike Price is no longer a means to limit market abuse, but instead becomes a mechanism which penalises generators regardless of how they behave in the market.

Additionally, implementing this modification proposal should reduce the risk of market distortion. This risk was identified by the SEM Committee in SEM-15-103 who noted that setting the Strike Price too low distorts the wholesale energy market by forcing participants to bid below cost.

#### **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)*

A.2.1.4 The aim of this Code is to facilitate the achievement of the following objectives:

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

- (d) to promote competition in the Single Electricity Market;
- (f) to ensure no undue discrimination between persons who are parties to the Code; and

**Implication of not implementing the Modification Proposal**

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

If this modification proposal is not implemented, the application of Reliability Options will continue to be misaligned with the high-level design of the CRM (as set out in the CRM). A floating Strike Price that does not respond to fluctuations in commodity prices cannot accurately reflect the marginal costs of generators in SEM. This creates risk of significant downside and market distortion, which was identified by the SEM Committee in SEM-15-103.

Additionally, failure to implement the modification proposal is detrimental to several of the TSC objectives as identified above. Specifically, in relation to operating the Single Electricity Market in a financially secure manner by not exposing market participants to significant downside regardless of behaviour in the market.

Additionally, not amending the process in the face of high volatility interferes with the TSC objective of facilitating participation in the SEM. By exposing generators to an unavoidable downside where they have no choice but to make a loss in the market, it is unclear how parties are expected to participate long-term in the market. Furthermore, the code objective of promoting competitiveness is affected due to the market distortion affect which has been outlined above.

<b>Working Group</b> <i>(State if Working Group considered necessary to develop proposal)</i>	<b>Impacts</b> <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>
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**Please return this form to Secretariat by email to [balancingmodifications@sem-o.com](mailto:balancingmodifications@sem-o.com)**