Single Electricity Market

(SEM)

SEMO 2024 – 2029 Price Control

Draft Determination

Consultation Paper

SEM-25-002

28 February 2025

EXECUTIVE SUMMARY

The development of the SEM in 2007 led to the requirement for a Single Electricity Market Operator (SEMO) to administer the market. SEMO exists as a contractual joint venture between EirGrid plc in Ireland and SONI Ltd in Northern Ireland.

Key roles and responsibilities of SEMO include:

- Balancing Market settlement
- Capacity Market settlement
- Administration and maintenance of the Trading and Settlement Code
- Agent of Last Resort function
- Fuel Mix Disclosure

SEMO is regulated by both the Commission for Regulation of Utilities (CRU) in Ireland and the Utility Regulator (UR) in Northern Ireland, collectively referred to as the Regulatory Authorities (RAs); the SEM Committee (SEMC) is an all-island governing body which makes decisions on SEM matters.

SEMO is subject to a regulated Price Control. The previous SEMO Price Control (SEM-21-073) covered the period from October 2021 to the end of September 2024. This consultation relates to the five-year period from 1 October 2024 to 30 September 2029. This sees the Price Control move to a five-year duration from a three-year duration used within the previous two Price Controls. However, in absence of a final determination published by the 1 October 2024, the allowances for the first year of this period were determined via proxy tariffs which will be reconciled within the tariff process for 2026/2027.

For this Price Control, SEMO submitted proposals relating to operating expenditure (Opex) with the introduction of delta Opex, capital expenditure (capex) and modifications to its existing suite of Key Performance Indicators (KPIs) for review by the RAs. SEMO proposed for the Parent Company Guarantee and revenue collection margin to be maintained within the framework. SEMO proposed amendments to the Price Control framework including the approach to capital cost recovery, the introduction of delta Opex, a Cloud mechanism for cloud-related costs, a specified ‘ex-post’ capex assessment by the RAs, cost-sharing for Opex and an update to the blended WACC used for the Price Control.

SEMO’s Proposals

SEMO’s total Opex request for the 2024-2029 Price Control period is €112.7M. From the three-year period of 2021-2024, the actual average total Opex per year was €13.3M and in the current five-year period, SEMO requested this to increase to average level of €22.5M per year. This increase in costs has been driven by SEMO’s IT & Telecommunications costs which are forecast to increase steadily over the forthcoming Price Control period due to SEMO modernisation of IT

Provision. The increase in costs within this area has been partly driven by the resultant Opex cost from predictable capex projects, many of which are IT projects. The other driver of costs within this area, as well as driving increases in labour Opex, is an increase in FTEs, with SEMO requesting 17.5 additional FTEs to complement its existing staff of 71.5 FTEs.

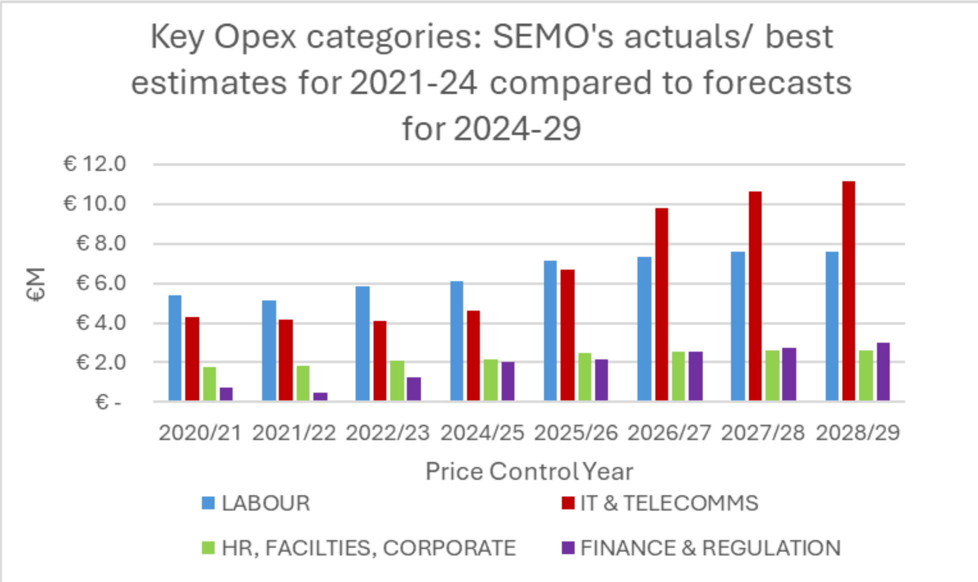


Figure 1: SEMO's 2021-24 allowance, actuals/ best estimates and 2024-29 submission

SEMO's proposed **capex programme** for 2024-29 included €68.6M of costs associated with market system releases and support, twelve 'predictable' capital projects which focus on modernising SEMO's IT capabilities, and a proposal for 'unpredictable' capex which is required for SEMO's response to policy and regulatory drivers which h may require changes to the market.

With respect to **Key Performance Indicators (KPIs)**, SEMO proposed the re-introduction of the Credit Cover Increase Notices (CCIN) KPI, to join the KPI suite which provides incentives in areas such as General Queries, Resettlement, System Availability and Invoicing. Additionally, SEMO proposes amendments to the upper and lower targets to make them more achievable.

SEMO's **Financeability** proposals include for the PCG guarantee to remain at the current rate of remuneration as well as an increase in the collection agent margin to 0.25%. A number of changes are proposed to the framework including an update of WACC calculations, treating capex cost recovery on an as-incurred basis from the current approach of as-commissioned, a cost-sharing mechanism and uncertainty mechanism for Opex and a Cloud Mechanism to allow reallocation of uncertain costs between Opex and capex. In addition, specified 'ex-post' capex assessment by RAs, involving a cap on the potential materiality of ex-post cost disallowance and a Demonstrably Inefficient and Wasteful Expenditure (DIWE) provision for capex was proposed.

The RAs' Approach

The RAs approached the Price Control review with a view to open and meaningful dialogue and were encouraged by bilateral engagement with SEMO and SEMO's appetite to involve market participants in the review process. In order to develop consultation proposals, a **Working Group** (consisting of six members who represented a broad range of participants and industry bodies) was established by the RAs to provide insight into areas of participant support or disagreement with SEMO which could be discussed through open dialogue.

A number of workshops were held, with attendance and participation from the RAs and SEMO, to gather market participants costs with some providing written feedback following the meeting. The group acknowledged that SEMO was changing during this Price Control period, through internal and external drivers. In order to facilitate these changes, participants believed SEMO had to focus on both efficient and effective delivery of Business-as-Usual (BAU) activities and early and ongoing engagement with market participants when making market changes. Where relevant, the views of the Working Group are incorporated throughout this consultation paper.

The RAs' Proposals

The RAs propose to allow €99.2M of Opex compared to SEMO's proposal for €112.7M. Within the Opex allowance, the RAs accept the SEMO proposal for Delta Opex which represent Opex costs driven by the capex projects SEMO will undertake within the Price Control period.

Total Opex	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Labour Costs	7.121	7.312	7.567	7.567	7.567	**37.133**	6.545	6.885	7.395	7.395	7.395	**35.615**
IT & T	6.666	9.815	10.632	11.143	11.440	**49.696**	5.968	8.899	9.533	9.968	10.182	**44.549**
Facilities, HR and Corporate	2.462	2.527	2.614	2.614	2.614	**12.831**	2.185	2.264	2.345	2.345	2.345	**11.484**
Finance & Regulation	2.161	2.576	2.751	2.976	2.551	**13.015**	1.577	1.491	1.491	1.491	1.491	**7.540**
Total Opex	**18.410**	**22.230**	**23.564**	**24.299**	**24.172**	**112.676**	**16.275**	**19.539**	**20.764**	**21.198**	**21.413**	**99.189**
Add: Cloud Projects	**3.983**	**3.571**	**2.486**	**1.319**	**0.902**	**12.261**	**3.983**	**3.523**	**2.486**	**1.319**	**0.902**	**12.213**
Total Opex (Including Cloud)	**22.393**	**25.801**	**26.050**	**25.618**	**25.074**	**124.937**	**20.258**	**23.062**	**23.250**	**22.517**	**22.315**	**111.402**
FTEs	83.75	86	89	89	89		77	81	87	87	87	

Table 1: Comparison of SEMO's Opex submission with RAs' proposals

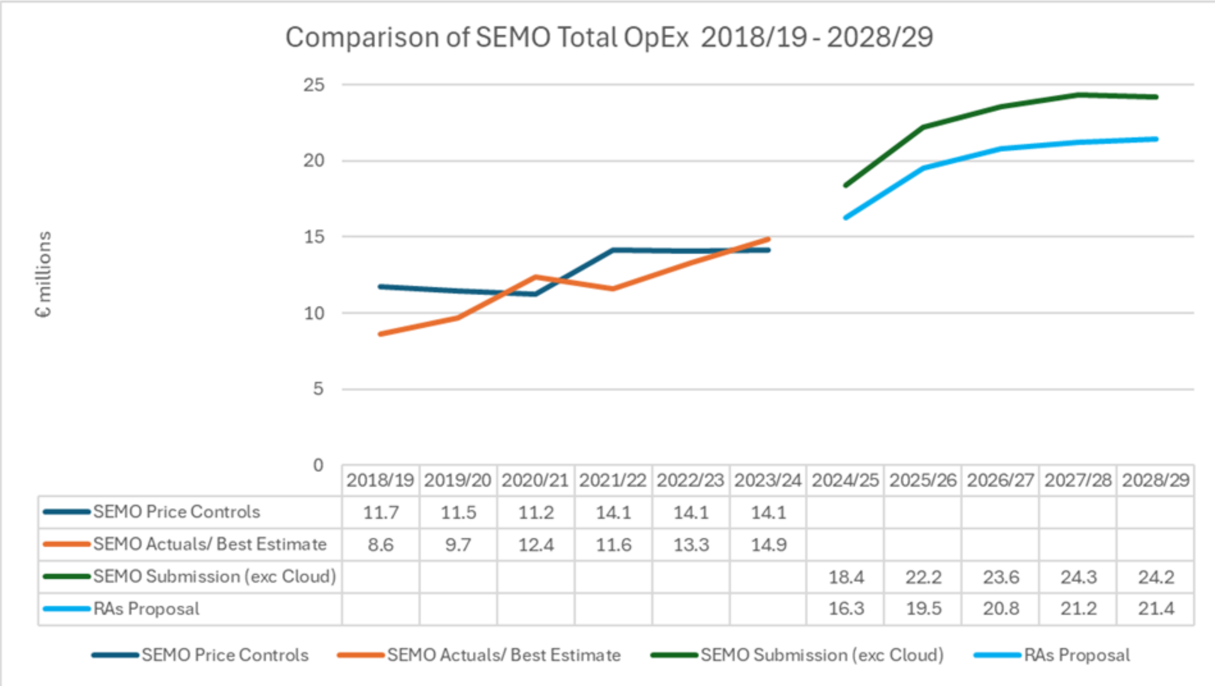


Figure 2: Comparison of SEMO's Opex submission with RAs' proposals from 2018/19-2028/29

Compared to SEMO's proposals for €68.6M[1] of capex, the RAs propose to allow €67.1M. Capex other than that associated with biannual market system releases (proposed to be allowed in full at €32.2M) will be categorised as predictable capex or unpredictable capex. €19.2M of a proposed allowance is allocated to the predictable capex with a proposed allowance of €8.5M allocated to the unpredictable capex pot. The proposed unpredictable capex allowance is designed to be provided as a cap, however, SEMO will have the ability to apply for additional funding should it foresee the cap being breached.

Total Capex	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Market System Releases	1.242	6.846	7.381	7.992	8.701	**32.162**	1.242	6.846	7.381	7.992	8.701	**32.162**
Market System Release Support	0.354	1.516	1.627	1.627	1.627	**6.752**	0.354	1.516	1.627	1.627	1.627	**6.752**
Predictable Business Capex	7.945	5.586	2.821	1.716	1.096	**19.164**	7.329	4.867	2.671	1.716	1.096	**17.679**
Unpredictable Business Capex	2.100	2.100	2.100	2.100	2.100	**10.500**	2.100	2.100	2.100	2.100	2.100	**10.500**
Total Capex	**11.641**	**16.049**	**13.929**	**13.435**	**13.524**	**68.578**	**11.025**	**15.329**	**13.779**	**13.435**	**13.524**	**67.093**

Table 2: Comparison of SEMO's capex submission with RAs' proposals

[1] This excludes €12.2M of Predictable Business expenditure which has already been considered under cloud opex.

Other key highlights of the RAs' review of Opex and capex are:

- Compared to SEMO's request for 17.5 **additional internal FTEs** to bolster its existing 71.5 FTEs, the RAs propose to allow for 15.5. This increase is due to the resources required to accommodate the upgrading of IT infrastructure, integration with the European energy systems and decarbonisation targets. The RAs note that in addition to an internal complement of 71.5 FTEs, SEMO also has an allowance for outsourced resources and has capitalised resources through its capital projects. It is at SEMO's discretion to allocate all resources in line with competing priorities over the duration of the Price Control.

- An **average salary** per Full Time Equivalent (FTE) of €85K per annum proposed by SEMO accepted by the RAs as it is in line with the average FTE cost during the previous PC.

- For IT & Telecommunications costs we propose an allowance of €44.5M compared to SEMO's proposal of €49.7M. Of the €49.7M proposed by SEMO, €20.7M is made up of Delta Opex, which is resultant Opex cost from the capex delivery of IT programmes, which the RAs have allowed in full following the IT consultants' recommendations. The RAs reviewed core Opex (total Opex excluding delta) cutting costs where justification was not sufficient by SEMO.

- Within **Opex costs for HR, facilities and corporate services**, the RAs have proposed to allow for €12.8M compared to SEMO's request for €11.5M. Following the removal of €0.7M representing delta Opex, the RAs propose to reduce SEMO's allowance in corporate costs and facilities when compared to SEMO's proposals.

- **Finance and Regulation costs** within the Opex submission were proposed at €13.0M by SEMO; the RAs have proposed to allow for €7.5M. Of note, the 'High-Level Analysis and Design' (HLAD) line item has been reduced from €7.4M (SEMO's proposal) to €4.0M following a recommendation made by the RAs IT consultant. Two initiatives within HLAD, IT Impact assessment and Business Resilience, have been removed due to duplication of activities carried out under Market Development activities and the justification not being well evidenced.

In terms of incentivisation, an ex-ante approach to setting Opex allowances will continue to apply to this Price Control and, consistent with the approach taken in previous SEMO Price Control decisions, the RAs expect to continue to incentivise SEMO's Opex via Revenue Cap **(RPI-X)** regulation. SEMO did not propose any change to this existing framework.

With consideration of feedback from Working Group participants and analysis provided by external consultants, the RAs have decided to make changes to the KPI framework. Working

Group participants outlined that KPI incentives should be more challenging with some of the KPIs proposed being seen as covering BAU activities. In response to this feedback, the RAs are proposing to make KPIs symmetric with the introduction of financial penalties when targets are not met. The RAs will also make the target bounds for SEMO more challenging. The proposed reintroduction of the CCIN KPI by SEMO is proposed to be declined following feedback from participants and analysis of previous SEMC decisions.

Following analysis by external consultants on the remuneration rate associated with KPIs, the RAs propose to cap the annual monetary incentive available at €500K or €2.5M over the five-year period. This is a change from the previous method where the reward available via KPIs was linked to 4% of Opex. With significant increases in Opex in the upcoming period, the incentive linked with KPIs would have increased to €900K p.a., nearly doubling the incentive. External consultants found that maintaining the incentive of €500K was not unreasonable and following Working Group feedback on the KPIs proposed, the RAs have decided to amend the remuneration framework.

After taking into consideration the findings of an externally commissioned report about **SEMO's Financeability**, the RAs propose no change to the provision of an amount for the cost to EirGrid Group in providing SONI a PCG through its Market Operator license. The continuation of an allowance at €300K p.a. is proposed for the duration of the 2024-2029 Price Control.

When considering SEMO's proposal to update the blended WACC, the RAs propose to continue the existing WACC calculation until the Eirgrid and SONI TSO determinations. Following these determinations, the SEMO WACC will be updated to reflect the new EirGrid and SONI WACC values, weighted using the proportions of the joint venture i.e., 75:25. This is in line with recommendations provided by consultants.

The RAs propose to continue with SEMC decision to remove the margin associated with SEMO's revenue collection. The RAs also note their consultant's support for this approach noting that the activity does not expose SEMO to any risk. Analysis from consultants found that as a result of managing cashflows, SEMO's working capital balance can fluctuate, both within year and between years, giving rise to liquidity risk. To manage this risk, SEMO are required in the Trading and Settlement Code (TSC) to establish and maintain a working capital credit facility, with risk faced by SEMO capped at €150M. The facility is provided by EirGrid and SONI, as part of wider facilities held by the TSOs, to a value of €153M. Following analysis of the cost components from holding a working capital facility, consultants highlighted that both set-up costs and ongoing financing costs are compensated separately through the TSO (EirGrid and SONI) controls.

The consultants determined that on the basis that SEMO's exposure to liquidity risk is capped at the size of the working capital facility and the understanding that there is no cost that is not already compensated, a margin associated with revenue collection should not be provided within the Price Control.

The RAs propose to allow capex cost recovery, through depreciation and return on capital, to move to an as-incurred basis, following review by consultants and consideration of regulatory precedents across other Price Controls. SEMO's proposal of a Cloud Mechanism is accepted with cloud costs to be treated as Opex. The proposal for a cap on the potential materiality of ex-post cost disallowance and a DIWE provision has been disallowed following analysis by the RAs and consultants. Opex cost sharing has been proposed in the form of a mechanical cost risk-sharing mechanism of 25:75 without any cap and collar.

All proposals within this document are subject to consultation. Responses to the proposals within this consultation should be sent to Ruairi Liddy (Ruairi.Liddy@uregni.gov.uk) and Kevin Goslin (kgoslin@cru.ie) by 6th May 2025.

Contents

1. Introduction

1.1 Background

The Single Electricity Market (SEM) is the wholesale electricity market for Ireland and Northern Ireland. It has been in existence since 2007 and revised market arrangements (developed under the 'I-SEM' project) took effect from 1 October 2018.

The development of the SEM in 2007 led to the requirement for a Single Electricity Market Operator (SEMO) to administer the market. SEMO exists as a contractual joint venture between EirGrid plc in Ireland and SONI Ltd in Northern Ireland.

The previous Price Control (SEM-20-046) covered the period from September 2021 to October 2024. This Price Control was scheduled to be re-determined to commence on 1 October 2024. The Final Determination for the Price Control period covering 01 October 2024 to 30 September 2029 was delayed and is now due for publication in June 2025.

In the absence of a Final Determination, SEMO's revenue requirements for the first year of the Price Control have been set through an appropriate proxy revenue tariff process for 2024/2025. The tariffs covering 01 October 2024 to 30 September 2025 are based on SEMO's revenue requirement for the first year of the new Price Control period, as outlined in their Business Plan Submission, with relevant adjustments. The 2024/25 revenue requirement will then be corrected through the K-factor included in the 2026/27 tariff year to reflect the Price Control final determination.

The roles and responsibilities of SEMO are outlined within the next section.

1.2 Roles and responsibilities of SEMO

SEMO is subject to licences in both Ireland and Northern Ireland and to regulatory scrutiny; this includes the setting of Price Control allowances which are ultimately recovered from all island electricity consumers.

Regulatory decisions

In advance of Go-Live of the revised SEM arrangements in 2018, the RAs completed a consultation process to determine roles and responsibilities for key parties. In some cases, assignment of roles was based on allocation as defined by the European Network Codes or Guidelines; for other roles, the SEM Committee gave consideration to stakeholder responses received to the preceding consultation, and to possible synergies which could be availed of in order to create an efficient market in terms of operational aspects and cost impact.

A Single Electricity Market Committee (SEMC) decision[2] was published in 2015 (SEM-15-077) which outlined that key roles and responsibilities of SEMO include:

- Balancing Market settlement
- Capacity Market settlement
- Administration and maintenance of the Trading and Settlement Code
- Agent of Last Resort function
- Fuel Mix Disclosure

The Transmission System Operators (TSOs) act as balancing market operator and conduct capacity market delivery.

Licence obligations

EirGrid plc and SONI Ltd have both been granted Market Operator licences[3] (in addition to their respective Transmission System Operator licenses) in Ireland and Northern Ireland respectively. As a result, they are regulated by the Commission for Regulation of Utilities (CRU) in Ireland, the Utility Regulator (UR) in Northern Ireland and the SEMC which is the decision-making authority for all SEM matters and consists of representatives from both regulators and independent members.

SEM Trading and Settlement Code (TSC) obligations

In addition to compliance with the respective Market Operator licences, SEMO's role in the market is explicitly defined in the SEM Trading and Settlement Code (TSC), which sets out the rules, procedures and terms and conditions which all parties must adhere to.

SEMO is responsible for entering into, and at all times, administering the SEM TSC. The TSC states that one of the main objectives for the Market Operator is "to facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner".

An overview of the areas which SEMO is responsible for under the TSC are outlined in the table below.

[2] SEM-15-077 I-SEM Roles and Responsibilities Decision.pdf (semcommittee.com)

[3] EirGrid plc Market Operator Licence https://www.cru.ie/document_group/modifications-to-eirgrid-marketoperator-licence-and-transmission-system-operator-licence-necessitated-to-implement-the-integrated-singleelectricity-market-i-sem/cer17036a-eirgrid-market-operator-licence-march-2017/
SONI Ltd Market Operator Licence https://www.uregni.gov.uk/publications/soni-sem-operator-licence-updated-10march-2017

Outline of SEMO TSC Responsibilities	
Chapter B	Credit & collateral calculation Governance of the TSC Secretariat function to the Modifications Committee Management of modifications to the TSC Management of Disputes Registration Deregistration Suspension and termination Force Majeure Freedom of Information act and Data Protection
Chapters C, D & Appendix G of TSC and Capacity Market Code	Publication of data REMIT obligations
Chapter E	Calculation of Imbalance Prices
Chapter F	Balancing Market Settlement Capacity Market Settlement Imbalance Settlement
Chapter G	Credit & collateral calculation Calculation of Interest, VAT and Taxes Declaration and Implementation of the status of Administered Imbalance Settlement Resolution of Queries Settlement Reallocation

Table 1.1: Outline of SEMO Trading and Settlement Code Responsibilities

Included in the table above are Imbalance Settlement and Capacity Market Settlement activities which SEMO is also responsible for[4] given that there are synergies between the functions in terms of payments to generators and levying of charges on suppliers and energy imbalances. Also captured above are SEMO's responsibilities under REMIT.

In addition to the above-mentioned roles and responsibilities there are other functions which SEMO will continue to undertake into the 2024-29 period. These are:

1) Fuel Mix Disclosure which is required in Ireland and Northern Ireland

Annual reports on the fuel mix of suppliers in the SEM are published by both the CRU and UR. SEMO administers and calculates the fuel mix figures from information provided by electricity suppliers on a calendar basis and on behalf of the Regulatory Authorities (RAs). Suppliers are

[4] SEM-15-077 Decision Paper on I-SEM Roles and Responsibilities

then obligated to publish their supplier fuel mix and environmental impact (CO^2 emissions) information alongside the average for the all-island market on their bills for comparison.

2) Agent of Last Resort (AoLR) function

The role of the AoLR is to act as a bidding agent in the ex-ante markets on behalf of eligible generators. SEMO is obligated under the Market Operator licences to develop, administer and maintain the role of AoLR. The role of the AoLR is to act as a bidding agent in the ex-ante markets on behalf of eligible generators. The intention of this role is to facilitate participation of smaller players in the day-ahead market and the intraday market, through the provision of bidding and settlement transaction services. This addresses a potential barrier to entry to their participation in these markets. AoLR fees are published within SEMO's annual charging statement.

While the function has not been availed of to date, it is the view of the RAs and SEMO that it is prudent to continue into 2024-29.

1.3 Approach to Price Control review process

The RAs established a Price Control review team in April 2023. Preparation and inception of the project took place from June 2023 with bi-weekly meetings with SEMO to discuss and progress key issues. A regulatory review and analysis of SEMO's Price Control proposals took place from March – December 2024 with a view to developing a 'minded-to decision' type consultation by the end of February 2025.

Engagement with SEMO on the development of 2024-2029 Price Control began in June 2023. A Business Plan Questionnaire (BPQ) and guidance for completion of business cases was issued to SEMO in February 2024; the BPQ had been provided to SEMO for advance review to ensure that the format aligned with internal processes to aid completion.

SEMO submitted its Price Control submission in March 2024 with a walkthrough of the submission, presented by SEMO to the RAs, held in the same month.

The RAs appointed a series of external consultants for reviewing the Price Control submission. A consultant was procured in September 2024 to review capex projects, with a focus on predictable and unpredictable projects, and a second consultant was appointed in October 2024 to review SEMO's financeability proposals.

There were a series of workshops held with each consultant. A workshop covering IT capital projects was held in November 2024 with subject matter experts (SME) from SEMO presenting proposals to the RAs and external consultant with additional context to explain the backdrop for capital projects submission. A further workshop was held with the IT consultants in

December 2024, laying out further queries to SEMO, providing an opportunity for further clarity. The financeability consultant held a workshop with SEMO in December 2024, providing an opportunity for SEMO to answer queries on financeability.

In addition to bilateral engagement between the RAs and SEMO as well as engagement with external consultants, a Working Group was established in March 2024 to ensure that market participants' views were well considered in development of the Price Control proposals. Membership of the Working Group was derived from a larger, market participant-led Focus Group, which issued expressions of interests in December 2021. The Working Group was formed in March 2024, with membership discussed with SEMO and decided by the RAs. The participants in the Group are noted below:

SEMO Price Control Working Group (WG) membership
The Electricity Association of Ireland
Energia Group
Wind Energy Ireland
Renewables NI
Tynagh Energy
Lumcloon Energy
Federation of Energy Response Aggregators

Table 1.2: Working Group membership

The intention of the Working Group was to provide insight to areas of support or disagreement with SEMO to enable both the RAs and SEMO to gain an understanding of issues in an open and transparent way. An introductory meeting of the group was held in April 2024 with a further meeting held in November 2024 which allowed for open dialogue and constructive exchange of viewpoints about capex and KPIs. The group was asked to provide written feedback to a questionnaire on key areas discussed in both meetings following the November meeting. A further meeting is expected after the publication of this consultation paper to discuss the proposals from the RAs. Feedback received from the Group has been incorporated throughout this consultation document and a high-level summary of feedback received from the meetings and written feedback can be found in Chapter 2.

1.4 Principles and Assumptions

Duration

The duration of the next SEMO Price Control will be five years (1 October 2024 to 30 September 2029). This is a change from the three-year duration that had been consistent with Price Controls determined since 2010. A longer duration Price Control reduces the frequency and effort of Business Plan submissions and determinations and is consistent with the duration of other electricity Price Controls. SEMO is in favour of longer Price Control stating the advantages of efficiency of effort and the stability of a longer duration when delivering an expected large-scale IT programme.

SEMC supported the decision[5] to move to a longer Price Control duration. The assumption of a five-year duration was shared with, and agreed to, by SEMO in advance of submission of its Price Control forecasts. SEMO raised an issue about the increased risk of forecasting error with the longer duration with the SEMC suggesting a symmetrical cost-sharing mechanism to deal with any under or overspend.

Incentivisation

The purpose of incentives is to put emphasis on the outputs being delivered while allowing SEMO the flexibility to operate, administer and develop the SEM in an efficient, economic and financially secure manner.

Cost incentives will allow SEMO to keep the difference between allowed and efficiently incurred operating expenditure; performance incentives will encourage enhanced service levels. Meanwhile, a flexible investment framework will allow SEMO access to funding in response to changing needs in order to facilitate a flexible approach to investment.

Indexation

All costs in this consultation are based on March 2023 prices, consistent with SEMO's submission.

An adjustment will be made within market operator tariffs to adjust for out-turn inflation. This is carried out as part of the k-factor trueing up adjustments undertaken each year as part of the tariff process. The indexation rate applicable will be a blended rate of the Consumer Price Index[6] in Ireland (75%) and the Consumer Price Index including owner occupiers' Housing costs (CPIH)[7] in Northern Ireland (25%).

Revenue recovery apportionment

Consistent with previous SEMO Price Controls, the 2024-29 Price Control will be provided on a combined basis between EirGrid and SONI on a 75% and 25% basis respectively, with revenues being ascribed to EirGrid in its capacity as market operator for Ireland and to SONI in its capacity as market operator for Northern Ireland. The current apportionment is also detailed in the Market Operator Agreement[8] between EirGrid and SONI.

[5] SEMC 197 28th September and 2nd October 2023 minutes.pdf
[6] As published by the Central Statistics Office in Ireland
[7] As published by the Office for National Statistics in the UK
[8] Deed of Amendment and Restatement of the Market Operator Agreement Dated 2018

Other assumptions

In addition to the principles outlined above, we provide a list of other key assumptions which may impact on the proposals within this consultation paper or impact the k factor trueing up adjustment process, which are:

- It has been assumed that FX gains and losses and bank interest will be treated as a passthrough cost. SEMO stated that given the absence of any basis for forecasting these, they have been forecast at zero value in the BPQ for the FY 25-29 PC period.
- The implications of Condition 42 of SONI's Transmission System Operator Licence are not considered in SEMO's submission.
- All forecast FTEs have been rounded to the nearest 0.25.

1.5 Format and purpose of consultation

This document outlines the RAs' consultation proposals for the next SEMO Price Control, due to commence on 01 October 2025. The proposals have taken into consideration the outcome of detailed analysis of SEMO's proposals, both by the RAs and external consultants, and feedback from a representative body of market participants (the Working Group); our proposals are subject to consultation in advance of publishing a final decision at the end of June 2025.

As part of its response to the draft determination, we expect SEMO to provide an update on the progress it has made in 2024/25 and its latest best estimate of expected out-turn for 2024/25. Having reviewed this and engaged further with SEMO, we will consider whether it is appropriate to modify the profile of expenditure over the price control for the Final Determination.

We have prepared a 'key points' overview at the start of each chapter that discusses key building blocks of the Price Control to outline the principal points for stakeholders to be aware of:

- Chapter 2 provides an overview of key messaging from the SEMO Working Group (WG) who represented a broad range of market participants in advance of publication of this consultation;
- Chapter 3 outlines proposals for the Price Control framework for SEMO during the period;
- Chapter 4 describes our review of SEMO's forecasted operating expenditure requirements during 2024-29;
- Chapter 5 discusses our review of SEMO's proposals for capital investment during 2024-29;
- Chapter 6 outlines the approach taken to incentivisation of SEMO, including consideration of the application of key performance indicators (KPIs);

- Chapter 7 provides views on SEMO's financeability;
- Chapter 8 closes the consultation with Conclusions and Next Steps.

Rather than pose specific questions to stakeholders within each chapter, we request that general views on the RAs' proposals are provided by respondents with a clear reference to each chapter/element of the Price Control (for example: 'Views on Price Control framework; Views on Opex; Views on capex etc) to aid review. We welcome comments from all interested parties.

Responses to the proposals within this consultation should be sent to Ruairi Liddy (Ruairi.Liddy@uregni.gov.uk) and Kevin Goslin (kgoslin@cru.ie) by close-of business on 6th May 2025.

2. Working Group Insights

2.1 Terms of Reference

As part of the SEMO Price Control Decision[9] for the period 2021 – 2024, a commitment was made by the Regulatory Authorities (RAs) for market participants to be involved in the performance and development of the SEM during the Price Control period. This led to the formation of a SEMO Focus Group, with an expression of interest published[10] in December 2021, ensuring that market participants' views are well considered within the development of the SEM over the next few years.

In March 2024, members of the Focus Group were invited to submit Expressions of Interest to join a Working Group, which aimed to allow participants to engage with SEMO on how their views should be incorporated into the development of SEM as supported by the 2024-29 Price Control. A terms of reference was provided to interested parties. The Working Group would perform a similar function to that of the Participative Consultative Forum in the SEMO Price Control Consultation 2021-24[11] .

The Working Group was not privy to financial information or SEMO's forecasted costings. Rather, the key concepts of SEMO's Price Control proposals were discussed to get a sense of the effectiveness of day-to-day operations, what works well, and where improvements might be required without being influenced by the magnitude of potential costs involved. The Working Group was also a useful conduit to obtain an indication of appetite for future change and what SEMO's priorities over the next five years should be, while remaining cognisant of SEMO's operations being underpinned by a strict legislative and regulatory framework.

Two meetings were held with the Working Group before the publication of this consultation. The inaugural meeting, held in April 2024, provided an overview of SEMO's Business Plan Questionnaire Submission. Following this, a second meeting in November 2024 provided participants an opportunity to review the existing and proposed suite of KPIs as well as the capital projects proposed by SEMO in further detail. SEMO attended, presented and participated in discussion within both meetings. Members of the Working Group were encouraged to provide written feedback via a questionnaire which covered a series of key areas discussed within the prior meetings after completion of the second meeting. The questionnaire was to be used as a template with feedback from wider relevant areas accepted.

A third meeting to review the RA's proposals put forward within in this paper will be arranged and views gathered from that meeting will be reflected in the decision paper, scheduled to be published in June 2025.

[9] SEM-21-073 SEMO 2021-2024 Price Control Decision Paper.pdf
[10] SEM-21-014 Call for expressions of interest_SEMO PCF.pdf
[11] SEM-21-046 SEMO 2021-24 Price Control Consultation.pdf

2.2 High level feedback on key themes explored

The feedback collated from Working Group participants was derived from discussions held within workshops, with workshops structured to encourage feedback, as well as responses to the questionnaire. The feedback received from participants can be summarised into 3 key themes:

- A period of change
- Efficiency of Delivery in BAU activity
- Collaboration & Transparency with industry participants

A period of change

SEMO outlined to participants that the upcoming Price Control period will be one of change in the SEM market. A significant number of changes will challenge SEMO, with workshop slides providing a summary of changes such as All-Ireland projects, Celtic Interconnector and reintegration with the EU markets, further integration with GB markets and various change initiatives driven by government policy and regulatory implementation.

Generally, participants were receptive to the view that the changes are anticipated during the Price Control. Participants highlighted further changes may require consideration. For example, the potential implications for code changes and modifications that will result from the obligation for EU Network Codes to be in place for the Celtic Interconnector coming online in 2027.

Participants highlighted that the proposed changes would require flexibility and adaptability from SEMO with careful consideration of uinintented consequences as a result of system changes. In order to support this consideration, participants believed that SEMO's proposed capital projects associated with implementing changes should be prioritised by the additional value added. The value-added could be derived by outlining the benefits that projects will have to both market participants and consumers. Working Group participants' views on capital projects in the upcoming period are examined further within Chapter 5.

Delivery of BAU

When accounting for the market changes for the upcoming period, participants made it clear that SEMO's BAU activities would need to be delivered efficiently in order to provide a solid foundation upon which additional market changes can be delivered.

Participants agreed that resourcing needs will increase for both SEMO and the vendor who will need to manage modification changes as well as market changes. With the increasing resourcing needs, participants emphasised a need for demonstration of how innovation, adaptability and flexibility were going to be exploited in BAU activities. A demonstration of these three criteria would help participants envisage how BAU activities leads to a smoother process for participants, inspiring confidence in SEMO's role as Market Operator.

Furthermore, the delivery of BAU activities extended to discussions on Key Performance Indicators (KPIs), a key area of focus within the workshops. Participants highlighted that KPIs proposed should drive the new, innovative and flexible behaviour that SEMO needs to adopt to meet the challenges that market changes will have upon its role as Market Operator. In order to facilitate these KPIs, a consensus among the group was that KPIs around BAU activities should either be dropped or re-examined with consideration of reduced weighting or potentially negative incentives. Participants considered that SEMO should not be rewarded in areas which are simply needed to maintain a high business standard. Participants proposed a series of KPIs that would incentivise SEMO to demonstrate behaviours that support delivery in the upcoming Price Control period. A summary of these proposed KPIs and further views from participants in this area are examined further within Chapter 6.

Transparency and Collaboration with Industry Participants

With agreement that market changes are coming in the upcoming period, participants highlighted that this could have widespread implications for them. A key view expressed in the workshops by participants was the need for early and ongoing engagement by SEMO when introducing market changes. This would allow participants adequate timing and flexibility to adjust or change their approach, providing increased transparency to the industry. Participants stated that liaison with SEMO could ensure their changes made are complementary to SEMO's and as a result develop any available efficiencies or synergies in the market.

Furthermore, it was highlighted that the impact on existing assets and technologies would be important. Participants may have invested based on the assumption of the employment of an existing asset, with potential changes to that asset possibly having a detrimental impact on participants ongoing investment in the SEM. Early engagement and transparency on the impact that SEMO changes will have on current assets in addition to benefits of newer assets and technology is of importance to participants. This coincided with the suggestion of an analysis on actual impact of SEMO changes once implemented.

Generally, participants considered that SEMO should better understand the mindset of a market participant and the impact that changes would have on participants' behaviours. Possible resolutions to this suggested by market participants included updated training to be provided to new industry members and additional training to be made available around new changes to the market. Furthermore, participants raised the potential of a testing environment, providing a space for participants to provide feedback on the implications that market changes could have. This could also allow participants to be able to size and quantify the impact of market changes on their own systems.

2.3 Next Steps

A further workshop is expected with the Working Group during the Price Control consultation period which will allow the RAs to hear feedback on proposals on both capex and KPIs put forward within this paper.

The Working Group has worked well in allowing market participants to feedback on SEMO's proposals which has fed into the RA's proposals put forward within this consultation paper. Considering this, in combination with the participants views on added and early engagement with SEMO, the Working Group should be reinitiated within the next Price Control consultation.

3. Review of Price Control Design

3.1 Overview of the design of the last SEMO price control (2021-24)

The design of the SEMO price control (2021-24) is summarised below. Reference should be made to the SEMC decision[12] on the price control for full details.

- All determined financial values were stated in March 2020 prices representing the mid point of the 2019-20 tariff year. When tariffs were calculated, determined financial values were adjusted for inflation which was a blended rate of the Consumer Price Index in Ireland (75%) and the Consumer Price Index including owner occupiers' Housing costs (CPIH) in Northern Ireland (25%).

- An ex-ante allowance was determined for Opex.

- There was no opex cost sharing mechanism in the last price control. As a result, SEMO retained the full benefit of underspend and was exposed to the full risk of overspend. In practice, SEMO out-performed the determined allowance by 6% during with most of the out-performance occurring in the initial years.

- The ex-ante allowance was subject to an annual efficiency adjustment of 0.3%.

- An estimate was made of Capex, divided between predictable Capex (known projects, including market updates) and unpredictable Capex. In addition to setting an expectation of the level of expenditure, these estimates were used to determine an ex-ante amount of rate of return and depreciation on capital invested. The estimated values of rate of return and depreciation and the underlying Regulatory Asset Base (RAB) were updated in line with actual expenditure during the annual tariff process.

- Actual costs of both predictable and unpredictable capital expenditure can be subject to an ex-post efficiency review which will assess if:

    - Expenditure has been efficiently incurred.
    - Expenditure was demonstrably necessary.
    - Expenditure was incremental to the existing price controls and capable of being robustly validated by the RAs.

- The estimated amount of unpredictable Capex was an allowance up to a cap available to allow SEMO to react to new circumstances and meet new requirements. Should SEMO foresee that the cap might be exceeded it should

[12] SEM-21-073 SEMO 2021-2024 Price Control Decision Paper.pdf

approach the RAs for additional funding approvals. The approval process would involve further engagement with market participants.

- Capital expenditure was added to the RAB in the year the relevant asset was commissioned and put into use.

- Each annual addition to the RAB was depreciated at a rate of 10% in the year the financial asset was added to the RAB, then 20%, 20%, 20%, 20% and 10% in five subsequent years.

- A real pre tax rate rate of return on capital was applied to the average of the nominal opening and closing RAB for the year, being a blended rate of 75% of the rate of return determined for Eirgrid and 25% of the rate determined for SONI in their most recent price controls.

- Funding of €300k was included in respect of a Parent Company Guarantee which SONI must procure from EirGrid under Condition 3A of SONI's licence to act as SEM Operator whilst Eirgrid is the legal and beneficial owners of the entire issued share capital of SONI.

- A collection agent margin was applied to the Capacity Market Charge, the Capacity Socialisation Charge and Residual Error Volume Charge. SEMC decided to phase down the collection agent margin rate on a glide path of 0.15%, 0.125% and 0.1% over the three years of the 2021-24 price control, compared to 0.25% in the 2018-21 price control. The 2018-21 price control decision noted that the introduction of a margin amount in the could not be seen as setting a precedent for any future determinations by the SEMC. The RAs proposed to remove this going forward.

- A suite of KPIs was introduced with the potential reward of €1.3M over 4 years (based on 4% of the total opex allowance).

- Figure 3.1 of the 2021-24 SEMO price control (reproduced below) showed the combination of a WACC return, parent company guarantee, collection agent margin and potential KPI reward gave a relatively constant amount over the price control, with the reduction in margin rate countered by an increase in WACC as capital investment increased.

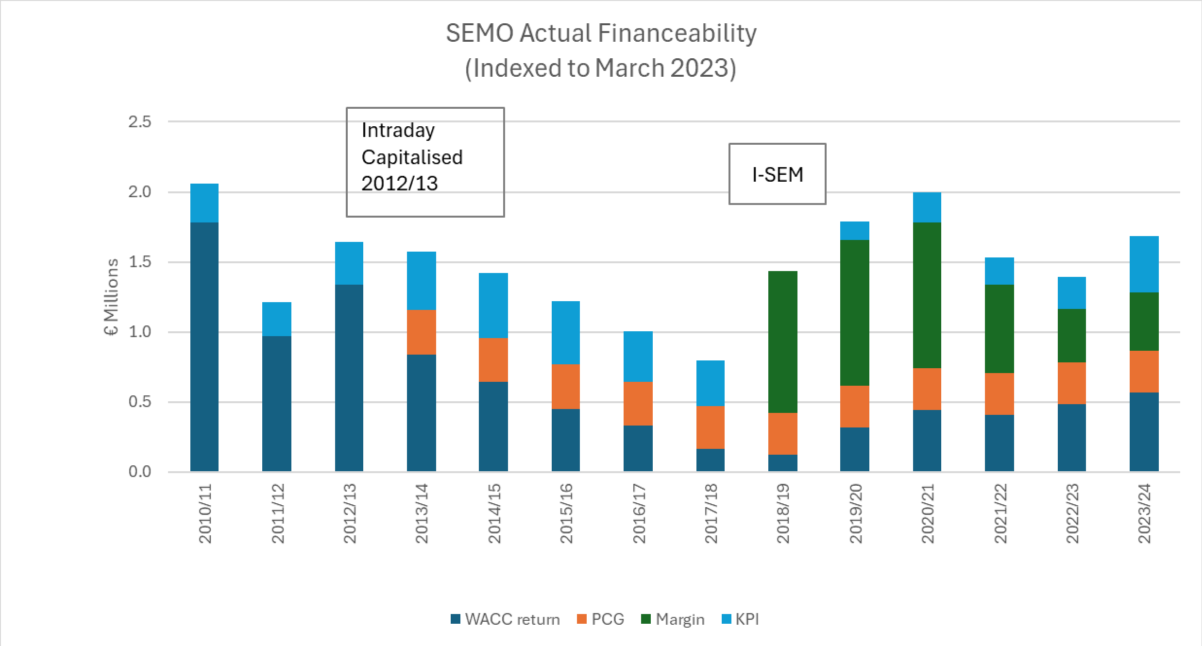


Figure 3.1: Payments to SEMO Excluding Depreciation

- Tariffs are determined on the best estimates available to the relevant year. An over / under recovery adjustment is made two years later to correct for actual values, including inflation of determined values, KPI outcome and actual revenue recovered. The over / under recovery amount is carried forward subject to inflation.

3.2 RAs proposals for the design of the SEMO price control 2024-29

Much of the proposed design for the SEMO 2024-29 Price Control follows the design of the 2021-24 Price Control. We have set out the design of the 2024-29 Price Control below highlighting key changes from the previous price control.

- Inflation Calculation - No change in principle. All determined financial values were stated in March 2023 prices representing the mid point of the 2022-23 tariff year. When tariffs are calculated, determined financial values will be adjusted for inflation which will be a blended rate of the Consumer Price Index in Ireland (75%) and the Consumer Price Index including owner occupiers' Housing costs (CPIH) in Northern Ireland (25%).

- Opex Allowance - No change in principle. An ex-ante allowance has been determined for core Opex.

- Delta Opex – The RAs have determined a delta Opex pot to be considered in similar manner as core Opex subject to an annual review as predictable Capex progresses. The calculated amount will be corrected for inflation. We recognise that this Delta Opex amount relates to the delivery of the capital programme. If delivery is delayed, we will consider reprofiling the allowance during the price control to reflect delivery. A scalar maybe identified during the Price Control period that could simplify the amount to be added in the year the investment is commissioned to reflect the timing of the addition. This mechanism will avoid the need to undertake further detailed opex reviews as capex is commissioned.

- Opex Cost Sharing - A 25:75 symmetrical opex cost sharing mechanism will be introduced whereby, the company will retain 25% of the difference between the opex allowance and the actual expenditure, if a positive amount, and will carry the risk of 25% of the cost difference if a negative amount. In this case, the opex allowance is the sum of the ex-ante allowance and the delta Opex allowance. The cost sharing mechanism maintains an incentive on SEMO to out-perform, responds to information asymmetry between regulator and regulated entity inherent in the price control process, and will allow SEMO to maintain a focus on delivery rather than cost reduction in a critical service area.

- Efficiency Factor - The ex-ante allowance and delta Opex amount will continue to be subject to an annual efficiency adjustment of 0.3%.

- Capex Allowance - No change in principle. We have made an ex-ante estimate of Capex, divided between predictable Capex (known projects, including market updates) and unpredictable Capex. In addition to setting an expectation of the level of expenditure, these estimates have been used to determine an ex-ante amount of rate of return and depreciation on capital invested. The estimated values rate of return and depreciation and the underlying Regulatory Asset Base (RAB) will be updated in line with actual expenditure during the annual tariff process.

- Capex Efficiency – No change in principle. Actual costs of both predictable and unpredictable capital expenditure can be subject to an ex-post efficiency review which will assess if:

    - Expenditure has been efficiently incurred.
    - Expenditure was demonstrably necessary.
    - Expenditure was incremental to the existing price controls and capable of being robustly validated by the RAs.

- Unpredictable Capex – No change in principle. The estimated amount of unpredictable Capex is an allowance up to a cap available to allow SEMO to react to new circumstances and meet new requirements. Should SEMO foresee that the cap might be exceeded it should approach the RAs for additional funding approvals. The approval process would involve further engagement with market participants.

- RAB Additions - We propose to change the treatment of capital additions to the RAB from addition in the year the asset is commissioned and put to use, to the addition of capital expenditure as incurred. In implementing this change, we propose to add work in progress (capital expenditure not already added to the RAB from the 2021-24 Price Control) to the opening RAB for the 2024-29 Price Control. While recognising that this change reduces the incentive for SEMO to deliver capital investment, it will be consistent with the RA's approach to EirGrid, SONI and SEMOpx and it will reduce the risk to SEMO from increasing levels of work in progress expenditure as it expands its capital programme.

- Deprecation - No change in principle. Each annual addition to the RAB will be depreciated at a rate of 10% in the year the financial asset was added to the RAB, then 20%, 20%, 20%, 20% and 10% in five subsequent years.

- WACC Application - No change in principle. A real pre tax rate of return on capital will be applied to the average of the nominal opening and closing RAB for the year, being a blended rate of 75% of the rate of return determined for Eirgrid and 25% of the rate determined for SONI in their most recent price controls as determined by the respective RAs.

- Cloud Opex - We recognise that some elements of IT previously procured as Capex will be procured as a service and accounted for as Opex. We propose to treat this 'Cloud' Opex in the same way is Capex was treated in the last price control – as a pass through cost, subject to an ex-post efficiency review. While SEMO has provided estimates of Cloud Opex based on its current understanding of likely procurement routes, we recognise that this might change over a five year period as projects are developed and supplier markets change.

- Our objective is to ensure that the regulatory framework does not become a barrier to SEMO seeking the right procurement route at the right time. Therefore we do not propose any additional restrictions on SEMO's operational decisions in this respect. However, SEMO should provide an annual report on the procurement of its IT programme, highlighting and explaining changes in procurement between Capex and Cloud Opex and why it considers the split between Capex and Opex to be efficient. This will help inform the RAs consideration of any ex-post efficiency review. In respect of unpredictable expenditure, SEMO should add 4.5 times expected Cloud Opex expenditure to its expected Capex expenditure when it considers whether the determined cap will be breached.

- PCG - No change in principle. Funding of €300k was included in respect of a Parent Company Guarantee which SONI must procure from EirGrid under Condition 3A of SONI's licence to act as SEM Operator whilst Eirgrid is the legal and beneficial owners of the entire issued share capital of SONI.

- Margin - We propose to remove the collection agency margin going forward. The increase in capital expenditure and increasing RAB has increased the overall level of financial reward to the company. Our financial modelling suggests that the company meets reasonable financial metrics without further collection agency margin. Financial instruments, which SEMO is required to maintain are paid for by consumers through the TSO price controls, provides protection against short term cash flow issues. Recent experience, including through the recent energy price shock has shown that SEMO has managed any short term cash flow on collection from existing funds without calling on these facilities and these facilities would have been sufficient to cover cash shortfalls. Considering these points, we conclude that it is appropriate to phase down the collection margin as signalled in previous price controls.

- In our tariff decision for 2024-25 (the first year of this price control) we allowed an amount for margin to maintain the level of reward of the 2021-24 price control(as shown in the figure above). In the first year, we maintained this approach but deducted the additional rate of return which flowed from adding work in progress to the RAB at the start of the price control. Thereafter, we propose to remove the collection margin.

- KPIs Incentive Mechanism - We have proposed an amended suite of KPIs for the 2024-29 Price Control period. The KPI incentive will move from an asymmetric allowance (up-side only) to a symmetrical incentive (positive and negative). We propose to set a fixed incentive amount of €500k per annum and break the link between the incentive amount and the total opex.

- Figure 3.2 below compares SEMO price control 2024-29 RAs proposal and SEMO's requested amount of the combination of a WACC return, parent company guarantee, collection agent margin and potential KPI reward.

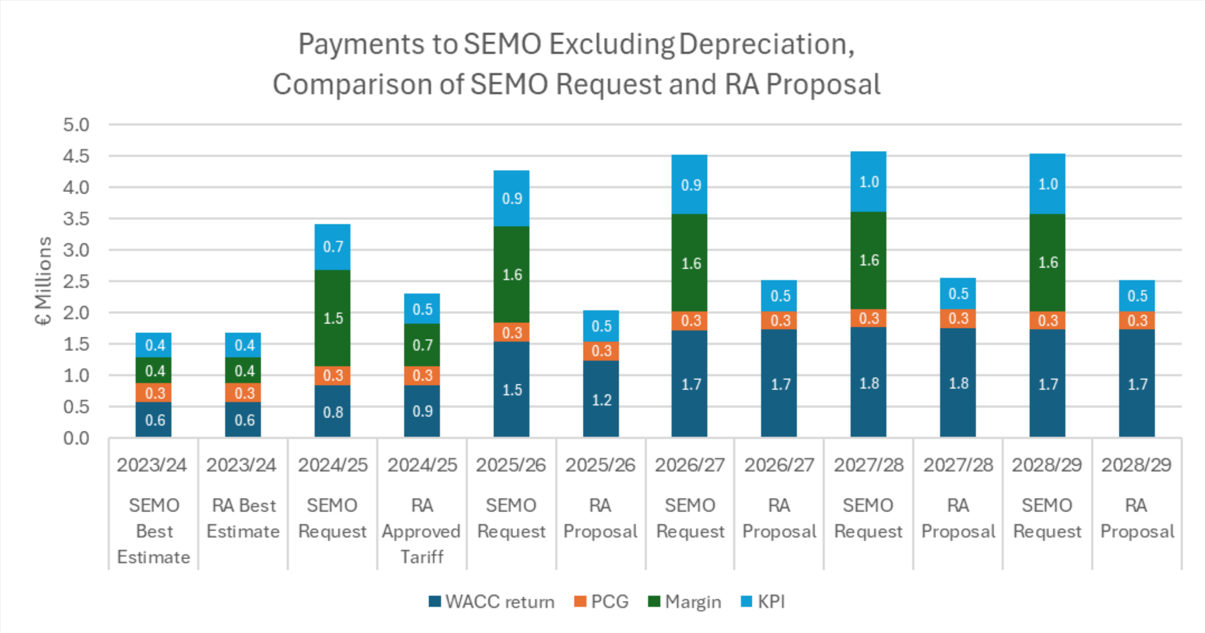


Figure 3.2: Payments to SEMO Excluding Depreciation. Comparison of SEMO Request and RA Proposal

- All Island Programme - SEMO will make a contribution to a number of major All-Island Projects. The determination of the Capex and Opex allowances necessary to delivery these projects and any associated outputs and incentives will be subject to separate SEMC decisions. Unless SEMC decides otherwise on a case by case basis, we expect the determined values of Capex and Opex to flow through the price control as designed, including the application of inflation, rates of return, cost sharing and over / under recovery.

- Tariff Determination - No change in principle. Tariffs are determined on the best estimates available to the relevant year. An over / under recovery adjustment is made two years later to correct for actual values, including inflation of determined values, KPI outcome and actual revenue recovered. The over / under recovery amount will be carried forward subject to inflation.

4. Operational Expenditure

4.1 Key points overview: Opex

SEMO's Price Control Opex submission indicates a predicted under-spend of around 6% on the regulated Opex allowance for the 2021-24 period; this is based on actual expenditure for the first two years of that period (which collectively indicate an underspend of €3.2M and a forecast for the final year (projecting an over-spend of €0.7M), totalling €39.8M.

SEMO's total Opex request for the 2024-2029 Price Control period is €112.7M. In the last three-year period, the average total Opex per year was €13.3M. SEMO requested this to increase to average level of €22.5M per year in the current five-year Price Control period.

SEMO has allocated €23.9M of total Opex as delta Opex, which is the resultant Opex cost from the capex delivery of IT programmes. Delta Opex was not present in the last period. Core (BAU) Opex is calculated by subtracting delta Opex from total Opex. SEMO has requested €88.8M of core Opex for the five-year Price Control period, an average of €17.8M per year.

In addition, SEMO has allocated €12.3M of cloud Opex from projects expenditure. SEMO have proposed a total Opex, including cloud Opex of €124.9M for the current five-year period. In the last three-year period, the average total Opex, including cloud Opex per year was €14.0M and in the current five-year period SEMO propose this to increase to €25.0M per year.

Table 4.1a provides a summary of SEMO's submission for €23.9M of delta Opex costs by cost category for each year of the Price Control. The RAs' consultants recommended that the full value of SEMOs delta Opex proposal is allowed.

SEMO Submission	**SEMO 2024/25**	**SEMO 2025/26**	**SEMO 2026/27**	**SEMO 2027/28**	**SEMO 2028/29**	**Overall Total**
Category	**€m**	**€m**	**€m**	**€m**	**€m**	**€m**
Labour Costs	0.319	0.468	0.468	0.468	0.468	**2.189**
IT & Telecoms	1.321	4.165	4.667	5.155	5.366	**20.673**
HR, Corporate and Facilities	0.108	0.159	0.159	0.159	0.159	**0.744**
Finance & Regulation	0.138	0.052	0.052	0.052	0.052	**0.346**
Total	**1.886**	**4.844**	**5.345**	**5.833**	**6.044**	**23.952**

Table 4.1a Summary of SEMO Delta Opex Submission by Cost Category

SEMO have requested €34.9M of core Opex labour costs for the current five-year Price Control period. In the last three-year period, the average core Opex labour costs per year was €5.7M and in the current five-year period SEMO propose this to increase to €7.0M per year.

SEMO have requested €29.0M of core Opex IT & Telecoms costs for the current five-year Price Control period. In the last three-year period, the average core Opex IT&T costs per year was €4.3M and in the current five-year period SEMO propose this to increase to €5.8M per year.

SEMO have requested €12.1M of core Opex HR, Corporate and Facilities for the current five-year Price Control period. In the last three-year period, the average core Opex HR, Corporate and Facilities costs per year was €2.0M and in the current five-year period SEMO propose this to increase to €2.4M per year.

SEMO have requested €12.7M of core Opex Finance and Regulation costs for the current five-year Price Control period. In the last three-year period, the average core Opex HR, Corporate and Facilities costs per year was €1.2M and in the current five-year period SEMO propose this to increase to €2.5M per year.

The key reasons for the forecasted increases are:

- The price control period covers five years, whereas the previous covered three years.
- SEMO have requested 17.5 additional FTEs to complement its existing staff of 71.5 FTEs.
- SEMO proposed an average salary of €85.0K to apply to all FTEs. This is compared to an actual average salary of €84.9K for the 2021-24 period.
- SEMO's IT & Telecommunications costs are forecast to increase steadily over the forthcoming Price Control period due to SEMO modernisation of IT Provision. The increase in cost is driven according to the increase in headcount and the resultant Opex cost due to the increase in predictable capex, many of which are IT projects.
- HR related costs per year are forecasted to decrease from an of €171.3K per year in the 2021-24 period to an average of €149.8K per year in the 2024-29 period, which is driven by reductions in General Administration.
- Corporate costs are forecasted to increase from €997K per year in the 2021-24 period to €1.3M per year in the 2024-29 period. This is due to the increase in FTEs.
- Finance and regulation costs are forecasted to increase compared to the previous period. This is driven by SEMO's proposed increase in Professional Fees to €11.4M in the 2024-29 period compared to €2.9M in the 2021-24 period.

The RAs expect that the SEM will undergo significant reform over the coming years, due to the requirements of European legislation including the Clean Energy Package. The Climate Action and Low Carbon Development Acts 2015 to 2021 for Ireland and the Climate Change Act for Northern Ireland 2022 may also impact SEMO's operations. The RAs appreciate the need for appropriate trading arrangements between the SEM and GB alongside other obligations under EU regulations. The RAs appreciate the complexity required for the SEM-EU recoupling on the delivery of the Celtic interconnector. The RAs recognise that with increasing complexity of the market and upgrading of the technical infrastructure, SEMO will require an increase in headcount.

Table 4.1b provides a breakdown by category of SEMO's Opex 2021-24 actual/ best estimate, SEMO's Opex submission 2024-29 and the RAs Opex proposal 2024-29.

	SEMO actuals/ best estimate 2021-24	SEMO submission 2024-29	RA's proposals 2024-29	Variance between submission and proposal
OPEX	**Total € million**	**Total € million**	**Total € million**	
Labour	17.078	37.133	35.615	4 %
IT & Telecommunications	12.823	49.696	44.549	10 %
HR, corporate and facilities	6.124	12.831	11.484	10 %
Finance & Regulation	3.743	13.015	7.540	42 %
Cloud	2.353	12.261	12.213	0 %
	42.121	**124.937**	**111.402**	**11 %**

Table 4.1b: Opex proposals by key categories 2024-29

4.2 Summary of SEMO's submission

SEMO made a submission for total Opex in March 2024 to the RAs requesting €112.7M for the 2024-2029 Price Control period. The current Price Control covers a five-year period, whereas the previous Price Control covered three years. The average core Opex cost per year in the previous Price Control was approximately €13.3M compared to €22.5M in the current Price Control.

SEMO acknowledges in its submission that previously core Opex costs were primarily driven by 'people costs.' However, the business has become heavily dependent on systems and technology, IT and Telecommunications as growing contributors to SEMO's cost base.

SEMO make the case for Delta Opex which is essentially an allowance that recognises that capex will essentially drive Opex. This is part of SEMO's overall Opex, mainly driven by IT (not in addition to IT) and is forecast by SEMO to be €21.018M[13] in their BPQ.

SEMO has stated that the IT costs are forecast to increase steadily over the forthcoming Price Control period and the total forecast resultant delta Opex spend on IT Projects is €20.7M.

To provide context for SEMO's Opex submission the RAs have conducted a comparison of the SEMO 2021-24 Price Control annual Opex allowances against SEMO 2024-29 Opex submission. This is illustrated below.

[13] SEMO provided the breakdown of delta Opex as part of query process which is €23.9M. The justification for this difference provided by SEMO is that in the BPQ, cost only represents the non-headcount related cost while in the breakdown it represents additional headcount related cost as well.

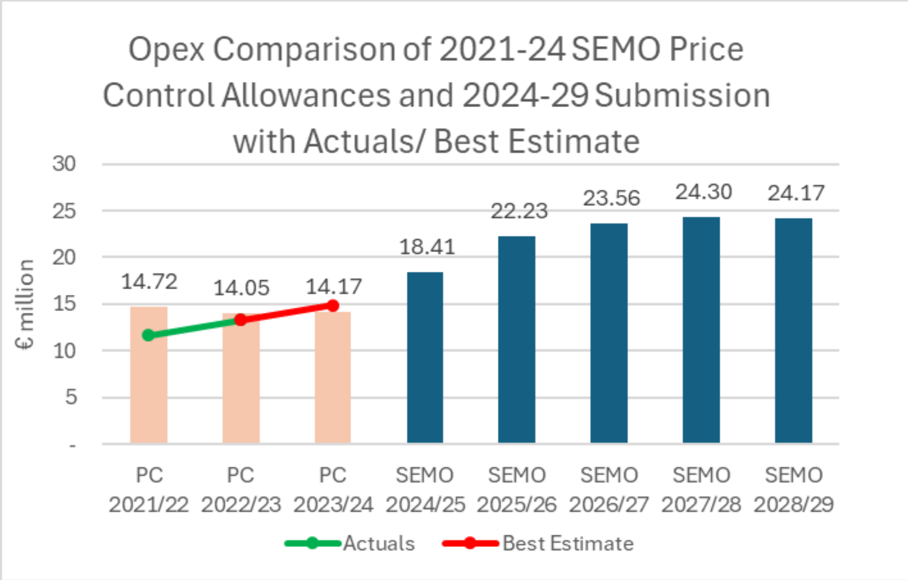


Figure 4.2a: Comparison of 2016-21 SEMO Price Control Allowances and 2021-24 SEMO Submission

Compared to a regulated Opex allowance of €42.3M for the 2021-24 Price Control, SEMO's predicted actual Opex was €39.7M[14] (representing a potential under-spend of 6%).

SEMO has provided actual costs incurred for years 2021/22, 2022/23 and SEMO's best estimate for year 2023/24 which is also shown in Figure 4.2a against the Opex allowances set for those years. Figure 4.2a above shows a steep rise in total Opex, across the Price Control period 2024-29.

To facilitate the ongoing development and upgrading of IT provisions, SEMO proposes that its Opex should increase. SEMO's Opex requirements for 2024-29 have been divided into the following high-level categories:

- Labour
- IT and Telecoms
- Corporate, HR and Facilities
- Finance & Regulation

Figure 4.2b compares SEMO's Opex categories actual/ best estimates for 2021-24 Price Control with SEMO Opex categories submission for 2024-29 Price Control.

[14] Final year of 2021-24 Price Control is a forecasted cost rather than an actual cost incurred

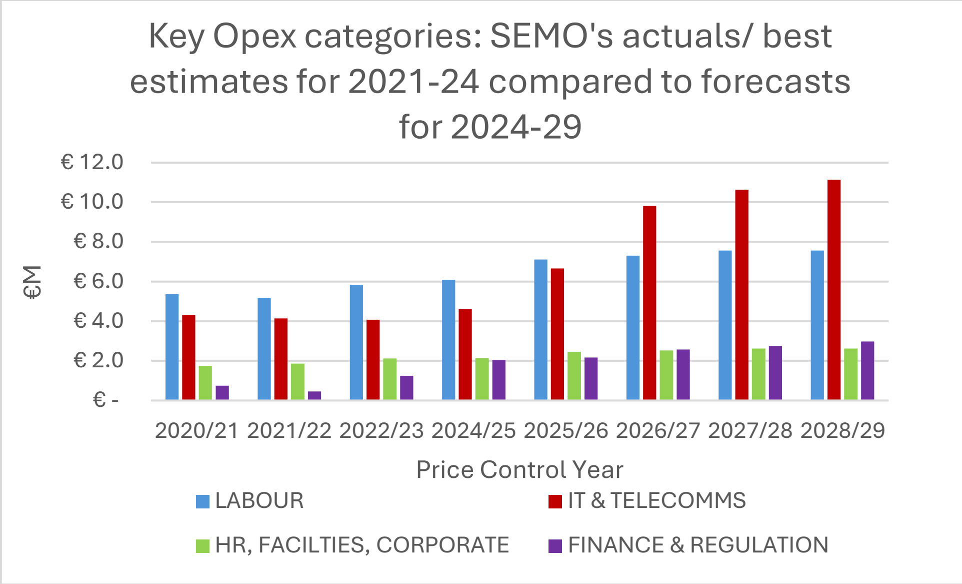


Figure 4.2b: Comparison of 2021-24 Price Control Actuals by category and SEMO 2024-29 Submission

To provide enhanced services for market participants SEMO is proposing to invest heavily in its IT Provision. A significantly increased Opex allowance is needed to ensure that SEMO will support the following:

- enabling additional interconnectors to participate in the SEM,
- full market integration with Europe and GB,
- interfacing with NEMOs and DSO,
- facilitating higher volumes of smaller scale market participants,
- evolution of the capacity markets,
- high value data services,
- integration of new technologies to support decarbonisation,
- exploiting benefits of AI and automation

SEMO will continue to address the changes within the market whilst providing transparent market operation, delivery of core KPIs and focus on cost effectiveness for market participants. Table 4.2 below outlines the values associated with each Opex category within the SEMO submission.

SEMO Submission	SEMO 2024/25	SEMO 2025/26	SEMO 2026/27	SEMO 2027/28	SEMO 2028/29	Overall Total
Category	**€m**	**€m**	**€m**	**€m**	**€m**	**€m**
Labour Costs	7.121	7.312	7.567	7.567	7.567	37.133
IT & Telecoms	6.666	9.815	10.632	11.143	11.440	49.696
Facilities & Property Management	1.079	1.107	1.146	1.146	1.146	5.623
Recruitment, HR and Admin	0.144	0.147	0.151	0.151	0.151	0.744
Finance & Regulation	2.161	2.576	2.751	2.976	2.551	13.015
Corporate Costs	1.240	1.273	1.317	1.317	1.317	6.464
Total	**18.410**	**22.230**	**23.564**	**24.299**	**24.172**	112.676

Table 4.2: Summary of SEMO Opex Submission by Cost Category

Figure 4.2c highlights the total Opex proportion for each cost category across the five-year Price Control period. IT & Telecoms has replaced Labour Costs as the largest proportion of SEMO's Opex. As a percentage of total Opex requested, IT & Telecoms has increased from 33% in the previous Price Control period to 41% in the forthcoming period. Consequently, Labour Costs have decreased significantly as a percentage of total spend. In the previous Price Control period Labour Costs represented 43% of total Opex requested and has fallen to 34% in the forthcoming period. Finance & Regulation has increased from 10% to 12% and Corporate, HR and Facilities has decreased from 14% to 12%.

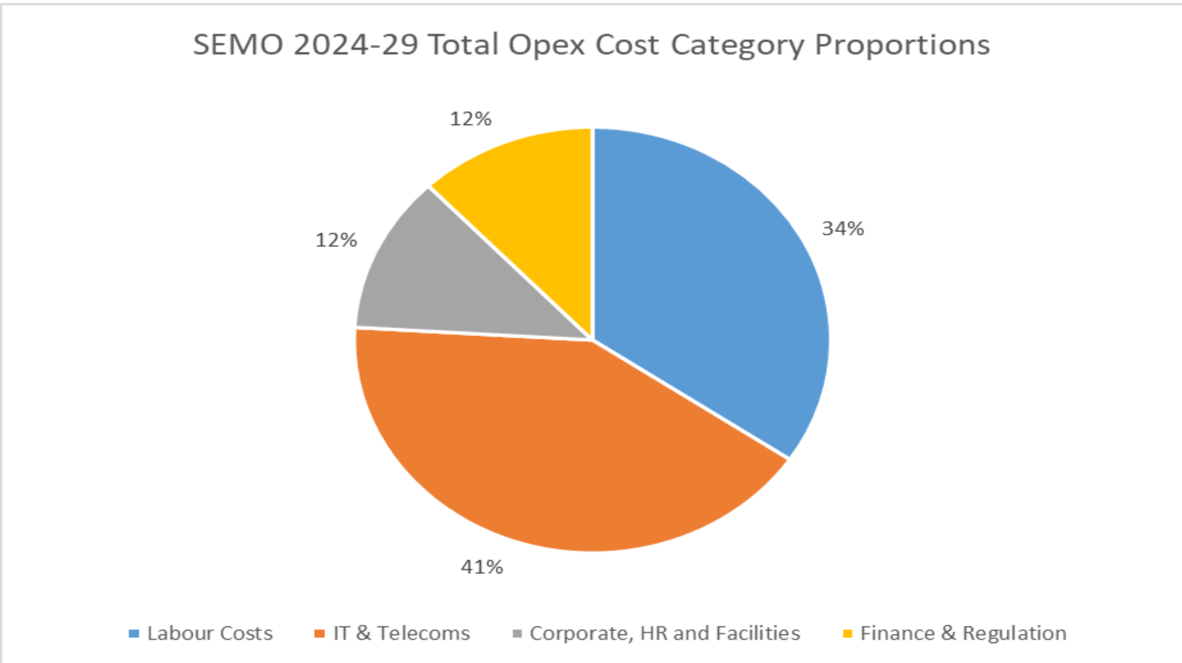


Figure 4.2c: SEMO Opex Submission by Cost Category Proportions

Figure 4.2d highlights the core Opex proportion for each cost category across the five-year Price Control period. Excluding delta Opex, Labour costs represent the largest proportion of SEMO's core Opex. As a percentage of core Opex requested, Labour costs are 39%, IT &

Telecoms costs represent 33%, Finance & Regulation represent 14% and Corporate, HR and Facilities represent 14%.

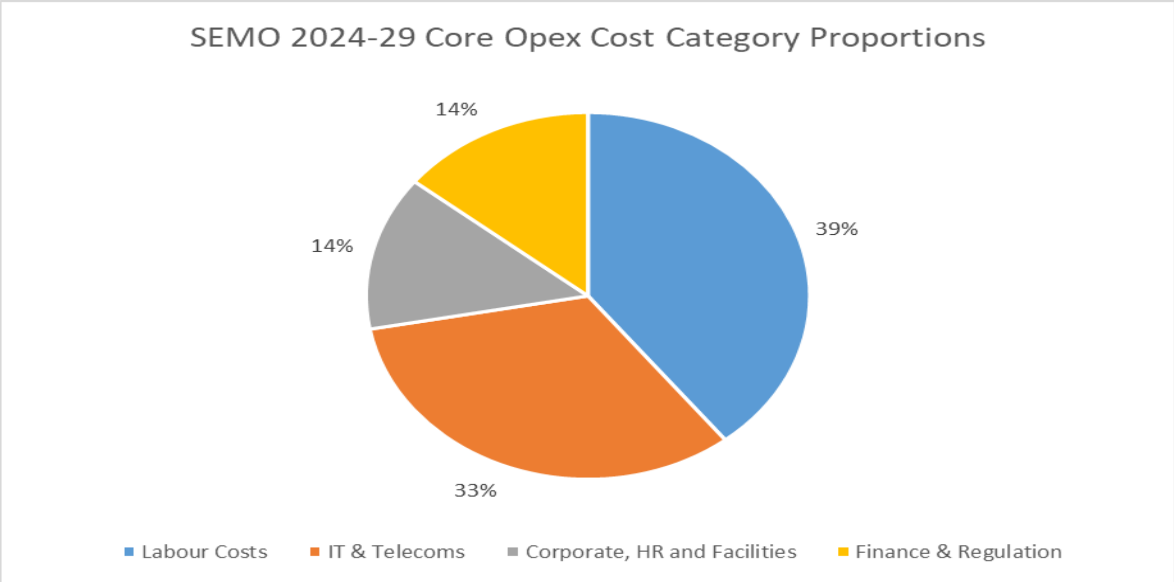


Figure 4.2d SEMO Core Opex Submission by Cost Category Proportions

Figure 4.2e highlights the delta Opex proportion for each cost category across the five-year Price Control period. IT & Telecoms represent the largest proportion of SEMO's delta Opex at 86%, Labour costs represent 9%, Corporate, HR and Facilities represent 3% and Finance & Regulation represent 1%.

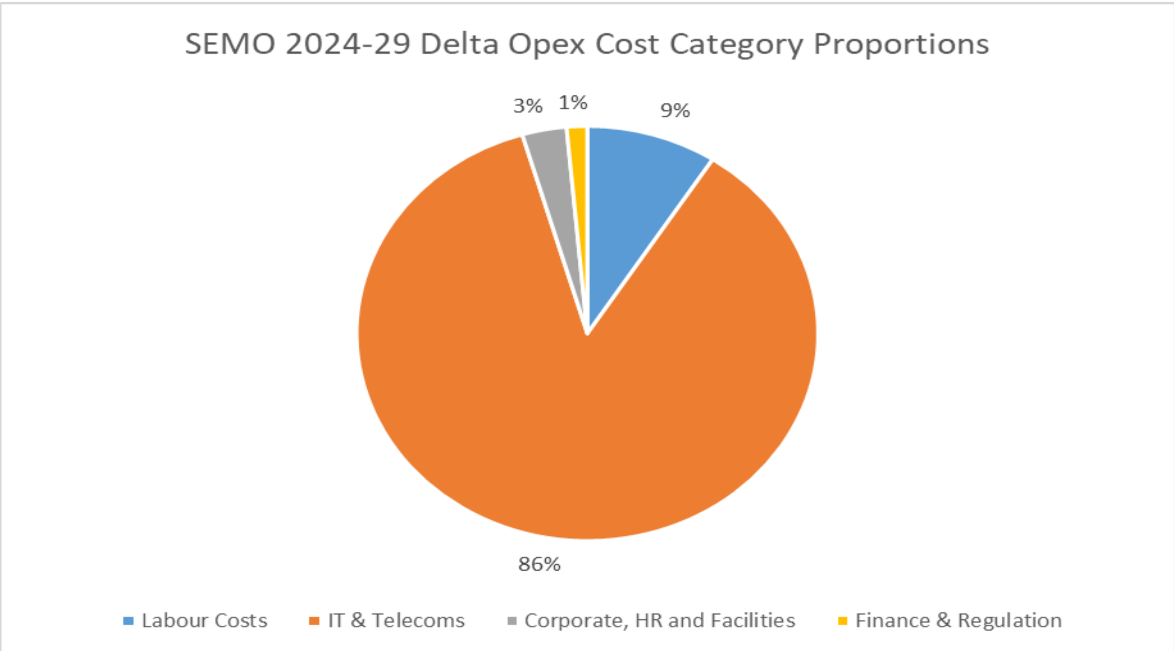


Figure 4.2e SEMO Delta Opex Submission by Cost Category Proportions

SEMO's Opex forecast is underpinned by a significant increase in FTEs which is considered in the next section.

4.3 Resources (FTEs)

Summary of SEMO's submission

As part of the previous 2021-24 SEMO Price Control a labour cost allowance has been provided on an assumed 71.5 FTE baseline which is broadly categorised across the following areas in the table below.

Breakdown of FTEs and roles	
Market Interface (Registration, Customer Care, MO Reporting Publishing Website)	9
Market Operations (Balancing Market Oversight, AOLR, FMD, Market Surveillance & Reporting)	8.25
Settlement (Balancing & Capacity Settlement, Settlement Analysts, Credit Assessment, Credit Risk Management, Payments in Advance, Clearing, Change Management & Testing)	23.5
Operations Development and Compliance (Market Modifications, Compliance, Secretariat, Change Management & Testing)	7.25
SEM IT (IT Service Management, Application Support, Application Infrastructure Support, Cyber Security Specialist, IT Strategy & Data)	10.75
Future Markets (Market Modelling, Future Markets)	6.25
Programme Delivery (Programme Delivery)	2
Other (Finance, Legal)	4.5
Total FTE	**71.5**

Table 4.3a: Summary of FTE & Roles based on 71.5 FTE base.

SEMO is seeking an additional 17.5 FTEs to raise the total complement to 89 FTEs by the end of the period. This increase is due to the resources required to accommodate the upgrading of IT infrastructure, integration with the European energy systems and decarbonisation targets.

A summary of the additional resources requested by SEMO is provided below in Table 4.3b while a more detailed breakdown of the total internal 89 FTEs and roles is provided in Annex A.

Additional Resources requested by SEMO	
Market Interface (Registration, Customer Care, MO Reporting Publishing Website)	0
Market Operations (Balancing Market Oversight, AOLR, FMD, Market Surveillance & Reporting)	3
Settlement (Balancing & Capacity Settlement, Settlement Analysts, Credit Assessment, Credit Risk Management, Payments in Advance, Clearing, Change Management & Testing)	1
Operations Development and Compliance (Market Modifications, Compliance, Secretariat, Change Management & Testing)	2.25
SEM IT (IT Service Management, Application Support, Application Infrastructure Support, Cyber Security Specialist, IT Strategy & Data)	7
Future Markets (Market Modelling, Future Markets)	-0.25
Programme Delivery (Programme Delivery)	4.5
Other (Finance, Legal)	0
Total FTE	**17.5**

Table 4.3b: Additional Resources Requested in SEMO Submission

SEMO is of the view that operational investment is required to deliver on the needs of the market and its participants in the upcoming Price Control. The forthcoming period will see considerable change in the operation of the SEM and its underlying market systems including the modernisation of IT provision. Therefore, SEMO is proposing a step change increase in Opex requirement for the upcoming Price Control.

Views of Working Group

During the Working Group meetings market participants provided their feedback on SEMO's presentation. Market participants were sympathetic to the challenges facing SEMO and agreed that SEMO resourcing will need to increase. Market participants also expressed the need for SEMO to demonstrate innovation, adaptability, and flexibility in delivering BAU activities. The Working Group is of the view that SEMO should continue to be well resourced from an IT perspective.

RAs' analysis

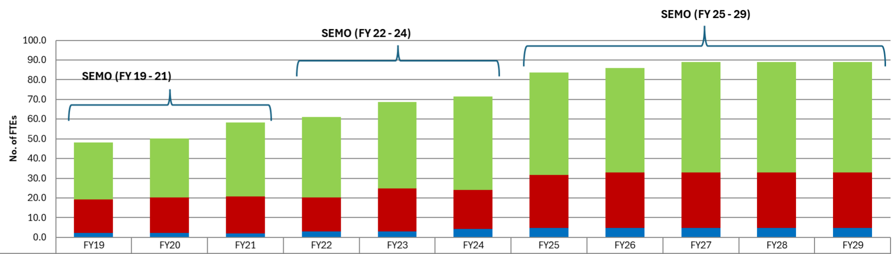
Baseline FTEs

The RAs conducted a reviewed the baseline number of 71.5 internal FTEs to satisfy themselves of the 'starting point' for the 2024-29 Price Control. Along with the organisational charts provided in the BPQ, the RAs requested additional information from SEMO to assist with determining the appropriate staffing levels for the forthcoming Price Control.

Composition of FTEs

The RAs reviewed the composition of SEMO's proposed internal staff complement in terms of management hierarchy and allocated staff.

A comparison of existing resourcing to what had been requested by SEMO is illustrated below:



	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28	FY29
Analyst / Administration/Clerical Staff	29.00	30.00	37.50	40.75	44.00	47.50	52.00	53.00	56.00	56.00	56.00
Senior Market Professional	17.00	18.00	18.75	17.25	21.75	19.75	27.00	28.25	28.25	28.25	28.25
Market Managers (including directors) *	2.25	2.25	2.00	3.00	3.00	4.25	4.75	4.75	4.75	4.75	4.75

Figure 4.3a: Comparison of 2018-21, 2021-24 with SEMO's 2024-29 Submission by FTE Grade

In terms of FTEs recorded by SEMO in 2021-24, the RAs note that:

- The total FTEs at 2021/22 was 61.0. This compares to 67.5 allowed for in Year 1 of the 2021-24 Price Control.
- The total FTEs at 2022/23 was 68.7. This compares to 67.5 allowed for in Year 2 of the 2021-24 Price Control.
- The total FTEs at 2023/24 was 71.5. This compares to 67.5 provided for in the final year of the 2021-24 Price Control.

The RAs note that the number of FTEs in situ was lower than the allowance in 2018-21 Price Control and higher than the allowance for two out of three years in the 2021-24 Price Control. This has been taken into consideration when assessing an appropriate baseline and need for additional resources going forward to carry out SEMO's core functions and the appropriate resource to support the ambition in delivery IT projects along with increased complexity in regulatory environment.

Additional FTEs requested:

Underpinning SEMO's Opex submission are arguments presenting challenges of day-to-day operations (affecting perceived stability of the market) and future challenges.

Within its Opex submission, SEMO has identified potential changes in a number of functions. These include:

- Future Markets: This team drives the evolution of the energy and capacity market and delivers market change, such as compliance with EU Directives. SEMO were allocated 2 FTEs to this team in the last Price Control. Due to the increased workload SEMO allocated an additional 2.25 FTEs to this function to initiate the All-Island Programme SMP and SDP.
- Programme Delivery: The team manages the delivery of SEMO's programme of work enforcing programme standard and procedures. SEMO were allocated 2 FTEs to this function in the previous Price Control. SEMO acknowledge that the scale of change experienced in this function was much greater than anticipated. As a result, stakeholder communications, project reporting, change management, project establishment and resource readiness were not given the attention that SEMO believes appropriate.
- IT Services:
  - Cyber Security: Cyber Security services are provided on a group wide basis across TSOs, SEMO and SEMOpx. SEMO benefits from the use and support of these security personnel, processes and technologies. In the last Price Control SEMO was allocated 1 additional FTE which is expected to endure for the coming Price Control period.
  - IT Strategy and Data: SEMO has made progress in the last Price Control in providing data to meet renewable integration targets. This resulted in the addition of 1 FTE in last Price Control.
  - Managerial Allowance: The initial 0.5 FTE allowance provided oversight for IT Infrastructure and IT Applications functions. In the last Price Control the oversight was expanded to include Cyber Security, IT Strategy and Emerging Technologies and IT Portfolio and Engagement function. This resulted in an additional 0.75 FTE which is expected to endure for the current Price Control.
  - Application Support: SEMO were allocated 4.5 FTEs in last Price Control. Due to the growing complexity and evolving IT estate SEMO utilised an additional 0.75 FTE, which is expected to endure in the current Price Control.
  - IT Service Management: SEMO were allocated 2.5 FTEs in the last Price Control period, however SEMO forecast this requirement to be 1.25 FTEs for the last year of the previous Price Control and continue for the current Price Control.
- Market Interface: SEMO allocated 1 FTE more than was envisaged to be required in the last Price Control. This was due to the increase in registrations and deregistrations in the last two years of the previous Price Control.
- Market Operations: In the last Price Control there was no uptake of the Agent of Last Resort (AOLR) function which resulted in a decrease of 0.75 FTE in previous Price Control which is expected to endure in the current Price Control.
- Settlements: In the last Price Control SEMO allocated 1 additional FTE to address the increase in volume and complexity of requests and queries which is expected to endure in the current Price Control.

- Operations Development and Compliance: In the last Price Control SEMO faced challenges recruiting a Testing role and filling a vacancy in the Market Modifications team, which resulted in a 1.25 FTEs reduction compared to forecast. This is not reflective of the business need and SEMO is working to increase the FTEs in this area.
- Legal: In the last Price Control the requirement of 1.5 FTEs for SEMO's specialist legal support. This has been reduced to 1 FTE.

SEMO has requested adjustments to its resources accounting for the challenges described above. The RAs have assessed SEMO's request for 17.5 additional internal FTEs and noted observations against each relevant function.

- **Market Interface (0 additional FTEs requested by SEMO; 0 proposed by RAs)**

SEMO is not requesting any additional resource allocation for this team to manage the upcoming challenges. SEMO outlines that efficiencies have been created which are able to offset the complexity and volume of work. As outlined above, SEMO envisage that the 1 additional FTE allocated in the last Price Control will endure for the current Price Control.

- **Market Operations: (3 additional FTEs requested by SEMO; 2.5 proposed by RAs)**

SEMO has requested an additional 3 FTEs from FY 2027 onwards to deal with the large increase in workload that is expected to accompany the reintegration with the EU market. The Balancing Market Oversight and Market Surveillance and Reporting teams will be impacted once the Celtic interconnector goes live in 2027. The AOLR function has not been called upon to date and has been minimally resourced. In the instance that there is an uptake in this function, resources will be diverted from within the Market Operations team to manage this process.

The RAs are minded to allow for an additional 2.5 FTEs (rather than 3 FTEs)

- **Settlements: (1 additional FTEs requested by SEMO; 0.5 proposed by RAs)**

SEMO has requested to retain the 1 additional FTE allocated in the previous Price Control and request 1 additional FTE to address challenges and complexities that are expected from large capital programmes during the current Price Control period.

The RAs are minded to allow for an additional 0.5 FTE (rather than 1 FTE)

- **Operations Development and Compliance: (2.25 additional FTEs requested by SEMO; 2.25 proposed by RAs)**

SEMO is working to restore 1.25 FTEs in this team to its full allocation of 8 FTEs in the last Price Control. SEMO recognise that efficiencies have been made, which combined with the restoration of the FTE allocation will offset the complexity of Market Modifications. SEMO have requested an additional resource support in the Data Management area which is outlined below.

- **Data Management**

SEMO is requesting 1 additional FTE to support high-quality, accessible market operator data which both SEMO staff and marker participants can use for insights-led decision making. This role will support data governance and management from a business and customer perspective, ensure availability of data, create new use cases and analytics to resolve identified issues or challenges for SEMO.

The RAs are minded to allow 2.25 additional FTEs requested by SEMO.

- **IT Services: (7 additional FTEs requested by SEMO; 6 proposed by RAs)**

SEMO has requested to retain the managerial allowance of 1.25 FTE from the previous Price Control, due to the enduring requirement of oversight for Cyber Security, IT Strategy and Emerging Technologies and IT Portfolio and Engagement functions. SEMO is requesting an increase of 7 FTEs across IT Services which is outlined below.

- **Cyber Security:**

SEMO has requested an increase of 0.75 FTE in 2025 and 2026 totalling 1.5 additional FTEs for the remainder of the Price Control period.

- **Application Support:**

SEMO has requested 2.75 additional FTEs from 2025 to fulfil the roles of IT Application Support Analyst, IT Service Transformation, It Infrastructure Integration Lead, IT Infrastructure Project Manager and Market Archive Solution

- **IT Strategy and Data:**

SEMO has requested an additional 2.75 FTEs for Data, AI and Analytics and replacing a BAU contractor that is currently provided for as a managed service to an FTE resource.

The RAs are minded to allow a total of 6.

- **Future Markets: (-0.25 FTEs requested by SEMO; -0.25 proposed by RAs)**

SEMO is requesting a 0.25 FTE reduction in FTEs, from 4.25 FTEs at the end of the last Price Control. SEMO is forecasting to retain 4 FTEs for the current Price Control. This team will be responsible for tracking, monitoring, and analysing policies and provide a clear SEMO Programme of Work. This programme will allow SEMO to plan for the challenges in the decade ahead, which will be managed by the programme delivery team, whose resource requirements are discussed below.

The RAs are not proposing to change SEMOs request for -0.25 FTEs.

- **Programme Delivery: (4.5 additional FTEs requested by SEMO; 4.5 proposed by RAs)**

SEMO is requesting an increase of 4.5 FTEs, in addition to the 2 FTEs allocated under the last Price Control bringing the total FTEs for the Programme Management Delivery team. This team will monitor, manage and mitigate risks related to the SEMO Programme of Work. The following roles will be required to fulfil these responsibilities.

- **Programme Office Manager:** 0.5 FTE to effectively manage and oversee all activities within the programme delivery team.
- **Project Monitoring Tracking:** 1.5 FTEs to effectively track and monitor multiple projects simultaneously.
- **Resource Management:** 1 FTE to monitor resource allocation across all projects within the programme.
- **Budget Management:** 1 FTE to oversee the financials of each project, to ensure financial goals are met.
- **Communication and Stakeholder Management:** 1 FTE to build relationships with stakeholders to meet the needs of different groups involved in the various projects.
- **Quality Assurance:** 0.5 FTE to monitor and improve processes to meet predefined quality standards.
- **Change Management:** 1 FTE to ensure organisational changes are smoothly implemented with minimal disruptions.

The RAs acknowledge the need of additional 4.5 FTEs on the basis of the more extensive investment programme during this Price Control period. However, the RAs are minded to support profiling the additional resources throughout the period as projects are initiated.

RAs' proposals for consultation

Of the additional 17.5 FTEs requested by SEMO, the RAs propose an allowance commensurate with an uplift of 15.5 FTEs to enable SEMO to manage and upgrade its IT Provision, and necessary developments across the Settlement and Operations areas.

Additional Resources Requested by SEMO		RAs' proposal
Market Interface	0	0
Market Operations	3	2.5
Settlement	1	0.5
Operations Development and Compliance	2.25	2.25
SEM IT	7	6
Future Markets	-0.25	-0.25
Programme Delivery	4.5	4.5
Finance	0	0
Total Additional FTEs Requested	17.5	15.5

Table 4.3c: RAs' Proposals for Additional Internal FTEs

	FY 2024/25		FY 2025/26		FY 2026/27		FY 2027/28		FY 2028/29		Total	
	SEMO Submission	RA Proposal	SEMO Submission	RA Proposal	SEMO Submission	RA Proposal	SEMO Submission	RA Proposal	SEMO Submission	RA Proposal	**SEMO Submissio**	**RA Proposal**
Market Interface	0	0	0	0	0	0	0	0	0	0	**0**	**0**
Market Operations	0	0	0	0	3	2.5	0	0	0	0	**3**	**2.5**
Settlement	1	0.5	0	0	0	0	0	0	0	0	**1**	**0.5**
OD&C	2.25	2.25	0	0	0	0	0	0	0	0	**2.25**	**2.25**
IT Management	3.5	1.5	1.75	2.5	1.75	2	0	0	0	0	**7**	**6**
Future Markets	-0.25	-0.25	0	0	0	0	0	0	0	0	**-0.25**	**-0.25**
Programme Delivery	4.5	1.5	0	1.5	0	1.5	0	0	0	0	**4.5**	**4.5**
Finance	0	0	0	0	0	0	0	0	0	0	**0**	**0**
Legal	0	0	0	0	0	0	0	0	0	0	**0**	**0**
TOTAL	**11**	**5.5**	**1.75**	**4**	**4.75**	**6**	**0**	**0**	**0**	**0**	**17.5**	**15.5**

Table 4.3d RAs' proposals for additional Internal FTEs yearly breakdown

The RAs note that in addition to an internal complement of 71.5 FTEs, SEMO also has an allowance for outsourced resources and has capitalised resources through its capital projects. It is at SEMO's discretion to allocate all resources in line with competing priorities over the duration of the Price Control. While the RAs have used business cases presented by SEMO as the basis of analysis, SEMO has flexibility to re-allocate or re-deploy resources as more information becomes known to allow more effective planning and operations. Any re-allocation should be capable of being justified.

4.4 Labour costs

Background

Labour costs represent the second largest category of Opex, accounting for 33% of the total Opex costs proposed by SEMO across the 2024-29 Price Control period. When the delta component from the total Opex is removed, Labour costs account for 40% of the core Opex cost which makes it largest category in SEMO's core Opex proposal. In the previous Price Control labour costs accounted for 43% of the total Opex.

However, in reviewing SEMO's labour cost submission it is important to consider the previous 2021-24 allowance together with SEMO's actuals and best estimate.

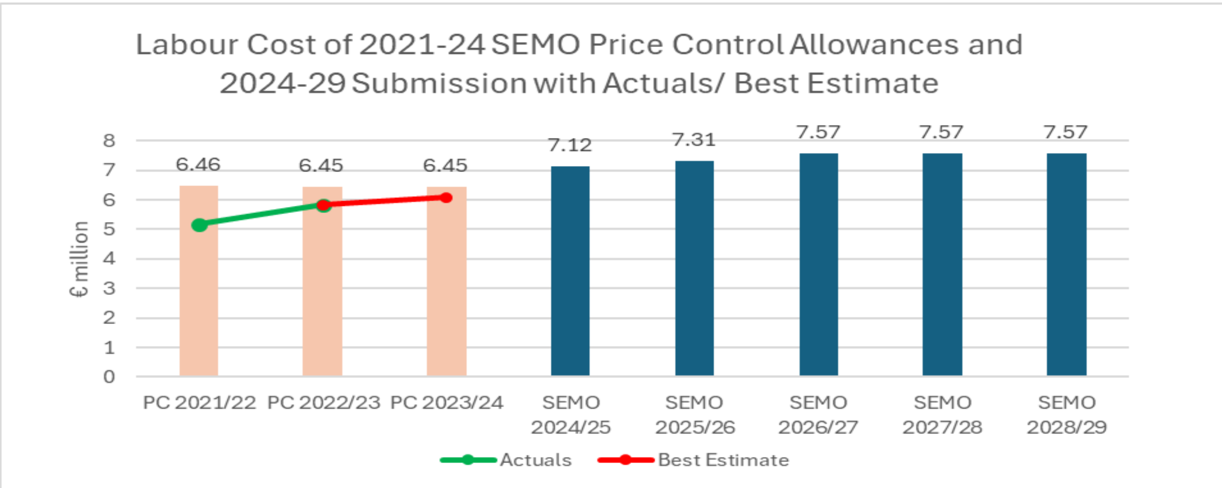


Figure 4.4a Labour Cost of PC2021-24 and 2024-29 Submission with Actuals/Best Estimate

Figure 4.4a shows a comparison of the labour cost allowances for the previous Price Control period 2021-24 with actual and best estimate costs provided by SEMO. It also shows SEMO's request for additional labour cost for the upcoming five-year PC period 2024-29. SEMO's actual labour costs during the last Price Control period have been under the allowance provided but are estimated to increase significantly during the first year of the upcoming Price Control period paving the way for a requested allowance of €7.1M in 2024/25. This request represents a 17% increase on actual labour costs during 2023/24. The labour costs requested continue to rise until the third year (2026/27) of the upcoming Price Control period to €7.6M and then remains stable till the end of Prive Ccontrol year 2028/29.

Summary of SEMO's Submission

SEMO has assumed an actual average payroll cost of €85K per FTE during the upcoming Price Control period in its submission. SEMO's submission is summarised below in Table 4.4a with actual and forecast information provided by SEMO for the years 2020/21 to 2028/29. SEMO also provided the yearly breakdown of Delta Opex cost associated with Labour which is also based on same average payroll cost per FTE resulting in total of €2.189M.

Labour Costs	SEMO Actual Spend				SEMO Proposal					
in €m	**2021-22**	**2022-23**	**2023-24**	**Total**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**Total**
Salary	3.617	4.383	4.567	**4.567**	5.349	5.493	5.685	5.685	5.685	**27.897**
Social Security	0.444	0.459	0.478	**0.478**	0.56	0.575	0.595	0.595	0.595	**2.92**
Performance Related Payments	0.365	0.298	0.31	**0.31**	0.364	0.373	0.386	0.386	0.386	**1.895**
Pension	0.738	0.695	0.724	**0.724**	0.848	0.871	0.901	0.901	0.901	**4.422**
Total Labour Cost (A)	**5.164**	**5.835**	**6.079**	**6.079**	**7.121**	**7.312**	**7.567**	**7.567**	**7.567**	**37.134**
FTEs	*61*	*68.6*	*71.5*		*83.75*	*86*	*89*	*89*	*89*	
Delta Labour Cost (B)					***0.319***	***0.468***	***0.468***	***0.468***	***0.468***	**2.189**
Core Labour Cost (A-B)					***6.802***	***6.844***	***7.099***	***7.099***	***7.099***	**34.944**

Table 4.4a: SEMO's submission of Labour costs for 2024-29

Views of the Working Group

The WG was not privy to information about SEMO salaries during the workshops. No specific comments were received about this area.

RAs' Analysis

In this section the focus is on setting the average FTE cost as discussions on the number of FTEs to form the labour cost allowance is considered above.

The average FTE cost within the 2021-24 SEMO Price Control for is €84.9K which is comparable for the 2024-29 SEMO submission, particularly since the grade allocation proposed by SEMO remains consistent. During last PC, SEMC decided the average FTE cost to be €83.5K across each year of the 2021-24 Price Control subject to annual indexation from March 2020 prices.

The RAs are of the view that the €85K proposed by SEMO for the upcoming Price Control 2024-29 remains appropriate as it is in line with the average FTE cost during the previous Price Control.

RAs' proposals for consultation

The average FTE cost proposed by the RAs is €85K across each year of the 2024-29 Price Control subject to annual indexation from March 2023 prices.

€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Core Labour Cost	6.226	6.417	6.927	6.927	6.927	**33.426**
Delta Labour Cost	0.319	0.468	0.468	0.468	0.468	**2.189**
Total Labour Cost Proposal	**6.545**	**6.885**	**7.395**	**7.395**	**7.395**	**35.615**
FTEs	*77*	*81*	*87*	*87*	*87*	

Table 4.4b: RAs Proposal for Labour cost allowance for PC2024-29

4.5 IT & Telecommunications Costs

Background

IT and Telecommunications costs becomes the largest category of Opex within SEMO's submission for this Price Control, representing 44% of the total Opex costs across the Price Control period. When the delta component is removed from the total Opex, IT&T cost accounts for 33% of the core Opex cost, becoming the second largest category within SEMO's core Opex proposal.

SEMO's expected Opex incurred for IT & Telecommunications for 2023-24 is higher than the approved allowance shown in Figure 4.5a below.

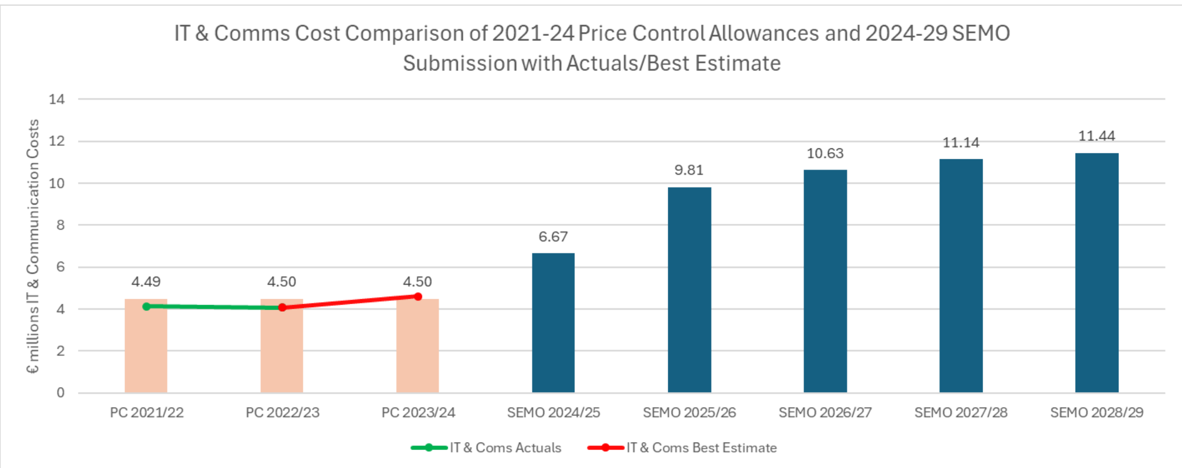


Figure 4.5a: IT & Communication Cost Comparison of PC2021-24 Allowances and 2024-29 SEMO Submission

Summary of SEMO's submission

SEMO's requested €49.7M for IT and Telecommunications in 2024-29. During the query process? SEMO provided a breakdown of Delta IT&T cost which is resulting in a total of €20.7M for the PC period 2024-29. Accordingly, core IT&T cost (i.e. excluding Delta) requested by SEMO is €29.0M.

IT&T Costs	SEMO Actual Spend				SEMO Proposal					
in €m	**2021-22**	**2022-23**	**2023-24**	**Total**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**Total**
24/7 Support	0.183	0.309	0.275	0.767	0.318	0.318	0.408	0.408	0.408	1.860
Managed Services	0.662	0.587	0.548	1.797	1.286	1.458	1.507	1.550	1.619	7.420
Testing Services	0.103	0.087	0.118	0.308	0.133	0.133	0.133	0.147	0.133	0.679
Market Participant Technical IT Interface	0.260	0.330	0.400	0.990	0.400	0.400	0.400	0.400	0.400	2.000
Total Outsourced Resources	**1.208**	**1.313**	**1.341**	**3.862**	**2.137**	**2.309**	**2.448**	**2.505**	**2.560**	**11.959**
Apps Support	2.138	1.972	2.137	6.247	2.509	4.046	4.202	4.370	4.461	19.588
IT Hardware and Software Support	0.745	0.747	1.095	2.587	1.887	2.969	3.262	3.535	3.672	15.325
Telecommunications	0.046	0.042	0.040	0.128	0.132	0.491	0.720	0.733	0.747	2.823
Total Internal IT&T Resources	**2.929**	**2.761**	**3.272**	**8.962**	**4.529**	**7.506**	**8.184**	**8.638**	**8.880**	**37.737**
Total IT&T Cost (A)	**4.137**	**4.074**	**4.613**	**12.824**	**6.666**	**9.815**	**10.632**	**11.143**	**11.440**	**49.696**
Delta IT&T Cost (B)					***1.321***	***4.165***	***4.667***	***5.155***	***5.366***	**20.673**
Core IT&T Cost (A-B)					***5.346***	***5.650***	***5.966***	***5.988***	***6.075***	**29.024**

Table 4.5a: SEMO's submission of IT&T costs for 2024-29

Outsourced resources (i.e. 24/7 support, managed services, testing services and market participant technical IT interface) account for €12.0M of SEMO's €49.7M IT&T submission. A description of these outsourced services are as follows:

- 24/7 Support - to resolve incidents quickly and to proactively monitor.
- Managed services - for ongoing support and maintenance of Central Market Systems on a 24/7 basis.
- Testing services - to ensure that any change to the Market Systems resolves the issue/defect in question and does not introduce unintended consequences that affect the SEM.
- Market Participant Technical IT Interface - the continuation of the Service Desk Provider that was introduced in 2019/20 to provide out-of-hours 365 days a year services including participant communications and issue management, limit communication failure, monitoring and event management, operational support, continual service improvement and knowledge management.

In addition to the above outsourced resources, SEMO's internal IT&T costs include:

- Apps Support and maintenance - The largest IT cost item accounting for around 40% of total IT & Communications related costs.
- IT Hardware and Software support - The driver for the €15.5M hardware and software support costs over the 2024-29 period is replacement of life-expired hardware and software. Certain hardware and software solutions will no longer be supported by their providers, as they approach end-of-life. This compares to spend of €2.5M during three-year period of previous PC 2021-24.

- Telecommunication - These costs cover telecommunication links between SEMO's two sites in Dublin and Belfast to enable resilience in the event of a fault with market systems.

SEMO explained in their submission that the increase in IT & Telecommunications Opex is largely driven by two factors:

- The proposed increase in FTE headcount by SEMO, results in a proportional increase in IT charges.
- Increase in size of the SEMO business and implementation of the various predictable IT projects. The upgrading of the IT infrastructure and increased use of cloud services will result in additional, ongoing Opex costs due to, for example, new support/maintenance contracts, software licensing, hosting costs, telecoms provision.

Views of the Working Group

The WG was not made aware of the detail of SEMO's IT & Telecoms submission.

RA's analysis

From the table 4.5a above, the proportion of delta IT&T cost against their total cost is as follows:

€m	2024-25	2025-26	2026-27	2027-28	2028-29
Total IT&T Cost	6.666	9.815	10.632	11.143	11.44
Delta Costs	1.321	4.165	4.667	5.155	5.366
Delta %	20%	42%	44%	46%	47%

Table 4.5b: Delta Proportion of SEMOs requested IT&T Cost

The RA's IT Consultants recommended to allow delta cost in full, and RAs conducted its own analysis on the remaining core IT&T costs. The RAs' analysis of each line item is as follows:

24/7 Support

- In response to a query, SEMO didn't allocate any delta cost to 24/7 support costs. Considering the 24/7 support costs as core cost, it is projected to significantly increase in the first and third year of the Price Control. In the absence of strong justification for the substantial increase, but considering the growing business operations, the RAs are minded to allow for the €310K each year during the Price Control period which is 21% above the last PC average of €256K.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
24/7 Support Cost	0.183	0.309	0.275	0.318	0.318	0.408	0.408	0.408
Y-O-Y Change				16%	0%	28%	0%	0%

Table 4.5c: Year on Year Change in Core 24/7 Support cost during PC2024-29

- Accordingly, the table below outlines the RAs proposed total 24/7 Support Cost allowance for PC2024-29.

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core 24/7 Support Cost	0.310	0.310	0.310	0.310	0.310
Add: Delta 24/7 Support Cost	0.000	0.000	0.000	0.000	0.000
Total 24/7 Support Cost Proposal	**0.310**	**0.310**	**0.310**	**0.310**	**0.310**

Table 4.5d: RAs Proposal for 24/7 Support cost allowance for PC2024-29

Managed Services

- Without considering the delta component of total Managed Services cost, the core Managed Service cost is projected to increase significantly during the first year of the Price Control and then remains relatively stable until the end of the Price Control period. The RAs propose to allow for the average of previous PC2021-24 actual spends per year i.e. €0.6M.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Managed Service Cost	0.662	0.587	0.548	0.666	0.666	0.666	0.652	0.665
Y-O-Y Change				22%	0%	0%	-2%	2%

Table 4.5e: Year on Year Change in Core Managed Service cost during PC2024-29

- The table below outlines the RAs proposal for SEMO's Managed Service Cost allowance for PC2024-29.

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Managed Service Cost	0.600	0.600	0.600	0.600	0.600
Add: Delta Managed Service Cost	0.620	0.792	0.841	0.898	0.954
Total Managed Service Cost Proposal	**1.220**	**1.392**	**1.441**	**1.498**	**1.554**

Table 4.5f: RAs Proposal for Managed Service cost allowance for PC2024-29

Testing Services

- Without considering the delta component of total Testing Services cost, we see that core Testing Services cost is projected to increase by 13% in the first year and then remain stable till the end of the Price Control. RAs propose to grant the full allowance of the core Testing Services Support cost as proposed by SEMO.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Testing Service Cost	0.103	0.087	0.118	0.133	0.133	0.133	0.133	0.133
Y-O-Y Change				13%	0%	0%	0%	0%

Table 4.5g: Year on Year Change in Core Testing Service cost during PC2024-29

- The table below outlines the RAs proposal for SEMOs total Testing Service Cost allowance for PC2024-29.

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Testing Service Cost	0.133	0.133	0.133	0.133	0.133
Add: Delta Testing Service Cost	0.000	0.000	0.000	0.014	0.000
Total Testing Service Cost Proposal	**0.133**	**0.133**	**0.133**	**0.147**	**0.133**

Table 4.5h: RAs Proposal for Testing Service cost allowance for PC2024-29

Market Participant Technical IT Interface Services

- In response to a query, SEMO did not allocate any delta cost to Market Participant Technical IT Interface Services. Considering the full audit fees as core cost, it is projected to remain stable at the level of 2023/24 expected cost till the end of Price Control. Thus, RAs are minded to accept the full allowance of the Market Participant Technical IT Interface Services cost as proposed by SEMO.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Market Participant Technical IT Cost	0.260	0.330	0.400	0.400	0.400	0.400	0.400	0.400
Y-O-Y Change				0%	0%	0%	0%	0%

Table 4.5i: Year on Year Change in Core Market Participant Technical IT Interface Service cost during PC2024-29

- Accordingly, proposed total Market Participant Technical IT Interface Services Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Market Participant Technical IT Interface Service Cost	0.400	0.400	0.400	0.400	0.400
Add: Delta Market Participant Technical IT Interface Service Cost	0.000	0.000	0.000	0.000	0.000
Total Market Participant Technical IT Interface Service Cost Proposal	**0.400**	**0.400**	**0.400**	**0.400**	**0.400**

Table 4.5j: RAs Proposal for Market Participant Technical IT Interface Service cost allowance for PC2024-29

Apps Support

- Excluding the delta component of total Apps Support cost, we don't see significant increase in the core Apps Support cost with an exception for the year 2026/27. Given the need of increased business operations, RAs propose to allow for full cost allowance as proposed by SEMO.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
App Support Cost	2.138	1.972	2.137	2.155	2.241	2.373	2.320	2.323
Y-O-Y Change				1%	4%	6%	-2%	0%

Table 4.5k: Year on Year Change in Core Apps Support cost during PC2024-29

- Thus, proposed total App Support Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core App Support Cost	2.155	2.241	2.373	2.320	2.323
Add: Delta App Support Cost	0.354	1.805	1.829	2.050	2.138
Total App Support Cost Proposal	**2.509**	**4.046**	**4.202**	**4.370**	**4.461**

Table 4.5l: RAs Proposal for App Support cost allowance for PC2024-29

IT Hardware and Software Support

- Without considering the delta component of total IT Hardware and Software Support cost, we see that core IT Hardware and Software Support cost is projected to increase significantly year by year, especially during the first two years of the Price Control. In the absence of strong justification for the substantial increase, but considering the growing business operations, the RAs are minded to allow for the €1.000M each year which is above the previous PC2021-24 actual spends average of €0.862M.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
IT H'ware S'ware Cost	0.745	0.747	1.095	1.618	1.834	1.925	1.998	2.077
Y-O-Y Change				48%	13%	5%	4%	4%

Table 4.5m: Year on Year Change in Core IT Hardware and Software Support cost during PC2024-29

- Accordingly, proposed total IT Hardware and Software Support Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core IT Hardware and Software Support Cost	1.000	1.000	1.000	1.000	1.000
Add: Delta IT Hardware and Software Support Cost	0.269	1.135	1.337	1.537	1.595
Total IT Hardware and Software Support Cost Proposal	**1.269**	**2.135**	**2.337**	**2.537**	**2.595**

Table 4.5n: RAs Proposal for IT Hardware and Software Support cost allowance for PC2024-29

Telecommunications

- Without considering the delta component of total Telecommunications cost, we see that core Telecommunications cost is projected to increase year by year with significant increase in the first year of the Price Control. Due to lack of justification for the increase, but considering the growing business operations, RAs propose to allow for the €0.050M each year which is approximately 1.25 times of SEMO's actual spends average during the same period.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Telecommunications Cost	0.046	0.042	0.040	0.055	0.058	0.060	0.064	0.068
Y-O-Y Change				37%	6%	4%	5%	6%

Table 4.5o: Year on Year Change in Core Telecommunication cost during PC2024-29

- Accordingly, proposed total Telecommunications Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Telecommunications Cost	0.050	0.050	0.050	0.050	0.050
Add: Delta Telecommunications Cost	0.077	0.433	0.660	0.669	0.679
Total Telecommunications Cost Proposa	**0.127**	**0.483**	**0.710**	**0.719**	**0.729**

Table 4.5p: RAs Proposal for Telecommunication Support cost allowance for PC2024-29

RAs' proposals for consultation

IT&T cost proposed by the RAs is €44.549M for the 2024-29 Price Control period including delta cost of €20.673M, subject to annual indexation from March 2023 prices.

€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total
IT & T Cost	4.648	4.734	4.866	4.813	4.816	**23.877**
Delta IT & T Cost	1.321	4.165	4.667	5.155	5.366	**20.673**
Total IT & T Cost Proposal	**5.968**	**8.899**	**9.533**	**9.968**	**10.182**	**44.549**

Table 4.5q: RAs Proposal IT&T cost allowance for PC2024-29

4.6 HR, Corporate and Facilities costs

Background

HR, Corporate and Facilities services are provided to SEMO on an EirGrid Group-wide basis rather than on a standalone business basis and a portion of EirGrid Group's costs are allocated to SEMO.

Summary of SEMO's submission

HR costs include those associated with recruitment, staff travel, payroll support, training coordination, HR support, internal communications and general admin. SEMO's HR related forecasted costs for 2024-29 are €0.745M, averaging €149K per year compared to an average cost of €171K in 2021-24.

Corporate costs capture a range of overheads and services which are provided to SEMO on a Group-wide basis. These relate to support provided by Boards, CEO, CFO, Group Finance, Group Regulation and Internal Audit, procurement, legal and recruitment. SEMO's corporate costs forecasted for 2024-29 are €6.465M, on an average of €1.293M per year, this compares to an average cost of €0.997M in 2021-24 PC period.

Facilities costs include rent, rates, repairs, maintenance, heat, power and lighting which are allocated per FTE. These are forecasted at €5.621M for the period of the Price Control, which results in average of €1.125M per year. This compares to an average cost of €0.873M in 2021-24.

SEMO also provided the RAs with the yearly breakdown of Delta HR, Corporate and Facilities cost which is resulting in total of €0.743M during the PC period 2024-29. Accordingly, Business as Usual (core) HR Corporate and Facilities (excluding Delta) is €12.088M.

HR, Corporate and Facilities Costs	SEMO Actual Spend				SEMO Proposal					
in €m	2021-22	2022-23	2023-24	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Corporate Cost										
Total Corporate Cost	**0.809**	**1.123**	**1.058**	**2.990**	**1.240**	**1.273**	**1.317**	**1.317**	**1.317**	**6.465**
FTE	60.96	68.63	71.50		83.75	86.00	89.00	89.00	89.00	
Average / FTE	0.0133	0.0164	0.0148		0.0148	0.0148	0.0148	0.0148	0.0148	
HR Cost										
Recruitment Costs	0.000	0.000	0.000	0.000						0.000
Staff Travel	0.019	0.049	0.047	0.115	0.055	0.057	0.059	0.059	0.059	0.289
Staff Training	0.049	0.042	0.050	0.141	0.059	0.060	0.062	0.062	0.062	0.305
General Admin	0.153	0.050	0.055	0.256	0.030	0.030	0.030	0.030	0.030	0.150
Total HR Cost	**0.221**	**0.141**	**0.152**	**0.512**	**0.144**	**0.147**	**0.151**	**0.151**	**0.151**	**0.745**
Facilities Cost										
Facilities & Property Management	0.820	0.848	0.908	2.576	1.064	1.092	1.130	1.130	1.130	5.546
Insurance Costs	0.017	0.012	0.015	0.044	0.015	0.015	0.015	0.015	0.015	0.075
Total Facilities Cost	**0.837**	**0.860**	**0.923**	**2.620**	**1.079**	**1.107**	**1.145**	**1.145**	**1.145**	**5.621**
Total HR, Corporate and Facilities Cost (A)	**1.867**	**2.124**	**2.133**	**6.122**	**2.463**	**2.527**	**2.614**	**2.614**	**2.614**	**12.831**
Delta HR, Corporate and Facilities Cost (B)					***0.108***	***0.159***	***0.159***	***0.159***	***0.159***	**0.743**
Core HR, Corporate and Facilities Cost (A-B)					***2.354***	***2.368***	***2.455***	***2.455***	***2.455***	**12.088**

Table 4.6a: SEMO's submission of HR, Corporate and Facilities cost for 2024-29

Views of Working Group

The WG was not provided with the detail of this part of SEMO's Price Control submission.

RAs' analysis

From the table 4.5c above, we see that proportion of delta HR, Corporate & Facilities, cost against their total cost is as follows:

€m	2024-25	2025-26	2026-27	2027-28	2028-29
Total HR Corporate and Facilities Cost	2.462	2.527	2.614	2.614	2.614
Delta Costs	0.154	0.226	0.226	0.226	0.226
Delta %	6%	9%	9%	9%	9%

Table 4.6b: Delta Proportion of SEMOs requested HR, Corporate and Facilities Cost

The RA's IT Consultants recommended to allow delta cost in full, and thus, the RAs conducted its own analysis on the remaining core HR, Corporate and Facilities costs. The RAs' analysis of each line item is as follows:

HR costs

- Without considering the delta component of total HR costs, we see that core HR costs is projected to decline compared to the previous year. Hence, RAs are minded to support the full allowance of the core HR cost as proposed by SEMO.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
HR Cost	0.221	0.14	0.152	0.139	0.139	0.143	0.143	0.143
Y-O-Y Change				-9%	0%	3%	0%	0%

Table 4.6c: Year on Year Change in Core HR cost during PC2024-29

- Accordingly, proposed total HR Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core HR Cost	0.139	0.139	0.143	0.143	0.143
Add: Delta HR Cost	0.005	0.008	0.008	0.008	0.008
Total HR Cost Proposal	**0.144**	**0.147**	**0.151**	**0.151**	**0.151**

Table 4.6d: RAs Proposal for HR cost allowance for PC2024-29

Corporate costs

- Without considering the delta component of total Corporate costs, we see that core Corporate costs are projected to increase by 12% in the first year of the Price Control and continue to increase till third year.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Corporate Cost	0.809	1.123	1.058	1.185	1.192	1.236	1.236	1.236
Y-O-Y Change				12%	1%	4%	0%	0%

Table 4.6e: Year on Year Change in Core Corporate cost during PC2024-29

- SEMO explains that the forecasted increase in 2024-29 is due to the proposed increase in FTEs. SEMO has applied an average cost per FTE of €14.8K per annum. For PC 2021-24, SEMC took the decision of applying an average cost of €11.2K per FTE per year, where FTEs were allowed for one-third of the additional internal FTEs proposed by SEMO. The RAs are minded to inflate previous PC decision average cost by RPI-X to March 2023 prices, which results in c. €12.8K, to be applied to core FTEs as proposed in section 1.3.
- Accordingly, proposed total Corporate Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
FTE (excluding Delta)	73.25	75.5	81.5	81.5	81.5
Average Cost per FTE	0.0128	0.0128	0.0128	0.0128	0.0128
Core Corporate Cost	0.938	0.966	1.043	1.043	1.043
Add: Delta Corporate Cost	0.056	0.081	0.081	0.081	0.081
Total Corporate Cost Proposal	**0.993**	**1.047**	**1.124**	**1.124**	**1.124**

Table 4.6f: RAs Proposal for Corporate cost allowance for PC2024-29

Facilities costs

- Excluding the delta component of total Facilities costs, we see that core Facilities costs is projected to increase by 12% in the first year of the Price Control and continue to increase till third year. The increase is similar to the increase in Corporate Costs in table 4.6e above. The RAs propose to allow for Facilities at €1M per year, which is slightly higher rate than the average cost of €0.873M during the last PC period 2021-24.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Facililites Cost	0.836	0.86	0.923	1.031	1.037	1.076	1.076	1.076
Y-O-Y Change				12%	1%	4%	0%	0%

Table 4.6g: Year on Year Change in Core Facilities cost during PC2024-29

- Accordingly, proposed total Facilities Cost allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Facilities Cost	1.000	1.000	1.000	1.000	1.000
Add: Delta Facilities Cost	0.068	0.099	0.099	0.099	0.099
Total Facilities Cost Proposal	**1.068**	**1.099**	**1.099**	**1.099**	**1.099**

Table 4.6h: RAs Proposal for Facilities cost allowance for PC2024-29

RAs' proposals for consultation

The HR, Corporate and Finance cost proposed by the RAs is €11.485M for the 2024-29 Price Control period including delta cost of €0.744M, subject to annual indexation from March 2023 prices.

€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total
HR Corporate and Facilities Cost	2.077	2.105	2.186	2.186	2.186	**10.741**
Delta HR Corporate and Facilities Cost	0.108	0.159	0.159	0.159	0.159	**0.744**
Total HR Corporate and Facilities Cost Proposal	**2.185**	**2.264**	**2.345**	**2.345**	**2.345**	**11.485**

Table 4.6i: RAs Proposal for HR, corporate and facilities cost allowance for 2024-29

4.7 Finance and Regulation costs

Background

Costs attributed to the 'Finance and Regulation' cost category include audit fees (market audit, statutory audit, internal audit), Modifications Committee costs, Professional Fees, and Banking costs.

Summary of SEMO's submission

SEMO's submission requests €13.015M for Finance & Regulations in 2024-29. SEMO also provided the yearly breakdown of Delta Finance & Regulations cost which is resulting in total of €0.345M during the PC period 2024-29. Accordingly, core Finance & Regulations (i.e. excluding Delta) requested by SEMO is €12.670M.

SEMO's forecasted costs for 2024-29 are as follows:

Finance & Regulations Costs	SEMO Actual Spend				SEMO Proposal					
in €m	**2021-22**	**2022-23**	**2023-24**	**Total**	**2024-25**	**2025-26**	**2026-27**	**2027-28**	**2028-29**	**Total**
Audit Fees										
Market Audit Fees	0.188	0.258	0.250	**0.696**	0.250	0.250	0.250	0.250	0.250	**1.250**
Statutory Audit Fees	0.023	0.031	0.028	**0.082**	0.028	0.028	0.028	0.028	0.028	**0.140**
Total Audit Fees	**0.211**	**0.289**	**0.278**	**0.778**	**0.278**	**0.278**	**0.278**	**0.278**	**0.278**	**1.390**
Modifications Committee Cost										
Total Modifications Committee Cost	**0.000**	**0.000**	**0.010**	**0.010**	**0.020**	**0.020**	**0.020**	**0.020**	**0.020**	**0.100**
Professional Fees										
Professional Fees	0.032	0.038	0.089	**0.159**	0.188	0.102	0.102	0.102	0.102	**0.596**
Mifid										
Legal Fees	0.080	0.073	0.095	**0.248**	0.095	0.095	0.095	0.095	0.095	**0.475**
Tax Advice	0.000	0.000	0.000	**0.000**						**0.000**
SEMO Price Control	0.000	0.037	0.782	**0.819**	0.000	0.000	0.000	0.500	0.500	**1.000**
Audit & Compliance Support	0.000	0.000	0.000	**0.000**	0.050	0.050	0.050	0.050	0.050	**0.250**
High Level Analysis & Design	0.109	0.790	0.764	**1.663**	1.509	2.010	2.185	1.910	1.485	**9.099**
Total Professional Fees	**0.221**	**0.938**	**1.730**	**2.889**	**1.842**	**2.257**	**2.432**	**2.657**	**2.232**	**11.420**
Banking Cost										
Total Banking Cost	**0.027**	**0.017**	**0.021**	**0.065**	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**	**0.105**
Total Finance & Regulations Cost (A)	**0.459**	**1.244**	**2.039**	**3.742**	**2.161**	**2.576**	**2.751**	**2.976**	**2.551**	**13.015**
Delta Finance & Regulations Cost (B)					***0.138***	***0.052***	***0.052***	***0.052***	***0.052***	**0.345**
Core Finance & Regulations Cost (A-B)					***2.023***	***2.524***	***2.699***	***2.924***	***2.499***	**12.670**

Table 4.7a: SEMO's submission for Finance and Regulation costs 2024-29

A description of each cost line is as follows:

- Audit fees: include market audit fees, statutory audit fees and internal audit fees. These are forecasted by SEMO at €278K per year. This compares to an average cost incurred of €259K per year in 2021-24.
- Modifications Committee costs: These were zero during the first two years of the previous PC period 2021-24 due to such meetings being held online. Given the extent of market change proposed for the next period and following participant feedback, it has been decided to reintroduce some in-person meetings (approx. 50%). Hence, to cover the costs of meeting accommodation etc. SEMO requested the amount of €20K per year.
- Professional (external consultancy) fees: These include a number of costs lines for external support as follows:
  - Professional fees of €102K each year except for the first year, which is at a higher level of €188K to reflect the higher level of change during the new Price Control period.
  - External legal fees based on expected cost of year 2023/24 which is €95K per year.
  - SEMO Price control professional fees of €500K in the las two years of the Price Control (while SEMO prepares for/supports the next review).
  - Audit & Compliance support at a cost of €50K per year towards specialist knowledge, independent expert reviews and consultancy as needed.
  - High-level analysis and design cost makes up to around 80% of the total Professional Fees and 70% of the total 'Finance and Regulation' costs. It is to allow for projects to move from the early phases of development into full capex projects and will have three components:
    - Market Developments - consists of several essential tasks that need to be undertaken to establish a strong foundation upon which any

subsequent project can be built such as feasibility study, market analysis, risk assessment, budget estimation, etc. SEMO is requesting €7.435m over the period, equating to an annual average of €1.487m.
  - Business Resilience – this is for review into the effectiveness of SEMO's business continuity/ disaster recovery arrangements. SEMO requested for €464K for the first year of the Price Control.
  - IT Impact Assessment – this is for early-stage investigation of potential market developments. SEMO is requesting an allowance of €300k/annum from FY26-29 to cover the associated costs.
- Banking Cost: these are forecasted at €21K per year. Costs incurred in 2021-24 ranged from €17-27K per year.

Views of the Working Group

The WG was not made aware of the detail of this part of SEMO's submission.

RAs' analysis

From the table 4.7a above, we see that proportion of delta HR, Corporate & Facilities, cost against their total cost is as follows:

€m	2024-25	2025-26	2026-27	2027-28	2028-29
Total Finance & Regulation Cost	2.161	2.576	2.751	2.976	2.551
Delta Cost	0.138	0.052	0.052	0.052	0.052
Delta %	6%	2%	2%	2%	2%

Table 4.7b: Delta Proportion of SEMOs requested Finance and Regulation Cost

The RAs IT Consultants recommended to allow delta cost in full, and the RAs conducted its own analysis on the remaining core Finance and Regulations costs. The RAs' analysis of each line item is as follows:

Audit Fees

- In response to a query, SEMO didn't allocate any delta cost to Audit Fees. Considering the full audit fees as core cost, it is projected to remain stable at the level of 2023/24 expected cost till the end of Price Control. Thus, RAs are minded to support the full allowance of the Audit cost as proposed by SEMO.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Audit Fees	0.21	0.289	0.278	0.278	0.278	0.278	0.278	0.278
Y-O-Y Change				0%	0%	0%	0%	0%

Table 4.7c: Year on Year Change in Core Audit Fees cost during PC2024-29

- Accordingly, proposed total Audit Fees allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Audit Fees Cost	0.278	0.278	0.278	0.278	0.278
Add: Delta Audit Fees Cost	0	0	0	0	0
Total Audit Cost Allowance	**0.278**	**0.278**	**0.279**	**0.279**	**0.278**

Table 4.7d: RAs Proposal for Audit cost allowance for PC2024-29

Modifications Committee Cost

- In response to a query, similar to Audit Fees, SEMO didn't allocate any delta cost to Modifications Committee Cost. Thus, in our analysis the RAs treated this cost as a whole and compared with previous PC period actual outturns. The RAs propose to allow for cost allowance as per the expected cost of 2023/24 for upcoming Price Control period.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Modification Committee Cost	0.000	0.000	0.010	0.020	0.020	0.020	0.020	0.020
Y-O-Y Change				100%	0%	0%	0%	0%

Table 4.7e: Year on Year Change in Core Modifications Committee cost during PC2024-29

- Accordingly, proposed total Modification Committee allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Modification Comm. Cost	0.010	0.010	0.010	0.010	0.010
Add: Delta Modification Comm. Cost	0.000	0.000	0.000	0.000	0.000
Total Modification Comm Cost Prop.	**0.010**	**0.010**	**0.010**	**0.010**	**0.010**

Table 4.7f: RAs Proposal for Modification Committee cost allowance for PC2024-29

Professional Fees

- Excluding the delta component of total Professional Fees cost, we see significant increase in core professional fees cost in three out of five years of Price Control. The RAs are minded to allow for core professional fees at €1.130M each year during the Price Control period, which is slightly above the average spend level of €0.963m during the previous PC period.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Professional Fees	0.221	0.939	1.730	1.704	2.205	2.380	2.605	2.180
Y-O-Y Change				-2%	29%	8%	9%	-16%

Table 4.7g: Year on Year Change in Core Professional Fees cost during PC2024-29

- For each separate component of the Total Professional Fees (including delta), RAs proposal is as follows:
    - Professional Fees – Due to lack of strong justification for significant increase in the first year of the Price Control, the RAs are minded to allow €168K against the ask for €188K for the first year of the Price Control then €82K each year for the remaining years of the Price Control against the ask for €102K per year.
    - Legal Fees – RAs propose to allow for €90K per year against €95K proposed by SEMO. This is €10K above the yearly allowance during previous Price

Control and above the average spent by SEMO during the last Price control of €83K per year.

- SEMO Price Control – The RAs are minded to allow for €450K during the last two years of the Price Control. This is €50K less than SEMO's proposal for both years.
- Audit & Compliance Support – The RAs are minded to allow for €30K each year against SEMO's request of €50K each year. SEMO's spending was zero during the previous Price Control period, while SEMC provided the allowance of €86K each year.
- High Level Analysis & Design – The RA's IT consultants recommended to allow for €4M in total for Market Developments under HLA&D. We expect majority of HLA&D work to be conducted during the initial years of the Price Control. Accordingly, RAs propose to allow for €980K for the first three years of the Price Control and then reduced to €530K for the last two years. IT Impact assessment appears to be a duplication of activities carried out under Market Development activities, while justification for Business Resilience under HLA&D was brief and not well evidenced. Thus, RAs are minded to not to allow for these initiatives.
- Overall, RAs proposal for Professional Fees is as follows:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Professional Fees					
SEMO's Recommendation	**0.188**	**0.102**	**0.102**	**0.102**	**0.102**
RAs Proposal - Core	0.030	0.030	0.030	0.030	0.030
RAs Proposal - Delta	0.138	0.052	0.052	0.052	0.052
RAs Proposal Total	**0.168**	**0.082**	**0.082**	**0.082**	**0.082**
Legal Fees					
SEMO's Recommendation	**0.095**	**0.095**	**0.095**	**0.095**	**0.095**
RAs Proposal - Core	0.090	0.090	0.090	0.090	0.090
RAs Proposal - Delta	0.000	0.000	0.000	0.000	0.000
RAs Proposal Total	**0.090**	**0.090**	**0.090**	**0.090**	**0.090**
SEMO Price Control					
SEMO's Recommendation	**0.000**	**0.000**	**0.000**	**0.500**	**0.500**
RAs Proposal - Core	0.000	0.000	0.000	0.450	0.450
RAs Proposal - Delta	0.000	0.000	0.000	0.000	0.000

RAs Proposal Total	**0.000**	**0.000**	**0.000**	**0.450**	**0.450**
Audit & Compliance					
SEMO's Recommendation	**0.050**	**0.050**	**0.050**	**0.050**	**0.050**
RAs Proposal - Core	0.030	0.030	0.030	0.030	0.030
RAs Proposal - Delta	0.000	0.000	0.000	0.000	0.000
RAs Proposal Total	**0.030**	**0.030**	**0.030**	**0.030**	**0.030**
High Level Analysis & Design					
SEMO's Recommendation	**1.509**	**2.010**	**2.185**	**1.910**	**1.485**
RAs Proposal - Core	0.980	0.980	0.980	0.530	0.530
RAs Proposal - Delta	0.000	0.000	0.000	0.000	0.000
RAs Proposal Total	**0.980**	**0.980**	**0.980**	**0.530**	**0.530**
Total Professional Fees					
SEMO's Recommendation	**1.842**	**2.257**	**2.432**	**2.657**	**2.232**
RAs Proposal - Core	1.130	1.130	1.130	1.130	1.130
RAs Proposal - Delta	0.138	0.052	0.052	0.052	0.052
RAs Proposal Total	**1.268**	**1.182**	**1.182**	**1.182**	**1.182**

Table 4.7h: RAs Proposal for Professional Fees cost allowance for PC2024-29

Banking Cost

- In response to a query, SEMO didn't allocate any delta cost to Banking. Thus, in the RAs analysis treated this cost as a whole and compared with previous Price Control period actual outturns. It is projected to remain stable at the level of 2023/24 expected cost till the end of Price Control. Thus, RAs are minded to support the full allowance of the Audit cost as proposed by SEMO.

€m	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
Banking Cost	0.027	0.017	0.021	0.021	0.021	0.021	0.021	0.021
Y-O-Y Change				0%	0%	0%	0%	0%

Table 4.7i: Year on Year Change in Core Banking cost during PC2024-29

- Accordingly, proposed total Audit Fees allowance for PC2024-29 is:

€m	2024/25	2025/26	2026/27	2027/28	2028/29
Core Banking Cost	0.021	0.021	0.021	0.021	0.021
Add: Delta Banking Cost	0.000	0.000	0.000	0.000	0.000
Total Banking Cost Allowance	**0.021**	**0.021**	**0.021**	**0.021**	**0.021**

Table 4.7j: RAs Proposal for Banking cost allowance for PC2024-29

RAs' proposals for consultation

The Finance & Regulation cost proposed by the RAs is €7.791M for the 2024-29 Price Control period including delta cost of €0.345M, subject to annual indexation from March 2023 prices.

€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Finance & Regulation Cost	1.309	1.309	1.309	1.759	1.759	**7.445**
Delta Finance & Regulation Cost	0.138	0.052	0.052	0.052	0.052	**0.345**
Total Finance & Regulation Cost Propos	**1.428**	**1.355**	**1.355**	**1.806**	**1.805**	**7.791**

Table 4.7k: RAs Proposal for Finance and Regulations cost allowance for PC2024-29

4.8 Cloud Opex

Background

Through its IT investments, SEMO is moving to Cloud-based platforms where possible. This is anticipated to bring a range of benefits including providing access to additional capacity on demand, removing certain IT operational tasks such as applying patches, upgrading software etc – all of which are undertaken by the cloud service provider.

The use of Cloud technology does bring an additional complexity to this Price Control. In previous submissions, such projects would all have been treated as capital expenditure with remuneration provided through the Regulatory Asset Base (RAB) following commissioning. Under International Accounting Standard (IAS) 38 Intangible Assets, cloud-based projects are required to be classified as operating expenditure, which is remunerated in-year, but with no return for the associated risks. So, one feature of this Price Control is that SEMO's proposed programme of investments is now made up of a mix of CapEx and Cloud Opex, bringing with it an additional layer of complexity for treatment of these costs.

Summary of SEMO's submission

SEMO's forecasted costs for 2024-29 predictable cloud projects are as follows:

Cloud Opex	SEMO Actual Spend				SEMO Proposal					
in €m	2021-22	2022-23	2023-24	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Cloud Projects		0.103	2.250	**2.353**	3.983	3.571	2.486	1.319	0.902	**12.261**

Table 4.8a: *SEMO's submission for Cloud projects (Cloud Opex) costs 2024-29*

	Cloud Projects (Opex)	SEMO's Proposal					
	in €m	2024-25	2025-26	2026-27	2027-28	2028-29	Total Cost
1	Audit and Compliance Tool	0.083	0.128	0.000	0.000	0.000	**0.211**
2	Data, AI and Analytics	1.495	0.642	0.669	0.699	0.732	**4.237**
3	Digital Workplace	0.635	1.742	1.144	0.035	0.035	**3.591**
4	Integration Modernisation	0.465	0.540	0.495	0.585	0.135	**2.220**
5	IT Service Transformation	0.071	0.096	0.014	0.000	0.000	**0.181**
6	SEMO ERP	0.861	0.000	0.000	0.000	0.000	**0.861**
7	SEMO Document Management Tool	0.373	0.423	0.164	0.000	0.000	**0.960**
	Total	**3.983**	**3.571**	**2.486**	**1.319**	**0.902**	**12.261**

Table 4.8b: *Breakdown of SEMO's Cloud projects (Cloud Opex) costs 2024-29 by Cloud Projects*

RAs' analysis and proposal

The RA's consultants recommended to allow 99.6% of the cost proposed by SEMO resulting from 5% deduction in the SharePoint Document Management System project. Projects have been discussed in detail in section 5.5. Accordingly, the RA's Proposal is as follows:

	Cloud Projects (Opex)	RA's Proposal					
	in €m	2024-25	2025-26	2026-27	2027-28	2028-29	Total Cost
1	Audit and Compliance Tool	0.083	0.128	0.000	0.000	0.000	**0.211**
2	Data, AI and Analytics	1.495	0.642	0.669	0.699	0.732	**4.237**
3	Digital Workplace	0.635	1.742	1.144	0.035	0.035	**3.591**
4	Integration Modernisation	0.465	0.540	0.495	0.585	0.135	**2.220**
5	IT Service Transformation	0.071	0.096	0.014	0.000	0.000	**0.181**
6	SEMO ERP	0.861	0.000	0.000	0.000	0.000	**0.861**
7	SEMO Document Management Tool	0.373	0.375	0.164	0.000	0.000	**0.912**
	Total	**3.983**	**3.523**	**2.486**	**1.319**	**0.902**	**12.213**

Table 4.8c RAs' Cloud Opex Proposal

4.9 Summary of Opex Proposal

The RAs propose to allow for delta Opex cost in full as requested by SEMO which is €23.9M. For the core (business as usual) component of Opex cost, the RAs are minded to allow for €33.4M (96%) compared to SEMO's submission of €34.9M for Labour cost; €23.9M (82%) compared to SEMO's submission of €29.0M for IT & Telecommunications cost; €10.7M (89%) compared to SEMO's submission of €12.1M for HR, Corporate & Facilities cost; and €7.2M (57%) compared to SEMO's submission of €12.7M for Finance & Regulations cost. In addition to these Opex costs, RAs propose to allow 99.6% (i.e. €12.2M) of cloud Opex cost requested by SEMO.

Opex *less* Delta (Core Opex)	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Labour Costs	6.802	6.844	7.099	7.099	7.099	**34.944**	6.226	6.418	6.928	6.928	6.928	**33.426**
IT & T	5.346	5.650	5.966	5.988	6.075	**29.024**	4.648	4.734	4.866	4.813	4.816	**23.877**
Facilities, HR and Corporate	2.354	2.368	2.455	2.455	2.455	**12.088**	2.077	2.105	2.186	2.186	2.186	**10.741**
Finance & Regulation	2.023	2.524	2.699	2.924	2.499	**12.670**	1.439	1.439	1.439	1.439	1.439	**7.195**
Total Opex (Excluding Delta)	**16.525**	**17.387**	**18.219**	**18.467**	**18.128**	**88.726**	**14.389**	**14.696**	**15.419**	**15.366**	**15.369**	**75.238**
FTEs	*80.0*	*80.5*	*83.5*	*83.5*	*83.5*		*73.25*	*75.50*	*81.50*	*81.50*	*81.50*	

Delta Opex	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Labour Costs	0.319	0.468	0.468	0.468	0.468	**2.189**	0.319	0.468	0.468	0.468	0.468	**2.189**
IT & T	1.321	4.165	4.667	5.155	5.366	**20.673**	1.321	4.165	4.667	5.155	5.366	**20.673**
Facilities, HR and Corporate	0.108	0.159	0.159	0.159	0.159	**0.743**	0.108	0.159	0.159	0.159	0.159	**0.743**
Finance & Regulation	0.138	0.052	0.052	0.052	0.052	**0.345**	0.138	0.052	0.052	0.052	0.052	**0.345**
Total Delta Opex	**1.886**	**4.843**	**5.345**	**5.833**	**6.044**	**23.950**	**1.886**	**4.843**	**5.345**	**5.833**	**6.044**	**23.950**
FTEs	*3.75*	*5.50*	*5.50*	*5.50*	*5.50*		*3.75*	*5.50*	*5.50*	*5.50*	*5.50*	

Total Opex	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Labour Costs	7.121	7.312	7.567	7.567	7.567	**37.133**	6.545	6.885	7.395	7.395	7.395	**35.615**
IT & T	6.666	9.815	10.632	11.143	11.440	**49.696**	5.968	8.899	9.533	9.968	10.182	**44.549**
Facilities, HR and Corporate	2.462	2.527	2.614	2.614	2.614	**12.831**	2.185	2.264	2.345	2.345	2.345	**11.484**
Finance & Regulation	2.161	2.576	2.751	2.976	2.551	**13.015**	1.577	1.491	1.491	1.491	1.491	**7.540**
Total Opex	**18.410**	**22.230**	**23.564**	**24.299**	**24.172**	**112.676**	**16.275**	**19.539**	**20.764**	**21.198**	**21.413**	**99.189**
Add: Cloud Projects	**3.983**	**3.571**	**2.486**	**1.319**	**0.902**	**12.261**	**3.983**	**3.523**	**2.486**	**1.319**	**0.902**	**12.213**
Total Opex (Including Cloud)	**22.393**	**25.801**	**26.050**	**25.618**	**25.074**	**124.937**	**20.258**	**23.062**	**23.250**	**22.517**	**22.315**	**111.402**
FTEs	83.75	86	89	89	89		77	81	87	87	87	

Table 4.9a: Summary of Opex Proposal for PC2024-29

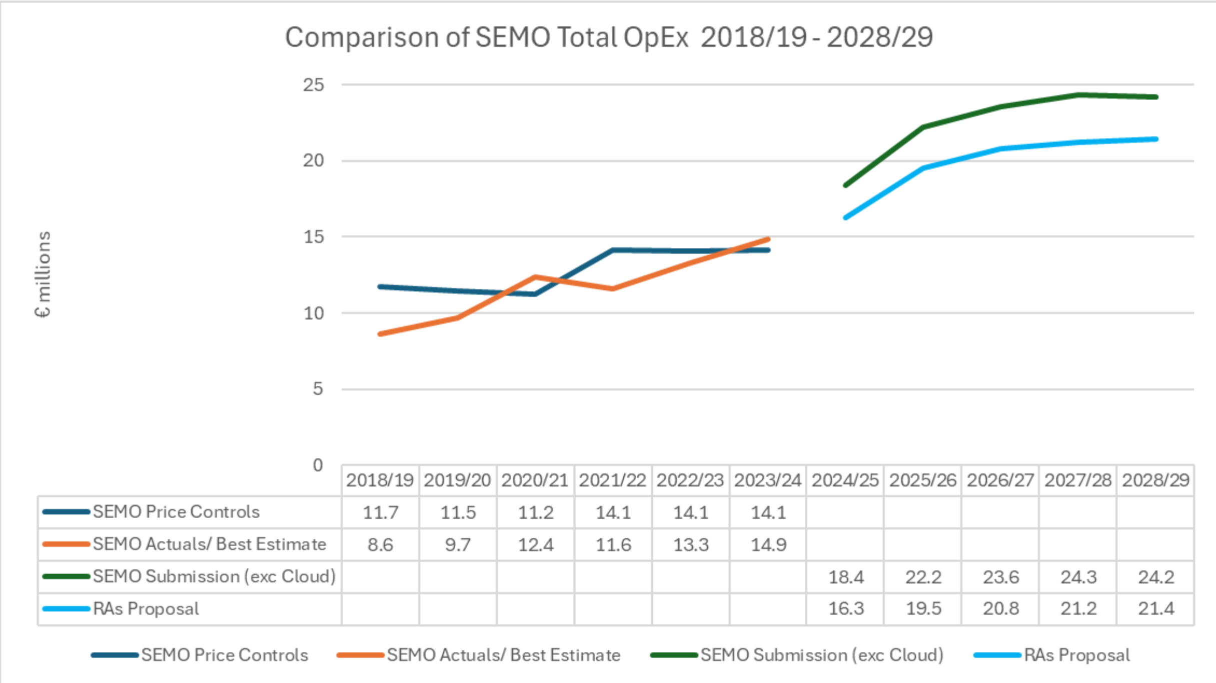


Figure 4.9 Comparison of SEMO Total Opex 2018/19 – 2028/29

4.10 Treatment of Opex Costs

Background

Under the current framework of SEMO Price Control, Opex allowances are set ex-ante and are fully recovered through SEMO revenues/tariffs on a “pay-as-you-go” basis (i.e., recovery in the same year in which expenditure is incurred). Opex follows a fixed revenue cap model, with SEMO bearing any under or over-spend.

SEMO's Proposal

As SEMO does not hold any cost-sharing arrangements with the customer that would reduce SEMO's risk on Opex allowance, there exists a potential risk for the upcoming FY 25-29 PC period given the ramp-up in forecast Opex needs (i.e. from c.€39.8m in the current Price Control period to c.€112.7m in the upcoming period). In addition, given the Opex intensive nature of SEMO, operational risks, that could lead to an overspend, can have a significant downside impact on SEMO's business and its financial resilience.

SEMO believes that introducing the cost sharing arrangements similar to that of SONI for Opex would provide SEMO with the flexibility to allocate Opex resources where required to meet business needs and reduce risks and to ensure efficient delivery of services to customers. In the case of SONI it has an explicit 25:75 cost sharing arrangement for any Opex over/underspend in the current Price Control. SONI's conditional cost sharing arrangement is such that the maximum reward/penalty is £1.25m per year, with the onus on the company to demonstrate that the over/underspend is efficient and justified. A similar maximum reward / penalty could also be introduced for SEMO. A maximum threshold would, like SONI, lessen the risk of SEMO bearing the full cost of any over-spend, or the customer not seeing the benefits of efficient underspend.

RAs Proposal

<u>Treatment of Core Opex</u>

The RAs want to ensure that SEMO is properly incentivised but also wants to ensure that any significant underspend should be shared with customers. Given the lessons learned from the SONI Price Control, the RAs consider that there is merit in introducing a cost risk-sharing mechanism under which 75 per cent of any difference between the Final Determination assessment of SEMO's expenditure requirements and SEMO's out-turn expenditure in a particular financial year is passed through to consumers through adjustments to SEMO's regulated revenue. The rate of 75 per cent will apply to SEMO's core and delta Opex (i.e. excluding cloud Opex).

The RAs are minded to introduce a mechanical cost risk-sharing mechanism of 25:75 without any cap and collar unlike conditional cost risk-sharing mechanism of 25:75 imposed on SONI for the 2020-25 Price Control. This will be an annual adjustment to revenues for cost risk-sharing purposes. The RAs proposes a scheme that has the following features:

i. The cost risk-sharing mechanism would apply to all SEMO's costs across Opex except for delta and cloud Opex.
ii. The cost-risk sharing percentage is specified as 25:75, whereby 25% risk will be borne by SEMO and 75% of the risk by customers.
iii. The value of the core Opex adjustment would be calculated as follows:

a. the difference in expenditure,
b. the relevant difference then will be multiplied by the value of the cost risk sharing percentage of SEMO (25 per cent).

These mechanisms would rely on annual reporting of cost data and calculation of the Price Control according to specified formulae and the latest data.

In the RAs analysis covering the last two Price Controls, SEMO have spent on an average 5% less than their total Opex allowances especially for Payroll, SEMO's underspend was over 12% on an average. It was also noticed that SEMO's spend in relation to IT&T and Finance & Regulation costs were volatile. It is also worth noting that the allowances themselves in total were 12% less than SEMO's original Opex forecasts in last two Price Control BPQs (€76.7M against €87.3M forecast). The RAs are of the view that this 25:75 cost sharing framework approach does not compromise SEMO's ability to fund, develop, provide and receive appropriate returns, and that this approach gives SEMO sufficient incentive to be efficient. The RAs have sought to ensure that SEMO would face clear and strong financial incentives to operate and invest efficiently and to avoid unnecessary expenditure.

Under (-)/Over (+) Spend Against Allowances (Real, March 2023 Prices)									
Items	**2018-19**	**2019-20**	**2020-21**	**Total**	**2021-22**	**2022-23**	**2023-24**	**Total**	**Average**
Payroll	-15%	-17%	-5%	**-12%**	-20%	-10%	-6%	**-12%**	**-12%**
IT & Telecom	-1%	38%	58%	**30%**	-8%	-9%	3%	**-5%**	**13%**
HR Corporate & Facilities	-29%	-10%	-25%	**-21%**	-6%	7%	8%	**3%**	**-9%**
Finance & Regulations	-34%	-33%	43%	**-12%**	-60%	9%	63%	**6%**	**-2%**
Total	**-15%**	**-3%**	**9%**	**-3%**	**-18%**	**-6%**	**5%**	**-6%**	**-5%**

The cost risk-sharing mechanism can help reduce consumers' financial exposure to the risks of:

i. deferral or abandonment by SEMO of expenditures that are included in the forecasts used by the RAs to calculate the Price Control; and
ii. those regulatory expenditure forecasts being too high for any other reason.

This provides a strong incentive for SEMO to deliver for less than the determined costs while providing consumers and the company with some protection against cost forecasting risk.

<u>Treatment of Cloud Opex</u>

The RAs recommend treating Cloud Opex costs in the same way as capex, which should be allowed to SEMO on pass-through basis based on actual spends subject to an ex-post efficiency review, if deemed appropriate by the RAs. Further details on treatment of this cost are discussed in section 7 of this document.

5 Capital Expenditure (Capex)

5.1 Key points overview: Capex

SEMO's Capex submission is summarised as follows:

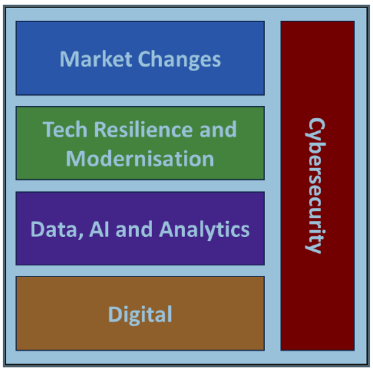
	SEMO submission					
CAPEX	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**Total € million**
Market System Releases	1.242	6.846	7.381	7.992	8.701	**32.162**
Market System Release Support	0.354	1.516	1.627	1.627	1.627	**6.752**
Predictable Business Capex[15]	7.945	5.586	2.821	1.716	1.096	**19.164**
Unpredictable Business Capex	2.100	2.100	2.100	2.100	2.100	**10.500**
Total	**11.641**	**16.049**	**13.929**	**13.435**	**13.524**	**68.578**

Table 5.1a Summary of SEMO's Capex submission 2024/29[16]

SEMO proposes two programmes of work driven by two respective strategic themes which we respectively describe as:

- **Externally Driven** - SEMO is responding to policy and regulatory drivers to accommodate changes to the market.
- **Internally Motivated** - SEMO is responding to internal concerns (such as replacing aged infrastructure).

The Externally Driven programme of work comprises eight projects that are driven largely by external policy drivers such as EU Integration and Net Zero objectives. The projects include consideration of the TSO/DSO operating model or the impact of long duration energy storage on the market. These are uncertain in scope, timing and degree of impact on the market systems and are colloquially known as 'Known Unknowns'. The Price Control commits to delivery of all eight projects but only identifies funding to take the projects through to the end of the planning stages. Implementation funding is subject to future agreement with and decision by the RAs at some point during the Price Control. The detailed planning of these projects is to be funded from €8M of Unpredictable Capex but there will be no operational benefits until implementation. The initiation projects and wider strategic planning are funded from €7.45M High Level Analysis and Design Opex. A small



[15] This excludes €12.2M of Predictable Business expenditure which has already been considered under cloud opex.
[16] Figures are based on 'as incurred' as provided by SEMO

amount (€0.5M) of Unforeseen Capex is also requested to fund unexpected software or hardware issues in an emergency only.

The Internally motivated programme comprises 11 Projects/Programmes – each with an accompanying business case. The Projects/Programmes map to five IT Themes which are illustrated in the figure to the right. Each IT theme is a vision that provides stakeholder benefits, such as replacing end-of-life systems, improving resilience of the architecture and a better experience for SEMO's customers. The 11 projects are funded by predictable Capex and SEMO has requested an allowance of €31.425M, which is made up of €12.261M cloud Opex and €19.164M non-cloud costs.

In addition, SEMO has requested €32.162M for Market Systems Release and €6.752M for Market Systems Release Support capital which, for the purposes of the narrative, we have chosen to include in the Internally Motivated category. It is funded from Predictable Capex and SEMO has requested an allowance of €38.914M across both items. Finally, SEMO make the case for Delta Opex which is essentially an allowance that recognises that Capex will essentially drive Opex. This is part of SEMO's overall IT Opex (not in addition to it) and is forecast by SEMO to be €21.018M[17].

The RA's propose to allow €67.1M of SEMO's €68.6M Capex request, which is outlined in table 5.1b below:

	RA Proposal					
CAPEX	**2024/25**	**2025/26**	**2026/27**	**2027/28**	**2028/29**	**Total € million**
Market System Releases	1.242	6.846	7.381	7.992	8.701	**32.162**
Market System Release Support	0.354	1.516	1.627	1.627	1.627	**6.752**
Predictable Business Capex	7.329	4.867	2.671	1.716	1.096	**17.679**
Unpredictable Business Capex	2.100	2.100	2.100	2.100	2.100	**10.500**
Total	**11.025**	**15.329**	**13.779**	**13.435**	**13.524**	**67.093**

Table 5.1b Summary of RA's Capex Proposal 2024/29

5.2 Summary of SEMO's submission

SEMO considers that FY 25-29 PC will be a period of major transformation for SEMO. Much of this change will be driven by legislative and regulatory change which will be undertaken by SEMO to facilitate effective markets that promote decarbonisation.

[17] SEMO provided the breakdown of delta Opex as part of query process which is €23.9M. The justification for this difference by SEMO is that in the BPQ, cost only represents the non-headcount related cost while in breakdown it represents additional headcount related cost as well.

In addition to substantial investment in the operation of the market and its systems, SEMO is a technology enabled business, and technology develops continually and so has a limited lifespan before it needs to be refreshed or replaced. There is a major task to modernise aspects of SEMO's IT provision which have now been in place for the best part of a decade. This transformation will embrace replacement of life-expired hardware and software, the adoption of new technologies such as leveraging the opportunities provided by the Cloud, as well as delivering new capabilities for the benefit of both customers and SEMO staff as they serve customers.

Given the scale of IT investment required over the next five years SEMO propose a requirement for €68.578M[18] of capital and a further €12.261M of cloud-based projects (accounted for as Opex) during the FY25-29 PC period. Table 5.2b below provides a breakdown of SEMO's Capex requirements from 2024/25 – 2028/29.

On top of these investments in 'predictable projects', SEMO will also bear additional costs in relation to the all-island SMP Programme with the precise proportion yet to be identified. SEMO anticipate that there will be further submissions to the RAs during the next Price Control period as greater certainty emerges as to any additional changes which SEMO is required to make.

SEMO note that with the introduction of accounting standard IAS38, IT projects delivered using Cloud services are now required to be treated as Operating Expenditure. which is remunerated in-year, but with no return for the associated risks. SEMO's proposed programme of investments is made up of a mix of Capex and Cloud Opex to reflect IT investment projects delivered in the Cloud.

SEMO's investment projects are significant in their scale, both in terms of their expected costs and in terms of their scope. There are two Strategic All-Island Programmes taking place during this Price Control period which, will result in significant reform for SEMO- the Strategic Markets Programme (SMP) and the Scheduling and Dispatch Programme (SDP).

The majority of the Predictable Project Expenditure projects focus on the delivery of the IT Strategy, which aims to refresh and upgrade critical components within the market systems, many of which are approaching end of life. There is a need to deliver greater resilience, provide additional functionality for both participants and use by SEMO staff, in addition to building greater flexibility into the market systems. SEMO consider that the greatest risk to market participants is that these benefits are not ultimately delivered with either a sub-optimal equilibrium or in extremis failure of the market systems themselves.

SEMO has categorised its proposals for investment projects in Table 5.2a below:

[18] Excluding the SDP.

Project Expenditure Category	Description
Bi-annual Market Release and Release Support Capital	Projects that relate to changes in the market systems, which will be delivered as part of the regular, bi-annual market releases. This relates to the costs of changes to the core market systems but also the resources to support the detailed design, oversee and govern the use of the Market Systems vendor hours and to carry out testing activities during the execution phase for releases.
Strategic All- Island Programmes	Projects that are significant functional additions to the market systems and will be delivered as discrete programmes, due to their scale, cost, and impact. These projects are already the subjects of submissions which are with the RAs for consideration.
Predictable Project Expenditure	Projects deemed predictable and necessary for SEMO during this Price Control period. In each case, there is a detailed understanding of the project scope and the impact of the project on SEMO, sufficient to enable project timelines and costs to be estimated. These projects include both Capital Expenditure projects and Cloud-based projects.
Unpredictable Projects Costs	Projects which are thought likely to be required during this upcoming price period, but where the precise scope/requirements and timing of the project remain uncertain. SEMO's ability to identify potential solutions and provide precise plans and cost estimates is therefore limited.

Table 5.2a SEMO Project Expenditure by category

Breakdown of SEMO proposed Capex

		Cloud Projects						CapEx Project Spend								Delivery
Revenue Category	**Project**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**Total Forecast Spend FY25-29 PC**	**AUC at end of FY22-24 PC**	**FY25**	**FY26**	**FY27**	**FY28**	**FY29**	**Total Forecast Spend FY25-29 PC**	**Total Spend by end of 2029**	**Spend to be Capitalised in future PC**
Strategic All island Programmes (under proposed AGD)	Strategic Markets Programme (TBC)	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	**0.000**	0.000
Strategic All island Programmes (under proposed AGD)	Scheduling and Dispatch	0.000	0.000	0.000	0.000	0.000	**0.000**	5.619	3.417	0.000	0.000	0.000	0.000	**3.417**	**9.036**	0.000
Bi-annual Release / Release Support CapEx	Market Release Capital	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	1.242	6.846	7.381	7.992	8.701	**32.162**	**32.162**	4.028
Bi-annual Release / Release Support CapEx	Market Release Support Capital	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.354	1.516	1.627	1.627	1.627	**6.752**	**6.752**	0.742
Predictable	Data Centre Transformation	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	1.866	2.180	0.454	0.000	0.000	**4.499**	**4.499**	0.000
Predictable	Advance Cyber Maturity	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.320	0.030	0.290	0.000	0.000	**0.640**	**0.640**	0.000
Predictable	Data, AI and Analytics	1.495	0.642	0.669	0.699	0.732	**4.238**	0.000	0.573	0.488	0.525	0.567	0.615	**2.769**	**2.769**	0.308
Predictable	Digital Workplace	0.635	1.742	1.144	0.035	0.035	**3.591**	0.000	0.132	1.022	0.197	0.000	0.000	**1.352**	**1.352**	0.000
Predictable	Integration Modernisation	0.465	0.540	0.495	0.585	0.135	**2.220**	0.000	0.195	0.180	0.165	0.195	0.045	**0.780**	**0.780**	0.000
Predictable	IT Service Transformation	0.071	0.096	0.014	0.000	0.000	**0.181**	0.000	0.007	0.155	0.124	0.007	0.007	**0.300**	**0.300**	0.000
Predictable	Market Technology Enablement	0.000	0.000	0.000	0.000	0.000	**0.000**	0.640	0.311	1.346	0.874	0.748	0.224	**3.502**	**4.142**	0.640
Predictable	Markets Infrastructure	0.000	0.000	0.000	0.000	0.000	**0.000**	0.210	4.541	0.185	0.192	0.199	0.205	**5.322**	**5.532**	0.000
Predictable	SEMO Finance System / ERP	0.861	0.000	0.000	0.000	0.000	**0.861**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	**0.000**	0.000
Predictable	Audit and Compliance Tool	0.083	0.128	0.000	0.000	0.000	**0.211**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	**0.000**	0.000
Predictable	SharePoint Online Mods Documentation	0.373	0.422	0.164	0.000	0.000	**0.959**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	**0.000**	0.000
Predictable	Data Archive	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.000	0.000	0.000	0.000	0.000	**0.000**	**0.000**	0.000
Unpredictable	Unforeseen hardware and software upgrades	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	0.100	0.100	0.100	0.100	0.100	**0.500**	**0.500**	0.000
Unpredictable	Market Evolution (Known Unknowns - Legislative/Regulatory changes etc)	0.000	0.000	0.000	0.000	0.000	**0.000**	0.000	2.000	2.000	2.000	2.000	2.000	**10.000**	**10.000**	2.000
Total		**€3.983M**	**€3.571M**	**€2.486M**	**€1.319M**	**€0.902M**	**€12.261M**	**€6.469M**	**€15.058M**	**€16.048M**	**€13.930M**	**€13.435M**	**€13.525M**	**€71.995M**	**€78.464M**	**€7.718M**

Table 5.2b Breakdown of Proposed Capex Project Costs

5.3 Market System Release Capital

Summary of SEMO's Submission

SEMO recognises that changes to the market systems need to be implemented in a timely, predictable, and accurate manner. An ad-hoc or overly frequent approach to the delivery of system releases may not be appropriate given the critical nature of the systems to the smooth operation of the electricity markets.

For some time, SEMO has operated a bi-annual release strategy through which new functionality can be introduced, as well as identified issues being resolved on a regular and predictable basis. This delivery model is realised through purchasing delivery capacity from SEMO's prime vendor of market systems. SEMO progresses changes by using a proportion of those hours and incorporate the change into a release.

As vendor resources are limited there is a constraint on the volume of change that SEMO considers that it can process at any point in time. SEMO has proposed a model where additional market delivery capacity may be purchased, but these costs would be in addition to the Bi-annual Release costs identified in this paper. There will nonetheless be an upper limit to what can be accommodated, and changes may have to be prioritised in terms of timeframes for delivery.

At any one time, a number of releases are being progressed, with the next release in delivery, and subsequent releases are being specified and designed. This has the benefit of ensuring there is a continual pipeline of activity which is predictable and enabling staff to be effectively utilised. It also allows for knowledge to be retained and disseminated as those working on the systems change over time.

Each bi-annual release is treated as a project in its own right, and is made up of two distinct components, both of which are required to deliver a Market Release. These are:

- **Market Systems Release:** The services of the Central Market Systems vendor for the design, development and factory testing of the release software package.
- **Release Support:** the incremental project resources, including internal resources and external consultancy needed to support the ongoing change programme.

Both aspects are required to bring Change Requests and issue resolution through the full software development lifecycle. SEMO's estimated scale of Market System Release Capital is outlined below.

Market System Release Capital (€m)	FY25	FY26	FY27	FY28	FY29	Total
Capex	1.242	6.846	7.381	7.992	8.701	**32.162**

Table 5.3a Market System Release Capex[19]

RA's view

Given how the hours are used, the high likelihood of major changes within the Price Control period, and the fact that any unused hours are not be paid to SEMO, the RAs are minded to allocating an allowance of 100%.

5.4 Market System Release Support Capital

Summary of SEMO's Submission

Whilst SEMO works with a dedicated service provider for development of the market system release code, the delivery of a Market Release requires a complementary set of capabilities to be available, as follows:

- **Project/programme management** – each Market Release is treated as a distinct project with a dedicated internal Project Manager responsible for the planning and oversight of all aspects of the release. This includes project planning, reporting, contract management, change and risk management and stakeholder engagement.
- **Business analysis** – The Market Systems are complex and are tightly coupled with System Operator systems. Deep knowledge of the market operator functions, technology landscape, functionality of the systems and interdependencies is required so that new requirements can be accurately defined and delivered, without adversely impacting market operations.
- **Testing and Quality** Assurance – SEMO requires full-time project test analysts to deliver the volume of change required over the lifetime of the Price Control. These resources are provided under SEMO's Test Services Framework. This is a managed service and was put in place following an open competitive tender process in 2020.
- **Infrastructure Support** – The Market Systems are deployed across a complex and highly integrated landscape of physical infrastructure and systems. Support for these devices is critical to ensure projects run to schedule and operational services are not impacted.

[19] Figures are based on 'as incurred' as provided by SEMO

The SEM continues to undergo significant change and a large volume of change is expected over the FY 25-29 PC Price Control period. Much of this change relates to:

- Further alignment of the systems to the TSC and agreed procedures.
- Modification proposals that have a systems impact and that are under development.
- Enablement of the Celtic Interconnector and reintegration with Pan-European processes
- Addressing proposed impacts from other capital programmes in SEMO's core SEM systems such as Future Arrangements of Systems Services (FASS), SDP and Celtic.
- Application of regular patches across the technology stack (Infrastructure and Core third party software) to ensure the systems retain optimum performance and a robust security posture.

It is anticipated that the register of suggested change which is maintained for the SEMO market systems will continue to grow given the projected increase in renewables on the system and to enable higher levels of System Non-Synchronous Penetration (SNSP), such as that from offshore wind.

In addition, it is expected that there will be further requirements for change, driven by EU codes and packages, together with specific issues such as GB market integration. The extent of impact on the market systems and the timelines associated are still unclear. Such changes may include the implementation of:

- Modifications to the TSC.
- CEP Article 12.
- CEP Article 13.
- EBGL.
- Integration of new generation technology and system services.
- Loose Volume Coupling between SEM and GB.
- Modelling smart network devices in MMS e.g., Dynamic Line Rating / Power Flow Controllers
- Potential for regional inertia constraint and/or potential for new constraints in MMS arising from the work being done on System Strength by the Future Operations Teams.

SEMO's estimated scale of Release Support Capital is outlined in Table 5.4a below.

Market System Release Support Capital (€m)	FY25	FY26	FY27	FY28	FY29	**Total**
Capex	0.354	1.516	1.627	1.627	1.627	**6.752**

Table 5.4a Market System Release Support Capex[20]

RA's view

The RAs consider that given the level of services are related to the number and estimated size of the releases the estimated costs seem to be justified as they are also based upon past performance and experience. Based upon the information provided the RAs are minded to allocating an allowance of 100%.

5.5 Predictable Project Expenditure

Summary of SEMO's Submission

This category of investment projects consists of those projects where a need has been identified and is necessary for this Price Control period. There is an understanding of the project scope and the impact of the project on SEMO, sufficient to enable project timelines and costs to be estimated.

This Predictable Projects category consists of a mixture of projects with a range of individual requirements, ranging from minor projects to more significant programmes of work. The projects included in this category will enable SEMO to maintain efficient organisation practices and deliver on SEMO's IT Strategy. These projects are driven by a variety of factors, such as the evolving regulatory landscape and developments in IT.

SEMO's Predictable Capex projects are outline in the table below.

[20] Figures are based on 'as incurred' as provided by SEMO

Project Name	Cloud Opex Expenditure (€m)	Capital Expenditure (€m)	Cost Estimate (€m)
SharePoint Document Management System	0.959	-	0.959
Audit and Compliance Tool	0.211	-	0.211
Data Centre Transformation	-	4.499	4.499
Market Technology Enablement	-	3.502	3.502
Advanced Cyber Maturity	-	0.640	0.640
Data, AI, and Analytics	4.238	2.769	7.007
Digital Workplace	3.591	1.352	4.942
Integration Modernisation	2.220	0.780	3.000
IT Service Transformation	0.181	0.300	0.481
Market Infrastructure	-	5.322	5.322
SEMO Finance System/ERP	0.861	-	0.861
Total Predictable Project Expenditure	***12.261***	***19.164***	***31.425***

Table 5.5a Predictable Capex Projects[21]

[21] Figures are based on 'as incurred' as provided by SEMO

➢ ***SharePoint Document Management System***

Summary of SEMO's Submission

The Balancing Market and Capacity Market rules require SEMO to manage documentation relating to the duties performed under the codes. This documentation can be diverse in nature, ranging from participant information, agendas, and minutes of meetings, management of information relating to modifications, guidance/rules documents etc.

The current document management tool (Modoc) is no longer supported by the software provider and so its ongoing use is a risk to the reliable and effective completion of SEMO's obligations.

In addition, the functionality available within the tool and the limited integration with other systems, such as the SEMO website, requires the SEMO Secretariat to operate many manual processes which are both inefficient and bring greater risk of human error. As we expect the complexity of markets to grow and workloads to increase, continued use of Modoc is no longer a sustainable solution.

Given these issues, it is proposed to procure a replacement document management system during the next Price Control period to ensure that SEMO's obligations continue to be discharged in a secure and cost-effective manner.

There are a variety of document management solutions available and so this proposed project will be concerned with specifying the detailed requirements for the system, using these as a basis for selecting an appropriate tool and then implementing it within SEMO. However, given SEMO's wider investment in digital tools, it is envisaged that we will leverage the implementation of SharePoint as the underlying platform.

RA's view

Costs cover requirements specification, product selection, and implementation. The product selection process simplifies by initially testing requirements against SharePoint. The solution cost is €0.959M and it is reasonable to assume that 5% of that cost was involved in the more complex selection process set out in the Business Case. The RAs are minted to allocating an allowance of 95%, reflecting the simplified selection process with SharePoint as the primary test solution.

➢ **Audit and Compliance Tool**

Summary of SEMO's Submission

Both EirGrid and SONI have requirements under their market and system operator licences to ensure compliance with relevant industry codes and agreed procedures.

SEMO is obliged to comply with EU Codes and Directives, along with licences, SEMC and regulatory decisions as well as Trading & Settlement, Capacity & other relevant codes. This requires the Market Operator to manage its governance, risk management & compliance activities in a comprehensive and coordinated fashion.

Governance, Risk Management and Compliance (GRC) are three separate interdependent disciplines. GRC is the umbrella term covering activities such as corporate governance, enterprise risk management (ERM) and corporate compliance with applicable laws and regulations which impact the Market Operator. As such, a single function exists to ensure governance, risk and compliance obligations are managed across activities across licensees. This has the benefit of ensuring that there is a centre of expertise in such matters, making use of common tools and enabling the sharing of experience and knowledge. Due to the complex nature of the existing codes/legislation and European Directives there is a need to ensure that the Audit and Compliance Team have access to Tools and Techniques to enable best practice, alongside sufficient resource to support the increased workload.

During 2023, a review of the Compliance Governance Framework was undertaken, and one of the key findings was that the current toolset was insufficient to meet expected best practice. The procurement of a GRC tool will therefore improve the ability to discharge licence and code obligations and improve corporate GRC to best practice standards to safeguard the efficient use of funds.

An effective GRC solution will reduce management complexity, keep track of risks, and minimise costs as well as making more efficient use of staff time by implementing a single, comprehensive solution. It would provide an organised governance risk compliance and audit management approach to support and ensure compliance with various regulations (local and European) requirements.

RA's view

The RAs consider that the project is essential as it addresses a known issue. The RAs therefore are minded to allocating an allowance of 100%.

- **Data Centre Transformation**

Summary of SEMO's Submission

Given SEMO's position as an operator of critical national infrastructure, it is essential that its data centres are built and maintained to a standard which ensures security, resilience, and reliability.

EirGrid currently operates two on-premises data centres in Ireland, and SONI operates two on-premises data centres in Northern Ireland. In each case, there are areas for improvement in provision or where that resilience could be compromised. For example, The Oval is built on a flood plain with the data centre on the Ground Floor whereas at Castlereagh House, the data centre is located in the basement and so is also subject to flood risk. In addition, both sites have limited space for expansion which will become a significant constraint in the near future.

It is proposed that through this project, data centre provision will be upgraded through the migration of technology infrastructure that is currently installed in EirGrid and SONI offices to specialist data centre providers. Data centre service providers are specialists in hosting of the server, storage, and networking infrastructure of customers in secure and resilient locations. They also provide connectivity for their customers to a variety of existing communications and network service providers offering the potential for reduced cost and complexity in this respect.

This project will include the selection and implementation of data centre facilities in specialised data centre providers and the migration of selected applications from the existing on-premises data centres in EirGrid and SONI sites.

RA's view

SEMO has confirmed the necessity of having two Tier 3 or higher data centres for business operations. SEMO has also confirmed that one future data centre has been chosen by EirGrid, which will be shared by SEMO, while the second data centre is yet to be determined. Given that the costs associated with the establishment of the first data centre have already been incurred, the selection of the second data centre much more straight forward and quicker than outlined in the original Business Case which was an 18-month process. The RAs are of the view that much of the year 1 costs of €1.866M will therefore not be required which translates to allowance of 67%.

- **Market Technology Enablement**

Summary of SEMO's Submission

SEMO has identified several Technology Enablers for action in the upcoming Price Control period to support the efficient and secure operation of the market and delivery of releases. These include:

- Additional Market Environments
- Market Data Management and Access
- Performance Test Suite Delivery
- ISEM Test Automation Delivery
- Market Systems Decoupling Analysis

These activities aim to resolve known issues and collectively provide greater flexibility and efficiency, enable innovation, and ensure the resilience and security of market environments in the future.

RAs' views

The overall cost of this project is comprised of several distinct components. When considered collectively, the cost appears justified given the level of investment required, market fluctuations, and the necessity to enhance flexibility and automate test elements. Based upon the information provided the RAs are minded to allocating an allowance of 100%.

- **Advanced Cyber Maturity**

Summary of SEMO's Submission

SEMO's cybersecurity and IT functions play crucial roles in maintaining business continuity and resilience. Improving SEMO's cybersecurity capability will help minimise disruptions, reduce downtime and enable a swift recovery in the event of a security incident.

As SEMO adopts new technologies in pursuit of its business strategy, having mature cybersecurity capabilities will be essential in assessing and managing the associated risks of emerging technologies. Furthermore, as a provider of Critical National Infrastructure, SEMO may be the target of a multi-level set of threats based on a range of motivational factors: cyber activism, cybercrime, cyber espionage, cyber terrorism, and cyber warfare. SEMO must take steps to protect itself and its core operational area of managing the market solutions such that they continue to operate and are defended against the wide range of threats.

SEMO's requirement for cyber funding is rooted in the need to protect the mission critical IT infrastructure, applications and data that underpins the Market Management Systems, from various risks, including cyber threats and data breaches. The key reasons why SEMO requires continued development and investment in cyber security are to mitigate cyber risks, to comply with regulations and standards, to maintain customer trust, to ensure business continuity and resilience and to safeguard sensitive information.

RAs' views

The project is essential as it addresses potential cyber security threats. The RAs are minded to allocating an allowance of 100%.

- ***Data, AI, and Analytics***

Summary of SEMO's Submission

SEMO processes high volumes of data and there is potentially huge value to be extracted from the market and associated systems, however historically it has been difficult and expensive to unlock this data, often requiring the services of the market systems vendor.

A key element of SEMO's strategy is to enhance access to underlying business data, whether for improving and/or automating internal business processes and analysis/reporting or making data available to customers or third parties to support market operations and foster innovation. This project encompasses several crucial components to enable this strategy:

- **Enterprise Data Model (EDM)** – Expanding the current EDM.
- **Enterprise Data Hub (EDH)** – Enhancing the current EDH.
- **Use Cases** – Implementing various improvements into business operations.
- **Visual Tool Migration** – Selecting appropriate tools and transitioning to a cloud-based platform.
- **Master Data Management (MDM) and Data Governance**

This project adds value as it improves SEMO's Data Management

Advancing Data, AI, and Analytics initiatives aligns with SEMO's strategy and underscores the critical importance of data to successful business operations while also aiming to improve data accessibility. This approach comprises multiple discrete components, all of which are essential. SEMO adopts a 'Use Case' approach to identify and implement enhancements. Several Use Cases have been identified, and the number to be implemented during this period reflects current experience and resource availability, which appears suitable. SEMO has confirmed that the data team is 'ring-fenced' ensuring dedicated resources for these activities without distraction from other SEMO tasks. The team also includes external resources, allowing for a reduction in staff levels once the required volume of work has been completed.

RAs' views

The effort and costs are based on existing experience, with the volume of work estimated from the actual effort required to complete similar tasks to date. The RAs are minded to allocate an allowance of 100%.

- **Digital Workplace**

Summary of SEMO's Submission

The delivery of a modern digital enterprise is core to SEMO's IT Strategy. Evolving digital capabilities will support SEMO in achieving its business objectives through evaluating and deploying appropriate technology to deliver enhanced experiences for staff, customers and stakeholders including market participants.

The benefits which will result from this investment include:

- A simpler and consistent desktop environment for staff enabling access to key business applications in a way which maximises their productivity.

- A capability to work with and share data both internally but also, crucially, with external parties whether they are market participants or partner companies.
- A reduced overhead related to maintenance and support of applications, such as application of security patches, deployment of software with the cloud implementation ensuring that all applications are kept up to date by the software vendor.

RAs' views

This project adds value as it improves SEMO's employee experience and communication with SEMO's key stakeholders. The RAs are minded to allocating an allowance of 100%.

- **Integration Modernisation**

Summary of SEMO's Submission

The current IT systems architecture which underpins SEMO's operations relies on various technologies to provide the necessary interfaces and means of integration. This enables these systems to work collectively. There are currently over 200 discrete integrations with over 100 integrations as part of the overall market solution.

It is becoming increasingly important that the Market Systems can acquire, process, interpret, visualise, and disseminate large volumes of data in real-time and securely. The increased penetration of renewable resources, introduction of long duration storage and increased forecasting demands will intensify the need for near real-time integration. As a number of key Market systems will remain on-premises, an integration platform that facilitates the flow of data between cloud and on-premises systems is required, combining new Cloud and on-premises components.

The proposed solution comprises multiple components and is associated with Integration Modernisation led by EirGrid. It is crucial that it can integrate both on-premises and public cloud-based applications. A phased implementation approach is proposed, with interfaces being migrated to the platform as applications are upgraded.

The key deliverable of the project will be a secure, extensible Hybrid Integration Platform (HIP) to enable information to be gathered from and shared between applications on a near real-time basis. The Integration Platform, along with the Enterprise Data Hub (EDH) as part of the Data, AI and Analytics project, aims to consolidate data from Market, Corporate, and SCADA systems, while also incorporating external data.

This project supports SEMO's strategy to transition away from point-to-point integrations and address some end-of-life issues with current solutions.

RAs' views

Based on the costs being solely for SEMO's allocation of the core platform, the RAs are minded to allocate an allowance of 100%.

➢ **IT Service Transformation**

Summary of SEMO's Submission

This project aims to automate SEMO's IT Service Management processes, including:

- Asset Management
- Monitoring, Event and Alert Management
- Capacity Management, Planning and Forecasting
- Enterprise Architecture Management Toolset Implementation
- IT Service Management Toolset Implementation
- Process Automation Toolset Implementation

As SEMO's IT systems and associated infrastructure become more complex and diverse, and as the introduction rate of new services and systems increases, there is a need to automate these processes.

This project adds value as it improves the quality of SEMO's Service Management processes.

RAs' views

As SEMO's IT systems and associated infrastructure become more complex and diverse, and as the introduction rate of new services and systems increases, there is a need to automate these processes. This project adds value as it improves the quality of SEMO's Service Management processes. The RAs are minded to allocate an allowance of 100%.

➢ **Market Infrastructure**

Summary of SEMO's Submission

The project pertains to infrastructure maintenance, upgrades, enhancements, and replacements for the market systems across the following three areas:

- Market Systems ISEM Virtualisation.
- Market Systems Backup Solution.
- Market Systems Infrastructure Refresh.

The proposed upgrades include:

- Upgrading the infrastructure in the Priority 1 (P1), Priority 2 (P2), Non-Production (NP), Database Non-Production (DB NP), and Demilitarised Zone (DMZ) environments.
- Upgrading the Scheduling and Dispatch Infrastructure to Oracle Real Application Cluster (RAC) clusters across Oval and CHCC to enhance performance and resilience.
- Implementing an isolated ISEM IAM (Identity Access Management) infrastructure and separating Active Directory to improve security and segregation of systems.
- Implementing Monitoring, Alerting, Capacity Planning, and Management for the market systems.

This project is essential as it ensures SEMO's infrastructure is maintained and up to date.

SEMO proposes upgrading the infrastructure to a high-performance, scalable, reliable, and secure modern platform. It is essential for an organisation such as SEMO continuously to upgrade its infrastructure on a priority basis. The new hardware will offer future-proofing capabilities, enabling greater data volumes, more frequent backups, and quicker estimated recovery times. While there may be excess capacity if data volumes do not increase as expected, it is generally more cost-effective to build in overcapacity initially rather than undertake a series of expensive upgrades later.

RAs' views

The costs are based on hardware estimates for 'appropriate' components and appear reasonable given the need to support increasing data volumes. Additionally, SEMO will only receive funding for actual costs incurred should the final solution be less than the estimates. The RAs are minded to allocating an allowance of 100%.

- **SEMO ERP (Finance System)**

Summary of SEMO's Submission

SEMO currently operates the Microsoft Dynamics ERP Solution, a leading application for medium-sized enterprises such as SEMO. The organisation is following a standard application upgrade path to transition to a cloud solution hosted on Microsoft Azure. This project is already in progress as it was included in the current Price Control. Transitioning to an alternative ERP solution would incur additional costs, including re-training expenses and significant costs associated with migrating data between different ERP data structures, as well as writing off the existing investment made.

Working with Hitachi Solutions, SEMO's support partner for Dynamics, a project has been initiated to scope, design and implement the new cloud-based version of Dynamics. Whilst much of the scoping and detailed design costs will be covered by funding through the FY 22-24 PC, there will be a requirement for further funding into the next Price Control period to conclude the implementation. It is this aspect of the implementation which is the subject of this project proposal.

The current solution has reached end of life, and so must be replaced. SEMO performed an analysis of other market leaders as alternative solutions and has concluded the chosen solution is the best value for money whilst continuing to meet all of SEMO's ERP needs.

RAs' views

Project estimates are based on information provided by Hitachi and Microsoft. Upgrade cost estimates originate from the day rates established in the competitively procured Hitachi framework agreement, which will be re-procured in the next Price Control period. The RAs are minded to allocating an allowance of 100%.

5.6 Unpredictable Project Expenditure

Summary of SEMO's Submission

Unpredictable Projects (€m)	FY25	FY26	FY27	FY28	FY29	Total
Unforeseen upgrades	0.100	0.100	0.100	0.100	0.100	**0.500**
Market Evolution	2.000	2.000	2.000	2.000	2.000	**10.000**

Table 5.6a Unpredictable Capex Projects[22]

This category consists of projects which SEMO considers will be required during the upcoming Price Control period, based on the information available today. They fall into two categories: Market Evolution and Unforeseen Events.

There is reasonable certainty that SEMO could be impacted, however, at this time, the precise scope, requirements, timings etc. are unknown and so, estimating costs, with a great degree of accuracy is not possible. As a result, SEMO has included an indicative amount of €8M to be delivered the next Price Control period, under the umbrella heading of the 'Market Evolution Programme'. This comprises of €2M of annual spend (€10M total across FY 25-29 PC), with project delivery assumed in the next year (€8M in FY 25-29 PC).

Including an indicative allowance ensures SEMO has a provisional amount in place to begin work when project needs arise, i.e. it will progress these projects through Phases 1 and 2 of EirGrid Group's project management method. It is envisaged that this will allow for the preparation of an accurate estimate of Capex, Cloud Project Opex and resultant enduring Opex costs, timelines etc, which will then be the subject of a future submission to the RAs. An

[22] Figures are based on 'as incurred' as provided by SEMO

indicative allowance also promotes tariff stability for the period, with 'seed' amounts for Phases 1 and 2 reducing the need for significant inter-year adjustments.

These projects are likely to be cross licence and 'All-Island' in nature (TSOs and SEMO), with many of SEMOs Project Expenditure requirements being driven by TSO SEM market changes. We acknowledge that the RAs are currently examining the governance and revenue recovery arrangements for such 'All-Island' projects. These All-Island projects involve input/ being capable of being implemented by both EirGrid and SONI in their capacities as either/ both TSOs and/or MOs.

For the purposes of this Price Control, such projects have been classified as Capital Expenditure (rather than Cloud), with the indicative amount of €8m included in SEMO's Capex submission. However, the distinction between Capex and IT Cloud will become clearer as we move through the period, with expenditure to be allocated accordingly. SEMO will work closely with the RAs as these projects develop and become more well-defined, or likewise as they are deprioritised, or replaced by more pressing requirements.

The eight potential projects relate to:

- TSO/DSO Future Operating Model
- Lond Duration Energy Storage
- Demand Side Management
- Hybrid - A Hybrid Co-Located Site is any project that has multiple generating units (or power generating modules) utilising multiple primary energy sources or technology types in generating/storing electricity
- Capacity Remuneration Mechanism post-2027
- EU Market Support
- Interconnectors
- Enduring DSU Payments

The second category which falls within Unpredictable Projects is 'Unforeseen Events'. This is a request for a small annual allowance of €100k to enable SEMO to respond to an exceptional event, such as a major hardware failure, or a security issue, where the need to act to protect or sustain the operation of the market is the priority. SEMO proposes that this is provided on a pass-through, use-it-or-lose it basis reflecting the intent that it should only be drawn on in times of emergency.

RAs' views

The RAs understand the request for Market Evolution Capex and the rationale SEMO has put forward. SEMO requires revenues to cover the cost of analysing the impact of major policy-driven issues which may impact the market. It also needs to fund its response to these initiatives which will include the design of potential solutions. There will also be some uncertainty around the costs of the design phase although we believe that estimates can be informed by historical precedent

The RAs recognise that SEMO requires revenues to cover the cost of analysing the impact of major policy-driven issues which may impact the market. It also needs to fund its response to these initiatives which will include the design of potential solutions. There will also be some uncertainty around the costs of the design phase although we believe that estimates can be informed by historical precedent.

The RAs have balanced this pragmatic perspective with the need for SEMO to demonstrate that it has the necessary programme controls, including reasonable stage gates in place between programme Phases. This is particularly important between Phase 0 and Phase 1 where the potential for inefficient expenditure is greatest. The RAs are therefore minded to accept SEMO's proposals on the €8M of unpredictable Capex should further reasonable evidence be forthcoming. Such evidence could only be strengthened by including some historical expenditure costs around previous Phase 1 and Phase 2 delivery.

- **Strategic All-Island Programmes**

Summary of SEMO's Submission

This category of investment refers only to specific projects which are themselves subject to separate submissions to the RAs. These projects are the Strategic Markets Programme (SMP) and the Scheduling and Dispatch Programme (SDP). These projects are governed under a central framework (e.g. proposed Agreed Governance Document) with the RAs.

These projects are significant and separate due to their scale, cost, and implications for SEMO. SEMO has been allocated 20% of the cost of SDP. The cost allocation for SMP to SEMO has yet to be determined by the RAs.

RAs' views

The costs relating to All Island Programmes are determined outside of this Price Control and will progress through the appropriate governance systems.

5.7 Summary of RAs' Total Capex Proposal

A summary of SEMO's submission versus the RAs' proposals is presented in table 5.7a below:

SEMO submission	RAs' proposals
Market system releases (€32.2M) and release support (€6.8M)	Allow in full

Predictable Capex across 11 projects (€31.4M)	Allow in full nine out of eleven projects. SharePoint Document Management System to be allowed 95% and Data Centre Transformation to be allowed 67%.
Unpredictable Capex for unforeseen hardware and software upgrades (€0.5M)	Include the 'uncertain' predictable Capex projects budget in full which equates to €0.5M. This Capex allows SEMO the flexibility to react and re-prioritise projects throughout the Price Control.
Known unknowns in respect of SEMO's 'Market Evolution Programme' (€10.0M)	RAs to allow a discretionary amount of €2M p.a. within unpredictable Capex, thereby increasing the flexible amount available to SEMO to react and re-prioritise projects including for areas identified as 'known unknowns'. The 'Price Control framework' proposals are outlined above and are stricter for the unpredictable Capex.

Table 5.7a Summary of SEMO's submission and RA Proposals

The RAs are proposing to allow in full SEMO's request for €32.2M for Market System Release, €6.8M for Market System Release Support and €10.5M for Unpredictable Business Capex. The RAs are proposing to allow €17.7M of SEMO's €19.2M Predictable Business Capex submission for the 2024/29 Price Control.

	SEMO Submission 2024/29	RAs Proposal 2024/29
CAPEX	**Total € million**	**Total € million**
Market System Releases	32.162	32.162
Market System Release Support	6.752	6.752
Predictable Business capex[23]	19.164	17.679
Unpredictable Business capex	10.500	10.500
Total	**68.578**	**67.093**

Table 5.7b SEMO's submission and RA's capex proposals

[23] This excludes SEMO's requested €12.261M of Predictable Business expenditure which has already been considered under cloud Opex.

5.8 Regulatory Asset Base (RAB), Depreciation, WACC Return

The closing RAB position from the previous Price Control period of 2021-2024 is forecast at €14.763M by SEMO. Within this period, SEMO's Capex spends amounted to €3.325M in 2021/22, €8.593M in 2022/23 and is estimated to be €5.497M in 2023/24. Previously the return on RAB and depreciation costs associated with Capex were recovered on a 'as-commissioned basis', meaning costs are recovered when a project was completed. However, SEMO has proposed a move to Capex cost recovery on an as-incurred basis, where costs are recovered when incurred. The RAs are prepared to accept this proposal with further detail outlined within Chapter 7 of this paper. This change to the framework has significant impacts for SEMO's RAB, depreciation costs and their return on RAB.

One impact to highlight is there are several Capex projects which are ongoing from the previous Price Control but are yet to be commissioned and hence, have not been added to the RAB. These are referred to as 'Assets Under Construction' (AUC). As a result of the move to cost recovery 'as incurred', the RAs have decided that AUC will be added to the RAB within the first year of the Price Control.

Additionally, SEMO is requesting an update to the WACC mechanism in the upcoming Price Control. The current WACC mechanism is a weighted average of the two System Operator WACCs in accordance with the specified proportions, currently 75% for EirGrid and 25% for SONI[24]. The current blended rate for the WACC can be seen in the table below:

WACC Rate	TSO WACC Decisions	Specified Proportion	SEMO WACC
Eirgrid TSO[25]	3.80%	75%	2.85%
SONI TSO[26]	4.03%	25%	1.01%
Blended Rate for SEMO WACC			**3.86%**

Table 5.8a: Blended WACC based on SEMO Submission and RAs' Proposal

The RAs are proposing to continue the existing WACC calculation until the Eirgrid and SONI TSO determinations in year 2 when the WACC will be updated to reflect the new EirGrid and SONI WACC values, weighted using the proportions of the joint venture i.e., 75:25 for years 3-5. This is further outlined within Chapter 7. For years 3-5 of the Price Control, the RAs have used SEMO's forecast blended WACC value of 4.77% when considering return on RAB.

Overall, SEMO's RAB is forecast to grow to €35.526M by the end of 2028/29. This results in creating an annual WACC/RAB return increasing from €847k to €1.727M over the period. The table below outlines the impact of the RAs proposals on the RAB additions, return on RAB and depreciation over the Price Control Period. It is noted that in year 1, €6.5M of the RAB

[24] Per the Market Operator Agreement between EirGrid and SONI
[25] Pre-tax WACC as defined in EirGrid TSO PR5 Transmission Revenue for 2021 to 2025
[26] Pre-tax WACC as defined in SONI TSO Final Determination for 2020 to 2025

additions is represented by the AUC. Depreciation has continued to be calculated a 5-year straight-line basis.

Regulatory Asset Base (RAB) and Real Return	SEMO Price Control 2021-2024			SEMO Price Control Proposals 2024-2029				
	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29
	Actual	Actual	Best Estimate	Forecast	Forecast	Forecast	Forecast	Forecast
Opening SEMO RAB (€m)	10.834	10.327	14.739	14.763	29.112	35.249	37.095	36.891
Capital additions in year (€m)	2.852	8.952	5.497	21.527	16.048	13.930	13.435	13.525
Depreciation (€m)	3.359	4.539	5.474	7.178	9.911	12.083	13.639	14.890
Closing SEMO RAB (€m)	10.327	14.739	14.763	29.112	35.249	37.095	36.891	35.526
Year average SEMO RAB(€m)	10.580	12.533	14.751	21.937	32.180	36.172	36.993	36.208
Blended WACC	3.86%	3.86%	3.86%	3.86%	3.86%	4.77%	4.77%	4.77%
RAB Return	0.408	0.483	0.569	0.847	1.242	1.725	1.765	1.727

Table 5.8b: SEMO's Expected RAB, Depreciation and WACC Return based on RAs' Price Control Proposals

6. Incentivisation

SEMO is incentivised through cost incentives and performance incentives. Cost incentives will allow SEMO to retain the difference between allowed and efficiently incurred expenditure subject to cost risk sharing for Opex. Performance incentives will encourage SEMO to enhance their service levels, while a flexible investment framework will facilitate SEMO's ability to access funding which may arise from changing needs.

6.1 Key points overview: Incentivisation

A range of incentives are proposed for the 2024-29 Price Control period with differing approaches to incentivise Opex, Capex and SEMO's outturn performance.

Opex costs will remain incentivised via the revenue cap (RPI-X) regulation. This incentivisation promotes SEMO to make Opex cost efficiencies which can be partially retained during the Price Control period. Any cost efficiencies will be captured within the next Price Control by the RAs, resulting in efficiencies being passed onto consumers.

For Capex costs, the preceding flexible and agile framework will continue in this Price Control period with the aim to incentivise efficient spend and priority of Capex workload. The framework allows for all capital expenditure by SEMO to be recoverable subject to SEMO proving the spend has been efficiently incurred, demonstrably necessary, is incremental to existing Price Controls and capable of being robustly validated by the RAs. A cap will be provided for unpredictable Capex with SEMO provided the opportunity to request additional funding if the cap is exceeded. Reporting to market participants through the SEMO Focus Group and other participant groups will also be required.

Key Performance Indicators (KPIs) aim to encourage high performance and act as an effective mechanism to encourage better quality and service for stakeholders. KPIs should challenge an organisation to meet a sufficiently challenging target that can be met with resources available. The RAs propose to cap the total for KPI incentives at €500,000 per year. Four of the existing KPIs which were enacted for the first year of the 2024/29 Price Control period are to be retained. The RAs propose to introduce symmetric incentives for the four existing KPIs, following feedback from Working Group participants and improved performance over time. The RAs propose to adjust the lower and upper bounds of all existing KPIs. The RAs are not minded to support the SEMO proposal to reintroduce the Credit Cover Increase Notice KPI. The detail associated with this proposal is outlined below. Feedback on all aspects of the KPI proposals below is welcomed.

6.2 Opex incentives

Consistent with the approach in previous SEMO Price Control decisions, the RA's are proposing to continue the current Opex incentivisation where Opex is subject to revenue cap (RPI-X) regulation supplemented by cost risk sharing. This form of incentive promotes SEMO to achieve efficiencies while providing information to the regulator and benefits for consumers. To achieve this, an ex-ante allowance will be set within this paper, protecting SEMO from inefficient cost rises. SEMO has the incentive to, at a minimum, achieve efficiencies expected by the RAs as it will fail to recover costs if not. Further efficiencies are promoted as it will allow SEMO additional profits within the Price Control duration. The RAs benefits from information shared by SEMO of their efficient costs which can be accounted for when setting allowances. Cost risk sharing will also be introduced. This is further discussed in chapter 4. This reduces the impact of asymmetric information, resulting from SEMO knowledge of its costs being greater than the RAs.

Within the previous 2021-24 SEMO Price Control an efficiency factor (X) of 0.3 is applied as a reduction to the indexation (RPI-0.3). This will continue for the 2024-29 Price Control.

6.3 Capex incentives

For the 2024-29 Price Control, the RAs have proposed to retain the cost recovery framework for Capex through an ex-ante allowance/estimate. The actual costs incurred by SEMO on predictable and unpredictable Capex will be subject to an ex-post efficiency review and adjusted in line with actual expenditure through the annual tariff process.

The RAs' ex-post review will assess if:

1) Expenditure has been efficiently incurred;
2) Expenditure was demonstrably necessary;
3) Expenditure was incremental to existing Price Controls and capable of being robustly validated by the RAs.

For the avoidance of doubt, the onus will lie with SEMO to demonstrate that expenditure has been incurred in line with the criteria above. If SEMO foresees exceeding allowances, a submission for additional funding can be made to the RAs which may be subject to public consultation.

6.4 Performance incentives

Background

Key Performance Indicators (KPIs) have been a regular feature of the SEMO Regulatory Framework across previous Price Controls. KPIs are designed to encourage high performance and are an effective mechanism to encourage benefits to stakeholders with better quality and service. The incentives should evolve with the organisation and represent a challenging target which is attainable with the utilisation of resources provided.

For the 2021-2024 Price Control, a total of six KPIs were linked to a maximum award of 4% of the total operational expenditure allowance in each year, which averaged around €500k per annum. In the absence of a final decision for KPIs for the 2024-2029 period, SEMOC provided approval for a suite of KPIs for year 1 of the Price Control. The RAs analysed the SEMO Business Plan Questionnaire (BPQ) to provide KPI proposals for the first year of the Price Control. SEMOC approved four of the existing six KPIs would be retained with 'Ad Hoc Resettlement' and Storage Technology Facility' removed due to reduced relevancy, a view shared by the RAs and SEMO. SEMOC agreed with the RAs proposal to maintain the absolute remuneration figure of €500k. No further KPIs or changes to target bounds were introduced.

However, as per letter from SEMOC issued on 11 July 2023 to SEMO, the invoicing KPI would continue to be calculated at the discount of 50% for year 1 due to the KPI being measured against two targets instead of four compared to the original KPI. The Variable Market Operator Charge invoices and Fixed Market Operator Charge settlement documents were the two measurements removed from the invoicing KPI, as the specific timelines are published in the settlement calendar, rather than specified directly in the Trading and Settlement Code (TSC) and Agreed Procedure (AP) 15.

Views of the Working Group Participants

During the second working group meeting, SEMO presented its proposals for the 2024/29 Price Control KPIs to participants, details can be found in Appendix C. This included the four existing KPIs, the addition of Credit Cover Increase Notices (CCIN) KPI and adjustments to weightings and bounds.

Participants discussed the reinstatement of the CCIN KPI. In the last decision paper the CCIN KPI was removed as the processes that it covered were sufficiently bedded in[27]. This is evidenced by SEMO meeting the target in each quarter during 2019/20. Participants raised concerns on the timeliness of CCIN reports. SEMO explained that an external meter reading company to provides the meter data and was therefore outside of its influence. Participants expressed that SEMO should be delivering this service efficiently and in a timely manner, without the need to be incentivised.

[27] SEM-21-046 SEMO 2021-24 Price Control Consultation

Participants also expressed concern that the current list of KPIs were not challenging enough for SEMO and that many of these activities should fall under business as usual (BAU) and therefore should not be incentivised. As an adjustment for this, participants suggested the potential for symmetric KPIs with a financial penalty in addition to financial reward. This was supplemented by the suggestion to change the upper and lower bounds in each KPI.

The RAs asked for participants' views on potential additional KPIs that would focus on value-added and innovative behaviour. A KPI on increased speed of delivery of SEMO's capital projects would be welcomed as this would increase confidence in SEMO. It was also suggested that incentivising greater engagement by SEMO regarding the communication of market changes throughout the investment cycle. There was also the suggestion of a symmetric KPI that would promote efficient behaviour.

Following the meeting, a written questionnaire provided an opportunity for further feedback on KPIs. The responses reiterated the view that the proposed KPIs were more related to BAU activities. There was a view that some should be removed or amended with regard to the bounds and symmetric incentives. Participants suggested that the RAs consider KPIs relating to the timely and accurate publication of market information, market data and future fees.

RAs' comments

SEMO has proposed five KPIs in a similar format to those currently applied (i.e. SEM-21-073) with a proposed KPI pot of €4.5M, an average of €0.9M per year for the five-year period, equivalent to 4% of Opex. SEMO proposes that the KPI structure and invoicing definition should align with the timelines set out in the Trading and Settlement Code (TSC). As noted above, the RAs will apply the invoicing KPI using the definition applied during year 1 of the Price Control, in line with the TSC.

SEMO published the most recent annual KPI report[28] for 2022/2023 in July 2024. SEMO also presented the provisional 2023/2024 KPI data to the SEMO Focus Group in November 2024, which is outlined in Table 6.4b. The RAs have taken the information within the annual KPI reports and the provisional 2023/24 KPI data along with views of the Working Group into account, when considering an approach for KPIs for this Price Control. The RAs welcome stakeholder feedback on KPIs through the consultation process.

The RAs made several observations when reviewing SEMO's 2022/2023 outturn KPI performance, with the incentive earned per quarter found below in Table 6.4a.

[28] Annual Market Operator Performance Report 2022 - 2023

Incentive earned per Quarter 2022/23					
Performance Indicator	Oct-Dec	Jan-Mar	Apr-June	Jul-Sept	
	Q1	Q2	Q3	Q4	TOTAL
Invoicing	€ 9,225	€ 9,225	€ 9,225	€ 9,225	€36,900
SEMO Settlement Queries	€0	€0	€0	€0	€0
Process Rate for Ad hoc Resettlement to Clear Known Backlog	€ 12,300	€16,400	€0	€8,200	€ 36,900
General Queries	€12,300	€10,496	€12,300	€12,300	€47,396
System Availability	€18,450	€18,450	€18,450	€18,450	€73,800
Storage Technology Facilitation	€0	€0	€0	€0	€0
KPI reward per Quarter (in March 2020 monies)	**€52,275**	**€54,571**	**€39,975**	**€48,175**	**€194,996**
Maximum Available Reward in Quarter	**€113,775**	**€113,775**	**€113,775**	**€113,775**	**€455,100**
Percentage of Total Achieved in Quarter	**45.95%**	**47.96%**	**35.14%**	**42.34%**	**42.85%**

Table 6.4a: SEMO KPI Incentive performance 2022/23

In 2022/23, SEMO achieved an average 43% of the maximum available KPI reward. For the KPIs SEMO is proposing to carry forward, the maximum reward was achieved in all quarters by the Invoicing and System Availability KPIs, with maximum incentive achieved in 3 of 4 quarters in the General Queries KPI. The lower bound of the Settlement Query KPI was met in one quarter. SEMO are proposing an update of the definition of this KPI with the outturn impacted by upheld formal queries counting as separate incidents on each trade day. The RAs are encouraged by the performance of three KPIs, while noting the change of definition to be considered when reviewing the Resettlement KPI.

Additionally, SEMO provided provisional KPI reward outturns for 2023/2024 within a Focus Group meeting, depicted in the table below:

Incentive earned per Quarter 2023/24					
Performance Indicator	Oct-Dec	Jan-Mar	Apr-June	Jul-Sept	
	Q1	Q2	Q3	Q4	TOTAL
Invoicing	€15,378	€0	€15,375	€15,375	€46,125
SEMO Settlement Queries	€25,830	€36,900	€22,140	€33,210	€118,080
Process Rate for Ad hoc Resettlement to Clear Known Backlog	€0	€0	€0	€0	€0
General Queries	€18,450	€18,450	€18,450	€18,450	€73,800
System Availability	€30,750	€30,750	€25,283	€30,750	€117,533
Storage Technology Facilitation	€0	€0	€0	€0	€0
KPI reward per Quarter (in March 2020 monies)	**€90,405**	**€86,100**	**€81,248**	**€97,785**	**€355,538**
Maximum Available Reward in Quarter	**€107,625**	**€107,625**	**€107,625**	**€107,625**	**€430,500**
Percentage of Total Achieved in Quarter	**84.00%**	**80.00%**	**75.49%**	**90.86%**	**82.59%**

Table 6.4b: SEMO Provisional KPI Incentive performance 2023/24

SEMOs performance has improved from the previous year, achieving 83% of the maximum available KPI reward. The RAs are encouraged by this improved performance and that the Settlement Queries, General Queries, System Availability and Invoicing KPIs were met to some extent within each quarter. The improvement in the Settlement Query outturn is noted while the RAs acknowledge that these figures are provisional and subject to change.

The RAs also noted that the SEMO Quarterly Performance reports[29] highlight that between January 2021 and September 2024 the average resolution time in working days to resolve General Queries was 4.9. Figure 6.4 below shows that the number of working days taken to resolve General Queries is decreasing over time, as indicated by the blue rolling average line with the orange dashed line indicating an average resolution time under 5 days. This demonstrates that SEMO is becoming more efficient at dealing with General Queries.

[29] Market Operator Quarterly Performance Report

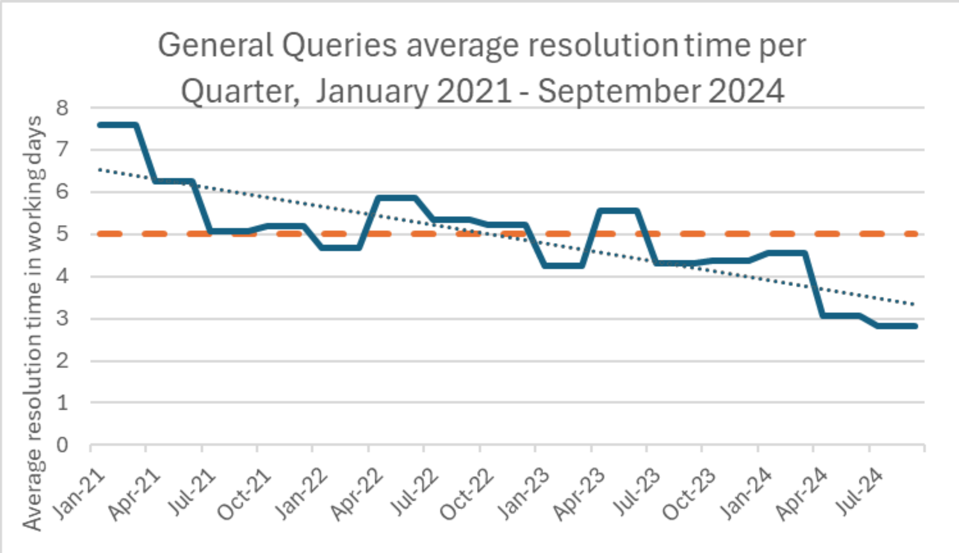


Figure 6.4: SEMO General Queries Average Resolution time per Quarter, January 2021 – September 2024

RAs' proposals for consultation

The RAs note that historically the maximum reward for SEMO obtaining their full KPI incentive has been approximately €500,000 per year, which was equivalent to 4% of total Opex. The link to 4% of Opex was proposed by SEMO and accepted by SEMC in the 2018-2021 Price Control[30]. For the current year KPIs approved by SEMOC, the absolute figure of €500k was used as the maximum KPI reward.

SEMO is proposing an Opex total of €112.7M which would generate a KPI incentive approximately €900,000 per year, almost doubling the current maximum reward. The RAs have considered the views of participants and the position put forward by SEMO. The RAs' consultants have also reviewed the options of keeping the KPI reward linked to the absolute figure of €500k or continuing to use 4% of total Opex for reward. The consultants found that neither seem unreasonable from the financeability perspective. Given that improved operational performance has been witnessed with the KPI pot of €500k per annum; the fact that there is currently no significant change in the composition of the KPIs; and the limited impact on financeability, the RAs are minded to maintain the current level of incentive.

SEMO proposed to reintroduce the Credit Cover Increase Notice for the current Price Control period. In SEM-21-046[31], it was stated that "Credit Cover Increase Notices (CCINs) has also been removed as the processes are sufficiently bedded in and this is evidenced by SEMO meeting the target in each quarter during 2019/20." SEMO is asking to be incentivised on the publication of daily Credit Reports that are available for market participants to download through the Market Participant Interface. Taken in conjunction with the views of Working Group

[30] SEM-18-003 SEMO Final Determination SEMC FINAL
[31] SEM-21-046 SEMO 2021-24 Price Control Consultation

participants around timeliness of data and suggestion of a BAU activity, the RAs are minded to maintain SEMC decision with regard to removal.

The RAs have taken in to account the feedback from market participants and recognise that the some of the existing KPIs could be categorised as BAU. Accordingly, these KPIs, have had adjustments to their upper and lower bounds. In order to incentivise operational improvements in SEMO, the RAs consider that it is appropriate to introduce symmetric incentives to these KPIs, as suggested by the Working Group. The positive element of the KPI incentive will remain unchanged, with SEMO being rewarded after achieving the lower bound which proportionally increases as they approach the upper bound. A negative incentive will be introduced when performance falls below the lower bound which proportionally decreases as they approach negative floor. The range in which the negative incentives will operate is inversely proportionate to how the lower and upper bounds are calculated on a quarterly basis. These are designed to be challenging but achievable by SEMO for the period 2025-29, particularly acknowledging the increase in resources available to SEMO.

The RAs reviewed the definitions and associated upper and lower bounds for the four retained year 1 KPIs and consider that they are carried forward.

The RAs consider that there should be a change of the definition applied to the General Queries KPI. Currently, the KPI is calculated based on the percentage of occurrences where a General Query is not resolved within fifteen business days. Within the 2021-2024 Price Control, the business days in which General Query is not resolved was reduced in stages from 20 days in year 1, 17 days in year 2 and 15 days in year 3. A General Query is defined withing this metric as any request logged at the SEMO helpdesk. The definition change the RA is proposing is to reduce the number of days in which a General Query is resolved, from fifteen business days to five business days. SEMO has been seen to become more efficient in dealing with General Queries, as the number of working days required to resolve is declining. Since January 2023 the quarterly average has been below five working days in six out of seven quarters. In addition, SEMO has been incentivised via this KPI since the 2018-2021 Price Control and hence will have adopted efficiency improvements in resolving queries. The view of participants is that this should be a BAU activity has been considered, with the RAs deciding to implement a penalty when SEMO do not meet the lower bound target.

Resettlement Queries KPI are defined as the number of upheld formal queries from market participants which have identified errors in settling the market which are attributed to SEMO's operation and processes, including defects and pricing issues. Correction of such errors is completed in either scheduled Resettlement (M+4 and M+13) or in an ad hoc Resettlement. Measurement of this KPI is related to the number of SEMO upheld query incidents and resettlements per Quarter. Multiple upheld queries for one incident shall be classified as one upheld query incident. SEMO is proposing that a formal query referencing a number of days shall be classified as one upheld query incident. The RAs accepted this definition change with year 1 KPIs and are minded to continue with this approach. The RAs are also minded to reduce the upper and lower bounds for the number of upheld queries per quarter along with the implementation of a negative incentive.

The Invoicing KPI is defined as the percentage of occurrences where invoices to participants are published on time, as defined in the TSC (as amended from time to time).

- The target for the "Weekly Trading Payments and Trading Charges (Balancing /Imbalance (BALIMB)) Settlement Documents" to be produced by 12:00 5 working days after each Billing Period.
- The target for Capacity settlement documents is 12:00 10 working days after the end of each month.

The RAs are minded to retain the definition introduced in year 1 of the Price Control. When considering SEMO's strong performance in this KPI in 2022/2023, an increase to the upper and lower bounds compared to the previous Price Control is proposed.

System Availability KPI is defined as the availability of central market systems which the Market Operator has responsibility for according to their required availability. This is the ratio of the time systems are said to be in a functioning condition to the total time they are required to be available and covers the following.

- Balancing Market systems on a 24-hour basis Monday to Sunday.
- Settlement and Credit Clearing system between 9am - 5pm Monday to Friday.
- Market Participant Interface on a 24-hour basis Monday to Sunday.
- Registration system between 9am-5pm Monday to Friday.
- Website availability between 8am-6pm Monday to Friday.

The RAs are minded to increase both the upper and lower bounds compared to the last Price Control, noting SEMO's strong performance, along with a negative incentive implemented.

The RAs are proposing to retain the number of KPIs at 4 with equal weighting. New upper and lower bounds are proposed alongside symmetric incentives. KPIs will continue to be rewarded quarterly. The RAs proposal is outlined in table 6.4c below. The RAs would welcome feedback on all aspects of this proposal, including the possible additional KPIs discussed later within this section.

RAs Proposed Annual KPIs 2026-2029

Metric	Weighting	Upper Bound	Lower Bound	Negative Floor	KPI Reward per annum
Invoicing	25%	100%	98%	96%	€125,000
General Queries (resolved within 5 business days)	25%	99%	95%	91%	€125,000
System Availability	25%	100%	99.5%	99%	€125,000
Resettlement Queries (upheld per Quarter)	25%	<3	<10	>10 <17	€125,000
Maximum Available Reward Per Year	100%				€500,000

Table 6.4c: RAs Proposed Annual KPIs 2026-2029

The RAs have considered a number of additional KPIs for the upcoming Price Control and are interested on receiving views on each through the consultation process.

A KPI for Predictable Capex Project Delivery was considered as a result of Working Group participant feedback and acknowledgement of SEMO's increased proposed spend in predictable IT Capex projects. This could involve SEMO providing an update on 'stage gates' with updates on how each project is progressing in terms of costs, milestones and value added. This update could be facilitated within the Market Operator User Group (MOUG) where a Capex update is provided. The RAs are interested in receiving feedback on what additional information would participants value on SEMO's capital projects if an update was to be provided in the MOUG.

The RAs also considered a KPI on Change Requests, which are processed through the Market Releases. Change Requests are created when SEMO or TSOs identify a need for change in market systems, leading to draft change requests submitted to Hitachi, SEMO's current vendor. The vendor provides how many hours is available for a release with SEMO agreeing what will be done within this constraint, considering business priorities. The change requests are then implemented within Market Releases which happen biannually. With the extensive changes proposed in capital expenditure, a KPI promoting information on progress of changes to the market, via change requests, may provide market participants clarity in both understanding the upcoming changes and understanding the potential benefits and value-added. The RAs are aware that Market Releases are covered within the MOUG. The RAs would welcome feedback on additional information that market participants may value on Market Releases with MOUG and should a financial reward be associated.

A number of additional KPIs that were suggested by the Working Group participants were considered by the RAs but have not been taken forward at this point.

In relation to KPI reporting, each year SEMO produces and publishes a Market Operator's Annual Performance Report, the most recent report relates to year 2022/2023. EirGrid plc and SONI Ltd, operating as SEMO are required under their respective Market Operator Licenses to provide an annual report on Market Operator Performance to the RAs for approval with publication required both within the Trading and Settlement Code (B.16.2) and the SONI MO and EirGrid MO licence conditions.

The RAs will continue to assess the performance criteria associated with the annual performance report, including a detailed outturn of the KPI(s) together with any expected (subject to RA review) financial reward. This continues to provide stakeholders with transparency of SEMO's performance in a timely manner.

The RAs would welcome consultation feedback on all aspects of the KPI proposals.

7. Financeability

7.1 Key points summary: Financeability

One of the considerations of the RAs for the 2024-29 Price Control is to assess SEMO's ability to remain financeable, under the financeability framework established in the previous Price Control.

The next SEMO Price Control sets the amount of money (allowed revenue) that can be earned by SEMO during 2024-29. Allowed revenues must be set at a level which covers SEMO's costs and allows it to earn a reasonable return subject to incurring efficient and demonstrably necessary costs which are incremental to other Price Controls.

For SEMO to remain financeable it is said to be able to renumerate all sources of capital it needs to access for its operating and investment activities. SEMO has requested that two key components of this assessment are to change the (Regulatory Asset Base) RAB to 'as-incurred' instead of 'as-commissioned', and that SEMO retains the Revenue Collection Margin allowance and the Parent Company Guarantee (PCG).

The RAs' appointed consultants to review SEMO's financeability and each of the components which provides or could provide SEMO with a revenue stream. A summary of the RA's proposals is as follows:

- Revenue collection margin revenue stream should not be renumerated as part of the regulatory framework. Except for Year 1 which was decided through proxy tariffs to be €0.673M (in March 2024 prices) equivalent to 0.11% of expected revenue collection.
- Parent Company Guarantee (PCG) should be retained at the existing renumeration of €0.300M per year.
- Weighted Average Cost of Capital (WACC) is dependent on the TSO's Final Determination and subject to change from Year 3 of the Price Control.
- RAB and depreciation are proposed to be renumerated on an incurred, as opposed to as commissioned basis.
- Symmetric KPI incentives are proposed to be introduced for this Price Control, and the impact on financeability is discussed in detail in section 7.3.
- Treatment of Cloud expenditure will be in line with accounting standard IAS38.
- SEMO has not been and should not be remunerated for operational risk beyond the usual WACC/RAB remuneration as the RAs do not view SEMO as a high-risk business.
- SEMO's ability to make efficiencies within Opex is discussed in Chapter 4.
- SEMO's ability to earn additional monies by performing well and achieving targets through KPIs, is discussed in Chapter 6.
- No cap on the potential materiality of ex-post cost disallowance or a Demonstrably Inefficient and Wasteful Expenditure (DIWE) provision.

7.2 Background

The RAs' considered SEMO's proposal to change the financeability framework for the 2024-29 Price Control. This included changing RAB to as commissioned, retaining the revenue collection margin and PCG.

In the previous 2021-24 Price Control SEMO's Weighted Average Cost of Capital (WACC) return was a blended approach of the TSO's WACC apportioned at 75:25 for EirGrid TSO and SONI TSO respectively, in line with a SEM Committee determination[32].

SEMO also receives a margin at specified rate[33] in respect of Collection Agent Revenues. SEMO states it is to allow for cashflow volatility, working capital and liquidity risk. In the previous Price Control SEMC decided that this be phased down and removed. In Year 1 of this Price Control a proxy decision equivalent to 0.11% was applied.

In addition, SEMO receives provision for the cost of EirGrid providing SONI with a Parent Company Guarantee as required under the SONI Market Operator License. This equates to €300K per year.

A suite of KPIs, discussed in Chapter 6, also allows SEMO opportunity to boost its revenue stream if set targets are reached.

7.3 SEMO submission

RAB WACC approach

SEMO receives a WACC on its RAB. The WACC applied to SEMO is a combination of the EirGrid and SONI TSO WACC values, based on the ownership structure (75:25). For the last Price Control (2021-24), the blended rate applied to SEMO's RAB was 3.86%, based on EirGrid's pre-tax WACC of 3.80% for the PR5 Price Control and SONI's pre-tax WACC of 4.03% for the 2020-25 Price Control.

In the upcoming regulatory period, SEMO predicts increases in operating and capital expenditure risk because of increasing scale and complexity of its capital programme. SEMO forecasts that it should be financeable from a debt and equity perspective, however, the existing 'blended' approach is unlikely to reflect changes in systematic risks due to the expected evolution in SEMO's activities.

The current approach to setting SEMO's WACC is dependent on values set by the RAs for the EirGrid and SONI TSO Price Controls. The TSO determinations were last set in 2020 with

[32] SEM-21-073 SEMO 2021-2024 Price Control Decision Paper

[33] In its final decision for the 2021-24 regulatory period, the SEMC decided to phase down the collection agent margin, providing the following rates: Year 1 – 0.15%; Year 2 – 0.125%; Year 3 – 0.1%.

updates due in 2026. SEMO argues that this means the current TSO WACC values, set in 2020, used in SEMO's WACC calculation, does not reflect current macroeconomic conditions.

Additionally, the current approach does not incorporate an adjustment for SEMO specific risk exposure above the weighted average asset beta within the blended WACC. SEMO consider that, if it is deemed riskier than the TSOs in the next Price Control period, the additional risk should be remunerated.

To address these issues, SEMO propose a mechanism that would update the blended WACC, ahead of the TSO determinations, and then subsequently 'true-up' the value to reflect updated TSO final decisions, once available. This would be undertaken for the upcoming Price Control through the following steps:

- **Year 1 –** Set using the current approach that calculates a blended WACC using EirGrid and SONI TSO WACCs, but with targeted updates to the components of corporation tax rate, risk-free rate, and cost of debt, consistent with current CRU and UR methodologies.
- **Year 2 to 5 –** Following the upcoming TSO Price Control determinations, the SEMO WACC is updated to reflect the new EirGrid and SONI WACC values, weighted using the proportions of the joint venture. Any adjustment to revenue allowances from this update should be 'trued-up' on an NPV-neutral basis.
- **NPV-Neutral 'True-Up' –** Any adjustment to revenue allowances from the year 2 to 5 WACC update should be trued-up on an NPV-neutral basis.

SEMO note that if the mechanism is not correctly proxied by the weighted average risk exposure of the TSOs, the mechanism will not provide sufficient funding for systematic risk exposure. SEMO suggests that the 'true-up' of WACC accounts for the increased systematic risk within the upcoming Price Control period.

Parent Company Guarantee (PCG)

SEMO receives provision for the cost of EirGrid providing SONI with a Parent Company Guarantee as required under the SONI Market Operator License. This equates to €300K per year. SEMO considers that renumeration should be priced with respect to suitable market benchmarks, as per the CMA methodology for the 2017 SONI redeterminations. SEMO have undertaken a review of a number of market benchmarks to price the PCG renumeration, which indicated that the existing 2.5% renumeration rate is at the lower end of the estimated range, and a 2.74% return should be the minimum starting point for the upcoming Price Control. Further, if SEMO's overall risk exposure increases above SONI's TSO risk exposure, as per the CMA methodology, SEMO consider it would be appropriate to select a value in the upper end of 3.92% to 4.21%. SEMO also notes that an alternative approach to setting the PCG renumeration rate could be based on a margin applied to the specific risk driver.

However, in response to our query regarding the market benchmarks examined, SEMO confirmed that it is satisfied that the current 2.5% rate of renumeration and, as such, is not requesting an increase for the 2024–29 Price Control.

Collection Agent Revenue margin

As a result of its collection agent role, SEMO argues, it is exposed to significant financial flows and liquidity risks that are outside of its control, with its working capital balances fluctuating considerably. SEMO has examined each collection 'pot' it manages and how each expose it to significant liquidity risks:

- **Capacity Market –** Working capital risk can arise from Capacity Charges falling short of Capacity Payments when outturn demand does not match forecast demand, resulting in an end-of-year deficit position. Carrying a yearly average deficit position, to be recovered through tariff adjustments two years later, presents a significant challenge and creates material working capital exposure and risk.
- **Residual Error (RE) –** There is uncertainty in projecting revenues due to the use of forecasts of the residual energy volume for the present year, the imbalance settlement price, and the All-Island SEM demand. SEMO is exposed to risk managing RE cashflows as they are volatile and a persistent timing mismatch, which it argues has been increasing as I-SEM has become more established.
- **Capital Socialisation Fund –** SEMO has responsibility to manage inflows from Suppliers, and outflows to Suppliers where required, and future expectations of tighter Capacity Market conditions could result in an increase in high-energy-market price events. SEMO note that its Working Capital Facility (WCF) are not intended to cover this fund, but rather if outflows increase in the future and reduce the available balance significantly, the Difference Payment Socialisation Charge may be reintroduced.

As a result, SEMO have suggested that the revenue collection margin remains in place, at a minimum of 0.25% per annum for the regulatory period.

SEMO note that the rationale and approach for revenue collection risk remuneration was assessed by the CMA in the 2017 Final Determination on SONI vs. NIAUR. SEMO considers the CMA's rationale to be applicable to SEMO as it manages cashflows more than its regulated revenue and has a small 'saw-tooth' RAB, like SONI. Additionally, SEMO considers the current phasing out of the revenue collection margin, and the potential disallowance of the margin in the 2024-29 Price Control to be inconsistent with the regulatory provisions of comparable frameworks.

SEMO further requests that the 0.25% level of the margin is examined as part of this Price Control review. SEMO's working capital requirements are managed using facilities that charge interest costs at the EURIBOR and SONIA rates, plus a margin. From a review of rates, there has been an increase that SEMO considers needs to be reflected for this Price Control.

Cloud Projects

SEMO's BPQ submission noted that under updated guidance provided on International Accounting Standard (IAS) 38 Intangible Assets, their interpretation is that cloud-based projects are now required to be classified as operating expenditure. This alters the recovery of these costs through the regulatory framework, occurring within the year incurred as opposed to across the depreciation period through addition to the RAB, with a return for the associated risk.

SEMO considers the use of cloud technology to bring an additional complexity to this Price Control, with the "proliferation of cloud-based IT solutions complicating the categorisation of costs across Opex and Capex". The following properties of the current approach to IT funding were identified as key risks for SEMO and its customers:

- **Exchangeability –** The capital expenditure framework provides flexibility, but operating expenditure is constrained by a revenue cap, limiting SEMO's ability to deviate from ex-ante assumptions. The optimal solution may end up proving different to that for which ex-ante funding has been provided.
- **Incentives –** There are unequal incentives within the operating and capital expenditure frameworks which could bias decision making.

SEMO have proposed the introduction of a new Cloud Mechanism, combined with a reopener, which would provide Opex-Capex exchangeability. The scope of the mechanism would be limited to the subset of IT costs for which there is solution uncertainty (i.e., not SEMO's entire IT portfolio). SEMO expects the Cloud Mechanism to include the following design features:

- During the Price Control determination, the subset of SEMO's IT allowances, across operating and capital expenditure, which are uncertain in terms of a solution are identified and ringfenced.
- SEMO would then apply to reallocate or adjust costs between the two pots as part of either a re-opener or the annual k-factor review, subject to demonstrating customer benefit.
- Approved adjustments to ex-ante allowances are made as part of the re-opener process and could be considered pass-through to isolate them from other incentives.

Capital Expenditure Cost Recovery (RAB proposals)

SEMO currently recovers capital expenditure on an as-commissioned basis; however, SEMO believes maintaining this approach will severely impact financing of the upcoming capital programme.

SEMO has identified three perceived weaknesses with the current approach:

- Mismatch between when expenditure is incurred and added to the RAB means there is no revenue for SEMO until the project is commissioned, increasing the financing requirement. SEMO expects a large shortfall in the 2024-29 period due to both increased capital expenditure and extended delivery timeframes.

- Notable step changes in the SEMO RAB, as projects are commissioned, and the low asset base with accelerated depreciation, result in a 'saw-tooth'/lumpy RAB profile and significant variability.
- As the RAB value does not increase in line with the incurrence of capital expenditure, debt issuance funding increases SEMO's gearing ratio, and could lead to a higher debt interest. There could also be reduced incentives for equity investors, due to the delay in returns until project completion, in turn further exacerbating gearing and the interest rate charged. Ultimately, this places upward pressure on the Market Operator charge.

For the 2024-29 Price Control, SEMO have proposed two alternative options to the current approach to capital expenditure cost recovery:

Option 1: Introduction of an NPV-neutral adjustment for RAB additions at project completion – As was proposed by SEMO for the current Price Control, incurred capital expenditure would accrue a return (WACC) to account for the time lag between incurrence of capital expenditure and its addition to the RAB upon commissioning. SEMO cites precedent from the treatment of I-SEM implementation costs, which were recovered on an NPV-neutral basis due to the 5–6-year recovery time lag, which SEMC considered a one-off approach.

- **Option 2: Move to 'as-incurred' for capital expenditure additions to the RAB** – Funding, through depreciation and the allowed return, during the construction stage of capital projects. SEMO considers a number of benefits to this option including avoiding lumpy RAB additions and, in turn, the variability of the Market Operator Charge, and improvement in financial headroom variability and reduction in exposure to financing risks associated with project delays or postponements. SEMO also note this approach aligns with the EirGrid and SONI TSO Price Controls.

SEMO outlines that whilst Option 1 addresses the current underfunding of capital expenditure, it does not address the timing gap between incurring costs and recovering costs. Option 2, however, is highlighted as eliminating the timing issue and is SEMO's preferred option which will provide funding during the construction stage of a project.

Incentive Framework

Within the 2024-29 Price Control Submission, SEMO has proposed the following:

- **KPI Performance Mechanism –** Continue to be subject to an asymmetric KPI mechanism with a reward of up to 4% of the Opex allowance in each tariff year.
- **Operating Cost-Sharing Arrangement –** SEMO states that it does not currently hold any cost-sharing arrangements with customers that would reduce its risk on operating allowances, which it considers a significant risk for the upcoming Price Control due to

the forecast increase in operating costs, movement of cloud project costs from capital to operating spend, and the increased duration of the period. As such, SEMO propose the introduction of a cost sharing arrangement for operating expenditure. Whilst SEMO have proposed the principle of a cost sharing arrangement, it has not at this stage gone as far as to suggest a rate to be applied.

- **Asymmetric Risk –** SEMO consider that the absence of a cap, or other cost sharing facility, related to the potential for ex-post capital cost disallowance could lead to excessive risk exposure. SEMO propose two steps – the introduction of a cap on the potential materiality of ex-post cost disallowance, and a Demonstrably Inefficient and Wasteful Expenditure (DIWE) provision (i.e., expenditure is assumed to be efficient and necessary, unless demonstrated otherwise by the RAs).

7.4 RAs' analysis

The RAs appointed external consultants to assess SEMO's financeability. The RAs and their consultants assessed SEMO's Price Control submission, written responses from SEMO to targeted questions, responses received during a financeability workshop and further written responses received from SEMO to provide clarity.

Any assertion that SEMO may not be financeable amounts to an assertion that either lenders will not lend to SEMO or that equity investors will not invest. The RAs and their consultants therefore considered SEMO's proposals from a debt and equity investment perspective, as well as a standard regulatory framework.

RAB WACC approach

The RAs' review of this blended WACC for SEMO is that it is advantageous to SEMO in that the risk attached with conducting the market operator activities is viewed as lower risk than the activities of EirGrid and SONI as system operators. This is due to high equity risk premiums and the existence of a blended WACC using those determined for EirGrid TSO and SONI TSO.

External consultants found that the current framework leads to a risk that SEMO's WACC is set using outdated parameters leading to a risk of over- or under- remuneration. The consultants agreed that a mechanism that automatically updates the WACC when Eirgrid and SONI TSO WACCs are updated is sensible.

SEMO's proposal for targeted updates in year 2 appeared opportunistic, in the consultant's view, given that rates have moved significantly higher since Eirgrid and SONI TSO decisions. There is a risk that following the next round of decisions interest rates begin to fall. The current mechanism for targeted updates could potentially ratchet up the WACC during a temporary period of high interest rates without an associated mechanism for moving the WACC down as rates decrease. This embeds a risk of over-remuneration of SEMO in the next regulatory period.

Thus, the RAs propose to continue the existing WACC calculation until the Eirgrid and SONI TSO determinations. Following these determinations, the SEMO WACC will be updated to reflect the new EirGrid and SONI WACC values, weighted using the proportions of the joint venture i.e., 75:25.

Parent Company Guarantee (PCG)

For the 2025-29 Price Control, SEMO are requesting that the current rate of remuneration for the PCG of €0.3M per annum remains unchanged.

The consultants noted that given the PCG is a licence condition that is compensated for via SEMO and SONI's regulatory frameworks, and SONI's PCG allowance is based partly on SEMO's Price Control, the RAs recommend that the current annual rate of remuneration is retained, as per SEMO's proposal.

Collection Agent Revenues Margin

For the interim price control period covering 2024-25, SEMOC's decision provided a margin of €0.673M (in March 2024 prices), equivalent to approximately 0.11% of the expected collection agent revenue for that year as forecasted by SEMO.

The RAs and consultants reviewed SEMO's proposal for a collection agent margin of 0.25%. The consultants accepted that SEMO faces large cashflows through managing the receipts and payments associated with the Capacity Market, Residual Error, and Capacity Socialisation Fund.

The consultants highlighted for SEMO to manage liquidity risks arising from the collection agent role, there was a requirement in the TSC to hold a WCF. This is currently prescribed to be at least €150m. SEMO is, however, unable to secure this due to its contractual joint-venture status. As such, EirGrid and SONI provide a joint facility of €153m (on a 75:25 basis). This is procured by the TSOs as part of wider facilities that have a commitment fee for undrawn amounts and interest rates of EURIBOR and SONIA plus a margin on drawn amounts.

Further analysis by consultants found the TSC states that the costs of establishing and maintaining the Market Working Capital Credit Facility are recoverable through Market Operator Charges. The TSC also states that costs of any draw down on, and repayment of, the facility are recoverable through Imperfections Charges, which are part of the TSO Price Controls, levied on suppliers by SEMO but flowing through to SONI and EirGrid. Therefore, the consultants argued that SEMO do not incur the cost of using EirGrid and SONI's facilities, this is recovered through the TSO Price Control frameworks.

Due to provisions in the TSC, SEMO are not liable to make payments to suppliers where doing so would result in negative working capital, and can instead defer. As such, the consultants believed the exposure to liquidity risk faced by SEMO is capped – SEMO do not face any additional risk exposure beyond that of the WCF provided by the TSOs.

The RAs and consultants note that SEMO were provided with a 0.25% margin on collection agent cashflows in the 2018-21 Price Control, largely due to uncertainty related to I-SEM, to be reviewed at the next Price Control. When the decision to introduce a margin in the 2018-21 Price Control was made, SEMC were of the understanding that SONI and EirGrid were putting in place a contingent debt facility for I-SEM, through which SEMO could manage cash flow imbalances and volatility. We understand this to be the €153m joint facility provided by EirGrid and SONI.

SEMC further understood that the establishment costs for this facility would be treated in the TSO's RABs and ongoing costs would be recovered through the TSO Price Controls, as per the approach taken for the contingent capital facility in relation to SEM. For the 2021-24 Price Control, SEMC reviewed the provision of the collection agent margin and decided to phase down to 0.1% by the end of the period, citing previous SEMC statements regarding recovery of WCF costs via TSO tariffs, and lack of evidence provided by SEMO regarding risks involved and associated costs.

Analysis of SEMO's BPQ by consultants found it provides detailed discussion of the liquidity risks that arise from management of the Capacity Market, RE, and Capacity Socialisation Fund, but does not provide explanation regarding its practical approach to manage the risks (i.e., use of the WCF and TSC provisions), nor the associated costs and route of recovery. There is a lack of recognition of the interaction with EirGrid and drawing on these funds.

When considering the level of remuneration to provide SEMO, and whether a margin approach is appropriate, the consultants examined the three cost components related to holding the WCF:

- **Establishment Costs –** The TSC states these costs are recoverable through SEMO's market operator charges, however, it is our understanding from the SEMC's 2018 Final Determination that these were recovered via the TSOs RABs. Regardless, the upfront costs associated with establishing the WCF were incurred historically and, therefore, recovery does not need to be considered for SEMO's the 2025-29 Price Control. Further, SEMO have not included recovery of any upfront fees within the BPQ submission.

- **Drawdown Costs –** These are costs resulting from drawing down funds from the WCF. There is both the repayment of the principal amount along with associated interest rate charges of EURIBOR and SONIA plus a margin. EirGrid and SONI recover the costs of any draw down on, and repayment of, the WCF through the TSO charges. Remuneration of these costs within SEMO's Price Control is, therefore, not required.

- **Maintenance Costs (Commitment Fee) –** The costs of maintaining the WCF are in the form of a percentage commitment fee. The TSC states that these costs are recoverable through SEMO's market operator charges, however, previous SEMC determination documents suggest these are recovered through TSO charges. It is our understanding that this cost is recovered within the TSO Price Controls, with the facilities provided to SEMO forming part of wider facilities maintained by the TSOs, and do not require additional compensation within the SEMO framework.

The consultants outlined that SEMO's working capital requirement is not driven by the size of the payments involved, the lags between payment and receipt, and the variability of these lags, but rather is fixed by the requirement for it to hold a WCF of at least €150M. Despite SEMO forecasting an increase in total cashflows, associated with its collection agent role, to be significantly higher in the next regulatory period, the liquidity risk faced by SEMO in anyone billing period is limited to its available working capital. On this basis, the consultants stated a margin-based approach for remuneration is not appropriate, given SEMO's total working capital needs do not vary by total revenues collected.

Cloud Projects

The consultants examined the movement of cloud project costs to Opex from two perspectives: the impact on SEMO financially because of the change as well as analysing the request for a reopener through appropriateness and subsequent impacts on incentives.

From the first perspective, the consultants found the impact on SEMO financially from cloud project costs being recorded as operating expenditure was that debt metrics are slightly improved, as revenues are brought forward, while equity metrics are slightly reduced. Both these movements are minor and therefore consultants had no financeability concerns.

The consultants reviewed the second perspective, the appropriateness and knock-on effects for incentives. Consultants believed a reopener for cloud project costs would provide SEMO flexibility when managing IT needs that, when the Price Control is determined, do not have a certain solution. It will also allow SEMO the ability to deliver its services in a manner that is most optimal for consumers. The consultants highlighted alignment with approach taken by CRU in the DSO Framework applied to ESB[34].

The RAs therefore are minded allowing the re-opener mechanism to facilitate the exchangeability of cloud projects opex into capex, subject to following conditions:

i. SEMO demonstrating that alternative solution will be in the interest of consumers.

[34] CRU Price Review Five (PR5) TSO and TAO Transmission Revenue for 2021-2025

ii. Cost to be treated in alternative mechanism should be less than the ex-ante allowances of cloud opex, thereby demonstrating the efficiency in achieving the same outcome.
iii. Proposal for exchangeability should be received by the RAs on or before 31st March for changes to be taking place in the upcoming tariff year.

Capital Expenditure Cost Recovery (RAB proposals)

The external consultants examined SEMO's proposal for capital expenditure cost recovery to be treated as incurred alongside alternative options, considering the average RAB value, return on RAB, and required revenues across the 2025-29 period. Options included:

- **Status Quo –** Maintaining RAB-as-commissioned (i.e. depreciation and return on capital are recovered on a 'as-commissioned' basis
- **NPV Neutral Adjustment –** As capital expenditure is incurred, a regulatory asset is created which is made up of the required return on capital (WACC). This would accrue, with recovery allowed when the asset is commissioned. To ensure this adjustment is NPV neutral the regulatory asset would be indexed by WACC each year SEMO is unable to recover the return on capital.
- **As-incurred approach –** SEMO would recover both depreciation and return on capital on an as-incurred basis.
- **Shadow RAB:** Allows for a return on capital in the year Capex is incurred while depreciation remains on an as-commissioned basis.

The consultants found that SEMO's as-incurred proposal would result in an increase in the average RAB and return on RAB, compared to the current as-commissioned approach, as well as an increase in required revenues. The consultants recommended the Shadow-RAB approach which would result in a higher return on RAB and slightly lower revenues, in comparison to the alternative options, for the upcoming period.

The RAs appreciate SEMO's view that other Price Controls operating within SEM have their capital expenditure cost recovery on an as-incurred basis. The most recent Eirgrid and SONI TSO determinations have treated RAB as-incurred, with SEMOpx moving to RAB-as-incurred from as-commissioned following a SEMC decision paper published in 2024[35], with SEMO providing similar justifications to those previously accepted by SEMC for SEMOpx.

The RA's analysis of the consultant's financial model found that moving to RAB-as-incurred all debt metrics were within or above the range consistent with a Baa Rating as well as an EBIT margin within the consultant's EBIT margin range of 3-10%.

[35] SEM-24-043 SEMOpx Revised Regulatory Revenue Recovery Framework Decision Paper | The Single Electricity Market Committee

Therefore, the RAs propose to accept SEMO's proposal to move capital expenditure cost recovery to as-incurred, meaning depreciation and return on RAB are recovered on an as-incurred basis.

Incentive Framework

The RAs and consultants reviewed SEMO's proposals for incentivisation in separate strands:

KPI Performance Mechanism

When determining the appropriate level of remuneration for SEMO, the consultants have considered two different approaches:

- Undertaking Return on Retained Earnings (RoRE) analysis, in alignment with the approach taken for SONI and NGESO, by UR and Ofgem respectively.
- Calculating the EBIT margin, in alignment with the consultants financeability assessment.

The consultants examined SEMO's proposal for KPI remuneration to continue to be asymmetric with a reward of 4% of OPEX in each tariff year. This level of remuneration would provide SEMO with an EBIT margin of 8.1%. The impact on EBIT margin of the KPI incentive being capped at the monetary amount provided in the 2021-2024 Price Control (€500k p.a.) was considered by consultants. This would lead to an EBIT margin of 6.9% with the consultants commenting neither proposal was unreasonable. The consultants recommended that KPIs remain asymmetric.

Therefore, the RAs are minded to support a remuneration rate is set at a maximum of €500k p.a., totaling €2.5m over the Price Control, which consultants found provided SEMO a healthy EBIT margin. Further details on this can be found within Chapter 7. Following the Working Group participants' comments that existing KPIs need to be more challenging, the RAs propose to make KPIs symmetric in nature, as outlined within Chapter 2. It is important to note that the consultants found that SEMO is financeable in accordance with debt and equity metrics when excluding KPI remuneration.

Operating Cost Sharing Arrangement

Analysis by the RAs and consultants on cost sharing arrangements for operating costs can be found within Chapter 4. The RAs propose to introduce a mechanical cost risk-sharing mechanism of 25:75 without any cap and collar.

Asymmetric Risk

The consultants found that whilst SEMO faces asymmetric risk in relation to cost disallowances on capital projects, the current KPI mechanism provides upside reward only. It has not been demonstrated by SEMO in its BPQ submission that the financial impact of potential cost disallowances outweighs the reward available under the KPI mechanism, nor that there is evidence of the RAs disallowing significant costs associated with its capital projects. Following discussion with SEMO, it was confirmed that it is not forecasting notable Capex disallowances, nor has it experienced significant disallowances to date. Rather, it considers this to be a theoretical downside risk which, when capped, would provide comfort to lenders and the Board.

The consultants do not consider it necessary to apply a cap to cost disallowances: the current framework comprises downside-only risk through cost disallowances and upside-only risk through the KPI incentive. SEMO has not demonstrated that these two features are imbalanced when considered jointly.

The RAs note that SEMO is financeable within the scenarios which are examined in the consultants Financeability Assessment of their report. The scenarios examined within this assessment did not include KPI rewards which would have increased equity metrics further. Additionally, as outlined within Chapter 6, SEMO has performed well in relation to KPIs which the RAs are proposing to continue into this Price Control period. A combination of these reasons means the RA is minded to not introduce a cap on the potential materiality of ex-post cost disallowance or a Demonstrably Inefficient and Wasteful Expenditure (DIWE) provision.

7.5 RAs' proposals for consultation

Following a robust assessment of SEMO's financeability with consideration of the proposal outlined within their BPQ, the RAs propose:

- To continue the existing WACC calculation until the Eirgrid and SONI TSO determinations. Following these determinations, the SEMO WACC will be updated to reflect the new EirGrid and SONI WACC values, weighted using the proportions of the joint venture i.e., 75:25.
- We propose no change to the provision of an amount for the cost to EirGrid Group in providing SONI a PCG through its Market Operator license. The continuation of an allowance at €300K p.a. is proposed for the duration of the 2024-2029 Price Control.
- We propose to remove the margin on collection agent revenues from year 2 as the activity does not expose SEMO to any risk.
- Cloud project costs are allowed to move from Opex to Capex with the introduction of a re-opener mechanism.

- Capital expenditure cost recovery through depreciation and return on RAB to move to as-incurred, from the current framework as-commissioned.
- KPIs are proposed to be symmetric (negative penalties introduced), and remuneration is to be capped at €500k p.a. (€2.5m across the Price Control period).
- We propose to introduce a mechanical cost risk-sharing mechanism of 25:75 for Opex without any cap and collar.
- We propose to not allow SEMO's proposal for a cap on the potential materiality of ex-post cost disallowance or a Demonstrably Inefficient and Wasteful Expenditure (DIWE) provision.

Based on the consultants' and RAs analysis, it can be provisionally concluded that the overall downside risk faced by SEMO does not seem excessive, or to present an undue threat to its longer-term financial viability.

Overall, implementation of the RAs proposals listed above result in the following financial metrics (under 'Recommended Framework'), which are compared against the previous framework ('Current Framework') which are shown in the table below. The debt metrics are either within or above the range consistent with a Baa rating[36], which was recommended by consultants. The EBIT margin improves with the proposed framework and is within the 3-10% range suggested by consultants.

	Debt Metrics			Equity Metrics		
Scenarios	**(CFO Pre-WC + Interest) / Interest**	**CFO Pre-WC / Debt**	**Debt / Capitalisation**	**EBITDA Margin**	**EBIT Margin**	**RAB / EBITDA**
Current Framework	49.3x	73.2%	51.3%	34.9%	4.3%	2.6x
Base Case (Cloud as Opex)	50.3x	74.7%	51.3%	29.6%	3.7%	2.5x
Recommended Framework	31.1x	75.0%	51.3%	34.3%	4.5%	2.5x

Source: RA analysis of CEPA Financial Model

Table 7.5a: Comparison of debt and equity metrics for the current Financeability Framework and the proposed Framework by the RAs

[36] Moody's Rating Methodology: Regulated Electricity and Gas Utilities (Registration Required). Also attached as Appendix D.

8. Summary Consultation Proposals and Next Steps

8.1 Summary of RAs' proposals

The RAs' proposals for the SEMO 2024-29 Price Control have taken into account a range of views and feedback provided by the Working Group, which was established in March 2024.

The RAs propose to allow €99.2M for total Opex in comparison to SEMO's proposal of €112.7M (12% reduction). The RAs also propose to allow for cloud operating expenditure towards predictable capital projects of €12.2M against SEMO's request of €12.3M in addition to total Opex.

Total Opex	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Labour Costs	7.121	7.312	7.567	7.567	7.567	**37.133**	6.545	6.885	7.395	7.395	7.395	**35.615**
IT & T	6.666	9.815	10.632	11.143	11.440	**49.696**	5.968	8.899	9.533	9.968	10.182	**44.549**
Facilities, HR and Corporate	2.462	2.527	2.614	2.614	2.614	**12.831**	2.185	2.264	2.345	2.345	2.345	**11.484**
Finance & Regulation	2.161	2.576	2.751	2.976	2.551	**13.015**	1.577	1.491	1.491	1.491	1.491	**7.540**
Total Opex	**18.410**	**22.230**	**23.564**	**24.299**	**24.172**	**112.676**	**16.275**	**19.539**	**20.764**	**21.198**	**21.413**	**99.189**
Add: Cloud Projects	**3.983**	**3.571**	**2.486**	**1.319**	**0.902**	**12.261**	**3.983**	**3.523**	**2.486**	**1.319**	**0.902**	**12.213**
Total Opex (Including Cloud)	**22.393**	**25.801**	**26.050**	**25.618**	**25.074**	**124.937**	**20.258**	**23.062**	**23.250**	**22.517**	**22.315**	**111.402**
FTEs	83.75	86	89	89	89		77	81	87	87	87	

Table 8.1a: RAs' proposals for SEMO Opex 2024-29

The RAs propose to allow €67.1M for Capex compared to SEMO's request for €68.6M[37].

Total Capex	SEMO Proposal						RAs Proposal					
€m	2024-25	2025-26	2026-27	2027-28	2028-29	Total	2024-25	2025-26	2026-27	2027-28	2028-29	Total
Market System Releases	1.242	6.846	7.381	7.992	8.701	**32.162**	1.242	6.846	7.381	7.992	8.701	**32.162**
Market System Release Support	0.354	1.516	1.627	1.627	1.627	**6.752**	0.354	1.516	1.627	1.627	1.627	**6.752**
Predictable Business Capex	7.945	5.586	2.821	1.716	1.096	**19.164**	7.329	4.867	2.671	1.716	1.096	**17.679**
Unpredictable Business Capex	2.100	2.100	2.100	2.100	2.100	**10.500**	2.100	2.100	2.100	2.100	2.100	**10.500**
Total Capex	**11.641**	**16.049**	**13.929**	**13.435**	**13.524**	**68.578**	**11.025**	**15.329**	**13.779**	**13.435**	**13.524**	**67.093**

Table 8.1b: RAs' proposals for SEMO Capex 2024-29

A modified suite of KPIs is proposed with removal of the CCIN KPI, updates to definitions and upper and lower bounds amended. A change to the KPI framework is proposed with the introduction of financial penalties to make KPIs symmetric as well as the remuneration rate being capped at €2.5m over the Price Control period or €500k p.a. In addition, we note that Opex will continue to be incentivised via revenue cap (RPI-X) regulation. This provides an incentive for SEMO to make Opex cost efficiencies which can be retained during the Price Control period.

In terms of a review of SEMO's financeability, the RAs propose to maintain the approach for the PCG. We plan to remove the RCM, move Capex cost recovery (through depreciation and return on capital) to an as-incurred basis and that the individual EirGrid and SONI components of SEMO's blended WACC are updated once available, within the 2025-29 period. We propose to introduce cost-sharing within Opex and a Cloud Mechanism, with a reopener, for cloud

[37] This excludes €12.2M of Predictable Business expenditure which has already been considered under cloud opex.

project costs which will be treated as Opex. The RAs propose to decline SEMO's proposal for a Cap on ex-post Capex disallowances or a DIWE provision.

8.2 Consultation process

The proposals presented within this document are subject to consultation. The consultation is open for six weeks.

As part of its response to the draft determination, we expect SEMO to provide an update on the progress it has made in 2024/25 and its latest best estimate of expected out-turn for 2024/25. Having reviewed this and engaged further with SEMO, we will consider whether it is appropriate to modify the profile of expenditure over the price control for the Final Determination.

Rather than pose questions to stakeholders within each chapter, we request that general views on the RAs' proposals are provided by respondents with a clear reference to each chapter/ element of the Price Control (for example: 'Views on Price Control framework; Views on Opex; Views on Capex etc.) to aid review.

Responses to the proposals within this consultation should be sent to Ruairi Liddy (Ruairi.Liddy@uregni.gov.uk) and Kevin Goslin (kgoslin@cru.ie) by 6th May 2025.

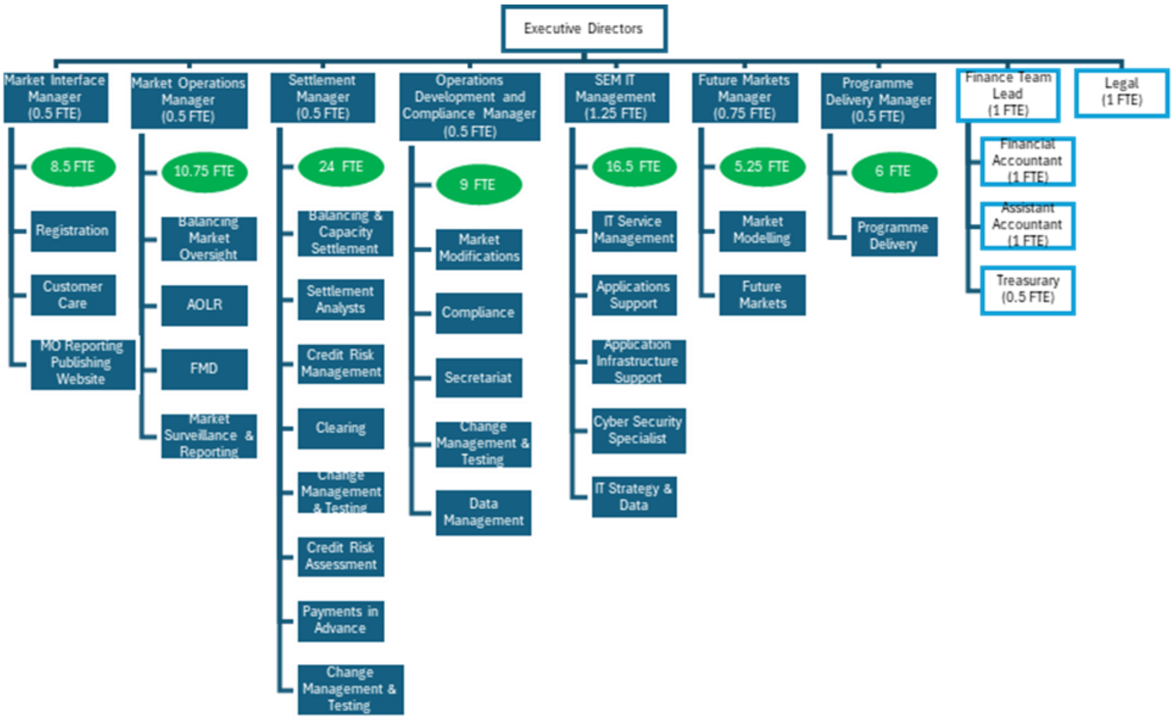
8.3 Regulatory reporting and involvement of market participants going forward

Throughout this document, the RAs have proposed enhancements to SEMO's reporting regime to include (but not limited to) capital projects, market system release vendor hours and KPIs; we envisage that this will include more involvement from and engagement with market participants as appropriate.

The Working Group will meet within the consultation period to discuss the proposals set out by the RAs within this Consultation Paper. The SEMO Focus Group will continue to meet in order to provide feedback on the performance and development of SEMO throughout the Price Control period.

The RAs will engage with SEMO over the coming months to review the current suite of reporting arrangements and discuss what changes can be implemented. We expect that, in advance of any change, participants will be asked for views.

Appendix A: SEMO Submission – FTEs and Roles



Appendix B: SEMO Proposed KPIs 2024-29

SEMO proposed in its price control submission, KPIs in a similar format to those currently applied (i.e. SEM-21-076) together with a proposed KPI pot of 4% of OpEx (€1.8M) for the four-year period. These are outlined below for information and transparency, however the proposed definitions, targets and assumptions, in some cases, are not conducive of a high performance that would be suitable for setting a KPI.

Table C1 below outlines SEMO's KPI proposals and associated proposed financial incentive award.

SEMO KPI Proposals for Price Control Period 2024-29 including Proposed Weighting and Proposed Reward									
	Lower	Upper		Incentive reward per KPI as Proposed by SEMO					
SEMO KPI Proposal	Bound Target	Bound Target	Proposed Weighting	2024/25 €	2025/26 €	2026/27 €	2027/28 €	2028/29 €	Total €
Invoicing	90%	95%	20%	€ 147,281	€ 177,840	€ 188,512	€ 194,396	€ 193,377	€ 901,406
General Queries (resolved within 15 business days)	95%	99%	20%	€ 147,281	€ 177,840	€ 188,512	€ 194,396	€ 193,377	€ 901,406
System Availability	99%	100%	20%	€ 147,281	€ 177,840	€ 188,512	€ 194,396	€ 193,377	€ 901,406
Resettlement Queries	<15 per Qtr	<5 per Qtr	20%	€ 147,281	€ 177,840	€ 188,512	€ 194,396	€ 193,377	€ 901,406
Credit Cover Increase Notices	90%	95%	20%	€ 147,281	€ 177,840	€ 188,512	€ 194,396	€ 193,377	€ 901,406
Total Incentive Reward based on 4% of Opex requested in SEMO				€ 736,405	€ 889,201	€ 942,561	€ 971,979	€ 966,885	€ 4,507,031

Table C1: SEMO 2024/29 KPI proposals and associated financial award

Each of SEMO's KPI proposals are set out below and can be compared with those currently in place as set out in the SEM Committee's SEMO 2021-2024 Price Control Final Decision paper[38].

Invoicing KPI – SEMO Submission

SEMO proposes continuing with the targeted Invoicing KPI. SEMO proposes that the Invoicing KPI be aligned with the timelines set out in the TSC for the upcoming PC period. SEMO proposed reducing both the lower and upper bound targets with weighting held constant at 20% across the period. Table C2 below summarised SEMO's Invoicing KPI proposal.

SEMO KPI	Definition	Proposed Lower Bound	Proposed Upper Bound	Proposed Weighting
Invoicing	The percentage of occurrences where invoices to participants are published on time, as defined in the TSC (as amended from time to time).	90%	95%	20%

Table C2: SEMO Invoicing KPI proposal

[38] SEM-21-073 SEMO 2021-2024 Price Control Decision Paper

Resettlement Queries KPI – SEMO Submission

SEMO proposes a change to the definition where a Formal Query referencing a number of days shall be classified as one Upheld Query Incident. SEMO has proposed no change to the upper and lower bounds with weighting held constant at 20% across the period. Table C3 below outlines SEMO Resettlement Queries KPI proposal.

SEMO KPI	Definition	Proposed Lower Bound	Proposed Upper Bound	Proposed Weighting
Resettlement Queries	The number of upheld formal queries from market participants which have identified errors in settling the market which are attributed to SEMO's operation and processes, including defects and pricing issues. Correction of such errors is completed in either scheduled Resettlement (M+4 and M+13) or in an ad hoc Resettlement. Measurement of this KPI is related to the number of SEMO upheld query incidents and Resettlements per Quarter. Multiple Upheld Queries for one incident shall be classified as one Upheld Query Incident. A Formal Query referencing a number of days shall be classified as one Upheld Queries Incidents.	<15 incidents per quarter	<5 incidents per quarter	20%

Table C3: SEMO Resettlement Queries KPI proposal

General Queries KPI – SEMO Submission

SEMO proposes maintaining the General Queries KPI definition, including maintaining the same lower and upper bound targets with weighting of 20%. Table C4 below outlines SEMO's General Queries KPI proposal.

SEMO KPI	Definition	Proposed Lower Bound	Proposed Upper Bound	Proposed Weighting
General Queries	The percentage of occurrences where a General Query is not **resolved** within 15 business days. A General Query is defined within this metric as any request logged at the SEMO helpdesk.	95% resolved within 15 business days.	99% resolved within 15 business days.	20%

Table C4: SEMO General Queries KPI proposal

System Availability KPI – SEMO Submission

SEMO proposes maintaining the System Availability KPI definition, including maintaining the same lower and upper bound targets with a weighting of 20%. Table C5 below outlines SEMO's System Availability KPI proposal.

SEMO KPI	Definition	Proposed Lower Bound	Proposed Upper Bound	Proposed Weighting
System Availability	Availability of central market systems which the Market Operator has responsibility for according to their required availability. This is the ratio for the time systems are said to be in a functioning condition to the total time they are required to be available and covers the following: 1. Balancing Market systems on a 24-hour basis Monday to Sunday 2. Settlement and Credit Clearing system between 9am-5pm Monday to Friday. 3. MPI system between 9am and 5pm Monday to Friday. 4. Registration system between 9am-5pm, Monday to Friday. 5. Website availability between 8am-6pm Monday to Friday.	99%	99.9%	20%

Table C5: SEMO System Availability KPI proposal

Credit Cover Increase Notice (CCIN) KPI – SEMO Submission

SEMO proposes that for the next Price Control period that it is incentivised on the publication of daily Credit Reports (Rept_048), which are available to download through the MPI for all Participants.

As set out in Agreed Procedure 9 Management of a Credit Cover and Credit Default of the TSC, SEMO carry out one Credit Assessment on the first Working Day following a Non-

Working Day which will be carried out at 15:30 and three Credit Assessments on all other Working Days. These will be carried out at 09:00, 12:00 and 15:30.

SEMO currently publish 3 credit reports a day, with exception of Monday and the day after Bank Holidays when it only publishes one Credit report to allow for weekend indicative data to be included in the Credit report, as per the introduction of MOD_10_20.

SEMO currently publish 3 credit reports a day, with exception of Monday and the day after Bank Holidays when it only publishes one Credit report to allow for weekend indicative data to be included in the Credit report, as per the introduction of MOD_10_20.

Due to the dependency on the daily indicative data to be included as part of the daily credit calculation, 4:45pm is proposed as the target time for the afternoon credit report publication. The 4:45pm timelines will also allow SEMO to issue out any CCINs that are required to Participants by 5pm same working day as per Agreed Procedure 9.

The assumptions associated with this KPI are:

I. Systems Operator system failures are to be excluded from the KPI measurement.
II. Planned outages, planned releases and ad-hoc releases that have an impact on measurement of this KPI are excluded.
III. KPI is assessed on a monthly not quarterly basis.

Table C6 below outlines SEMO's CCIN KPI proposal.

SEMO KPI	Definition	Proposed Lower Bound	Proposed Upper Bound	Proposed Weighting
Credit Cover Increase Notices	• The percentage of occurrences where credit cover increase notices are published on time. • Three credit reports should be issued Tuesday to Friday, with publication of each required by 9:45am, 12:45pm and 4:45pm. • One credit report should be issued Each Monday, or on the next business day after a bank holiday, with publication required by 4:45pm.	90%	95%	20%

Table C6: SEMO CCIN KPI proposal

Appendix C: SEMO KPI Performance 2022/23

SEMO provided its 2022/2023 KPI performance levels within its Annual Market Operator Report 22/23. Table D1 below summarises SEMO's performance against the five KPIs in place for

SEMO KPI Outturn 2022/2023								
SEMO KPIs - as per SEM-21-073				Performance by Quarter				Overall Performance
Metric	Weighting	Target	Upper Bound	Oct-Dec Q1	Jan-Mar Q2	Apr-June Q3	Jul-Sept Q4	2022/23
Invoicing	15%	97%	100%	100.00%	100.00%	100.00%	100.00%	100%
SEMO Settlement Queries	20%	<15 per Q	<5 per Q	374.00	1280.00	1694.00	15.00	3363.00
Process Rate for Ad Hoc Resettlement to Clear Known Backlog	20%	6 wks adhoc in 4 wk period	8 wks adhoc in 4 wk period	7.00	7.33	6.00	6.67	6.75
General Queries	5%	95%	99%	99.10%	98.18%	99.03%	99.39%	98.93%
System Availability	15%	99%	99.9%	100.00%	99.96%	100.00%	100.00%	99.99%
Storage Technology Facilitation	25%	Successful implementation on enduring solution enabling full participation in the Balancing Market	N/A					

Table D1: SEMO KPI Targets 2022/23

Table D2 below reflects SEMO's KPI Outturn Performance and associated financial award 2022/23.

Incentive earned per Quarter 2022/23					
Performance Indicator	Oct-Dec Q1	Jan-Mar Q2	Apr-June Q3	Jul-Sept Q4	TOTAL
Invoicing	€9,225	€9,225	€9,225	€9,225	€36,900
SEMO Settlement Queries	€0	€0	€0	€0	€0
Process Rate for Ad hoc Resettlement to Clear Known Backlog	€12,300	€16,400	€0	€8,200	€36,900
General Queries	€12,300	€10,496	€12,300	€12,300	€47,396
System Availability	€18,450	€18,450	€18,450	€18,450	€73,800
Storage Technology Facilitation	€0	€0	€0	€0	€0
KPI reward per Quarter (in March 2020 monies)	€52,275	€54,571	€39,975	€48,175	€194,996
Maximum Available Reward in Quarter	€113,775	€113,775	€113,775	€113,775	€455,100
Percentage of Total Achieved in Quarter	45.95%	47.96%	35.14%	42.34%	42.85%

Table D2: SEMO KPI Outturn Performance and associated financial award 2022/23

Appendix D: Moody's Rating Methodology - Regulated Electricity and Gas Utilities

Metric	Description	A Threshold	Baa Threshold
Cash From Operations (CFO) Pre-Working Capital (WC) + Interest) / Interest	The cash flow interest coverage ratio shows how operational cash flow compares to the costs of debt service, representing the ability of the utility to cover its borrowing costs.	4.5x – 6.0x	3.0x – 4.5x
CFO Pre-WC / Debt	This ratio shows how operational cash flow compares to the total stock of debt, an indicator of the cash generating ability of a utility in comparison to its total debt.	19% – 27%	11% – 19%
Debt / Capitalisation	This is a standard balance-sheet measure. Higher debt levels can mean higher interest rate payments and greater difficulty in raising additional financing if necessary.	40% – 50%	50% – 59%