



# **SEMOpX Price Control**

## **Final Determination Paper**

SEM-17-096

21st December 2017

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# 1 Introduction and Background

## 1.1 Overview

The Integrated Single Electricity Market (I-SEM) is a new wholesale electricity market arrangement for Ireland and Northern Ireland. The new market arrangements are designed to integrate the all-island electricity market with European electricity markets, enabling the free flow of energy across borders.

This integration will take place across a number of market timeframes including the Day-Ahead and Intra-day markets. The Day-Ahead Market (DAM) is a single pan-European energy trading platform in the ex-ante time frame for scheduling bids and offers and interconnector flows across participating regions of Europe and is the cornerstone of European market integration. The goal of the DAM is to schedule orders such that the social welfare generated is maximised. The DAM involves the implicit allocation of cross-border capacity through a single centralised price coupling algorithm (EUPHEMIA). The algorithm determines prices and positions for all participating participants in all coupled markets.

The IDM allows participants to adjust their physical positions closer to real time. The long-term model for a single European trading platform will be based on continuous trading across interconnectors known as XBID (Cross Border Intraday) and an interim intraday solution as part of the SEMOpx implementation has been developed by EirGrid and SONI as designated NEMOs. The designation period extends to October 2019.

The DAM is operated by Nominated Electricity Market Operators (NEMOs) in each bidding zone or geographical region. In the SEM bidding zone (the island of Ireland), EirGrid has been designated as a NEMO for Ireland, and SONI has been designated as a NEMO for Northern Ireland. EirGrid and SONI will operate as SEMOpx in their roles as NEMO for the DAM under the SEMOpx Rules.

SEMOpx is responsible for registration of participants, market systems operation (excluding running EUPHEMIA), settlement, credit risk management, currency risk, and access to market data. The market trading system for the SEMOpx DAM is provided by EPEX Spot and settlement services are provided by European Commodity Clearing (ECC) under contract to SEMOpx.

Implementation of the Intraday market (IDM) is also operated by SEMOpx, with the same responsibilities for registration, market operation, settlement and credit risk management as in the DAM. As with the DAM, the SEMOpx IDM market trading system is provided by EPEX Spot and settlement services are provided by ECC.

These responsibilities are provided under specific conditions of the SONI Market Operator and EirGrid Market Operator licences and SEMOpx operates as a joint venture of SONI Ltd. and EirGrid plc. In the new I-SEM SEMO, the Market Operator will have responsibility for the Balancing Market (BM) and Capacity Market.

The activities of SEMOpx are thus carried out under specific conditions of the MO licences of SONI and EirGrid while SEMO has separate activities to SEMOpx arising from different market timeframes.

The SEM Committee has therefore thought it most efficient and appropriate to consider these activities under two separate price controls, in addition to those carried out on a jurisdictional level on SONI and EirGrid TSOs, while recognising the linkages between them, as with the SEMO and SEMOpx price control submissions. This ensures separate consideration of the appropriate regulation of each activity and that the revenue allowances are thereby appropriate, while ensuring all relevant linkages between the price controls are properly considered and factored into each price control.

## 1.2 Price Control

This Final Determination follows on from SEM-17-053, the SEMOpx Price Control Draft Determination Consultation Paper, published on the 28th of July 2017. As per SEM-17-044, a Price Control will apply to SEMOpx for the initial period of designation, i.e. from I-SEM Go Live (on the 23<sup>rd</sup> May 2018) until October 2019 and will be based on an ex-ante allowed revenue regime for the period of designation. This decision pertains to the operating expenditure of SEMOpx for the period of designation, without prejudice to any revenue regulatory decisions that may be considered in the longer term after the initial period of designation of SEMOpx.

Under this ex-ante allowed revenue approach, the SEMC has assessed the efficient costs associated with SEMOpx which are set out in this Final Determination. The efficient costs of SEMOpx as approved by the SEM Committee in this price control will be borne by, and at, consumer's risk and any differences will be recovered through a correction factor mechanism.

The components of this price control under an allowed revenue approach are outlined below;

Allowed Revenue Approach			
Revenue	K-Factor	Tariffs	Incentives
Efficiently incurred costs are approved by the SEM Committee and will be remunerated by customers of SEMOpx services.	A k-factor will apply, and its treatment (in terms of whether it is applied to SEMOpx or otherwise) will be decided based on market conditions at the end of the initial designation period.	Tariffs will be set in order for SEMOpx to recover its costs	It is usual practice for Key Performance Indicators to apply in regulated revenue regimes. For the period of this price control, key performance standards have been set out but they will not be tied to an Opex allowance given the short time period for this price control.

This price control is provided on a combined basis between EirGrid and SONI on a 75% and 25% basis respectively, as the designated NEMOs. As part of the revenue control process SEMOpx made a submission on its cost proposals for this price control. Following an assessment of SEMOpx's submission and supporting information a range of proposals for SEMOpx's allowed revenue were set out in the draft determination.

A total of seven responses to the Draft Determination were received which are outlined in this paper. Respondents included;

- Brookfield Renewable Ltd

- Moyle Interconnector Ltd
- ESB GWM
- Viridian
- SSE Airtricity
- Bord Gáis Energy
- SEMOpX

Where not marked as confidential these responses have been published alongside this paper. Confidential responses were received from SSE Airtricity and from Moyle Interconnector Ltd.

### 1.3 Structure of Final Determination

This SEMOpX Price Control Determination sets out the context in which the price control is introduced and the broad principles applying to it. It then sets out the proposals of the SEM Committee in its Draft Determination, the responses to the Draft Determination and the final revenue decisions of the SEM Committee. These revenue decisions will address the following areas of costs in turn:

- SEMO Pre-Live opex costs
- Labour Costs
- Facilities and Overheads
- Contract Services and market coupling costs
- Capital Requirements
- Cost uncertainty
- Management Fee and Final Revenue Allowance

The Final Determination sets out the framework for performance standards that will apply and the SEM Committee's views on the appropriate standards.

The tariffs that arise from the decisions of the price control are set out in the final section.

## 1.4 Revenue proposals summary

### Draft Determination Proposals

A summary of SEMOpx's revenue submission and the RA's draft proposals for this price control as presented in SEM-17-044 are outlined below;

The proposed reductions in the Draft Determination were based on the following areas;

- A reduction in the overhead allocation to SEMOpx, to align with the allowed costs within enduring Price Controls for the TSOs i.e. EirGrid and SONI.
- Removal of an allowance for market monitoring systems.
- A removal of SEMOpx's proposed management fee, primarily on the basis that a return attributable to SEMOpx establishment costs will be garnered via the TSOs RABs at the respective prevailing WACCs of EirGrid and SONI.
- It should be noted that the figures submitted in relation to contract service and market coupling costs in the Draft Determination paper were not final and were based on an estimate.

A summary of SEMOpx's revenue submission and the RA's draft proposals for this price control as presented in SEM-17-044 are outlined below;

	Pre Go-Live	May '18 to End Sep '18	Oct '18 to End Sep '19	Total
2017 monies	€	€	€	€
<b>SEMOpx submission</b>	€ 184,000	€ 1,172,000	€ 3,510,000	€ 4,866,000
<b>SEMC draft proposals</b>	€ 171,000	€ 1,004,000	€ 3004,000	€4,179,000

**Table 1, Summary of Draft Determination**

### Final Determination Decision

Responses to the proposals in SEM-17-053 are outlined in this paper, however an overview of the SEM Committee's final determination in terms of allowed revenues is presented below.

Following publication of the Draft Determination paper, SEMOpx provided the RAs with a new submission for third party costs. Taking account of SEMOpx's revised submission for third party costs as part of this final determination results in an increase of contract services and market coupling costs of €84,000 overall over the 16 month period. The changes outlined below are based on revisions in the following areas;

- SEMOpx's overhead allocation has been revised based on submission of additional information from SEMOpx. As per the updated analysis submitted by SEMOpx, taking account of the differences in how corporate overheads and corporate services are allocated between the TSO, MO and SEMOpx price controls, overheads justified on a comparable basis amount to €22,500 per FTE per annum for enduring TSO price controls (on a blended 75 to 25 basis) versus €25,000 per FTE per annum submitted for the SEMOpx price control. In order to align with the enduring TSO price control cost allowances, SEMC has decided to reduce the overhead allowance per FTE for SEMOpx by €2,500 per annum.

- A revision of the allowance for market monitoring systems, to account for SEMOpx's requirements under REMIT. Additional redundancy was built into SEMOpx's initial submission of €43,000, so a revised allowance of €22,000 has been provided.
- A revision of allowed FTE costs to align with those considered efficient for SEMO, the two licensees being operated via a combined resource pool. This allowance reflects new information obtained via the SEMO price control discussions and represents a comparable average cost of €82,010 per FTE based upon historic costs of SEMO inflated using appropriate wage indices from the last comparable price control period. This compares to a draft determination of €84,000 per FTE which reflected that proposed by SEMOpx, and considered comparable at that time with average allowed costs provided in the wider EirGrid and SONI TSO price controls.

SEMC Decision				
	Pre Go-Live (@ 20%)	May '18 to Sep '18 (100%)	Oct '18 to Sep '19 (100%)	Total
2017 monies	€	€	€	€
<b>Labour costs</b>	€134,000	€382,000	€1,146,000	€1,662,000
<b>Overheads</b>	€45,000	€205,000	€614,000	€865,000
<b>Ongoing Contract Services and Market Coupling Costs</b>	€ -	€475,000	€1,426,000	€1,901,000
<b>Total</b>	<b>€179,000</b>	<b>€1,062,000</b>	<b>€3,186,000</b>	<b>€4,428,000</b>

Table 2, SEMC Decision

### 1.5 I-SEM Implementation Costs

As part of the establishment of SEMOpx a number of costs have been incurred;

1. Costs of specific NEMO systems for the I-SEM (implementation costs).
2. The ongoing day to day costs of running the NEMO, which is the subject of this Final Determination.

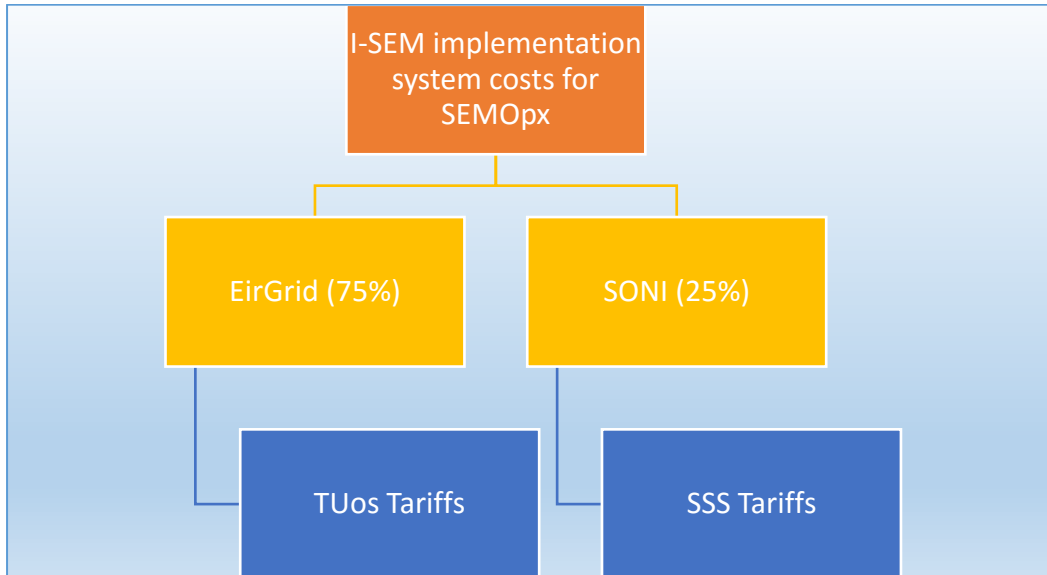
These ongoing day to day costs also include costs for activities undertaken by SEMOpx prior to I-SEM go-live on 23<sup>rd</sup> May 2018. These reflect the resources necessary to undertake registrations and auctions as well as operating the systems to ensure effective trialling and testing is undertaken. It is considered that 80% of these costs will be recoverable through TSO tariffs as part of the overall capitalised implementation costs, with 20% being reflective of operating the new market in table 2 recoverable from the SEMOpx price control.

### Implementation Costs for NEMO Systems

EirGrid and SONI have submitted capital costs and project costs associated with overall I-SEM implementation. This includes costs associated with establishing the specific NEMO systems. The NEMO establishment costs include costs associated with the Day Ahead trading platform. These NEMO establishment costs do not include the operational costs referenced as Pre Go-Live in this

paper which include staff costs required by market trial and testing and the resources required prior to go live. These Pre Go-Live costs are set out separately in subsequent sections of this paper.

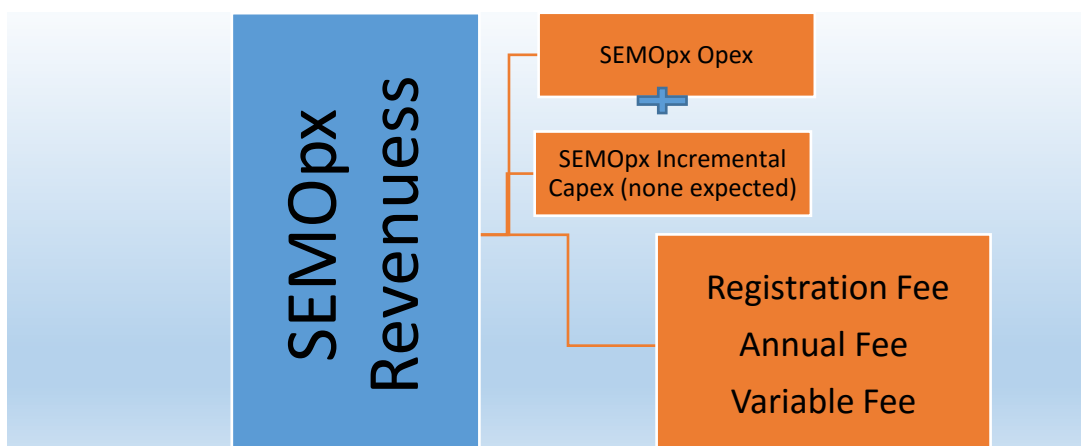
As per SEM-17-044 it was decided that implementation costs for SEMOpx would be recovered via the TSO’s RABs at an agreed proportion of 75% to EirGrid and 25% to SONI. Each amount will attract the prevailing WACC of the TSOs for SONI and for EirGrid and will be recovered through TUoS and SSS tariffs respectively.



### SEMOpx revenues

As the implementation costs of SEMOpx are being recovered via the TSO’s RABs, the focus of this Final Determination paper is on the ongoing Operating Costs of SEMOpx. SEMOpx have not submitted any incremental Capital Expenditure i.e. above and beyond what has been reviewed as part of the overall I-SEM implementation costs.

These costs will be reimbursed via the range of NEMO charges, which will include a registration fee, annual fee and variable fee and which are set out in the tariff section 4 below. As per the Market Operator licences granted to EirGrid and SONI, a NEMO Statement of Charges must be published, including a price list which shall be based on this Decision Paper.





## 2 SEMOpx Costs

As part of the revenue control process, SEMOpx completed a business plan questionnaire to provide an estimate of the level of costs that would be required to operate the NEMO from 'Go-Live' of I-SEM, 23<sup>rd</sup> May 2018, to the end of its designation as NEMO, 3<sup>rd</sup> October 2019. As part of this questionnaire SEMOpx was also required to provide supporting narrative on the key assumptions surrounding its estimates.

	Pre Go-Live (@ 20%)	May '18 to Sep '18 (100%)	Oct '18 to Sep '19 (100%)	Total
<b>2017 monies</b>		€	€	€
<b>Labour costs</b>	€ 136,000	€ 390,000	€ 1,169,000	€ 1,695,000
<b>IT &amp; Telecommunications</b>	€0	€ 25,000	€ 75,000	€ 100,000
<b>Facilities &amp; Insurance</b>	€ 22,000	€ 60,000	€ 181,000	€ 263,000
<b>Recruitment, HR and Admin costs</b>	€ 16,000	€ 32,000	€ 95,000	€ 143,000
<b>Finance and Regulation costs</b>	€0	€ 67,000	€ 200,000	€ 267,000
<b>Corporate costs</b>	€ 10,000	€ 143,000	€ 428,000	€ 581,000
<b>Contract Services and Market Coupling</b>	€0	€ 455,000	€ 1,362,000	€ 1,817,000
<b>Total</b>	€ 184,000	€ 1,172,000	€ 3,510,000	€ 4,866,000
<b>Period</b>	6-12 months prior to launch	4 months	12 months	16 months

**Table 3, SEMOpx Submission**

From table 3 above, Pre-Go Live costs for SEMOpx relate to operational staff and staff related costs for 6-12 months prior to launch, facilitating market registration for example.

SEMOpx has submitted a revised figure for contract services and market coupling costs for the period of this price control, outlined below;

	Pre Go-Live (@ 20%)	May '18 to Sep '18 (100%)	Oct '18 to Sep '19 (100%)	Total
Contract Services and market coupling costs	0	€475,000	€1,426,000	€ 1,901,000

**Table 4, updated ongoing implementation costs**

The next sections of this paper consider each of the individual cost drivers associated with SEMOpx, responses received on each of the RA's proposals and the SEMC's final decisions on allowable costs in each area.

## 2.1 Pre Go-Live Costs

### *Submission Summary:*

Pre-Go-Live costs represent a proportion of staff and staff related costs for I-SEM readiness which are being incurred by SEMOpx prior to the implementation of this price control. These costs reflect the staff that are estimated to be necessary to be in place to facilitate market registration and auctions etc. prior to I-SEM Go-Live. A number of staff are required for initial registration and to be in place up to 12 months prior to implementation of I-SEM.

### *SEMC Draft Determination Proposal:*

The Pre Go-Live costs outlined in the Draft Determination paper reflected the operational staff required to complete the tasks in readiness for I-SEM Go-Live but incurred prior to the commencement of this price control.

As operational costs, they do not form part of the I-SEM implementation costs by their nature and 20% of costs related to SEMOpx will be recovered through the SEMOpx price control. They represent a reasonable level of costs that are to be treated as “operational” under applicable International Accounting Standards. The activities included for Pre-Go Live costs include;

- Participant Registration
- Facilitate market auctions ahead of go-live
- Recruitment of staff in preparation for Go-Live

The SEMOpx team are recruited 6 – 12 months prior to go-live to undertake these tasks.

### *Summary of Responses:*

- Viridian notes that no detail has been provided in this paper to market participants on the makeup of establishment costs for SEMOpx, and no consultation has occurred on this issue.
- Viridian has requested detail on the accounting standards related to the treatment of Pre Go-Live costs and the recovery of 20% of such costs through the SEMOpx price control.
- Bord Gáis Energy stated that it is unclear at what point the full costs of establishing the I-SEM will start being recovered through TUoS and SSS tariffs, and requested that this information is published as soon as possible given the potential impact on end customers. Bord Gáis Energy would also like to see further information on the capitalised element of pre go-live costs.

### *SEMC Response and Decision:*

Pre-Go Live costs are considered separately by category in each of the following sections of this paper. Total Pre-Go Live costs related to SEMOpx are estimated to be €921,000. In line with International Accounting Standards (IAS 16), 20% of these costs are deemed to be operating costs with the remainder being capitalised along with other SEMOpx establishment costs and placed on the TSO’s RAB. This means that for the purpose of this price control, overall Pre-Go live costs submitted were 20% of €921,000, i.e. €184,000.

In terms of the implementation costs for SEMOpx, as these will be recovered via the TSOs they are not considered within this revenue control and are out of scope of this Final Determination paper.

## 2.2 Labour costs

### *Submission Summary:*

In order to establish the level of resources required for this price control period, SEMOpx has assessed the various roles required to undertake the necessary scope of activities and the numbers of people required to fulfil those activities.

Detail on the rationale for each resource has been provided in SEMOpx's submission. A summary of the activities of each proposed resource is provided in the Draft Determination, SEM-17-053.

	Pre Go-Live (@ 20%)	May '18 –Sep '18	Oct '18- Sep '19	Description
<b>Labour Costs</b>	€136,000	€390,000	€1,169,000	These relate to directly incurred labour costs for 10.65 FTEs across participant management, vendor management and support services along with 2 externally managed resources <sup>1</sup>

**Table 5, SEMOpx labour submission**

### *SEMC Draft Determination Proposal:*

In relation to the cost of labour proposed, the SEM Committee considered the cost of employment in comparison with other recent price control determinations conducted by the RAs and SEM Committee for EirGrid, SONI and SEMO and concluded that the SEMOpx labour costs are broadly comparable to these price controls.

These labour costs assume an ability to utilise a single team across a number of activities. Currently the SEM Committee is not of the view that any such separation of SEMO and SEMOpx is required given that the SEMOpx function is a licence condition of SEMO, noting that the revenue allowances are being set separately.

Based on the SEM Committee's benchmarking and analysis with available data on comparable NEMOs, it is its view that the expectation of the number of resources to undertake the NEMO activities post I-SEM implementation to be reasonable for the period of the designation.

Whilst for the purposes of consultation the SEM Committee was of the view that it is imperative that a robust resourcing requirement is in place for I-SEM go live, this is not to say that such a resource may be required after the initial bedding in period i.e. the medium to long term.

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<sup>1</sup> SEMOpx has provided clarification on this breakdown following an error in total FTE costs versus externally managed resources in their original submission.

2017 monies	Pre Go-Live	May '18- Sep '18	Oct '18 –Sep '19	Total
SEMOpX submission	€136,000*	€390,000	€1,169,000	€1,695,000
SEMC Draft Determination proposal	€136,000	€390,000	€1,169,000	€1,695,000

**Table 6, labour costs**

\*This is 20% of the total directly incurred labour costs reflecting the proportion of costs not capitalised.

*Summary of Responses:*

- In their response, Viridian commented that the average labour cost per FTE is quite high and sought further clarification on the makeup of these costs and the split between direct and indirect labour costs. Viridian also requested clarity on benchmarking analysis that had been conducted and whether the level of resources proposed was required in both the short and longer term.
- Given the statement that there will be no restrictions between SEMO and SEMOpX in relation to sharing of premises and personnel, Viridian has requested clarity of where costs have been re-allocated from SEMO and the TSOs.
- BGE welcomes that consideration that has been given to maximising synergies and economies of scale in terms of the use of resources across the entirety of SEMO and SEMOpX.
- One respondent noted that it is not clear to what extent the service contracts between EirGrid/SONI and EPEX/ECC cover a number of the functions provided for under other labour, finance and regulation, and corporate costs line items.
- SSE note that a number of the support services would typically be covered by central services from EPEX/ECC rather than the local exchange function.
- SEMOpX welcomes the RA's proposal to provide labour costs consistent with that sought by SEMO. SEMOpX notes that the ability to utilise a single team across a number of activities shared with SEMO and cost savings in terms of resources are driven by centralised systems and associated IT support arrangements which are provided across the Group.
- ESB GWM is of the view that the resourcing of SEMOpX is critical at the start of I-SEM as it is important to have expert resources available to work with the market in the first year of market operation.

*SEMC Response and Decision:*

Average labour costs per FTE were €84,000 in SEMOpX's submission which were compared to the enduring price controls for EirGrid and SONI. For the 12 month period from October 2018 to October 2019, this is broken down into 6.15 full-time equivalent market professionals/senior analysts and 4.5 full-time equivalent Senior Market Professionals (included within this category is the SEMOpX Manager (0.5 FTE)). The figure is an average across all FTEs and includes salary costs, bonuses, social security payments and pension costs. There are also 2 specialist full-time equivalent agency staff proposed.

One FTE in this instance reflects the allocation of time equating to one resource in the SEMOpX price control, however this may be comprised of multiple resources working across a number of activities

shared with SEMO which is where a number of synergies have been realised. Based on this, the FTEs are a blend of direct and indirect labour costs, with direct labour costs being related to functions specific to SEMOpx and indirect labour costs being those incurred at a group level.

A detailed submission has been provided by SEMOpx on the functions and responsibilities of each proposed FTE and through a review of each function and benchmarking with comparable entities the SEMC is satisfied with the level of resources for SEMOpx, at least for the initial designation period. SEMOpx has provided an overview of the interfaces between SEMOpx, its outsourced parties and participants and on request from the RAs also provided a detailed overview of each role and how they would interact with EPEX and ECC. Benchmarking was conducted by the RAs against available data for similar market entities in terms of the number and scope of resources, and against the TSO and MO price controls in terms of resource costs. Should revenue regulation continue beyond the designation period for SEMOpx, resource levels will be further reviewed for efficiency.

From additional analysis conducted as part of the future SEMO price control, the SEMC is of the view that an allowance of only €82,010 is appropriate for each internal resource identified. This reflects the fact that SEMO and SEMOpx activities will be performed from a shared resource pool and reflects the actual historical costs of SEMO indexed to today's equivalent using appropriately reflective wage indices<sup>2</sup> which reflect wage inflation by sector for NI and ROI.

Using historical costs for SEMO, the RAs have calculated a real inflation figure for ROI and NI separately using RPI to adjust NI wages and CPI to adjust ROI wages. This has been applied to each average FTE cost for the 2013/14 SEMO FTE costs by grade, and extrapolated based on historical data for the duration of this price control and the staff mix of SEMOpx. These figures were then weighted on a 75:25 basis to provide a composite average FTE cost figure at each grade.

SEMC has decided to allow a staff cost as follows within the overall revenue allowance:

2017 Monies	2017/18 Pre-Go-Live	May 2018 - Sept 2018	Sept 2018 - August 2019	Total
SEMOpx submission	€136,000	€390,000	€1,169,000	€1,695,000
Costs disallowed	(€3,000)	(€8,000)	(€23,000)	(€33,000)
<b>SEMC Decision</b>	<b>€134,000</b>	<b>€382,000</b>	<b>€1,146,000</b>	<b>€1,662,000</b>

**Table 7, staff costs**

## 2.3 Facilities costs & Overheads allocated to NEMO

### *Submission Summary*

SEMOpx has estimated the overheads necessary to support its operation. These are in respect of the areas outlined in table 8. Please note that pre Go –Live Costs are at 20% of each of the individual cost drivers reflecting the proportion of costs supporting operational activities in preparation for the new market opening e.g. 20% of €109,000 for Facilities and Insurance. SEMOpx's submission is detailed below.

<sup>2</sup> The Northern Ireland data was sourced from the Northern Ireland Statistics and Research Agency and the Ireland data from the Central Statistics Office (CSO)

	Pre Go-Live (@ 20%)	May '18 –Sep '18	Oct '18- Sep '19
<b>IT and Telecommunications</b>	0	€25,000	€75,000
<b>Facilities and Insurance</b>	€22,000	€60,000	€181,000
<b>Recruitment, HR and Admin</b>	€16,000	€32,000	€95,000
<b>Finance and Regulation</b>	0	€67,000	€200,000
<b>Corporate Costs</b>	€10,000	€36,000	€106,000
<b>Facilities/overhead totals</b>	<b>€48,000</b>	<b>€220,000</b>	<b>€657,000</b>

**Table 8, facilities & overheads costs**

*SEMC Draft Determination Proposal*

When compared against the enduring Price Controls on a per annum basis the overhead costs submitted for SEMOpx appeared to be 1.7 times the overhead cost of an FTE under the enduring Price Controls i.e. €36,000 versus €21,000. In the Draft Determination the SEM Committee proposed reducing this revenue accordingly.

In respect of IT & Telecommunications and Finance and Regulation costs, these reflect specific systems maintenance and expected audit requirements where an assessment of the costs can be made from similar activities. However, from the ongoing review of I-SEM set up costs the development of a market monitoring tool is now considered out of scope. In the Draft Determination paper, the SEM Committee proposed that IT support costs, amounting to €32,000 per annum should be removed from the revenue allowance.

2017 monies	Pre Go-Live	May '18- Sep '18	Oct '18 –Sep '19	Total
SEMOpx submission	€48,000	€220,000	€657,000	€925,000
RA reduction of market surveillance system support	€0	(€11,000)	(€32,000)	(€43,000)
Reduction in overhead allocation	(€13,000)	(€50,000)	(€151,000)	(€214,000)
<b>SEMC Draft Determination Proposal</b>	<b>€35,000</b>	<b>€159,000</b>	<b>€474,000</b>	<b>€668,000</b>

**Table 9, proposals on facilities & overheads**

*Summary of Responses:*

- SEMOpx acknowledges that the development of a dedicated market monitoring tool has been de-scoped from I-SEM implementation, however a tool to conduct data analysis ahead of an enduring solution would still be required by SEMOpx as it will not be utilising systems operated by EPEX in order to meet its obligations for reporting under REMIT. EPEX will not be providing Market Monitoring Services or tools to SEMOpx but will provide SEMOpx with access to market data. Based on this, SEMOpx have stated that systems will be required in order to obtain and interrogate data for reporting.
- In terms of SEMOpx's response for Market Surveillance Costs, SEMOpx has clarified that this represents the IT application costs allocated to SEMOpx related to data analysis. The cost

submitted is based on a sample licence cost for a business intelligence tool which would be required for data analysis.

- SEMOpx has provided further information on the breakdown of overhead costs between SEMOpx and other licensed businesses within the EirGrid Group in order to compare each licenced business on a like for like basis in terms of overheads. SEMOpx asserts that the costs reported for overheads across the different price controls are not set out on a like for like basis, for a number of reasons. Firstly, HR and Procurement services are a direct service in the TSO and are included within 'staff costs' in the respective SONI and EirGrid price controls, but are allocated from EirGrid as overheads to the MO and SEMOpx and are included in the Overhead or Corporate Services categories in these price controls. A number of legal and public affairs costs are also treated in this way. Secondly, the treatment of facilities costs differs between the SONI TSO and EirGrid TSO price controls. In the SONI price control, facilities are owned by SONI and so form part of the RAB, while for the EirGrid price control costs are subject to lease treatment and are treated as part of Opex costs. As a hybrid arrangement SEMO only includes lease treatment of facilities for the 75% allocation of staffing to SEMO by EirGrid, and SEMOpx has facilities costs treated consistently with the SEMO arrangements.
- SEMOpx have provided calculations that show that based on a comparison of blended EirGrid TSO (75%) and SONI TSO (25%) overhead costs, on a FTE basis overheads amount to €22,500 for enduring TSO price controls versus €25,000 for a SEMOpx 12 month equivalent.
- Bord Gáis Energy supports the RA's proposed reduction in overheads along with the proposed reduction in market surveillance costs, and is of the view that the enduring system operator and market operator price controls are appropriate comparators.
- Viridian requested more detail on the benchmarking analysis carried out including comparisons to other NEMO entities in the UK and Europe.

#### *SEMC Response and Decision:*

The SEMC acknowledges further information submitted by SEMOpx in relation to its proposed costs for market surveillance system support. SEMOpx has stated that it is not the case that it will utilise systems operated by EPEX and EPEX will not be providing market monitoring services or tools to SEMOpx. SEMOpx will only have access to EPEX data and will be required to comply with REMIT reporting.

Given SEMOpx's likely interim strategy of utilising existing systems whilst a longer term solution is developed, the SEMC expects the costs of this time limited solution to be lower than the €43,000 proposed by SEMOpx. In terms of IT application costs allocated to SEMOpx, the total annual cost to the EirGrid Group was estimated at 100k of which 33% was allocated to SEMOpx, giving a total cost for the 16 month period of €43,000. This is based on a sample licence cost for a business intelligence tool which would be required for data analysis with a cost of €4,200 per node per month.

Redundancy arrangements have been included by SEMOpx in this figure amounting to two nodes per Business Intelligence tool being utilised for market monitoring rather than one node, with a cost per node of €4,200 per month (with two nodes being €8,400 per month). SEMC has decided to allow a reduced amount for this solution, with any further development of a market surveillance and reporting system to be considered as part of the Day 2 Project. It was proposed the cost of the system would be split between SEMO and SEMOpx. On this basis SEMC has approved an allowance of €21,000 for market surveillance.

Benchmarking of overhead costs for SEMOpx was carried out using the enduring TSO price controls for SONI and EirGrid as comparators. The RAs received further analysis and information from SEMOpx in relation to overhead allocations across the TSO, MO and SEMOpx price controls. The SEM Committee consider this a material issue and as of the Draft Determination requested more information and evidence to support the comparison with other price control allowances and costs that have been excluded from TSO overheads but reflected in the SEMO and SEMOpx recharges.

In their response, SEMOpx explained that corporate costs can be considered in two ways - Corporate Overheads and Corporate Services – within the various price control allowances:

- Corporate Overheads – These are common to the TSO, MO and SEMOpx price controls and are allocated to each licensee based on a consistent set of principles.
- Corporate Services - These include Human Resource Services, Procurement and a number of legal charges<sup>3</sup> which are directly undertaken and incurred by the TSOs themselves but recharged to SEMOpx for services not directly undertaken by SEMOpx.
- In addition, premises costs are treated differently in the EirGrid TSO and SONI TSO price controls, and facilities costs in the SEMOpx price control are a hybrid of these arrangements.

As per the updated analysis submitted by SEMOpx, taking account of the differences in how corporate overheads and corporate services are allocated between the TSO, MO and SEMOpx price controls, overheads amounting to €22,500 per FTE per annum were justified for enduring TSO price controls (on a blended 75 to 25 basis) versus €25,000 per FTE per annum for the SEMOpx price control. In order to align with the enduring TSO price controls, SEMC has decided to reduce the overhead per FTE by €2,500 per annum.

SEMC’s decisions regarding overheads are outlined in table 10 below. These can be compared to table 9 above which outlines the draft determination proposals.

2017 monies	Pre Go-Live	May '18- Sep '18	Oct '18 –Sep '19	Total
SEMOpx submission	€48,000	€220,000	€657,000	€925,000
RA reduction of market surveillance system support	€0	(€6,000)	(€16,000)	(€22,000)
Reduction in overhead allocation	(€3,000)	(€9,000)	(€27,000)	(€38,000)
<b>SEMC Decision</b>	<b>€45,000</b>	<b>€205,000</b>	<b>€614,000</b>	<b>€865,000</b>

**Table 10, SEMC Decision on Facilities and Overheads**

## 2.4 Ongoing Contract Services and Market Coupling costs

### *Submission Summary:*

These costs reflect the monies paid to third parties in respect of supporting systems and other industry costs associated with operating as a NEMO.

SEMOpx have also included costs associated European market costs which have been approved and allocated on a pan-European level and as such will be treated on a pass through basis to users. The SEM Committee has verified these costs at CACM Task Force level.

<sup>3</sup> These legal charges include an allocation of the executive director’s time, company secretarial support, management of external legal advice to SEMOpx and Corporate legal support to SEMOpx



NEMO committee costs are split across 19 NEMOs with EirGrid and SONI each being allocated 1/19<sup>th</sup> each of the total estimated cost. While EirGrid and SONI intend to operate SEMOpx on a joint venture basis, they are considered separate by the NEMO Committee.

Price Coupling Region (PCR) Operation costs related to the Euphemia algorithm have not yet been allocated but SEMOpx have estimated these as a percentage of the volumes in the SEM of the 27 Member States. Market Coupling Region (MCR) costs have not yet been estimated and therefore no estimate has been submitted for this revenue control.

	Pre Go-Live (@ 20%)	May '18 – Sep '18	Oct '18- Sep '19	Description
<b>Contract services and market coupling costs</b>	0	€455,000	€1,362,000	Associated costs for outsourcing, NEMO committee, PCR and market coupling.

**Table 11, estimated costs provided as part of the Draft Determination**

*SEMC Draft Determination Proposal:*

At the time of the Draft Determination it was expected that the majority of these cost drivers would be outside of the control of SEMOpx, and that updated third party costs would be known ahead of the Decision Paper. At the time of publication the SEM Committee included an estimated allowance for the purpose of calculating indicative tariffs and providing an overview of costs to market participants, but did not give a view on these costs due to the ongoing negotiation on these costs.

*Summary of Responses:*

- Viridian suggest that allocating 1/19<sup>th</sup> of the costs of the NEMO committee to each of EirGrid and SONI is not an appropriate cost-splitting methodology. Viridian also suggested that PCR costs should be treated as pass-through given their current uncertainty.
- One respondent is of the view that it is not clear to what extent service contracts between EirGrid/SONI and EPEX/ECC cover other SEMOpx line items related to labour and overheads versus outsourced services. They stated that while they recognise that limited detail can be provided on the service contracts for third parties by the RAs, they would hope that where possible and useful, centralised service provisions are being secured by SEMOpx.
- SEMOpx acknowledges the uncertainty over third party costs and welcomes the RA’s proposal to treat costs outside of the control of SEMOpx, including CACM related costs, PCR costs and the NEMO Committee as pass through.
- SEMOpx notes in their response that the RA’s position regarding uncertain third party costs is based on the assumption that greater clarity on third party costs should be known at the time of the final tariff proposal with allowed costs in this area being updated accordingly in the final determination. However, if third party costs are negotiated after the tariffs are finalised, these costs will fall under the ex-ante revenue cap and will have to be managed by SEMOpx.
- As these third party costs are a notable component of the overall revenue requirement of SEMOpx, and clauses in the contracts with third parties may require contract renegotiations where there is a ‘change of law’, change in regulatory provisions and a change in the competitive environment, SEMOpx is concerned about its exposure to costs associated with renegotiation of contracts. SEMOpx has requested clarity from the SEM Committee as to SEMOpx’s ability to re-open the control in this instance.

### *SEMC Response and Decision:*

As outlined in the Draft Determination paper, these costs reflect the monies paid to third parties in respect of supporting systems and other industry costs associated with operating as a NEMO. Other SEMOpx costs related to labour and overheads are outlined in preceding sections of this paper.

SEMOpx has provided a revised update of these costs, the first of which relate to its outsourced activities with EPEX (an established Power Exchange) and ECC (the Central Counterparty). It was decided that market coupling and trading operations functions would be provided by a power exchange that already has established capabilities, rather than building new 'in house' systems for SEMOpx. The aim of this approach was to deliver a lower cost solution for NEMO functionality.

Fees for the EPEX/ECC service providers have a fixed and variable element, which is linked to traded volumes in each market. An allowance was included in the Draft Determination for the purposes of determining tariffs, and was based on an estimated cost associated with such design. SEMOpx has now finalised these costs, which are higher than the estimate provided for the Draft Determination. This increase in costs is related to clarification of scope in terms of the market design, which requires a Day Ahead Auction, two cross border Intraday Auctions, one local Intraday Auction and local continuous trading.

NEMO Committee Costs relate to NEMO Committee Support and Chairman costs, which are split across 19 NEMOs with EirGrid and SONI each being allocated 1/19<sup>th</sup> of the total estimated cost. While EirGrid and SONI intend to operate SEMOpx on a joint venture basis, they are considered to be two separately designated NEMOs by the NEMO Committee.

Price coupling Region (PCR) Operation costs primarily relate to Euphemia and an estimated cost per year has been provided as part of this revenue control.

Based on the revised updates to these costs, the table below sets out the costs for the 16 months of this price control. This represents an overall increase of 5% in ongoing implementation costs compared to the estimates provided for the Draft Determination.

	<b>Pre Go-Live (@ 20%)</b>	<b>May '18 –Sep '18</b>	<b>Oct '18- Sep '19</b>	<b>Description</b>
<b>Contract services and market coupling costs</b>	0	€475,000	€1,426,000	Associated costs for outsourcing, NEMO committee, PCR and market coupling.

**Table 12, Contract services and market coupling costs**

The SEMC has decided to allow for the full amount in the Final Determination. The SEMC notes that where elements of negotiations with third parties are ongoing, any additional costs will be considered at the time of conclusion of these negotiations.

## 2.5 Capital Requirements

### *Submission Summary:*

In the Decision Paper on the revenue recovery principles for SEMOpx, it was stated that any incremental Capex would be reviewed and recovered through SEMOpx's price control.

No Capex was included in SEMOpx's submission as it is not envisaged that Business As Usual capex would be incurred in the first 16 month period of operation. In the Draft Determination paper the

SEM Committee outlined the principles for incremental Capex and no allowance was proposed for this price control.

*Summary of Responses:*

- Bord Gáis Energy requested clarity on how any incremental capex be incurred over the course of this price control would be recovered should it arise and requested that this be flagged to industry as early as possible given potential consumer price impacts.

*SEMC Response and Decision*

The SEMC does not envisage any incremental Capex over the period of this price control. As per the Decision Paper on the revenue recovery principles for SEMOpx, any currently unforeseen incremental Capex required by SEMOpx would first need to be reviewed and approved by the SEMC.

In principle any approved incremental Capex would be recovered through the SEMOpx price control rather than through the TSOs. A RAB-WACC approach would apply to any incremental Capex using the same blended WACC as per the SEMO price control.

If any incremental Capex was incurred during the period of this price control, the treatment of its depreciation (for example if it was depreciated over 5 years) would need to be considered in line with the treatment of over or under recovery by SEMOpx at the end of this price control.

**2.6 WACC to apply to SEMOpx for incremental Capex**

As per SEM-17-044 it was decided that an allowed revenue regime would apply to SEMOpx, with any incremental Capex being placed on SEMOpx’s Regulatory Asset Base (RAB). The SEMC has decided to use the WACC mechanism which currently applies to SEMO given that SEMOpx sits under the Market Operator licence. The blends the two System Operator WACCs in accordance with the specified proportions, currently 75% for EirGrid and 25% for SONI.

The price controls in question are the Utility Regulator’s Decision on the SONI Price Control from 2015-2020, which determined a WACC of 5.9%, and the CRU’s Decision on TSO and TAO Transmission Revenue for 2016 to 2020, which determined a WACC allowance of 4.95%.

WACC Rate	Specified Proportion	WACC Rate	Blended Rate for SEMOpx
EirGrid Transmission system Operator	75%	4.95%	5.19%
SONI Transmission System Operator	25%	5.9%	

**Table 13, TSO and SEMOpx WACC levels**

Any incremental Capex placed on SEMOpx’s RAB will be subject to a Weighted Average Cost of Capital (WACC) rate of 5.19% calculated using the WACC rates from the SONI and Eirgrid System Operator price control in line with the specified proportions.

Should revenue regulation continue beyond SEMOpx’s period of designation the future application of a WACC will be considered along with the form of revenue regulation to apply to SEMOpx.

## 2.7 Cost Uncertainty

### *Summary of Key Assumptions:*

SEMOpX provided its cost submission setting out a number of key assumptions:

- That I-SEM Go-live remains 23<sup>rd</sup> May 2018 and that I-SEM implementation costs remain recoverable through TSO TUoS and SSS tariffs in accordance with a prescribed split of 75% to EirGrid and 25% to SONI;
- That the price control underwrites the continuing efficient costs of providing a NEMO service for the designation period, irrespective of the market share that SEMOpX maintains;
- Material unforeseen costs that cannot reasonably be foreseen should be subject to separate provision e.g. costs resulting from subsequent changes in legislation or regulation; costs resulting from major or exceptional market change are excluded from the cost estimates submitted;
- SEMO and SEMOpX are operating on the basis that there are no restrictions concerning the sharing of premises, personnel or systems from each other or an affiliate or related undertaking.
- Some elements of the third party costs associated with the Power Exchange and Central Counterparty are not yet finalised;
- Any costs directly attributed to a participant have not been factored into these cost estimates but will be billed to them as a pass-through rather than socialising through tariffs;
- That exchange rate effects should be incorporated on a pass-through basis in line with the pre-existing standards in place for SEMO.

### *SEMC Draft Determination Proposal*

In the Draft Determination paper the SEM Committee set out how they propose to deal with areas of cost uncertainty in relation to the SEMOpX revenue control. The SEM Committee was of the view that where costs are capable of being managed by the licensee then the associated risks and opportunities should also reside with the licensee based upon an ex-ante allowance. This approach provides certainty and predictability for both SEMOpX and participants and consumers alike. It also provides incentives for SEMOpX to operate efficiently and reduce costs where possible.

However, where factors exist outside of SEMOpX's control or the implications cannot be reasonably predicted then the licensee should be protected from those cost increases, but in a way that still ensures they manage the implications in an efficient manner.

In the draft determination the SEM Committee sought to identify the areas raised by SEMOpX where it is of the view it is appropriate to pass on those risks and uncertainties in a manner that still ensures efficient management.

### *Summary of Responses:*

- In their response, Bord Gáis Energy requested clarity on how any changes in uncertain third party and industry costs would be recoverable by the NEMO following publication of finalised tariffs.
- In terms of uncertainty around estimated PCR costs, Viridian are of the view that these should be treated as pass-through in order to avoid the potential of under or over estimating and having to factor in risks associated with this.

- Viridian has also requested comfort that third party costs will be negotiated efficiently along with clarity on the treatment of these costs if they are not known at the time of the final decision.
- Viridian queried what the reference of ‘any costs directly attributed to a participant’ refers to and what the potential quantum of such costs is.
- Where changes to costs occur which are outside of SEMOpx’s control, for example in relation to third party costs, SEMOpx is concerned about its exposure to such costs and provisions to re-open the price control should it incur further costs as the new market evolves.

*SEMC Response and Decision:*

Under the ex-ante allowed revenue approach of this final determination, the SEMC has assessed the efficient costs associated with SEMOpx which are to be allowed. These efficient costs are approved by the SEM Committee and any differences may be recovered through a correction factor mechanism, subject to the treatment of risk set out below.

At the time of publication of this Final Determination paper, SEMOpx has submitted revised estimates of Third Party costs and is not of the view that these will change significantly during the price control period.

A number of respondents to the Draft Determination queried the treatment of uncertainty in relation to third party and industry costs. Final decisions in relation to the risks identified in the Draft Determination paper and provisions to manage these risk are outlined below.

<b>Risk</b>	<b>SEMC Decision</b>
<b>Change to I-SEM Go-live</b>	Should the Go-live date be subject to change the SEMC will review an appropriate apportionment of costs for the designation period with SEMOpx.
<b>Change in market share or additional costs associated with minimum volumes in auctions</b>	This price control underwrites the continuing efficient costs of providing a NEMO service for the designation period, irrespective of SEMOpx’s market share or additional costs associated with price floors for minimum volumes in each of the day ahead and intraday auctions. These arise where participation in the market is below contracted volumes and additional costs are incurred.
<b>Changes in legislation or regulation, major or exceptional market changes</b>	Where costs escalate either individually or in aggregate over the period of the price control above a material threshold of €0.250m due to any of these factors, a reopener to the price control will be carried out by the SEM Committee.
<b>Increase in costs from individual participant requirements</b>	Any incremental costs imposed on SEMOpx that can be directly attributable to a Participant, for example shipping costs charged to ICOs, should be incurred by the party imposing such costs and SEMOpx should be held cost neutral from such requests
<b>Exchange rate fluctuation</b>	Exchange rate fluctuations are not controllable in this context and can be passed through.
<b>Uncertainty in contract services and market coupling costs</b>	Where there is still uncertainty with regard to ongoing implementation costs, below a certain material threshold of €0.050m these risks will lie with SEMOpx based on its ex-ante allowance.

## ***K-Factor***

Any difference between forecasted and actual market demand, including market participation, or assumptions outlined in the table above will necessitate a balancing of the resultant over or under recovery experienced by SEMOpX at the end of this price control period and thus at the end of the initial designation period. As outlined in the Decision Paper on Revenue Recovery Principles, SEM-17-044, there are a number of possible scenarios for the treatment of any k factor;

1. **Scenario 1** - Over or under recovery by SEMOpX, where they continue in the market beyond the end of this Price Control period under a revenue regulated regime.
2. **Scenario 2** - Over or under recovery by SEMOpX, where they continue in the market without revenue regulation.
3. **Scenario 3** - Over or under recovery by SEMOpX, where market exit has occurred.

In **scenario 1**, the correction factor would be applied to SEMOpX and would be corrected via future regulated revenue streams. For example, if SEMOpX over-recovered or under-recovered its revenues as set out in the revenue control final determination to be published in November 2017 and it was decided that a second revenue control would apply, a correction factor would be applied to the revenue control for SEMOpX.

In **scenario 2**, where SEMOpX continues in the market but where sufficient competition has developed and it is decided that a revenue regulated regime will not apply, the treatment of any correction factor would need to be considered carefully in order to ensure that there is no distortion to a level playing field for competition. This correction factor could apply to SEMOpX or to SEMO given that the licence conditions pertaining to the NEMO are ascribed to the Market Operator licences. However, a decision will be made on this aspect of the treatment of any correction factor once the market conditions at the time are better known.

In **scenario 3**, where SEMOpX exits the market, any correction factor would be attributed to SEMO as the licence conditions pertaining to the NEMO are ascribed to the Market Operator licences.

SEMC is of the view that these methods of correcting any correction factor that may arise provides both certainty for the current price control and allows for delineation between the market circumstances pertaining to I-SEM go-live and the relevant articles in CACM relating to a competitive NEMO environment.

## 2.8 Proposed management fee

### *Submission Summary:*

In their submission, SEMOpX proposed a management fee representing 10% of the Opex cost base (including the management fee itself) related to the risks that the business bears. SEMOpX argue that this management fee is consistent with the lowest end of that which investors would expect in an 'A' rated business and equivalent to the upper end of BBB+/Baa and compare this to the EBIT margins of regulated postal services in the United Kingdom.

EirGrid and SONI applied for NEMO designation and agreed to the introduction of licence conditions in the Market Operator Licences. Under Article 76(3) of CACM, NEMOs are entitled to recover costs

which have not been borne by TSOs by means of fees or other appropriate mechanisms only if the costs are ‘reasonable and proportionate’. No reference is made to an appropriate level of return.

	Pre Go-Live (@ 20%)	May '18 –Sep '18	Oct '18- Sep '19	Description
<b>Proposed management fee</b>	€0	€107,000	€323,000	This represents 10% of the Opex cost base (including the management fee itself).

**Table 14, proposed management fee**

*SEM Committee Draft Determination Proposal:*

Taking account of the fact that the setup costs are being borne by the TSOs and will earn a return on capital through the respective TSO WACC's in the Draft Determination the SEM Committee did not agree with SEMOpx's assertion that a margin of 10% is required to compensate for the level of risk borne by SEMOpx, given the decision to capitalise costs via the TSOs and the fact that the price control is being conducted as an ex-ante allowed revenue regime, with a number of provisions to manage risks as outlined in the preceding section of this paper.

In addition, the SEM Committee noted that it is SEMO that is obligated to undertake NEMO functions as a licence condition, and that whilst SEMOpx refer to the 10% management approach as being consistent with an investment grade rating for SEMOpx on a standalone basis, SEMOpx cannot raise finance as it is not a separate legal entity. As such, an investment grade rating was not considered necessary by the SEM Committee. On this basis the SEM Committee was of the view that, whilst minded to ensure recovery of SEMOpx's efficient operating costs in setting tariffs, any management fee was removed for the purpose of the Draft Determination paper, noting previous statements in relation to establishment costs.

Having considered this aspect carefully the SEM Committee was of the view that the return via the TSOs RAB WACC remunerates EirGrid/SONI for the risk borne in undertaking the functions of a NEMO. In addition, as SEMOpx sits under the Market Operator licence the SEM Committee does not view it as a requirement to be separately financeable without reference to appropriate and necessary linkages to the total remuneration of SONI and EirGrid.

*Summary of Responses:*

- Bord Gáis Energy agrees with the RA's minded to position to remove any management fee, given that there is no model to determine a suitable margin and the use of benchmarking is not entirely appropriate in SEMOpx's case.
- Viridian agrees with the proposed decision not to allow the 10% management fee given that there is full underpinning of Opex via tariffs and of Capex via reallocation to TSO RABs. However Viridian is of the view that after the recovery period of the SEMOpx establishment costs this should be reviewed. Viridian also suggests that in future, following recovery of the SEMOpx establishment costs, analysis will have to be performed to determine the correct level of return for SEMOpx in the context of the market at that time.
- One respondent is of the view that the SEMOpx business primarily relates to the management of external contracts with third party service providers for the NEMO functions, and thus it is difficult to see the additional risk SEMOpx is facing that would require additional returns in excess of the RAB-WACC approach.
- SEMOpx puts forward a number of arguments against the SEM Committee's proposal. While SEMOpx supports the SEM Committee's proposed treatment of SEMOpx's setup costs, an approach which is consistent with the scope of CACM, they are of the view that the SEM

Committee's proposal entails the separately licensed and regulated TSOs compensating SEMOpx for the level of residual risk borne by the entity. SEMOpx's view is that this constitutes a potential breach of the conditions in the respective TSO and MO licences precluding cross-subsidies between the licensees and may be incompatible with CACM.

- In its response, SEMOpx argues that the application of a margin approach does not carry the risk of double counting, and no evidence has been provided to demonstrate this.
- In response to the statement by the SEM Committee that '*SEMOpx is a function being carried out by SEMO which is part of wider TSO businesses. Therefore, it benefits from the capital raising ability of its parent entities via higher gearing and credit ratings*', SEMOpx argues that while legal and corporate entities raise funding, the requirement of the regulatory framework is to ensure that each licensee is financeable on a standalone basis.
- SEMOpx also argues that none of the statements by the SEM Committee identify it as a risk free entity and it should be remunerated consistent with the operation of its business.

#### *SEMC Response and Decision:*

This issue has been carefully considered. Given the consideration above with regard to cost uncertainty, the SEMC is of the view that the assets that relate to SEMOpx will earn a return through EirGrid's and SONI's TSO RABs and that SEMOpx has not demonstrated any additional risk associated with its business that merits a margin of 10% on controllable operating costs. The capitalisation of implementation costs related to SEMOpx via the TSO's RAB provides remuneration of risks in terms of raising necessary finance. In addition, there is no requirement for SEMOpx to be financeable entirely separately, as it is a function of, and exists as a licence condition within, the MO licences granted by CRU and UR. The SEMC will further consider the overall financeability of the Market Operator, SEMO, as part of the Final Determination for SEMO to be published in January 2018.

SEMOpx argues that the RA's proposed approach may constitute a potential breach of the conditions in the TSO and MO licences precluding cross-subsidies between the licensees. SEMC does not concur with this view. The MO and TSO licences are held by the same licensees i.e. EirGrid and SONI. In addition, it is noted that the I-SEM implementation costs, which include implementation costs associated with SEMOpx, are to be recovered via the TSOs RABs. If there was a legitimate concern regarding cross-subsidies then this would also apply to the implementation costs. This practice was in place for the establishment of the SEM and is also reflected in the Draft Determination.

The SEMC is conscious of CACM in all decisions related to the designated NEMO and, as outlined in the Decision Paper on the price control principles to apply to the designated NEMO, the SEMC is comfortable with the approach that has been taken and its consistency with CACM.

A number of measures to mitigate cost uncertainty for SEMOpx are set out in section 2.7 of this paper, aimed at managing risks associated with regulatory and legislative changes, changes to go live, risks associated with SEMOpx's market share and additional costs for minimum volumes in auctions and uncertainty in relation to third party costs. In SEMOpx's response to the draft determination paper no quantitative breakdown of risks for SEMOpx were provided or information on risks being managed through SEMOpx's third party providers. On this basis, the SEMC has decided to remove the management fee of 10% as proposed by SEMOpx, however the overall financeability of SEMO under the MO licences will be considered as part of the separate SEMO Final Determination.



## 2.9 Final Revenue Decision

Having conducted a review of the NEMO costs proposed by SEMOpx, including labour, overheads, ongoing implementation costs as well as the application of a management fee, the SEM Committee has decided to allow for the recovery of efficient operating costs as follows:

	Pre Go-Live	May '18 to End Sep '18	Oct '18 to End Sep '19	Total
2017 monies	€	€	€	
<b>SEMOpx proposals</b>	€184,000	€1,172,000	€3,510,000	€4,866,000
Reduction in market surveillance system support		(€6,000)	(€16,000)	(€22,000)
Reduction in overhead allocation	(€3,000)	(€9,000)	(€27,000)	(€38,000)
Reduction in labour costs	(€2,000)	(€8,000)	(€23,000)	(€33,000)
Removal of management fee		(€107,000)	(€323,000)	(€430,000)
<b>Revised Ongoing Contract Services and Market Coupling Costs</b>		21,000	63,000	84,000
<b>SEMC Decision</b>	<b>€ 179,000</b>	<b>€ 1,062,000</b>	<b>€ 3,186,000</b>	<b>€ 4,428,000</b>

Table 15, Decision on SEMOpx Revenues

### 3 Performance standards for SEMOpx

#### *SEMC Draft Determination Proposals:*

As part of the Draft Determination Paper the SEM Committee considered a range of performance standards that should apply to SEMOpx given its role in the I-SEM design. A number of these performance standards are currently in development through for example, the SEMOpx publication requirements as set out in the SEMOpx Rules as well as in tandem with the RA’s market surveillance role.

At this time, the SEM Committee is cognisant that this Price Control is limited in duration, and that the application of performance standards may, in normal practice necessitate a “bedding in” period. In addition, as per the revenue principles in SEM-17-044 there is no certainty that the SEM Committee will continue to revenue regulate SEMOpx beyond this initial price control period. This creates a level of uncertainty on how any financial aspect of incentive related performance standards would apply including how any financial based incentives would be applied if the SEM Committee did not have a role in the continued financial regulation of SEMOpx.

The SEM Committee proposed that a broad range of performance standards should be introduced. The proposed performance standards are outlined below and are influenced by the current work ongoing through the SEMOpx Rules and Data Publication Guide.

Performance Standard	Definition
Timely and accurate delivery of data publications and performance of market monitor	Timely and accurate delivery of reports as per the specifications for set out in the Data Publication Guide and provision of accurate data to RAs in a timely manner if irregularities in the market are noticed.
Timely delivery of market results	Publication of accurate Market Results for the day ahead and intraday markets in line with the timelines outlined in the Data Publication Guide and SEMOpx Operating procedures. Timely is defined as meeting the specification for the time after the trading period for publication of preliminary and final market results.
General queries and customer service	Queries and customer service issues resolved within a certain number of business days

#### *Summary of Responses:*

- Bord Gáis Energy is of the view that given that SEMOpx is the exclusive route to market for day-ahead and intraday auctions, platform reliability is critical, and has proposed a KPI related to platform availability and reliability. The timely delivery of market results is also of significant importance to BGE. BGE has also requested that any KPIs applied from I-SEM go-live will be reviewed if SEMOpx is re-designated as a NEMO from 2019.
- Viridian expressed concern that SEMO KPIs all relate to delivery within a prescribed time, without reference to the quality of what is delivered. Viridian has requested further clarity in terms of the quality of reporting required.

- ESB GWM agrees that the implementation of some key performance indicators is useful and that it is appropriate to incentivise SEMOpx on these KPIs, and believes that systems availability and publication of results in a timely manner is very important. ESB GWN supports the range of KPIs set out by the SEM Committee but believes that there needs to be a financial element in order for them to be as useful as possible.
- Brookfield Renewable requested clarity on the performance standards and implementation timelines for these, and requested that KPIs are prescriptive and reported on regularly. Brookfield Renewable also noted reference to the SEMOpx Operating Procedures and highlighted that the document is currently in draft format.
- SEMOpx believes that it is important the a NEMO price control appropriately incentivises the business to deliver high quality service levels, however it may be difficult to assess appropriate metrics for incentivisation given the requirement for a sufficient bedding in period and the short price control period.
- SEMOpx has stated in its response that the suggested KPIs will be included in performance standards which are currently under development and which will be reflected as obligations in the SEMOpx Rules, Operating Procedures and Data Publication Guide.
- While SEMOpx considers that the suggested KPIs are reasonable and will be appropriate once SEMOpx is stable, it has highlighted its potential reliance on external bodies for the delivery of KPIs – both its service provider and on other European bodies.

#### *SEMC Response and Decision:*

SEMC has considered the additional KPIs proposed by respondents and based on comments received will also introduce a performance standard for platform availability and reliability. In terms of the quality of delivery of reports and data, one of the performance standards proposed focuses on timely and accurate delivery of reports and market results.

It has been noted in the responses that no weightings or incentive mechanism were proposed in the Draft Determination paper. At this stage SEMC considers that it is reasonable to introduce performance standards that can be tracked during this price control with the aim of introducing KPIs with set targets, weightings and incentive mechanisms should a price control continue to apply to SEMOpx following the initial designation period.

These performance standards are outlined below and the SEM Committee will engage further with SEMOpx on implementing a method of tracking and reporting on these from I-SEM go live until the end of this price control in order to inform the development of any longer term KPIs.

- 1. Timely and accurate delivery of data publications and performance of market monitor -** Timely and accurate delivery of reports as per the specifications for set out in the Data Publication Guide and provision of accurate data to RAs in a timely manner if irregularities in the market are noticed.
- 2. Timely publication of key market information -** Publication of accurate Market Results for the day ahead and intraday markets in line with the timelines outlined in the Data Publication Guide and SEMOpx Operating procedures. Timely is defined as meeting the specification for the time after the trading period for publication of preliminary and final market results outlined in these documents once they are finalised.

3. **General queries and customer service** – The number of queries and customer service issues resolved within 3 business days.
4. **Platform availability and reliability** – Availability of data and market results online on a 24 hour basis Monday to Sunday such that the RAs and market participants can access the data.

## 4 Tariffs

### Tariff Proposals:

Modelling of different tariff types and their impact on different market participants was conducted for the Draft Determination paper in order to ensure that tariffs are equitable and enable participation from a broad range of stakeholders. Three potential elements to the SEMOpx tariffs were identified;

- **Once off Entry Fee:** This fee is a once off joining fee payable by each exchange member.
- **Annual Fee:** This is an annual fee for participation in the day ahead and intraday markets for each Exchange Member.
- **Per/MWh fee:** The fee per MWh will be the same in the Day-Ahead and Intraday Markets.

A number of scenarios were developed based on different market assumptions for the Draft Determination, outlined in the table below.

Scenario	1	2	3	4
<b>Total Market Volumes</b>	67TWhs	67TWhs	67TWhs	67TWhs
<b>% of total market traded in the DAM and IDM</b>	95%	95%	80%	80%
<b>Number of participants</b>	96	50	96	50

**Table 16, Tariff scenarios**

The scenario that was used for the purposes of the tariffs accompanying the Draft Determination paper assumed that 95% of total market volumes were traded through SEMOpx based on comparisons with other markets. It also assumed 50 Exchange Members registered with SEMOpx. The indicative fee structure presented in the consultation paper is shown below. Please note that at the time of development of this indicative fee structure, draft tariffs were based on estimates rather than agreed levels of service provider costs and updated costs have now been provided to the RAs.

Fee Structure	Cost
Once off entry fee (€)	5,000
Annual subscription fee (€ per annum) <sup>4</sup>	5,000
Variable trading fee DAM (€ per MWh)	0.041
Variable trading fee IDM (€ per MWh)	0.041

**Table 17, Draft Determination indicative tariffs**

### Summary of Responses:

- In their response, Bord Gáis Energy requested confirmation that 'trading-technical' fees will not be included in SEMOpx's costs at a later stage. Clarity was also requested on 'multiple user access' fees and whether these will be included on the final Statement of Charges.
- Bord Gáis Energy also proposed that market data from SEMOpx should be freely available and should not incur any additional charges.

<sup>4</sup> This is a general fee and allows trading in both the DAM and IDM

- Bord Gáis Energy also had a number of specific queries in relation to tariffs, relating to the time period over which such fees will apply, whether the IDM fees include IDM auctions and IDM continuous trades and whether the flat variable fee for volumes traded means volumes accepted (matched) in the relevant market and not all volumes offered. Clarity was also requested on the once off entry fee for market participants and whether this would endure into any SEMOpx arrangements post 2019.
- BGE is of the view that the assumption of 50 members registered to the Exchange could be considered to be quite high, and requests that an updated estimate is included in the final decision.
- One respondent has stated that the proposed fee structure passes a substantial proportion of revenue recovery through variable trading fees which may lead to tariff volatility. In addition, a low cost fixed entry and subscription fee will not compensate for the clearing bank/settlement bank requirement participants will have in I-SEM.
- One respondent is of the view that higher variable costs may impact on liquidity and where DA and ID trades do not take place as a result of this, balancing actions may need to be taken by the TSOs.
- Viridian has queried the assumption of 95% of volumes trades in the DAM and IDM markets through SEMOpx and whether costs would increase if a lower volume materialises. Viridian has also requested justification for the level of charges and fees and how they have been calculated.
- Viridian has requested additional information on technical costs and costs for multiple users.
- ESB GWM has no particular concern with the structure of the tariffs proposed, though it will result in customers with a higher load profile paying a significant proportion of SEMOpx costs. In their response, ESB GWM highlighted the relationship between regulated tariffs and NEMO competition, and how any correction factor applied to SEMOpx could change the dynamics of the market with regard to competition between NEMOs.
- ESB GWM has also queried the assumption of 50 individual paying members of the exchange given the level of costs associated with the clearing element of that market.
- ESB GWM would also welcome more detail on whether there are any additional costs associated with trading in the ex-ante markets.
- Brookfield Renewable queried whether SEMOpx costs will increase as different products come on line, and also requested clarification on the definition of multi-user access.
- One respondent also queried SEMOpx's proposal to charge or allocate trading fees and shipping fees to interconnector owners, and is of the view that charging trading fees to interconnectors is not appropriate.

#### *SEMC Response and Decision*

A number of respondents queried the additional fees that could be charged in relation to multi-user access, technical costs and other areas. For clarity, this revenue control relates only to the fees collected by SEMOpx in relation to the once off entry fee, annual subscription fee and variable trading fee in the Day Ahead and Intraday Markets based on the costs that have been submitted by SEMOpx and approved as part of an ex-ante revenue allowance. These tariffs will apply over the 16 month period of this price control.

Any incremental costs imposed by SEMOpx that can be directly attributable to a Participant, will be required to be compliant with CACM and condition 3A of the Eirgrid Market Operator licence and condition 15A of the SONI Market Operator licence. SEMOpx, through the requirements of the

relevant MO licence conditions, shall at all times charge in respect of its NEMO activity in accordance with its NEMO statement of charges and with the requirements of the CACM Regulation.

Respondents also queried the assumptions applied to the tariffs in terms of the number of participants and volumes traded in the DAM and IDM markets. The RAs have reviewed these assumptions with SEMOpx and this represents a best estimate based on market data. The assumptions used for the final SEMOpx tariffs are as follows;

<b>Traded Volumes over 16 months (kWh)</b>	90,104,757
<b>Participant numbers</b>	50
<b>% of total market traded in the DAM and IDM</b>	95%

**Table 18, Tariff Assumptions**

Queries were also raised on the proposed fee structure in terms of the breakdown between fixed and variable fees.

SEMOpx has presented a number of scenarios to the RAs and at this time the proposed fee structure is aimed at enabling the widest participation in the market from a broad number of participants. If, following the period of this price control, it is considered that this may not be the case, and SEMOpx continues to be subject to revenue regulation, the tariff structure may be revised based on market information available from the operation of SEMOpx from I-SEM go live.

The final fee structure for SEMOpx is presented below;

<b>Fee Structure</b>	<b>Cost</b>
Once off entry fee (€)	5,000
Annual subscription fee (€ per annum) <sup>5</sup>	5,000
Variable trading fee DAM (€ per MWh)	0.044
Variable trading fee IDM (€ per MWh)	0.044

**Table 19, Final SEMOpx tariffs**

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<sup>5</sup> This is a general fee and allows trading in both the DAM and IDM

## 5 Conclusion and Next Steps

In total, the revenue allowance for SEMOpx from the 23<sup>rd</sup> of May 2018 to October 2019 is €4,428,000. Following publication of this Final Determination a tariff statement will be published outlining the SEMOpx fees for this price control period.

This price control and SEMOpx's initial designation will run until the 3<sup>rd</sup> of October 2019, and it is acknowledged that there are a range of potential options available concerning future revenue regulation of SEMOpx, depending on market conditions at the time. Consideration of these matters will take place alongside the analysis that will be undertaken as part an assessment in 2019.