



**Integrated Single Electricity Market
(I-SEM)**

**Capacity Remuneration Mechanism
Information Paper on USPC Application Process**

Information Paper

SEM-17-090

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1. INTRODUCTION

1.1 BACKGROUND

1.1.1 The I-SEM CRM detailed design and auction process has been developed through a series of consultation and decision papers, these are all available on the SEM Committee's (SEMC) website. These decisions were translated into legal drafting of the market rules via an extensive consultative process leading to the publication of the Trading and Settlement Code (TSC) on 12th April 2017 (SEM-17-024)¹ and the Capacity Market Code (CMC) on 2nd June 2017 (SEM-17-033)².

1.1.2 The CMC describes the process which market participants must follow in relation to participation in a CRM auction. This includes detail in relation to the requirement for market participants to apply for Regulatory Authority (RA) approval for certain exception applications (section E5 of the CMC) and opt-out notification determinations (section E3 of the CMC).

1.1.3 The purpose of the Exception Applications process is to assess applications submitted by a Participant seeking approval for:

- Proposed New Capacity to have a Maximum Capacity Duration of more than one and up to 10 Capacity Years
- All or a specified part of Existing Capacity to be subject to a Unit Specific Price Cap (USPC) in a Capacity Auction; or
- An Opt-out notification

1.1.4 Participants seeking approval for the above were required to submit an Exception Application within the timeframes specified in the Capacity Auction Timetable.

1.1.5 The aims of the process are:

- To ensure a fair and equitable process for all applicants;
- To ensure all applicants have equal access to the same information necessary to prepare and advance their exception applications in a timely manner; and
- To take all reasonable precautions that any confidential information generated by the exception application is kept confidential.

1.1.6 In the CRM Parameters decision (SEM-17-022) the SEMC set out its planned approach to estimating the Net Going Forward Costs (NGFCs) and USPCs for applicants making an Existing Capacity Exception Application. SEM-17-022 stated that:

¹ Trading and Settlement Code (SEM-17-024)

https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-17-024%20Trading%20and%20Settlement%20Code%20Amendments%20Decision%20Paper_0.pdf

² Capacity Market Code (SEM-17-033) <https://www.semcommittee.com/news-centre/publication-i-sem-crm-capacity-market-code-decision>

- *“NGFCs: The RAs will calculate the NGFC for a generator based on the following formula:
NGFC = Max [(Fixed operating costs – gross infra-marginal rent from the energy and ancillary service revenue + appropriate proportion of unavoidable future investment),0] + Expected Reliability Option difference payments*

Where the appropriate proportion of unavoidable future investment will be determined on a case-by-case basis.

- **USPC:** *Unit Specific Price Caps will be set based upon Net Going Forward Costs (NGFCs) according to the following formula:*

Max allowed USPC bid = 110% x RAs’ NGFC estimate, updated following review of USPC application”.

- 1.1.7 A briefing note³, SEM-17-037 CRM Exception Application and Opt out Notification Process, was published on 13 June 2017 setting out the detailed process for Exception Applications and Opt-Out Notifications, and the format in which applicants should submit the data to support their applications.
- 1.1.8 Whilst SEM-17-022 and its accompanying consultation paper (SEM-16-073) set out some of the detail of how the RAs/SEMC would evaluate key elements, such as fixed operating costs, gross infra-marginal rent, ancillary services revenue etc, inevitably some detailed implementation decisions remained to be made by the RAs/SEMC during the USPC implementation process as regards to how USPCs should be calculated. For example, as set out in SEM-17-022, the SEMC did not determine in ex ante policy papers what proportion of each unavoidable future investment (UFI) would be allowed.
- 1.1.9 There was further discussion of the approach to setting USPCs, particularly with regard to the treatment of UFI, and also of station overheads at a workshop in Dundalk on 30th June 2017⁴.
- 1.1.10 However, it was recognised that:
- Forecasting challenges remained in certain areas. For instance, the TSOs are consulting on the DS3 tariffs to apply in 2018/19; and
 - This is the first time that the RAs/SEMC and market participants had participated in this process, and inevitably, some detailed decisions would need to be made during the USPC setting.
- 1.1.11 This note sets out some further detail on the approach applied by the RAs/SEMC in relation to the USPC setting process for Capacity Year 2018/19.

³ <https://www.semcommittee.com/publication/sem-17-037-capacity-remuneration-mechanism-exception-application-and-opt-out>

⁴ <https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-17-041%20CRM%20Workshop%20Slides%20June%202017%20Final.pdf>

1.2 PURPOSE OF THIS PAPER

- 1.2.1 This paper sets out for information the assessment approaches applied by the Regulatory Authorities (RAs) and SEM Committee (SEMC) in assessing the Exception Applications received under paragraph E.5 of the Capacity Market Code.
- 1.2.2 A number of these assessment approaches have been addressed in various decision papers or by the RAs at workshops. However, in this paper we set out some areas of the detailed application of the assessment approaches here for clarity for interested parties.
- 1.2.3 The assessment approaches set out below are the approaches applied to the Exception Applications for the Initial T-1 Auction.
- 1.2.4 The RA's in publishing this document have, where considered appropriate and helpful for future applications, set out assessment approaches. This ensures transparency and assurance that these approaches have been applied consistently to each USPC application received.

2. ASSESSMENT APPROACH UPDATE

2.1 OVERVIEW

- 2.1.1 The Exception Application process raised a number of detailed issues in relation to the approach to setting Unit Specific Price Caps (USPCs).
- 2.1.2 These include:
- Reliability Option Difference Payments;
 - Ancillary Service Revenue;
 - Station Overheads;
 - Unavoidable Future Investment; and
 - Inflation.
- 2.1.3 The RAs/SEMC position on each of these areas in relation to the Exception Application for Capacity Year 2018/19 is set out below.
- 2.1.4 During the USPC assessment process the RAs/ SEMC were assisted by engineering advisers who advised on the reasonableness of certain elements of Non-Fuel Operating Costs and the Unavoidable Future Investments.

2.2 KEY ASSESSMENT APPROACHES

Reliability Option Difference Payments

- 2.2.1 The NGFC formula as set out in the CRM Parameters decision (SEM-17-022) provided for USPC applicants to include an element to cover Reliability Option Difference Payments in their NGFC estimates and hence their USPC applications.
- 2.2.2 However, the RAs / SEMC decided that for CY2018/19, the expected value of a generator's exposure to uncovered Reliability Option Difference Payments is small, and should be covered within the 10% tolerance around NGFCs built into the USPC setting.
- 2.2.3 The RAs/SEMC rationale for coming to this position is that, for CY2018/19, we expect available capacity to be in excess of the capacity requirement, given that for 2018/19:
- The TSOs are purchasing additional capacity of ROs to cover locational capacity constraints, combined with the fact that administrative scarcity is not triggered purely locationally;
 - The TSOs are procuring capacity for a 2021/22 demand forecast, not a 2018/19 forecast;
 - The sloping demand curve may mean that more capacity than the target capacity requirement is procured;

- The Least Worst Regrets approach results in the use of a demand scenario above central case forecasts;
- The process used to resolve lumpiness issues will tend to procure more capacity than the minimum required to meet the security standard; and
- There is currently an excess of existing generation and we would not expect all auction losers to exit before the end of 2018/19.

Ancillary Service Revenue

- 2.2.4 In the CRM Parameters consultation (SEM-16-073), the SEMC set out its intention to forecast ancillary service revenues for each generation unit, taking appropriate account of the increase in the DS3 budget for each relevant year. In the presentation to industry on the I-SEM CRM Exception Application / Notification Process (Dundalk, 30 June 2017), the RAs further confirmed their intention to use a *“default projection of ancillary service revenue by scaling historic unit values to 2018/19 budget”*.
- 2.2.5 However, at the time of assessing USPC applications the RAs / SEMC recognised that there remains some degree of uncertainty around forecasting DS3 revenues. Furthermore, proposed changes that the time to the way in which reward is focussed on plant running at times of high System Non- Synchronous Penetration (SNSP) may make historic revenue a poor indicator of future revenues.
- 2.2.6 For the purpose of this assessment the RAs/SEMC therefore viewed the reasonableness of applicants’ estimated figures in deciding on an appropriate ancillary revenue to include within the USPC.

Station Overheads

- 2.2.7 At the RAs’ presentation to industry on the I-SEM CRM Exception Application / Notification Process (Dundalk, 30 June 2017), market participants raised a specific issue associated with the treatment of station overheads within NGFCs. Market participants stated that they should be able to include overheads in more than one unit as they did not have certainty that all units would clear in the auction and therefore that station overheads would be recovered.
- 2.2.8 The RAs / SEMC decided that multiple recovery of overheads is not permitted because we consider that this:
- represents an inappropriate allocation of risk between customers and generators. The RAs/SEMC noted that generators have some capability to manage the risk by cutting costs, whereas customers have no capability to manage the risk. The RAs / SEMC also noted that generators would be exposed to this risk for one capacity year only. If one unit at a station lost the first auction and were permitted to exit, and the station was unable

to cut cost commensurately, next year the remaining cost would then be associated only with remaining unit.

- would allow State aid, in the form of capacity payments, to be recovered twice for the same costs which we consider would be inconsistent with EU guidelines.

2.2.9 The RAs/SEMC also consider that applicants have a degree of flexibility in how they apportion overheads to units, but the sum of the allocations should not exceed total station overheads.

2.2.10 The RAs/SEMC note that the approach of disallowing the multiple inclusion of overheads is in line with the approach applied in PJM.

Unavoidable Future Investment

2.2.11 Unavoidable Future Investment (UFI), refers to future investment costs which must be incurred if the capacity is to be delivered during the Capacity Year. The CRM Parameters decision (SEM-17-022) stated that...*“For the first transitional auction, the SEM Committee proposes to calculate Capital Recovery Factors on a case-by-case basis, based on the following approach / principles:*

- *Where a bidder wishes to include an element of unavoidable future investment in its USPC application it should provide the SEM Committee with details of the proposed investment in line with requirements set out in Appendix F. The applicant will be required to specify, inter alia: the quantum of investment required with supporting evidence, e.g. quotes from suppliers; the reason for the investment; the MW of capacity delivery to which it relates; and the economic life of the investment project.*
- *For each investment project, the SEM Committee will determine an appropriate period over which the investment can be recovered. The recovery period will be a number of years, n, up to maximum of 10 years- i.e. no longer than the maximum fixed price Reliability Option for new investment that exceeds the NCIRT. The recovery period will not exceed the remaining economic life of the capacity market unit, but may be less than the remaining life of the unit where the applicant can convince the SEM Committee that the economic life of the investment is less than the remaining economic life of the capacity unit.*
- *Where the project is deemed to have a recovery period of n years, the SEM Committee would propose to allow the investor the opportunity to recover its investment by including an element in its bid for each of the next n years, which reflects:*
 - *The net value of its investment (i.e. net of any residual value at the end of the deemed recovery period) based upon straight line depreciation. For instance, where a bidder proposed to invest in increased connection capacity, the connection capacity may have residual value beyond the economic life of the capacity market unit; -*
 - *Any increment in annual fixed operating costs, to maintain the investment; and*

– *A return on the investment consistent with the current SEM BNE WACC.”*

2.2.12 Whilst the policy had been defined in reasonable detail, some practical decisions remained to be made in order to apply these policies, including how to determine the economic life of the investment.

2.2.13 The RAs/SEMC consider that a reasonable and prudent operator would only make such an investment where it considers that the economic life of the unit is significant. In determining the remaining economic life of the unit and of the element being invested we have therefore assumed that any investment will be recovered over at least five years unless:

- There is a clear external factor driving a shorter life, such as emissions limits;
- The unit is more than 40 years old, in which case recovery will be allowed in 1 year;
- The applicant provides a clearly evidenced reason for a shorter period.

2.2.14 This approach is based on precedent from the PJM market. The SEMC considers that the PJM experience, and a focus on mitigating market power, is highly relevant in a market such as the SEM/I-SEM, particularly given locational constraints, which are also prevalent in PJM

Inflation

2.2.15 As discussed above, for a number of NGFC cost categories, we capped the allowed amount based on the highest historically reported values, with an appropriate allowance for inflation. Historically values have been inflation adjusted to the current time using historical HICP values for Ireland and UK CPI for Northern Ireland.

2.2.16 In deciding on the appropriate inflation figures to use to adjust from the current time to expected CY2018/19 values, we considered a number of options including the “backward-looking” approach that the SEMC has historically made to inflate the BNE Net Cone, using inflation over the last 12 months to inflate figures for the following year.

2.2.17 Our final approach differs from the SEMC decision on how to implement the 2018 SEM BNE (SEM-17-069a) in that

- Consistent with other decisions we have used the CPI figure, rather than the RPI value for plants located in Northern Ireland;
- We have applied an Ireland specific inflation value for generators located in Ireland, and a UK specific value for those in Northern Ireland. This approach reflects the fact that we apply adjustments to each individual unit’s historically reported costs, with historical figures and caps for generators in Ireland being denominated in Euros and historical figures and caps for generators in Northern Ireland being denominated in Sterling.

2.2.18 The inflation figures used within the USPC decisions are set out below.

2.2.19 In Northern Ireland:

- Actual CPI figures used to inflate historical values to current day.
- Forecast figures based on published CPI values from Bank of England for 2018.

2.2.20 In ROI

- Actual HICP figures used to inflate historical values to current day.
- Forecast figures based on published HICP values from Bank of Ireland for 2018.

2.2.21 We note that the impact of the choice of inflation forecasts is of low materiality.

3. ACRONYMS

CRM	Capacity Remuneration Mechanism
CY	Capacity Year
I-SEM	Integrated Single Electricity Market
MW	Megawatt
NGFC	Net Going Forward Costs
NI	Northern Ireland
RA	Regulatory Authority
ROI	Republic of Ireland
SEM	Single Electricity Market
TSO	Transmission System Operator
UFI	Unavoidable Future Investment
USPC	Unit Specific Price Cap