

# **Single Electricity Market**

## **SEMO Revenue and Tariffs**

**October 2010 – September 2013**

**Consultation Paper**

**V1.0**

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## 1 EXECUTIVE SUMMARY

### Background

The All-Island Single Electricity Market (SEM), commenced operation on 1 November 2007, and is administered by the Single Electricity Market Operator (SEMO), formed through a contractual joint venture between EirGrid and SONI. SEMO needs to recover their operational and capital costs from market participants.

This consultation paper by the Regulatory Authorities (RAs) includes proposals on the form of SEMO regulation, the allowed revenue for SEMO and all associated tariffs. Comments are invited from the industry and the public by Friday 3 September 2010, as detailed in Section 16. A Decision Paper on this issue is due to be published by the RAs in late September 2010.

### Form of Regulation

The RAs propose that the new tariff period runs for 3 years, from 1 October 2010 to 30 September 2013. The RAs propose that SEMO move to an incentivised format of price control. RPI-X regulation is to be applied under a revenue-cap regime on OPEX. The required revenue for CAPEX should be recovered through a Revenue-Cap mechanism and the allowance is to be determined through Menu Regulation. Nonetheless investments in phase of depreciation should be kept under the prevailing rate of return regulation.

SEMO revenue will be corrected year by year by the outturn rate of inflation (blend between RPI and CPI).

### OPEX

The allowances for OPEX items were proposed by the RAs bearing in mind the historical costs on each area and the future requirements proposed by SEMO. Specifically on Payroll, the RAs have commissioned research on the staff costs of other similar companies including benchmarks against similar IT based companies in Ireland and NI and against ELEXON, the market operator for the GB market. The results of this benchmark suggest that SEMO has margin for increased savings on payroll. The RAs propose that the total payroll allowance should be reduced in the range between 7% over 3 years and 5% per year.

The eventual adjustments of revenue requirements between tariff periods should cater exclusively for variation on market volumes compared to the approved revenue and not to outturn costs.

### **CAPEX**

We are consulting on menu regulation as our preferred approach for the determination of the CAPEX allowance because we believe it can deliver benefits for all stakeholders in the SEM. In broad terms we think menu regulation can promote greater control and accountability, deliver value for customers through revealing and promoting efficiency, while allowing scope for simplification of intrusive regulatory methods.

### **Incentivisation**

The RAs are of the view that it will be important to continue to provide SEMO with the right incentives to maintain their current good performance; SEMO should continue to be incentivised on their KPIs targets.

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## 3 INTRODUCTION

### 3.1 THE SINGLE ELECTRICITY MARKET

The Northern Irish and Irish Governments together with the energy regulators - the Northern Ireland Authority for Utility Regulation and the Commission for Energy Regulation (“the RAs”) - and industry worked together to create an All-Island Energy Market, as outlined in the All-Island Energy Market Development Framework Paper.<sup>1</sup>

The first step in this process was the introduction of an All-Island wholesale electricity market. The Single Electricity Market (SEM) was implemented on 1st November 2007 when the market went live.

The SEM is a centralised or gross mandatory pool market, with electricity being bought and sold through the pool under a market clearing mechanism. Generators receive the System Marginal Price (SMP) for their scheduled dispatch quantities, capacity payments for their actual availability, and constraint payments for differences between the market schedule and actual dispatch due to system constraints. Suppliers purchasing energy from the pool will pay the SMP for each trading period, capacity costs, and system support charges. The SEM market rules are set out in the Trading and Settlement Code (TSC).

### 3.2 ROLE OF SEMO

The development of the SEM led to the requirement for a Single Electricity Market Operator (SEMO) to administer the market. With this in mind the RAs approved the plans of EirGrid and SONI, the transmission system operators for Ireland and Northern Ireland respectively, to establish SEMO on a contractual Joint Venture basis.

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, including SEMO, must adhere to in order to participate in the SEM. In addition both EirGrid and SONI must comply with the conditions imposed on this activity by their respective Market Operator (MO) Licences

As defined in section 1.3 of the TSC, SEMO’s role can be summarised as to ‘facilitate the efficient, economic and coordinated operation, administration and development of the Single Electricity Market in a financially secure manner’.

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<sup>1</sup> All-Island Energy Market: A Development Framework, Nov 2004, [www.allislandproject.org](http://www.allislandproject.org)  
[http://www.dcmnr.gov.ie/NR/rdonlyres/BCF98EC4-7321-4E3F8685BFFCA2BF2DF4/0/All\\_island\\_Energy\\_Market\\_Development\\_Framework.pdf](http://www.dcmnr.gov.ie/NR/rdonlyres/BCF98EC4-7321-4E3F8685BFFCA2BF2DF4/0/All_island_Energy_Market_Development_Framework.pdf)

### 3.3 SEMO REVENUE & CHARGES

SEMO incurs operational costs while carrying out the above functions and recovers these costs, as well as capital related costs and a rate of return, through Market Operator tariffs and fees, which are levied on market participants. To facilitate this recovery of costs, the Market Operator Licence requires SEMO to submit proposals on its allowed revenue, and the charges required to recover this revenue, to the RAs. Furthermore, SEMO must also present proposals on tariffs to recover imperfections costs. However the RAs intend to hold a separate consultation on imperfection charges. Therefore the imperfection charges will not be covered in this consultation paper.

SEMO's current price control is due to end on 30 September 2010 i.e. it covers a 12 month period from 1 October 2009 to 30 September 2010. Therefore, the revenue and tariffs need to be determined for the next tariff period.

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### 3.4 REGULATORY APPROVAL PROCESS

The RAs have carried out a detailed review and analysis of SEMO's submission and associated supporting information. On the basis of that review the RAs now publish this consultation paper detailing proposals for the allowed revenue for SEMO.

Comments on this consultation paper are invited from all interested parties as detailed in Section 16 below, and will be considered by the RAs prior to the publication of the final Decision Paper on this topic in late September 2010.

## 4 REGULATORY PRINCIPLES

This section outlines the principles behind the regulatory proposals contained in this paper. Any subsequent decisions relating to these proposals will be evaluated against these principles.

Best practice regulation of the so-called natural monopolies, should be characterised as seeking to ensure that tariffs are:

- **Sustainable**
- **Stable**
- **Transparent**
- **Predictable**
- **Cost-effective**

The Regulators' task essentially consists of creating a framework within which, in return for providing monopoly services to an acceptable quality, the regulated business receives a reasonable assurance of a revenue stream in future years that will cover its costs.

### **Sustainability**

The regulated business must be able to finance its operations plus any necessary capital expenditure so that it can continue to operate in the future to the ultimate benefit of customers. Sustainability in the context of market operations also involves the sustainability of market arrangements and thus also entails avoiding barriers to market entry or market exit and avoiding any inconsistency or unfairness in the treatment of any participant, or class of participant

### **Stability**

To be stable the framework must also provide some certainty to all the parties affected by it. These are customers, the Governments and RAs (acting on behalf of customers), SEMO itself, the TSOs and generators and suppliers. Frequent complaints and disputes will lead to the regime being continually adjusted by the Regulators. This creates uncertainty in the industry and discourages long-term planning and investment. The stability of the regime is particularly important to privately owned businesses, if investors are to be encouraged to make long-term investments in the sector.

### **Transparency and Predictability**

The rules that govern the regulatory regime should also be transparent and unambiguous in their interpretation and predictable in the way they are applied. In particular, it should be clear how costs relate to prices. Regulations which are unclear will cause disputes, which will also create instability in the regulatory regime, add to the costs of regulation and are likely to raise the cost of capital, ultimately to the detriment of customers in the form of higher prices. An important corollary is that there should be "no surprises" for participants. This does not imply that the Regulators cannot and should not change their view on issues, or revise the regulatory framework as necessary and in response to unforeseen developments, but it does mean that the Regulators will endeavour to:

- Avoid changes which apply retrospectively, with adverse consequences for the regulated businesses
- Take decisions following a due process of consultation and consideration of the relevant issues
- Publish a full account of the reasoning behind those decisions

### **Cost-effectiveness**

The costs of monitoring and enforcing compliance need to be low relative to the benefits of regulation. Ideally, the regulatory framework will involve minimum costs of data collection and analysis. The procedure for processing disputes should also be simple, although the more transparent and stable the regulatory system, the less often disputes will arise.



## 5 SEMO SUBMISSION

SEMO proposes an increase in its revenues from €22,181,519 in 2009/10 to €24,083,000 in 2010/11, €25,242,000 in 2011/12 and falling to € 17,893,000 in 2012/13. The increase proposed between 2009/10 and 2010/11 is 8.6 per cent (Year 1), Year 2 4.8% and decreases by 29% Year 3.

SEMO's price control submission dated April 1<sup>st</sup> 2010 proposes maintaining the current regulatory regime, i.e. rate of return regulation with specific incentive schemes in place (for CAPEX and key performance indicators). The submission does not address the possibility of a move to more incentive-based regulation.

SEMO's price control submission is comprehensive with regard to forecast expenditure. While the RAs have assessed all areas of the submission priority has been given to the most significant cost areas, in particular to large cost areas and any cost areas where SEMO's proposed allowance shows large cost increases compared to historic figures.

The RAs have also paid particular attention to cost categories which they consider may be seen as having implications in terms of the EirGrid and SONI price controls. At the same time, the RAs decision should not be interpreted as setting a precedent in this regard, given that the EirGrid and SONI price controls will not be finalised until after the SEMO price control is completed.

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### 5.1 HIGH LEVEL REVIEW OF HISTORIC VERSUS PROPOSED COSTS

The following table shows historic actual and allowed figures along with the figures contained in SEMO's revenue submission for October 2010 to September 2013 and the RAs proposals.

	Historical Information				SEMO's Proposal			RAs Proposals		
	Actuals to May 2010 (8 months)	Actuals Scaled 12 Months	SEMO's Estimates	Allowed Revenue 2009-10	2010- 2011	2011- 2012	2012- 2013	2010-2011	2011- 2012	2012-2013
	EUR ' 000				EUR ' 000			EUR ' 000		
<b>OPEX</b>										
Total Payroll	2,703	4,055	4,070	4,262	4,911	5,057	5,161	4,408	4,310	4,214
Total IT & Communications	947	1,421	1,584	2,139	2,098	2,305	2,448	1,878	2,078	2,238
Total Facilities and Insurance	750	1,125	1,153	1,304	1,196	1,196	1,146	1,196	1,196	1,196
Total Professional Fees	239	359	491	673	848	885	747	640	640	645
Total General and Administrative	169	254	262	342	368	378	378	275	275	275
Total Corporate Services	115	173	195	49	300	300	300	0	0	0
<b>Total</b>	<b>4,923</b>	<b>7,385</b>	<b>7,755</b>	<b>8,769</b>	<b>9,721</b>	<b>10,121</b>	<b>10,180</b>	<b>8,397</b>	<b>8,499</b>	<b>8,568</b>
<b>Cost of Capital</b>										
Depreciation				11,495	12,835	13,927	6,627	12,302	12,755	4,484
WACC				1,916	1,528	1,066	877	1,386	790	421
<b>Total</b>				<b>13,411</b>	<b>14,364</b>	<b>14,993</b>	<b>7,504</b>	<b>13,688</b>	<b>13,545</b>	<b>4,905</b>
<b>CAPEX</b>								<b>3,924</b>	<b>3,278</b>	<b>3,420</b>
<b>K Factor</b>					<b>-1,140</b>			<b>-1,140</b>		
<b>Total Revenue Requirement</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>20,254</b>	<b>22,945</b>	<b>25,114</b>	<b>17,684</b>	<b>24,869</b>	<b>25,322</b>	<b>16,893</b>

Note that the figures in this table have not been adjusted for inflation and hence the different columns are not all in the same year's prices. SEMO's and RAs proposals are in current prices.

**Table 1 – Summary of SEMO Allowed Revenue**

The figures in the table need to be treated with some caution for at least two reasons. First the scaled up figures in red for 2009/10 assume that costs are evenly distributed throughout the year. Second, the figures are all in current prices, i.e. they have not been adjusted for inflation, and hence the different columns are not presented in terms of the same year's price level.

Some preliminary comments on these numbers are as follows:

- Payroll is the largest single item within internal costs, and SEMO is proposing increases in this area. SEMO is looking for increases in Payroll to cover additional approved headcount, increased use of Contractors and Pension deficits.
- IT (operation and maintenance of systems) and telecommunications is the next largest item within OPEX. Although SEMO's proposed allowance decreases in the first year of the price control compared to the allowed revenue in this area for the current price control, we note that its proposed allowances are still higher than its actual historic spend and it then increases substantially in the next two years of the price control. According to SEMO's submission, the IT and Telecommunications costs have increased due to extra support costs based on the required forecasted capital investment.
- SEMO's proposed allowance for professional fees increases significantly compared to what has been allowed for the current price control despite its actual spend being well below its allowance in previous years. However we note that SEMO has explicitly stated that it will need to use more consultants in the coming years due to major market developments driven by regulatory and European policy.
- SEMO's actual spend on "General & Administrative" was well above its allowance in 2008/09 supporting the increased allowance requested for this area in the current price control. However, its actual spend in the first 6 months of the current price control appear to be well below the allowance.
- SEMO proposes a substantial increase in CAPEX allowance for the next price control. The RAs have given special attention to mechanisms of incentivisation on capital expenditure.
- SEMO has stated that it requires a significant increase in Corporate Services as per current charges by its parent companies. The proposed increase in Corporate Services from €81,593 in 2008/09 to €300,000 will be assessed in the context of the price control submissions of Eirgrid and SONI.

## 6 FORM OF REGULATION

The current price control is based on rate of return regulation for Capital Expenditure (CAPEX) and Operational Expenditure (OPEX) treated on a pass-through basis. The current form of regulation provides limited incentive for SEMO to reduce its costs. The main incentive for cost control is regulatory oversight and the possibility of costs being disallowed in the *ex post* review carried out by the RAs, a mechanism which suffers from a lack of predictability from the perspective of SEMO.

The RAs propose that OPEX should be subject to a RPI-X Regulation under a Revenue-Cap regime. The RAs will agree the revenues that SEMO should be allowed to earn. Tariffs will be calculated so as to recover these revenues on the basis of projected market volumes. However, in the event that out-turn market volumes differ from these projections, any over- or under-recovery of revenue would be taken into account when finalising tariffs for the following year. This approach will protect SEMO from revenue uncertainty arising from exogenous changes in market volumes. Nonetheless this mechanism would not protect SEMO for under or over expenditure arising from endogenous causes.

The RAs propose that the revenue requirement for CAPEX should be recovered through a revenue-cap regime. As per OPEX, The RAs will agree the revenues that SEMO should be allowed to earn. Tariffs will be calculated so as to recover these revenues on the basis of projected market volumes. However, in the event that out-turn market volumes differ from these projections, any over- or under-recovery of revenue would be taken into account in finalising tariffs for the following year. CAPEX will no longer be treated under a rate of return regulation. Instead SEMO will be rewarded to outperform the RAs expectations on CAPEX costs.

The proposed regime change for CAPEX would not be applied retrospectively. The current rate of return regulation should prevail for projects approved in the previous price control until they are completely depreciated. SEMO's revenue requirement for CAPEX (Except IT release system) for the next price control is € 11,180,000. Under the current approach, SEMO would include in the Regulatory Asset Base (RAB) the costs of every capital investment. SEMO would then recover this amount through depreciation and weighted average cost of capital (WACC). SEMO's investments depreciate in five years and the prevailing WACC is equivalent to 5.8% a year.

Under the Revenue-Cap, the revenue requirement would directly reflect the necessity for capital in each year. The € 11,180,000 would be subdivided in three components (one for each year) according to SEMO planning for projects. The table below illustrates the difference between the two approaches (Rate of Return vs. Revenue-Cap) for a illustrative allowance of €11,180k

Rate of Return Regulation								
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Investment	4,130	3,450	3,600					
Depreciation y1		826	826	826	826	826		
Depreciation y2			690	690	690	690	690	
Depreciation y3				720	720	720	720	720
RAB	4,130	6,754	8,838	6,602	4,366	2,130	720	0
<b>Depreciation</b>		<b>826</b>	<b>1,516</b>	<b>2,236</b>	<b>2,236</b>	<b>2,236</b>	<b>1,410</b>	<b>720</b>
<b>Return</b>		<b>239</b>	<b>391</b>	<b>512</b>	<b>382</b>	<b>253</b>	<b>123</b>	<b>41</b>
<b>Tariff Revenue</b>		<b>1,065</b>	<b>1,907</b>	<b>2,748</b>	<b>2,618</b>	<b>2,489</b>	<b>1,533</b>	<b>761</b>
<b>Total Tariff Revenue</b>		<b>13,125</b>						
<b>Total Return</b>		<b>1,945</b>						
<b>WACC</b>		<b>5.8%</b>	(Based on the current rate of return allowed by the RAs)					

Revenue-Cap			
	Year 1	Year 2	Year 3
Investment	4,130	3,450	3,600
<b>Tariff Revenue</b>	<b>4,130</b>	<b>3,450</b>	<b>3,600</b>
<b>Total Tariff Revenue</b>	<b>11,180</b>		

Table 2 –Revenue Cap vs. Rate of Return

The proposed regulatory framework (Revenue-Cap) will have implications for the tariffs. The depreciation mechanism built in the current rate of return regulation smoothes the effects of new expenditure over five years. On the other hand SEMO receives return on the invested capital for a long period, which ultimately leads to a higher tariff on the long term. The Revenue-cap regime, will allow SEMO to recover yearly the entire allowance approved for each year. This approach reduces the need of SEMO to act as a financier for the market. The implication is a lower long term revenue requirement as no rate of return would be applied, however on the short term the revenue requirement is expected to increase. The RAs are of the view that SEMO is not a capital intensive business like other utility companies, therefore the advantage of a long term amortization of investments does not mitigate the cost to be paid for financing capital investments. Ultimately the Revenue-Cap regime will produce more transparent tariffs. The reflex on tariffs of SEMO's proposals for CAPEX would be more easily accessed by market participants and regulatory authorities. The table below details the RAs proposals for Form of Regulation.

	OPEX	CAPEX (New Investments)	CAPEX (Investments in depreciation)
<b>Current Form of Regulation 2009-10</b>	Cost Pass Through	Rate of Return Regulation	Rate of Return Regulation
<b>RAs Proposal for 2010-13</b>	RPI-X	Revenue-Cap + Incentivisation	Rate of Return Regulation

Table 3 – Price Control Framework Design

**RAS PROPOSAL 1: SEMO'S OPEX TO BE REGULATED UNDER RPI-X FRAMEWORK AND REVENUE CAP REGIME FOR CAPEX**

## 7 INDEXATION

SEMO has proposed that its revenues be indexed by a blended rate of forecast CPI and RPI in mid tariff (March) prices. While the RAs acknowledge that using mid-tariff prices for the purposes of indexation ensures consistency with previous price controls, our recommendation would be to use actual out-turn inflation to reduce uncertainty. The permitted tariffs would be announced each year, based on out-turn inflation during the previous year (and any other adjustments that were decided.). This is the standard approach to RPI-X price controls and typical of the approach used in SONI's and Eirgrid's price controls.

RAS PROPOSAL 2: SEMO'S ALLOWANCE TO BE CORRECT BY THE OUT-TURN INFLATION FIGURE.

## 8 K FACTOR

The current allowable SEMO revenue and tariffs set for the current tariff period will come to an end on 30 September 2010. Following the end of this period, it is intended that SEMO submit a report to the RAs detailing the actual spend during the period and a comparison to the budget for the price control period. At this point there is an opportunity for SEMO to explain any variances (in greater or lesser detail depending upon the scale of the variance).

As part of the review the RAs would expect to see a line-by-line analysis, and detailed figures in respect of interest paid or received. This analysis should include not only the direct SEMO costs, but also any costs associated with imperfections. At present it is assumed that SEMO's report will be available after year end.

On receipt of the report the RAs will carry out a review and anticipate having at least one meeting with SEMO to discuss any areas requiring clarification. Once all open issues have been closed, the RAs will make their report to the SEM Committee who will make a decision on the K factor. The RAs will allow SEMO to review the report prior to submission to the SEM Committee.

For the next price control period, the K Factor for 2008/2009 is to be applied and corresponds to a positive figure of **€1.14m** which will reduce SEMO's 2010/2011 Tariff.

Regarding to the k-factor's determination for the next price control, SEMO has presented the following proposal:

*"A 'k-factor' is used to accommodate any over, or under, recovery of funds from a previous revenue allowance. This re-balancing of revenue will take account not just of overall income, as against outgoings, but will also take account of any interest earned or payable arising from working capital provisions. Uncertain costs into the future will also be accommodated through this k-factor for SEMO."*

The fact that SEMO refers to “overall income, as against outgoings” means that it envisages that the regulatory framework for the three year price control will in effect be based singularly on rate of return regulation, thus ruling out a move to a more incentives-based framework .

To achieve an incentive-based system, the k-factor should adjust allowed revenues each year to take account of any over- or under-recovery of revenue in the previous year compared to the revenue allowance set by the RAs, *not* compared to actual costs.

The following caveats should be considered.

- Any foreign exchange gains or losses will form part of the K Factor calculations as a cost pass through element
- Interest on funding from the parent companies will also form part of the K factor calculations as a cost pass through element

RAS PROPOSAL 3: K-FACTOR TO COMPARE RECOVERY OF REVENUE TO THE REVENUE ALLOWANCE AND NOT ACTUAL EXPENDITURE.

## 9 OPERATIONAL EXPENDITURE

In this section SEMO’s operating costs, as summarized in Table 1, are considered. For each category SEMO’s submission is reviewed, along with any supporting information supplied, and the RAs’ initial views outlined. Respondents comments on all aspects are welcome. Due to the fact that payroll is the largest single element of OPEX, this has been analyzed in most detail.

### 9.1 PAYROLL

SEMO’S Payroll costs seek to cover all staff costs, including Salaries, Contractors, Bonus, Employer’s PRSI/National Insurance, Employer’s Pension Contribution, Overtime, On Call/Shift, Car and Other Benefits. The activities of these staff are determined by the legislation, licenses and TSC.

SEMO is currently operating with a headcount of 54 employees (excluding contractors). The organisation chart provided in the SEMO submission is reproduced below. This was the structure as of the end of April 2010.

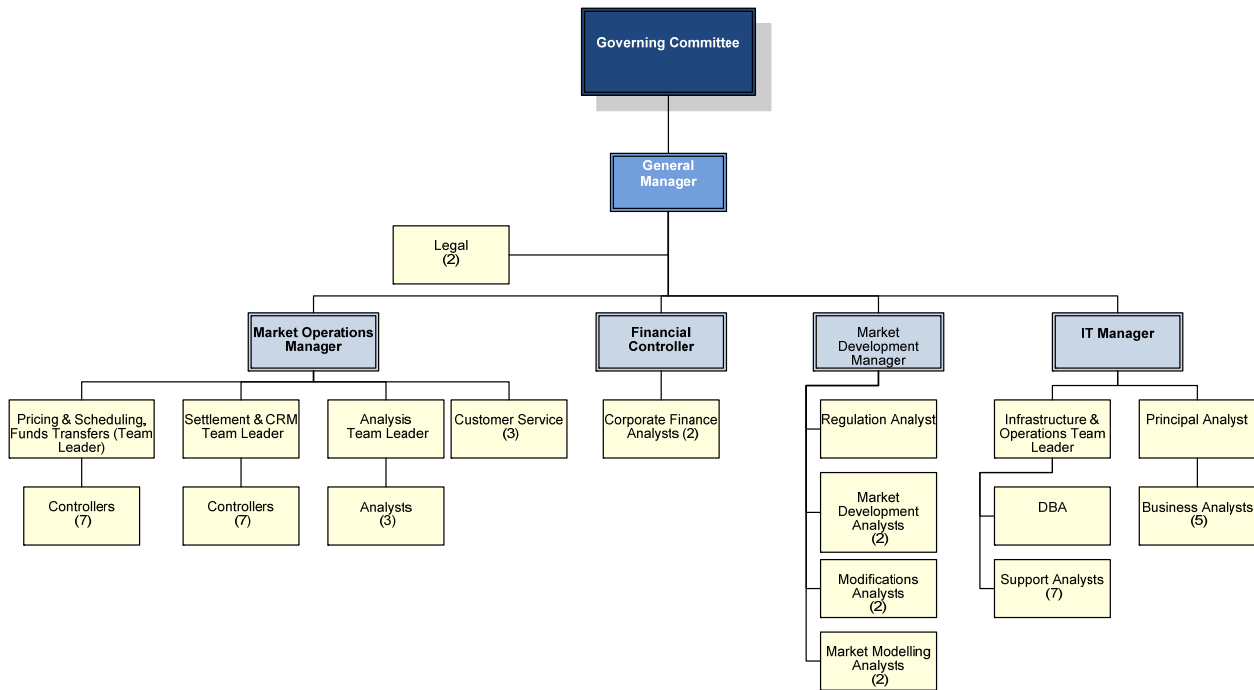


Figure 1 – SEMO’s Organisational Structure



SEMO's proposed payroll allowance for the next three years is as follows:

	Nominal Values €'000's			
	2009-2010	2010-2011	2011-2012	2012-2013
Proposed Payroll Expenditure		4,911	5,057	5,161
Allowed for the Current PC	4,264			
Outturn (8 months – May 10)	2,703			

**Table 4: Payroll Expenditure**

The allowance approved by the RAs for 2009/2010 payroll was €4,264k. This was subsequently increased by an approved amount of €160k for two IT resources to support the new ABB contract. This brought the total approved payroll for 2009/2010 to €4,424k. SEMO have stated that they expect the outturn for this year to be very close to this figure.

As regards the step change from the allowed €4,424K in 2009/10 to the requested €4,911K, an increase of nearly €500K, the RAs requested from SEMO clarification on why the proposed allowance for **2010/2011** is substantially above to the approved expenditure for the current price control (**2009/2010**). SEMO provided the following explanation:

*“The subsequent movement from €4,424k to €4,911k is explained by 4 factors:*

- *The 2010/2011 payroll request includes an amount of €201k to cover contributions to pension deficit*
- *An increase in the use of contractors €136k (e.g. to cover for additional controller + analyst for extra resettlement due to mod to extend query time beyond M+13, plus contractors for other specific projects)*
- *One addition to headcount €80k*
- *An increase for real price effect c. €70k”*

*This movement is illustrated by the table below:*

	EUR '000
Payroll allowed in 2009/2010 SEMO Revenue & Tariffs Decision Paper	4,264
Additional 2 approved by the RAs in November 2009	160
<b>Adjusted 2009/2010 Allowance</b>	<b>4,424</b>
Increase in Pension Deficit Contribution	201
Increase in use of Contractors	136
Additional Headcount (average)	80
RPE 2.75% ROI, 2% NI	70
<b>2010/2011 Payroll</b>	<b>4,911</b>

**Table 5: Payroll Expenditure (Breakdown)**

So the main questions to be answered are

- 1) Is the baseline of 54 staff appropriate and efficient?
- 2) Are the salaries paid to SEMO staff efficient and necessary?
- 3) Should the increase in pension deficit contributions be allowed within this price control?
- 4) Is the proposed increased use of contractors justified?
- 5) Is the extra one resource requested necessary?
- 6) Is the real price effect claimed something that needs to be allowed for?

The following sections will address each one of the questions outlined above:

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#### 9.1.1 BASELINE (54 STAFF)

SEMO's organisation is not quite 3 years old. It has grown under close regulatory and market scrutiny with the need for each increase fully assessed and justified on the basis of market need and cost vs. benefit to market participants in particular and to consumers in general. It is the RAs view at this stage that this constitutes an appropriate staffing level for the next price control period.

#### RA's PROPOSAL 4: ALLOW THE CURRENT BASELINE OF 54 STAFF

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#### 9.1.2 PAYROLL BENCHMARK

To assist the RAs in coming to the correct view on this we commissioned research on the staff costs of other similar companies including benchmarks against similar IT based companies in Ireland and NI and against ELEXON, the market operator for the GB market. The research was carried out by two companies Lane Clark and Peacocks (LCP) and PriceWaterhouseCoopers (PWC).

SEMO is a contractual joint venture by Eirgrid and SONI. Internal staff are employed by the parent companies. SEMO is based in both Dublin and Belfast. Information on payroll costs was provided in an aggregated form. This showed the salary minimum, maximum and average for staff grouped into three bands entitled "Market Professional", "Senior Market Professional" and "Market Manager". A mapping of the organisational chart to the pay bands was provided.

Role	Eirgrid Staff	SONI Staff
Market Manager	3	2
Senior Market Professional	18	7
Market Professional	17	6
<b>Total</b>	<b>38</b>	<b>15</b>

**Table 6: SEMO's Internal Roles**

### **SEMO Payroll Cost "Bottom Up" (By PriceWaterhouseCoopers)**

PWC have matched the provided SEMO role profiles and salaries against the PricewaterhouseCoopers LLP Northern Ireland and Republic of Ireland remuneration databases.

With regard to 'similar companies' to be benchmarked against SEMO, PWC suggested that the comparative knowledge, skills and experience are predominately likely to be found with the information technology sector within each jurisdiction. Therefore the two principal marketplaces for benchmarking are the Northern Ireland and Republic of Ireland information technology sectors. The PWC report suggests that, SEMO as whole pays salaries **4.2%** below the average of the market.

### **Benchmark against Elexon (By Lane Clark and Peacocks)**

This involved a comparison of the SEMO salaries with those of ELEXON, comparing the average salaries associated with the different levels of responsibilities.

ELEXON is the Balancing and Settlement Code Company (BSCCo) for Great Britain. Its role is defined and created by the Balancing and Settlement Code (BSC). The BSC contains the rules and governance arrangements for electricity balancing and settlement in Great Britain and all licensed electricity companies must sign it (others may choose to do so).

ELEXON is larger than SEMO with 150 staff but has similar functions and positions in the industry to SEMO. The challenges and the associated range of skills, expertise and experience required are likely to be similar. ELEXON is based in Central London, which is a high employment cost area. A comparison of the respective pay grades by location is shown in the table below:

<b>Market Manager</b>	<b>-26%</b>
<b>Senior Market Professional</b>	<b>9%</b>
<b>Market Professional</b>	<b>19%</b>
<b>Total</b>	<b>4%</b>

**Table 8: Average salary relative to ELEXON**

The table shows that managers at SEMO, on average, are paid 26% less than managers in ELEXON whereas Senior Market Professionals are paid 19% more in SEMO. Finally Senior Market Professionals in SEMO are paid 9% more than in ELEXON.

Possible explanatory factors include:

- The larger size of ELEXON, and the fact that several of the Market Managers have been in the post since it was established may explain why the Market Manager salaries for both SEMO SONI and SEMO Eirgrid are lower than this benchmark. If new replacements were to be recruited, it is possible that they would receive lower salaries than the present average. There is also significant granularity at this level because of the relatively small numbers that makes the comparison less statistically meaningful.
- The results of these comparisons are sensitive to the exchange rate of £1: €1.15 used. Comparable figures using a higher and lower exchange rate are in the table below relating to a Senior Market Professional:

Exchange rate	Comparison SEMO Eirgrid to ELEXON benchmark
£1: €1.05	38%
£1: €1.15	+24% as above
£1: €1.25	16%
£1: €1.44	0%

**Table 9: Exchange rate scenarios**

### **SEMO Payroll Cost “Bottom Up” (By Lane Clark Peacock)**

A broad “bottom up” approach, this involved building the payroll cost of the SEMO organisation using payroll information contained in salary surveys based in Ireland and Northern Ireland and also advice from recruitment consultants on current salaries for such posts. In this process the organisational structure provided by SEMO was used as the basis. This means that the “synthesised” structure and costs were based on the existing split between Eirgrid and SONI (3:1).

The assumptions and judgements used are set out below.

- It proved difficult to find direct comparators for staff in Market Operations: “Controllers” and “Analysts”. It is probably appropriate that SEMO sets a high quality standard in these disciplines.
- Salaries from the Engineers Ireland Survey were used. The level was pitched at Associate and Ordinary member levels and two levels of experience were taken. The survey did not cover Northern Ireland directly

- Some of the roles in SEMO are very specific to the electricity market and given the context, call for both specific knowledge and quality.

The following sources were employed in the production of the synthetised structure

- **Brightwater Salary Survey 2010:**  
This survey covers a range of disciplines for Dublin, the Republic of Ireland and Northern Ireland.
- **Engineers Ireland Survey (published October 2009):**  
This survey provides information on the salary levels and employment benefits received by engineers, technicians and technologists employed in Ireland.
- **Graduates Survey 2009:**  
A survey of graduate starting salaries in Ireland and Northern Ireland.

The following table summarises the outcome of the benchmark exercise involving SEMO staff.

<b>Market Manager</b>	4%
<b>Senior Market Professional</b>	9%
<b>Market Professional</b>	6%
<b>Total</b>	<b>7%</b>

**Table 10: Average salary relative to synthetised benchmark**

The results of this analysis showed that all grades within SEMO are, on average, paid above the market average. SEMO as a whole, according to the benchmark exercise undertaken by LCP, is paying salaries, on average, 7% above the market rate.

### Conclusions on Salary Comparisons

We therefore have the following spread of results from the benchmarking exercises:

	<b>SEMO</b>
<b>PWC Remuneration Database</b>	-4.20%
<b>ELEXON Salaries</b>	4.00%
<b>Salary Surveys</b>	7.00%

**Table 12: Summary of Salary Comparisons.**

As with any benchmarking exercise the results could be read or used in a number of ways. The broad spread in results is not untypical of such exercises and could be due to:

- slight differences in timings e.g. surveys are always slightly out of date by the time they are published,

- the broad categories that were provided by SEMO and the challenge of matching these to equivalent posts or ranges in posts in the reference data.

SEMO has offices located in both jurisdictions of the market. The benchmarks exercises have provided to the RAs extensive information on the difference of employment costs between NI and ROI. Northern Irish pay levels are significantly lower than ROI's which may in part be due to the differences in cost of living and fluctuating foreign exchange rates.

Considering the above the SEM Committee is of the view that payroll savings are achievable in the range between 7% and 14.26% (5% per year) over 3 years. Comments on the appropriate target are welcome.

RAS PROPOSAL 5: THE TOTAL PAYROLL ALLOWANCE TO BE REDUCED IN THE RANGE BETWEEN 7% AND 14.26% (5% PER YEAR) OVER 3 YEARS.

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#### 9.1.3 INCREASE IN PENSION DEFICIT CONTRIBUTION

SEMO has included in their submission a provision for pension deficit repair of € 201,000 per annum.

The RAs are of the view that the revenue requirement for OPEX should be set at the level that would be possible for a new entrant to undertake SEMO's operational duties. Any costs in excess of that required by an efficient notional company should be borne by SEMO's shareholder.

Therefore it is proposed that the treatment of the pension deficits will not be dealt with as part of this price control process.

RAs PROPOSAL 6: DISALLOW THE INCREASED PENSION FUND PAYMENTS

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#### 9.1.4 PROPOSED INCREASED USE OF CONTRACTORS

The following excerpt was taken from SEMO's submission:

*"To date, the use of contract staff as and where the need has arisen has proved successful, particularly in relation to one off projects and can in certain instances represent the most efficient means of resourcing. In light of this SEMO will continue to retain short and medium term contract staff, as appropriate, for future projects. The Capex paper, to be submitted at the end of March, will outline in greater detail these proposals. The retention of new permanent staff as required by future*

*developments to the market have not been outlined here. SEMO believes that any resources required against new areas of work should be best considered at the appropriate time and in consultation with the Regulatory Authorities as part of the annual adjustment process”.*

#### **RAs view:**

The RAs accepts that contractors offer flexibility in dealing with an uncertain workload and in meeting the demand for specialist skills for a short term requirement. However, the SEM has now been in operation for several years. SEMO has established a structured plan for handling developments to the systems through a series of releases. Both of these suggest that the workload should be more predictable. (The content of a systems release may not be known at the early planning stage, but the nature and quantity of the work is likely to be, or can be managed to be, known and consistent from release to release.) In these circumstances, the experience from Elexon is that the need for contractors decreases rather than increases. Furthermore, after three years, the pace of change and the corresponding workload for SEMO would be expected to decrease. This was the case for ELEXON after NETA and BETTA. ELEXON has maintained a steady decrease in the use of contractors since its establishment and is now using very few (5 in the latest annual report).

RAs PROPOSAL 7: DISALLOW THE PROPOSED INCREASED USE OF CONTRACTORS

#### 9.1.5 ADDITIONAL RESOURCE

SEMO is proposing to hire a new Administration Assistant. The following excerpt was taken from SEMO’s submission:

*“Currently SEMO does not have an administrative support resource assisting the Managing Director or the business group Managers. Thus, these personnel are responsible for completing their own administrative needs or allocating this work to other staff for whom these are not core duties.*

*Dual site operations, between Belfast and Dublin offices, add an additional requirement to administrative undertakings, which would be best centralised as the responsibility of one core member of staff. “*

RAs PROPOSAL 8: THE RAS ARE OF THE VIEW THAT THIS IS A REASONABLE REQUIREMENT AND ARE MINDED TO APPROVE.

### 9.1.6 REAL PRICE EFFECT

The following excerpt was taken from SEMO's submission:

*"The nature of the SEMO business means that it will be subject to Real Price Effects to the extent the costs of its inputs are expected to differ from the evolution of RPI/CPI. SEMO's business is largely labour intensive (whether in house or outsourced) and therefore the evolution of real wages represents one of the most important drivers of these real trends. In the medium term real wages within the economy would be expected to increase in line with real labour productivity. Both past real wage trends and future productivity forecasts suggest this is of the order of 1.5% - 2.5% per annum. "*

**RAs View:** When considering whether or not the proposed Real Price Effect is appropriate, it is important to consider the evolution of wage growth, and how wages changing in relation to prices. The table below shows that the ESRI is projecting that wages will fall by 2.5 per cent this year:

	2007	2008	2009	2010
CPI inflation	4.9%	4.1%	-4.5%	-0.5%
Wage growth	3.5%	3.5%	-1.0%	-2.5%

**Table 13: Source: ESRI, Quarterly Economic Commentary, Winter 2009, Research Bulletin 09/4**

The data suggest that wages (which account for a large proportion of SEMO's cost base) are at present falling faster than prices and, therefore, in real terms wages are falling, which suggests that an allowance for Real Price Effects may not be appropriate. A reasoned forecast for 2011 is needed, pending which it might be most realistic not to assume any significant increase.

**Submission proposition:**

*"SEMO is also subject to two additional factors which will affect the level of real wage pressure it faces. The first relates to the growing demand for labour in the energy sector and short term labour supply inelasticity. This is expected to lead to an upward pressure on wage levels in the energy sector. SEMO believes this is likely to add approximately 0.5% - 0.7% per annum to its revenue requirements. This is consistent with the 0.7% per annum provided by Ofgem as part of DPCR5. "*

**RAs View:**



The energy sector is certainly relatively buoyant, owing mainly to the sustainability agenda and, in the Island of Ireland, the introduction of the SEM. This can have two opposite effects. The demand for trained and experienced staff is likely to be high across the sector. However, universities and other training and educational institutions are likely to respond by creating new courses and offering more places in related subjects. This may counteract the demand effect particularly at graduate intake level.

**Submission proposition:**

*“Secondly, the nature of SEMO as a start up organisation means that the underlying real marginal value product of its primary resource, its human capital, is rapidly increasing and this must be remunerated if SEMO is not to suffer the consequences of high labour turnover and become a training ground for other participants in the industry. This effect alone could be expected to add an additional 0.25% - 0.5% per annum to input costs. ”*

**RAs View:**

The RAs accept that it is true that the experience and knowledge gained by SEMO staff will be seen as valuable by market participant companies (including Eirgrid and SONI). It is also true that an organisation the size of SEMO will find it difficult to provide career progression for staff. These considerations also apply to Elexon. Rather than seek to resist these pressures it is possible to build upon them. The staff have the opportunity to be well trained in a highly visible role. They will thereby gain significant and valuable prospects in the wider industry. This is likely to be attractive and an enhancement to recruitment. It is also possible and even beneficial to plan for a fairly high rate of turnover driven by these effects. Experienced and skilled staff that move out to the industry are likely to raise the overall level of performance across the board. They will also enhance the reputation of SEMO. This approach should mitigate an upward pressure on the generality of salaries. It may be efficient to ensure that one or two key positions are kept stable to provide some continuity, including, if necessary, through salaries. Even if there is a justifiable requirement to pay a premium to some key staff it is not obvious that this premium needs to increase at above the prevailing rate of salary inflation.

**Submission proposition:**

*“The nature of the business’ undertakings are such that SEMO demands a highly specialised and skilled workforce, which requires significant investment in training and development where skilled staff are not readily available”.*

**RAS view:** The central position of SEMO, its importance to the operation and development of the SEM and the visibility of its achievements and outputs means that performance does have to be good. Some of the posts, particularly those which are customer facing and which deal with market development and operational issues, will require specific and specialised knowledge. Not all of the staff need to be highly specialised. Many of the IT and business processes are reasonably generic.

SEMO have argued for a “real price effect” to be applied to the salary costs over and above RPI/CPI. The RAs does not find the case for different elements of this argument to be convincing as set out above.

RAS PROPOSAL 9: NO “REAL PRICE EFFECT”

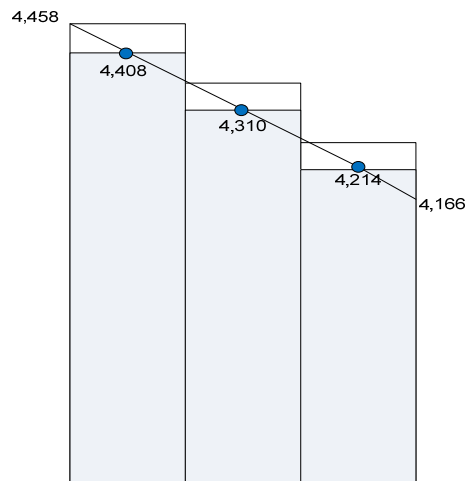
### 9.1.7 CONCLUSION ON PAYROLL

The table below summarizes the RAs proposals for payroll allowance. For illustrative purposes the payroll allowance has been corrected by 7% which is the bottom of the reduction range that the RAs are consulting upon (The range is 7% to 14.26% (or 5% p.a.) over three years). This approach is a conservative estimate of tariffs requirements.

	SEMO's Proposal			RAs Proposal		
	2010/ 11	2011/ 12	2012/ 13	2010/ 11	2011/ 12	2012/ 13
Payroll allowed in 2009/2010 SEMO Revenue & Tariffs Decision Paper	4,264			Payroll cumulative expenditure to May 2010 scaled to 12 months	4218	
Additional 2 approved by the RAs in November 2009	160			Additional 2 approved by the RAs in November 2009	160	
Increase in use of Contractors	136			Increase in use of Contractors	-	
Additional Headcount (average)	80			Additional Headcount (average)	80	
Grade Increases	-	40		Grade Increases		
RPE 2.75% ROI, 2% NI	70	106	104	RPE 2.75% ROI, 2% NI		
				<b>Subtotal</b>	<b>4,458</b>	
<b>Payroll Correction -7% over three years:</b>						
Year 1: - 1.1%,						
Year 2: - 2.3%						
Year 3: - 2.3%.						
<b>Payroll allowance</b>	<b>4,710</b>	<b>4,856</b>	<b>4,960</b>	<b>Payroll allowance</b>	<b>4,408</b>	<b>4,310</b>
Increase in Pension Deficit Contribution	201			Increase in Pension Deficit Contribution		
<b>Corrected Payroll allowance</b>	<b>4,911</b>	<b>5,057</b>	<b>5,161</b>	<b>Corrected Payroll allowance</b>	<b>4,408</b>	<b>4,310</b>
					<b>4,214</b>	<b>4,214</b>

**Table 14 Payroll Correction**

The payroll allowance target by the end of the three year period is €4,089k, 7% lower than 4,458 (4,218+160+80=4,458), this allowance should be used as a baseline for the next price control. The table below illustrates the process used to correct the payroll over three year.



**Figure 2 Payroll Correction Process**

## 9.2 IT & TELECOMMUNICATIONS

Considering the complex IT systems deployed to support the SEM, it is not surprising that a significant cost area within the SEMO operational costs is IT & Communications. Nevertheless this is an area that is critical to the market. The cost components associated with IT & Communications are as follows:

- **Warrant Support & Maintenance: Market Systems** – these costs are largely made up of 3 elements Support contracts for base Vendor maintenance (ABB), third party software and hardware items.
- **Warrant Support & Maintenance: Corporate Systems** – these costs cover requirements such as Outsourcing of network and security IT services, Website Hosting, Hardware Support, Microsoft Licences, Oracle Licences, Antivirus, printers & Networks equipment.
- **Other system maintenance** - This covers the costs associated with the support agreement for Axapta, and other items such as Supportworks.
- **Telecoms Costs** – This covers the cost of the data links between the SEMO premises in Dublin and Belfast

In its submission SEMO has proposed the following allowance for IT & Communications:

	Historical Information		SEMO's Proposal		
	Actuals to May 2010 (current prices)	End of the year estimate figures	2010-2011	2011-2012	2012-2013
Warranty, Support & Maintenance	765	1,300	1,820	2,027	2,010
Telecommunications	182	284	278	278	438
<b>Total IT &amp; Communications</b>	<b>947</b>	<b>1,584</b>	<b>2,098</b>	<b>2,304</b>	<b>2,448</b>

**Table 15: IT & Communications**

SEMO has provided a detailed submission on this area of cost. While the RAs are satisfied with the level of detail from SEMO's estimations, the current level of expenditure on IT & Communications will be to some extent considered on the RAs determination.

The approved allowance for IT & Telecommunication for the Current Price Control is €2,139 Million. According to the figures provided by SEMO in their last financial report (2<sup>nd</sup> quarter of the current price control), the actual expenditure on this area of cost is: €849k. If the 2<sup>nd</sup> quarter figures were scaled up to 12 months the total expenditure would be €1,426 Million.

The RAs have queried with SEMO this discrepancy of values (actual vs. forecast) and the following explanation was provided.

*“Operational and Maintenance of Systems is 34% of the RA approved allowance for the year. This cost heading is not incurred in a constant manner across the year. The quarter 2 figures are not an accurate indication of the expected full year figures for the same reason.”*

The RAs will keep track of the evolution of this expenditure. By the time of the publication of the decision paper the figures from the 3<sup>rd</sup> quarter should be available for the RAs scrutiny. The decision will be made considering the actual expenditure and future demands.

RAS PROPOSAL 10: SEMO'S TELECOMMUNICATIONS PROPOSED BUDGETS BE ALLOWED BUT THAT WARRANTY, SUPPORT AND MAINTENANCE BE LIMITED TO 1,600, 1,800 AND 1,800 IN YEARS 1, 2 AND 3 RESPECTIVELY.

### 9.3 FACILITIES

SEMO has office space in both jurisdictions. SEMO will continue to co-locate on property provided by both parent companies and will be charged accordingly. Facilities costs cover all shared space and include cleaning services, maintenance, car parking, security, mail service, copy bureau, switch board and catering and canteen services as well as rent, insurance and utilities.

	Historical Expenditure		SEMO's Proposal		
	Actuals to May 2010 (current prices)	End of the year estimate figures	2010-2011	2011-2012	2012-2013
Rent & Facilities- EirGrid			977	977	977
Rent & Facilities SONI			169	169	169
Subtotal			1,146	1,146	1,146
General Insurance			50	50	50
Total Facilities and Insurance	750.0	1,202.0	1,196	1,196	1,196

**Table 16: Rent and Facilities**

The proposed overall expenditure on Facilities is somewhat lower than the allowance approved for the current price control **€1,304** Million.

RAS PROPOSAL 11: SEMO'S PROPOSED BUDGET FOR FACILITIES TO BE ALLOWED.

### 9.4 PROFESSIONAL FEES

Professional fees cover SEMO requirements for external professional services in respect of:

- General Consultant support
- Disputes and Modifications Committee support
- Regulatory and Legal support
- Market Audit
- Corporate Audit
- Communications and Recruitment

The following excerpt was taken from SEMO's submission:

*“There exist a number of known major market developments with potentially significant impacts for the SEM that are being considered and consulted upon but which have yet to be finalised. It is important that SEMO remains abreast of such developments in Ireland, UK and also Europe in order to be positioned to take forward any resulting changes that may be required.*

*When SEMO reviewed the need for professional advice during the three year period forecast it was felt that an increase in this expenditure is warranted for the first two years as known major initiatives which have yet to be decided upon will be considered in this period. In year three it is expected that decisions will have been made in relation to these known initiatives and, whilst some ongoing provision has been included for further work, it is acknowledged that the need for consultative assistance will be diminishing. This is reflected in the costs provided.*

*It is also worth noting that the known initiatives currently or soon to be under consultation relate to a wider range of subjects than have been previously considered. The scope of these consultations collectively increases the total allowance requirement compared to previous years. Further, SEMO has not applied any increase to Professional Fees at a rate level.*

*In addition, the Regulatory Authorities and SEMO are currently considering a number of initiatives for emerging market conditions and improvements to the market. These undertakings will require assessment of the benefits to customers and participants and, upon approval, lead to changes to the market systems, rules, processes and procedures. In order to address this area of work SEMO Market Development requires support to conduct studies, assessments and reviews on emerging issues currently on the agenda of Government and Regulatory Authorities forward work programs. The key areas to be addressed include Interconnectors, Market Coupling, the Impact of Wind Penetration on the SEM, Demand Side Management (DSM) developments and the Review of Capacity Payment Mechanisms”.*

SEMO's proposed allowance for professional fees increases significantly compared to what has been allowed for the current price control despite its actual spend being well below its allowance in previous years. However, we note that SEMO has also explicitly stated that it will need to use more contractors in the coming years. SEMO's proposed allowance for professional fees are as follows:

	Historical Expenditure		Current Prices €'000		
	Actuals to May 2010 (current prices)	End of the year estimate figures	2010- 2011	2011- 2012	2012- 2013
Legal	1	22	50	50	50
Recruitment	20	34	40	40	40
Internal Audit	0	17	25	25	30
Market Audit	160	251	250	300	300
Committees	6	45	53	53	53
Consultancy	52	122	411	398	258
RPE @ 2.25%			19	19	16
<b>Total</b>	<b>239</b>	<b>491</b>	<b>848</b>	<b>885</b>	<b>747</b>

**Table 17: Professional Fees**

RAS PROPOSAL 12: SEMO TO BE ALLOWED A BUDGET OF 640K PER YEAR FOR PROFESSIONAL FEES.

## 9.5 GENERAL AND ADMINISTRATIVE COSTS

General and Administrative costs cover the remaining expenses expected to be incurred operating the SEMO business. It includes Travel and Subsistence, Office Supplies, Bank Charges and Staff Training. The costs associated with each of these areas are detailed below.

Description	Historical Expenditure		SEMO's Proposal		
	Actuals to May 2010 (current prices)	End of the year estimate figures	2010- 2011	2011- 2012	2012- 2013
Travel & Subsistence	84	128	168	168	168
Stationery	1	5	10	10	10
Bank Charges	31	38	35	45	45
Training	37	67	124	124	124
Miscellaneous/ Meetings	16	24	31	31	31
<b>Total</b>	<b>169</b>	<b>262</b>	<b>368</b>	<b>378</b>	<b>378</b>

**Table 18: General and Administrative Costs**

The figure of €368k is equivalent to the approved allowance for the current price control. However when this figure is compared with the actual expenditure of €45k (first two quarters), SEMO's proposal is significant above to the historic expenditure. The RAs have the following explanation from SEMO:

*"General and Administration costs for the quarter are 13% of the approved allowance. This % is distorted by foreign exchange gains of €80k. Excluding the foreign exchange gain brings the total general and administration spend to 37%."*

The RAs will keep track of the evolution of this expenditure. By the time of the publication of the decision paper the figures from the 3<sup>rd</sup> quarter should be available for the RAs scrutiny. The decision will be made considering the actual expenditure and future demands.

RAS PROPOSAL 13: THE RAS PROPOSE THAT SEMO BE ALLOWED A BUDGET FOR GENERAL AND ADMINISTRATIVE COSTS OF 275K PER YEAR.

## 9.6 CORPORATE SERVICES

The SEMO submission made reference to corporate services being charged from the parent companies.

*“To date, the SEMO Price Controls have made reference to Group Services being charged from the parent companies. These relate both to services directly provided for SEMO from other business units, for example HR, and to a cost allocation of the overhead associated with the Group activities: Chief Executive, Group Finance, Regulation etc The approach within the EirGrid Group has been to keep general overhead allocated only to costs associated with Group activities, with SEMO retaining separate and separately accountable information services, accounting, and other management functions consistent with its licence. The provision is for €300k per annum consistent with the assumptions made for the other controls within the Group.”*

	Historical Expenditure		SEMO's Proposal		
	Actuals to May 2010 (current prices)	End of the year estimate figures	2010-2011	2011-2012	2012-2013
Group Services (allocated charge)			200	200	200
Activities sourced from within Group			100	100	100
<b>Total Corporate Services</b>	115	195	300	300	300

**Table 19: Corporate Services**

The RAs have approved an allowance of 49k for the current price control. SEMO's actual expenditure on corporate services (first two quarters) is 80k. According to SEMO, *“Corporate services costs now reflect actual monthly charges and we are expecting this monthly rate of costs to continue for the second half of the year.”*

The RAs are of the view that SEMO has not demonstrated that the proposed €300K annually represents the market value of essential business services actually delivered and are therefore minded to not to provide for these without further discussion and engagement with both SEMO and its parent organizations.

RAS PROPOSAL 14: SEMO'S PROPOSED BUDGET OF 300K PER YEAR FOR CORPORATE SERVICES TO BE DISALLOWED.



The table below summarises the RAs proposals for OPEX.

	Historical Information				SEMO's Proposal			RAs Proposals		
	Actuals to May 2010	Actuals Scaled 12 Months	SEMO's Estimates	Allowed Revenue 2009-10	2011	2012	2013	2011	2012	2013
<b>OPEX</b>										
Salaries					3,132	3,239	3,316			
Contractors					236	229	219			
Bonus					378	390	400			
Employer's PRSI					390	404	413			
Employer's Pension Contribution					596	614	629			
On Call / Shift					117	120	121			
Car Other Benefits					61	61	61			
<b>Total Payroll</b>	<b>2,703</b>	<b>4,055</b>	<b>4,070</b>	<b>4,262</b>	<b>4,911</b>	<b>5,057</b>	<b>5,161</b>	<b>4,408</b>	<b>4,310</b>	<b>4,214</b>
<b>IT &amp; Communications</b>										
Warranty, Support & Maintenance	765	1,148	1,300		1,820	2,027	2,010	1,600	1,800	1,800
Telecommunications	182	273	284		278	278	438	278	278	438
<b>Total IT &amp; Communications</b>	<b>947</b>	<b>1,421</b>	<b>1,584</b>	<b>2,139</b>	<b>2,098</b>	<b>2,305</b>	<b>2,448</b>	<b>1,878</b>	<b>2,078</b>	<b>2,238</b>
<b>Facilities</b>										
Rent & Facilities- EirGrid					977	977	977			
Rent & Facilities SONI					169	169	169			
General Insurance					50	50	50			
<b>Total Facilities and Insurance</b>	<b>750</b>	<b>1,125</b>	<b>1,153</b>	<b>1,304</b>	<b>1,196</b>	<b>1,196</b>	<b>1,146</b>	<b>1,196</b>	<b>1,196</b>	<b>1,196</b>
<b>Professional Fees</b>										
Legal	1	2	22		50	50	50	30	30	30
Recruitment	20	30	34		40	40	40	35	35	35
Internal Audit	0	0	17		25	25	30	25	25	30
Market Audit	160	240	251		250	300	300	250	300	300
Committees	6	9	45		53	53	53	50	50	50
Consultancy	52	78	122		411	398	258	250	200	200
RPE @ 2.25%					19	19	16	0	0	0
<b>Total Professional Fees</b>	<b>239</b>	<b>359</b>	<b>491</b>	<b>673</b>	<b>848</b>	<b>885</b>	<b>747</b>	<b>640</b>	<b>640</b>	<b>645</b>
<b>General and Administrative</b>										
Travel & Subsistence	84	126	128		168	168	168	130	130	130
Stationery	1	2	5		10	10	10	5	5	5
Bank Charges	31	47	38		35	45	45	40	40	40
Training	37	56	67		124	124	124	70	70	70
Miscellaneous/ Meetings	16	24	24		31	31	31	30	30	30
<b>Total General and Administrative</b>	<b>169</b>	<b>254</b>	<b>262</b>	<b>342</b>	<b>368</b>	<b>378</b>	<b>378</b>	<b>275</b>	<b>275</b>	<b>275</b>
<b>Corporate Services</b>										
Group Services (allocated charge)					200	200	200	0	0	0
Activities sourced from within Group					100	100	100	0	0	0
<b>Total Corporate Services</b>	<b>115</b>	<b>173</b>	<b>195</b>	<b>49</b>	<b>300</b>	<b>300</b>	<b>300</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total OPEX</b>				<b>8,769</b>	<b>9,721</b>	<b>10,121</b>	<b>10,180</b>	<b>8,397</b>	<b>8,499</b>	<b>8,568</b>

Table 20: OPEX Summary

## 10 CAPITAL EXPENDITURE - CAPEX

The CAPEX allowance enables SEMO to recover from tariffs the necessary resources to finance their capital investments. The following five types of CAPEX have been identified as part of SEMO's submission:

1. Predictable Business CAPEX;
2. Unpredictable Business CAPEX;
3. Biannual IT Market Release CAPEX;
4. Biannual IT Market Release Support CAPEX;
5. Unknown Future Major Market Change CAPEX.

The business CAPEX will cater for hardware, software and telecommunications upgrades. The Biannual IT Release CAPEX will allow SEMO to deliver market modifications, non Trading and Settlement Code changes, system defects and operational efficiencies. The unpredictable business CAPEX is a discretionary fund that would be used to cover the costs of small but unforeseen capital investments. Finally, the Unknown Future Major Market Change CAPEX would cater for future major market changes that cannot be accounted for at this time.

### 10.1 PREDICTABLE CAPITAL EXPENDITURE

In its submission, SEMO have proposed an allowance for predictable capital expenditure. A Predictable Business Capex allowance enables SEMO to plan for hardware and software upgrades and the implementation of additional operational support systems as and when the need arises.

The table below sets out the projects for which SEMO is seeking approval. A total of 17 business cases have been submitted for investments such as IT infrastructure requirements, the need for additional operational support systems, reporting requirements, data storage, system monitoring tools etc. The detail of each business case can be viewed in the Paper 5 on Capital Expenditure (submitted by SEMO) published alongside this consultation paper.

Item	Predictable CAPEX Item	2010-11	2011-12	2012-13	Total €
1	Hardware Upgrade	1,190,000	530,000	530,000	2,250,000
2	System Monitoring Reporting	100,000			100,000
3	Systems Management	100,000			100,000
4	Virtualisation	30,000	30,000	10,000	70,000
5	Oracle Logging	120,000			120,000
6	Sharepoint and Document Management	100,000	60,000	40,000	200,000
7	Data Storage	70,000	30,000		100,000
8	Data Warehouse		200,000	100,000	300,000
9	Reporting Database Upgrade	150,000			150,000
10	Oracle Database Server Version 2		1,500,000		1,500,000
11	New Communications Links			2,000,000	2,000,000
12	CMS Pre Production Environment (IPT)	700,000			700,000
13	Axapta Upgrade	120,000		120,000	240,000
14	On-Line Help System		300,000		300,000
15	Electronic FAX Solution	100,000			100,000
16	On-Line Registration System	400,000			400,000
17	Training Environment (Internal)	250,000			250,000
	<b>Total</b>	<b>3,430,000</b>	<b>2,650,000</b>	<b>2,800,000</b>	<b>8,880,000</b>

**Table 21: Predictable Capital Expenditure**

The RAs have scrutinised SEMO's CAPEX proposals with the following questions in mind.

1. Is the level of cost justified, i.e. is it required? How robust is the business case for each project?
2. What are the efficiency gains from increased CAPEX on OPEX?
3. Are the estimated costs competitive.

The sections below will address the questions outline above.

#### 10.1.1 ROBUSTNESS OF THE BUSINESSES CASES

The RAs have assessed the 17 businesses cases submitted by SEMO. The businesses cases were evaluated according the following criteria:

- Direct benefit for market participants
- Criticality of the project implementation

The RAs are satisfied that SEMO has provided adequate support for each project and that the whole set of projects present direct benefits either for market participants or to SEMO's

operations. Further some projects are critical for the business continuity. The RAs are of the view that SEMO should have the ultimate responsibility on project selection and should be accountable for this.

Nonetheless, the RAs welcome views of Market Participants on the list of projects proposed by SEMO. The complete list of businesses cases which were submitted by SEMO have been published in addition to this paper. Please refer to Paper 5 on Capital Expenditure from SEMO submission.

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#### 10.1.2 EFFICIENCY GAINS FROM INCREASED CAPEX ON OPEX

This matter has been discussed by the RAs and SEMO. Although SEMO has presented to date persuasive arguments to defend the gains of operational efficiency derived from each project, there is no identified reduction on the OPEX allowance linked with any of the CAPEX projects.

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#### 10.1.3 COST COMPETITIVENESS

SEMO has provided the cost of each project based on their best estimates. There has been no formal competitive procurement process in order to establish the overall cost. The RAs are of the view that there is a degree of uncertainty on SEMO's estimates and therefore SEMO should be incentivized to maximize any opportunity for cost reductions.

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#### 10.2 UNPREDICTABLE BUSINESS CAPEX

SEMO proposes an allowance of €250,000 per annum to cover unplanned spending to meet the day to day needs of SEMO on small investments such as software upgrades, availability of new products on the market that would address longstanding issues.

The RAs are of the view that SEMO should be allowed to have a level of unplanned expenditure in a given time period. However, as the RAs are considering an incentive driven approach to Capital Expenditure, this allowance should not be approved separately but as a part of the overall CAPEX allowance. This €250k will be taken in to consideration in the setting of the baseline allowance for CAPEX.

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#### 10.3 BIANUAL IT MARKET RELEASE CAPEX

SEMO presented to the RAs on 08 September 2009 a proposal for a Three Year Agreement on Vendor Costs and Delivery (ABB/Navita). The Regulatory Authorities reviewed the submitted

terms and were satisfied that the rate and hours were reasonable and that there was not a large risk of being subject to higher rates for extra work.

Therefore the RAs approved the following proposed contract terms:

The vendors will deliver six bi-annual releases over a period of three years, commencing with the April 2010 release

- Each release guarantees 6,125 hours of billable work for the software vendors as specified in a formal contract.
- The total minimum commitment for the three year period will be 36,750 hours.
- The dates for delivery of the releases to SEMO will coincide with the bi-annual release strategy (April and October of each year). The schedule may be readjusted during the year by mutual agreement of SEMO and ABB based on project developments during the year.
- The blended rate for the billable hours is €185 per hour for 3 years, translating to a payment of €1,133,125 per release.
- There is a 3-year rate lock for the entire contract, translating to a total contract value of €6,798,750.
- Additional hours are subject to adjustment based on currency fluctuation.

SEMO has therefore negotiated six biannual releases over a period of three years, commencing with the April 2010 release until October 2012. The table below outlines the schedule of payments. It is assumed that the second half of the last year of the price control (April – September 2013) will involve similar costs.

Release Date	Payment €
Oct-10	1,133,125
Apr-11	1,133,125
Oct-11	1,133,125
Apr-12	1,133,125
Oct-12	1,133,125
Apr-13	1,133,125
<b>Total Release amount</b>	<b>6,798,750</b>

**Table 22: Biannual IT Release CAPEX**

The costs above outlined were approved by the RAs under the prevailing rate of return regime, therefore in order to avoid changes which apply retrospectively; with adverse consequences for the regulated businesses the allowance for Biannual IT Release CAPEX will be recovered through rate of return (RAB, WACC and Depreciation).

## 10.4 BIENNIAL IT MARKET RELEASE SUPPORT CAPEX

In addition to the above funding for the main vendor contract, SEMO proposes in their submission that each release would introduce a series of ancillary costs (to be incurred by SEMO). These ancillary costs are as follows:

***“Travel and Subsistence Costs** for SEMO staff to witness Factory Acceptance Testing (FAT) of the new software applications at the vendor site. Factory Acceptance Testing is a test phase where the vendor demonstrates that they have met SEMO requirements before SEMO deploys the applications on our own installation and commit significant resources to a full System Integration Test Phase. The necessity of a FAT test phase is "scope dependent" and would apply to significant software releases.*

***Subcontractor Costs** - costs of modifications to the SEMO Market and Corporate Finance application (Axapta) which has been implemented in conjunction with Bearing Point. The costs associated with the three year vendor agreement apply to software changes to the suite of applications delivered by our Prime Contractor (ABB) and ABB's sub-contractor (Navita) - these include MA, MI, UUC, RCUC, Settlements and TRM. The Finance System is not subject to regular change and any changes implemented in the recent past have been minor in nature.*

***ABB US on Site Support** relates to support provided by our vendors leading up to, and during, deployments. Vendor support of this nature is required particularly where a release incorporates upgrade to third-party software components on which the applications are deployed. In addition, SEMO requires vendor support from the US to support these deployments in an effort to mitigate risks to the Central Market Systems arising from unexpected issues for which vendor expertise is required.*

***Testing System Support** relates to the costs associated with the procurement of additional test resources for releases of a significant nature. The nature of the biannual release strategy means that the test phase of one release and the requirements gathering of the next release are activities that are being executed in parallel. This will result in peaks of workload for which SEMO requires the ability to address from a temporary resource perspective. In addition certain releases will require specialised testing (e.g. performance testing) for which SEMO cannot justify retaining a full time staff member - these costs also seek to address this requirement.*

***ABB Upgrades** - Our vendors are constantly seeking to improve their standard application suite and, as part of a natural systems evolution cycle, upgrade their applications to provide more functionality which in turn will deliver more efficiencies in how the applications are operated and managed. SEMO sees the benefit of following our vendors upgrade path as there is potential for significant improvements in the operability and maintainability of the Central Market Systems.”*

	2010-11	2011-12	2012-13	Amount €
FAT Testing travel and subsistence	70,000	70,000	70,000	210,000
Bearing Point System Release	40,000	40,000	40,000	120,000
ABB US on site support	50,000	50,000	50,000	150,000
Testing System Support	90,000	90,000	90,000	270,000
ABB Upgrades	200,000	300,000	300,000	800,000
<b>Total IT Release Support amount</b>	<b>450,000</b>	<b>550,000</b>	<b>550,000</b>	<b>1,550,000</b>

**Table 23: IT Release Support CAPEX**

It is noted that these related SEMO costs amount to almost one quarter of the main project costs. There is no historic evidence to date to support this allowance. The first two releases (October 2009 and April 2010) were relatively small and did not require these ancillary costs on the magnitude envisaged by SEMO for future releases. Further, although the ABB upgrades represent nearly 50% of this proposed allowance, there is no way of telling how many ABB upgrades that might be necessary.

## 10.5 MAJOR CAPITAL EXPENDITURE

Major CAPEX should be derived mainly of major changes to the Trading and Settlement Code and supporting systems. The RAs are of the view that major changes to the TSC will only occur in exceptional circumstances. For any major capital expenditure SEMO are required to present their expenditure plans to the RAs which in turn will determine the amounts and mechanisms for recovery of the required revenue.

## 10.6 RAs PROPOSALS FOR CAPEX DETERMINATION

SEMO has the control over the following CAPEX items:

- Predictable Business CAPEX
- Unpredictable Business CAPEX
- Bi-annual IT Market Release Support CAPEX

The Bi-annual IT Market Release has already been approved by the RAs and there is a contract in place between SEMO and the software vendor, therefore this area of expenditure is out of SEMO's control. The table below presents the amounts involved in the determination of SEMO's CAPEX baseline:

CAPEX item	2010-11	2011-12	2012-13	Amount €
Bi-annual IT Market Release Support	450,000	550,000	550,000	1,550,000
Predictable Business CAPEX	3,430,000	2,650,000	2,800,000	8,880,000
Unpredictable Business CAPEX	250,000	250,000	250,000	750,000
<b>Total</b>	<b>4,130,000</b>	<b>3,450,000</b>	<b>3,600,000</b>	<b>11,180,000</b>

**Table 24: Amounts involved in CAPEX the incentive scheme – SEMOs proposal**

Based on the analysis of each CAPEX component the proposed CAPEX of € **11,180,000** is considered to be reasonable subject to an efficiency stretch of 5%. Therefore the RAs proposes that the baseline for controllable CAPEX to be set at € **10,621,000**.

The RAs are considering two different approaches for the CAPEX determination.

1. The first is the traditional one where the RAs present to SEMO a single option of allowance, a 'take it or leave it' regulatory offer.
2. The second alternative is to present a menu of regulatory options embodying varying powers of incentives. The options are structured so that SEMO has an incentive to choose the option that matches most closely the outcome expenditure expected by SEMO.

The next section describes the two considered approaches. The RAs would specially welcome views from the public and market participants on this area.



### 10.6.1 SINGLE REGULATORY OFFER

The single regulatory offer is a straight forward approach. SEMO's allowance should be set at € **10,621,000** as per the baseline set in the previous section. SEMO will be incentivised to under spend this allowance by retaining 50% of savings derived from efficiency gains. Symmetrically, 50% of any over expenditure should be absorbed by SEMO. The table below outlines the regime of rewards and penalties that SEMO would be subjected to.

		Allowed Expenditure in thousand of Euros		
		10,621		
Outturn expenditure	8,497	1,062	Reward/Penalties	
	9,028	797		
	9,559	531		
	10,090	266		
	10,621	0		
	11,152	-266		
	11,683	-531		
	12,214	-797		
	12,745	-1,062		
	13,276	-1,328		
13,807	-1,593			

Table 25: RAs proposal for single allowance

The reward or penalties are set according to the following equation:

$$\text{Reward or Penalty} = \frac{(\text{Allowed Expenditure} - \text{Outturn Expenditure})}{2}$$

### 10.6.2 MENU REGULATION

Given the asymmetry of information, the fact that a regulated company will always have better information about their potential for cost reduction than the RAs, the RAs are considering the use of menu regulation for capital expenditure. Menu regulation would be an alternative to a single regulatory offer ('take it or leave it'), instead the RAs would offer a range of options from which the SEMO can choose. The options are carefully structured so that SEMO has an incentive to choose the option that matches most closely the outcome it expects. Once an option has been chosen, SEMO still has an incentive to out-perform and would be encouraged to aim for efficient expenditure plans by strongly rewarding out-performance against more

challenging expenditure targets. The basis of menu regulation is to use a “revealed preference” approach to mitigate the information asymmetry between the regulator and the regulated firms and move towards a welfare-enhancing outcome. The regulator offers the regulated company a choice, or menu, of regulatory contracts embodying varying powers of incentives. In theory, each menu option would ideally achieve the same level of welfare for customers; and the flexibility that the regulated company has to select from the menu allows it to reveal its welfare-enhancing preference.

SEMO would essentially be allowed to choose between getting:

- a lower cost allowance with a high-powered incentive scheme allowing them to retain significant benefits from under-spending; or
- a higher cost allowance with a low-powered incentive scheme giving relatively small rewards for under-spending.

With menu regulation SEMO will recover its actual expenditure plus or minus rewards or penalties which depend on the expenditure forecast it chooses and how actual expenditure compares to forecast.

We discuss below some examples of menu regulation implemented by utility regulators:

**Electricity, UK**

- The electricity distribution price control review 2004 (DPCR4) contained a form of menu regulation (sliding scale mechanism) as a means to offset the incentive for distribution network operators (DNOs) to “game” the system.
- Following on from the scheme used in DPCR4, the draft proposals for DPCR5 (electricity distribution price control review 2009) outlined the information quality incentive (IQI) scheme proposed for the next price control period. The IQI encourages the DNOs to submit good quality forecasts by providing lower returns to companies that over-forecast their expenditure requirements. The IQI achieves this by:

**Gas, UK**

- The gas distribution price control review (GDPCR) 2007 also entailed a form of menu regulation, dubbed the information quality incentive, to incentivise accurate forecasting by the gas distribution networks

**Water, UK**

- In the recently published draft determinations, Ofwat has applied a form of menu regulation based on a version of Ofgem’s model. The scheme, called the capital expenditure incentive scheme (CIS), has been designed to incentivise companies to improve their forecast of capex requirements as well as delivering it in the most efficient manner.

This involves the regulator in:

1. Deciding a 'baseline' level of expenditure for SEMO. This forms the basis against which menu choices are calibrated.
2. Comparing SEMO forecast to its baseline.
3. Providing an incentive for further out-performance of expenditure assumptions which declines as the ratio of SEMO's forecast to baseline increases.
4. Calculating menu rewards/penalties as the difference between the expenditure assumption and actual outturn expenditure multiplied by the incentive rate.

The table below lists (in the green row) 11 different packages which will be offered to SEMO (as a percentage of the baseline). The dark blue column lists the outturn expenditure over three years (as a percent of the baseline). Across the table, the reward or penalty associated with each choice of package. SEMO would maximize their reward by selecting the package which matches with their "true" expenditure expectations for the outturn figure (Dark Blue Column).

Allowed Expenditure (Menu Choices) in thousand of Euros											
	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11
	95.0%	96.3%	97.5%	98.8%	100.0%	101.3%	102.5%	103.8%	105.0%	106.3%	107.5%
75%	16.5%	16.3%	16.0%	15.6%	15.0%	14.3%	13.5%	12.6%	11.5%	10.3%	9.0%
80%	13.5%	13.4%	13.3%	12.9%	12.5%	11.9%	11.3%	10.4%	9.5%	8.4%	7.3%
85%	10.5%	10.6%	10.5%	10.3%	10.0%	9.6%	9.0%	8.3%	7.5%	6.6%	5.5%
90%	7.5%	7.7%	7.8%	7.7%	7.5%	7.2%	6.8%	6.2%	5.5%	4.7%	3.8%
95%	4.5%	4.8%	5.0%	5.1%	5.0%	4.8%	4.5%	4.1%	3.5%	2.8%	2.0%
100%	1.5%	1.9%	2.3%	2.4%	2.5%	2.4%	2.3%	1.9%	1.5%	0.9%	0.3%
105%	-1.5%	-0.9%	-0.5%	-0.2%	0.0%	0.1%	0.0%	-0.2%	-0.5%	-0.9%	-1.5%
110%	-4.5%	-3.8%	-3.3%	-2.8%	-2.5%	-2.3%	-2.3%	-2.3%	-2.5%	-2.8%	-3.3%
115%	-7.5%	-6.7%	-6.0%	-5.4%	-5.0%	-4.7%	-4.5%	-4.4%	-4.5%	-4.7%	-5.0%
120%	-10.5%	-9.6%	-8.8%	-8.1%	-7.5%	-7.1%	-6.8%	-6.6%	-6.5%	-6.6%	-6.8%
125%	-13.5%	-12.4%	-11.5%	-10.7%	-10.0%	-9.4%	-9.0%	-8.7%	-8.5%	-8.4%	-8.5%

Table 26: Menu of choices

The greatest possible total reward and the minimal penalty for each level of actual expenditure have been highlighted in the menu table above (light blue). The fact that the actual expenditure nearly matches SEMO's revealed expectations throughout the highlighted diagonal, implies that the menu options does incentivise SEMO to select their true expectations of cost from the options presented. The calibration of the reward and penalties of each package has been done according the OFGEM's Distribution Price Control Review 5 (DPCR5) that commenced on 1 April 2010.

**Worked examples:** The table below illustrates the nominal values involved in the incentive scheme.

Allowed Expenditure (Menu Choices) in thousand of Euros											
	Package 1	Package 2	Package 3	Package 4	Package 5	Package 6	Package 7	Package 8	Package 9	Package 10	Package 11
	8,497	9,028	9,559	10,090	10,621	11,152	11,683	12,214	12,745	13,276	13,807
8,497	1,434	1,427	1,407	1,374	1,328	1,268	1,195	1,109	1,009	896	770
9,028	1,115	1,122	1,115	1,095	1,062	1,016	956	883	797	697	584
9,559	797	816	823	816	797	763	717	657	584	498	398
10,090	478	511	531	538	531	511	478	431	372	299	212
10,621	159	206	239	259	266	259	239	206	159	100	27
11,152	-159	-100	-53	-20	0	7	0	-20	-53	-100	-159
11,683	-478	-405	-345	-299	-266	-246	-239	-246	-266	-299	-345
12,214	-797	-710	-637	-578	-531	-498	-478	-471	-478	-498	-531
12,745	-1,115	-1,016	-929	-856	-797	-750	-717	-697	-690	-697	-717
13,276	-1,434	-1,321	-1,221	-1,135	-1,062	-1,002	-956	-923	-903	-896	-903
13,807	-1,752	-1,626	-1,513	-1,414	-1,328	-1,255	-1,195	-1,148	-1,115	-1,095	-1,089

**Table 27: Menu of choices (worked example)**

### Example 1)

For example, Suppose that SEMO chooses package 5 (100% of the RAs baseline). It can be seen from the table that SEMO would be rewarded for €266k (or 5% of the baseline) for spending €10,621k (the baseline figure). This reward is a premium for keeping the capital expenditure exactly equal to the RAs expectations.

### Example 2)

Suppose that SEMO chooses package 9 (which corresponds to 105% of the RAs baseline) and the outturn expenditure on CAPEX by the end of three years is €9,028k (which corresponds to 80% of the baseline). SEMO would then retain €797k (or 9.5% of the baseline). Given the outturn figure of €9,028k (80% of the baseline), SEMO would be better off if they have chosen the package 2. In this case the reward would be €1,122k (13.4% of the baseline) rather than €797k.

The examples above illustrate the incentive to SEMO to choose the package that reflects their expectations on the outturn CAPEX most accurately.

For most of the scenarios SEMO's reward or penalty would be complemented by an adjustment to the next revenue determination. The following equation would be used to determine the adjustment to the next tariff period.

$$k = (\text{Outturn CAPEX} + (\text{Reward} : \text{Penalty})) - \text{Tariff Revenue}$$

Ultimately Menu Regulation would allow for a certain degree of disagreement between the RAs and SEMO's forecast. If SEMO disagree with the RAs forecast (baseline), it is a question of choosing a package with allowed expenditure above of the baseline. The price of this choice would be a lower reward on under expenditure and a higher penalty on over expenditure.

We are consulting on Menu Regulation as our preferred approach for SEMO regulation because we believe it can deliver benefits for all stakeholders in the SEM. In broad terms we think Menu Regulation can promote greater control and accountability, deliver value for customers through revealing and promoting efficiency, while allowing scope for simplification of intrusive regulatory methods.

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### 10.6.3 REGULATORY APPROACH TO MONITOR THE DELIVERY OF CAPEX ITEMS

The following bullets outline how the RAs will monitor the delivery of each CAPEX item regardless of the adopted approach, Single Regulatory Offer or Menu Regulation.

- In the event of any of the projects submitted being called off by SEMO, the RAs would revise the baseline and the revenue requirement downward. The same incentive scheme would apply. This mechanism would prevent SEMO to be rewarded simply by not implementing projects.
- SEMO would require the RAs approval in order to make any substitution to the list of projects submitted.
- The RAs will monitor the delivery of all projects composing the RAs baseline.
- Where the RAs deem that benefits gains have been as a result of forecast error rather than efficiency gains, benefits will be clawed back.

RAS PROPOSAL 15: THE RAS WELCOME VIEW FROM MARKET PARTICIPANTS PRIOR TO THE DETERMINATION OF THE CAPEX ALLOWANCE

## 11 REGULATED ASSET BASE (RAB)

As discussed in the Decision Paper for the initial SEMO revenue and tariffs period.<sup>2</sup>, the RAs have decided that the book value method will be used for the valuation of the SEMO RAB. This method will allow SEMO to recover the costs incurred in a stable, sustainable and predictable manner.

The value of the SEMO RAB as at the end of September 2009 was €26,226,287 (based on SEM Establishment €19,827,992 and Day 1+ €6,398,295). The SEM Establishment figure is the Net Book Value based on the Asset Value determined in the 2009-10 Price Control Decision Paper (SEM-09-089)). The Day 1+ figure is the Net Book Value based on the Final Regulatory approved amount including interest during construction (IDC) and inflation.

In 2009/10 additional assets were added to the SEMO RAB at an estimated value of €2,859,493 (**the final value has yet to be agreed with the RA's**). As a result SEMO has used this value in calculations for the Price Control Submission.

<b>Assets going Live in 2009/10</b>	<b>Amount €</b>	<b>Go Live Date</b>	<b>Depreciation to Sep 10</b>	<b>NBV at 01.10.2010</b>
SEMO IT CAGS – Novosco	8,494	Sep-09	1,557	6,937
October Release	135,077	Oct-09	27,015	108,062
Folding Machine	13,700	Apr-10	1,370	12,330
Website	702,044	Jun-10	46,803	655,241
April Release	1,133,125	Apr-10	113,313	1,019,813
Additional Costs April Release (recertification)	13,000	Apr-10	1,300	11,700
SAN	376,431	May-10	31,369	345,062
Sharepoint Infrastructure Upgrade	57,610	May-10	4,801	52,809
Hardware Replacement	13,712	Apr-10	1,371	12,341
Links Upgrade - estimate2	400,000	Aug-10	13,333	386,667
Disks for IBM Servers RCUC	6,300	Apr-10	630	5,670
<b>Total Assets going Live in 2009/10</b>	<b>2,859,493</b>		<b>242,863</b>	<b>2,616,630</b>

**Table 28: Status of SEMO's RAB**

The value of the Regulatory Asset Base in October 2010 is outlined in the table below

<b>Summary</b>	<b>RAB Value at 01 October 2010</b>
SEM Establishment	19,827,992
Day 1+	6,398,295
Capital Expenditure 2009-10	2,616,630
<b>Opening RAB Value October 2010</b>	<b>28,842,917</b>

**Table 29: SEMO's RAB - Opening Value**

<sup>2</sup> SEMO Revenue and Tariffs for October 2009 – September 2010 - Decision Paper  
<http://www.allislandproject.org/GetAttachment.aspx?id=997e5fa7-9b46-4645-b167-cb9fc73374d2>

## 12 WEIGHTED AVERAGE COST OF CAPITAL (WACC)

Although the current proposal from the RAs is to depart from the Rate of Return Regulation, the assessment of the appropriated WACC still necessary as SEMO still have many CAPEX items in phase of depreciation. The prevailing RAB will continue to be remunerate and depreciates according to the rules established in the previous price control.

SEMO proposes to continue with the previous approach to the WACC i.e. to blend the WACC values determined by CER and NIAUR in the forthcoming price controls for EirGrid and SONI respectively, in the ratio 3:1. The weights are based on funding for SEMO being supplied in the ratio from EirGrid and SONI respectively.

This approach does not take into account any different risk levels between a Market Operator activity and a System Operator activity but provides an indication on the returns which stakeholders require. A question arises as to whether it is appropriate to use the WACCs for EirGrid and SONI for SEMO, given that SEMO as a market operator may have a different risk exposure to system operators, and to blend these in the ratio 3:1.

The cost of capital should reflect the underlying risks associated with the activities and cashflows of the business, rather than the source of the finance. Therefore, the fact that EirGrid and SONI provide SEMO's funding is not in itself a justification for applying the WACC of EirGrid and SONI to SEMO. Instead, the relevant question is whether the business activity of administering a wholesale electricity market is more or less exposed to risk than the business activity of system operation.

The two key WACC parameters which reflect the riskiness of the firm in question are the equity beta (on the cost of equity side) and the debt premium (on the cost of debt side). Both of these variables are potentially affected by the gearing of the firm. However, it is possible to simplify consideration of a firm's risk exposure by analysing the "asset beta" of the company, which equates to the equity beta which the company would have if it were entirely financed by equity. Other key components of the WACC (the risk-free rate and the equity risk premium) are economy-wide variables which are not affected by the riskiness of the firm.

The RAs considered that an appropriate approach would be to ascertain whether there is convincing evidence of a difference in risk exposure between market operators and system operators. If so then one approach would be to apply the WACC figures from EirGrid and SONI adjusted for differences in the asset betas associated with the two different types of business activity, combining these in the ratio 3:1 as previously. This would ensure consistency with the

WACC assumptions used in EirGrid and SONI’s price controls for economy-wide variables, but would capture differences in risk.

There are a number of systematic risk factors that are potentially relevant to SEMO, such as changes in labour costs resulting from macroeconomic conditions or changes in the costs of raising finance due to changing financial market conditions. While market operation may involve a different set of systematic risks from system operation, we do not see any convincing basis for concluding that overall exposure to systematic risk on the cost side is either lower or higher, based on the nature of the business activity.

However, with regard to the regulatory framework, the current rate of return regulation applied to SEMO does protect it from risk and hence would potentially justify a lower WACC assumption. A move to a more incentives-based regime for the next price control may reduce this effect.

To shed light on the relative risks associated with the different underlying business activities, the RAs have commissioned a review of equity betas for comparator sectors. For this analysis, beta estimates produced by the LBS Risk Measurement Service were used. As comparators for EirGrid and SONI, beta estimates for the electricity sector have been taken. To provide a comparison for SEMO’s role as a market operator (which involves the provision of IT-based services), selected software and computer services as a comparable sector have been taken; IT companies may be exposed to similar risks as SEMO on the cost side.

Sector	Beta	
<b><i>Comparators used for EirGrid / SONI</i></b>		
Electricity	Conventional electricity	0.89
	Alternative electricity	0.98
<b><i>Comparators used for SEMO</i></b>		
Software and computer services	Computer services	0.99
	Internet	0.89
	Software	0.94

**Table 30: Comparator betas: Note: the table shows LBS figures for market capitalisation weighted averages, rather than equally weighted averages - Source: LBS, Risk Measurement Service, January – March 2010**

The table shows that the beta estimates for the SEMO comparator sectors cover the same range as the beta estimates for electricity. Hence, any empirical basis for assuming that SEMO has lower exposure to systematic risk than EirGrid and SONI were found.



The table below outlines the asset betas for the market leaders in the comparator sectors to give an indication of the levels of risk exposure for different companies.

	<b>Sector</b>	<b>Beta</b>
<b>Comparators used for EirGrid / SONI</b>		
Conventional electricity	Scottish & Southern Energy	0.6
	International Power	1.25
<b>Comparators used for SEMO</b>		
Computer services	Logica	1.41
	Dimension Data Holdings	1.25
Software	Autonomy Corporation	0.78
	Sage Group	0.9
	Invensys	1.44

**Table 31: Comparator betas for sector leaders - Note: the table shows LBS figures for market capitalisation weighted averages, rather than equally weighted averages - Source: LBS, Risk Measurement Service, January – March 2010**

Although the table above only presents asset betas for a small sample of companies, on the whole the conclusion drawn from the table 18, i.e. there is no empirical basis for assuming that SEMO has lower exposure to systematic risk than EirGrid and SONI, holds when comparing asset betas for the market leaders as well.

The analysis above considers unregulated companies. It is important to bear in mind that SEMO is a regulated company, and as such it may be exposed to lower risks. The table below shows the equity betas for regulated firms.

<b>Sector</b>	<b>Regulator</b>	<b>Year</b>	<b>Equity Beta</b>
Electricity DNOs	Ofgem	2009	0.68-0.91
Electricity transmission and distribution	CER	2005	0.8
Electricity transmission (SONI)	NIAUR	2008	0.58
Water	Ofwat	2009	0.9
Telecoms (Openreach)	Ofcom	2009	0.76
Telecoms (Rest of BT)	Ofcom	2009	0.96
Telecoms (Eircom)	ComReg	2008	1.02
Airports (Stansted)	CAA/CC	2009	1.00-1.24
Airports (Dublin Airport Authority)	CAR	2009	1.22

**Table 32: Comparator betas for regulated sectors - Source: Price control determinations from Regulators' websites**

The estimated equity betas for the regulated companies in the electricity sector are generally lower than the asset betas presented in Table 17, suggesting that perhaps the regulated nature of these firms exposes them to less risk than unregulated firms. However, considering the full range of regulated sectors, there does not seem to be evidence to suggest that regulated firms necessarily have lower exposure to risk than unregulated firms.<sup>3</sup> For example Stansted, though technically regulated, faces significant competitive pressure from UK and other European airports outside its immediate geographic market;<sup>4</sup> Dublin airport looks an outlier among the regulatory decisions recorded here. If those examples were set on one side, the evidence would suggest lower betas for regulated businesses, as theory would predict.

### 12.1 CONCLUSION ON THE WACC

The RAs have not found any robust case for using a different WACC figure for SEMO than for the system operators. Therefore, we are of the view the SEMO's WACC should be determined in accordance with the WACC of SEMO's parent companies (Eirgrid and SONI). The current rate of 3:1 should be kept unchanged as this rate corresponds to the rate that SEMO is funded by the parent companies.

Both companies (Eirgrid and SONI) are currently in the process of price control reviews which are being carried out by CER and NIAUR respectively. SEMO's WACC should be adjusted in line with the WACC decisions reached by CER and NIAUR in the forthcoming EirGrid and SONI price controls. Therefore SEMOs WACC will track the prevailing WACC of their parent companies.

**RAS PROPOSAL 16: USE THE PREVALING BLENDED WACC FROM EIRGRID AND SONI. THE CURRENT BLEND RATE OF 3:1 TO BE APPLIED.**

### 12.2 DEPRECIATION

Depreciation forms the largest single component of SEMO's requested revenue, exceeding both total operational cost and the WACC allowance (although as SEMO notes the proposed

<sup>3</sup> It is important to note that this analysis is at a very high-level. The betas presented in Table 4.3 are equity betas rather than asset betas; and the companies considered are not market operators as SEMO is.

<sup>4</sup> In its advice to the Secretary of State on the de-designation of Stansted airport for price control regulation, the CAA considered that "the available evidence supports the view that Stansted airport does not *currently* hold substantial market power. The airport continues to charge below the maximum level permitted by the price control".

The CAA's advice to the Secretary of State: De-designation of Manchester and Stansted airports for price control regulation; July 2007

allowance for depreciation falls substantially in the final year of the price control period as the SEM Establishment project will have been fully depreciated by 2011-12).

SEMO has proposed to continue to depreciate its assets subject to straight-line depreciation over a five year period. This methodology appears reasonable. Straight-line depreciation is often used by regulators, and five years is a reasonable asset life for IT and related assets. Continuing with a five year period is consistent with previous SEMO price controls.

SEMO’s depreciation allowance includes amounts both for depreciation on its existing RAB and for depreciation associated with its proposed CAPEX. As the RAs are proposing a departure from the current rate of return regulation, SEMO’s future projects should not be included in the RAB and therefore these would not be depreciated. The exception would be the IT Release CAPEX, this allowance has already been approved in during the current price control.

The table below shows SEMO’s proposed depreciation figures. It can be seen that the Depreciation in year 3 drops notability as SEM Establishment project will have been fully depreciated by 2011-12.

Summary	2010-11	2011-12	2012-13
Depreciation Charge	€12,835,000	€ 13,927,000	€ 6,627,000

**Table 33: SEMO’s proposal for Depreciation.**

However by implementing the proposed Revenue-Cap Regulation the depreciation figures would be updated with the following values:

Summary	2010-11	2011-12	2012-13
Depreciation Charge	€12,302,000	€ 12,755,000	€ 4,484,000

**Table 34: RAs proposal for Depreciation.**

RAS PROPOSAL 17: KEEP THE CURRENT STRAIGHT LINE DEPRECIATION MECHANISMS.

## 13 INCENTIVISATION

### 13.1 KEY PERFORMANCE INDICATORS

In the current price control determination for SEMO, the RAs decided that a reward mechanism equivalent to 2.5 per cent of total internal costs would be implemented for outperformance of targets related to a set of key performance indicators (KPIs). The table below outlines the targets and weights of each KPI.

Metric	Weighting	Target	Upper Bound
Ex-Ante Pricing Report	0.2	99%	100%
Ex-Post Initial Pricing Report	0.2	99%	100%
Invoicing	0.4	90%	95%
Credit Cover Increase Notices	0.2	98%	100%

**Table 35: KPI incentive scheme - Source: SEMO Revenue and Tariffs for October 2009 – September 2010**

#### 13.1.1 PERFORMANCE AGAINST KPIS

SEMO provided their performance levels with respect to the aforementioned KPIs for the first two quarters of the current price control (i.e. October 2009 – March 2009).

Metric	Weighting	Target	Upper Bound	Ave. Performance in Q1 & Q2	Potential reward
Ex-Ante Pricing Report	0.2	99%	100%	97%	0
Ex-Post Initial Pricing Report	0.2	99%	100%	97%	0
Invoicing	0.4	90%	95%	100%	87,709
Credit Cover Increase Notices	0.2	98%	100%	100%	43,854

**Table 36: SEMO performance, Sept 2009 – Dec 2009**

#### 13.1.2 SEMO'S PROPOSALS FOR THE NEXT PRICE CONTROL

It is important to provide the appropriate incentives to encourage an efficient outcome; the rewards should not be too weak so as to limit incentives to achieve the target and the targets should not be too easy to achieve.

Ideally the rewards from the incentive scheme should reflect the customers' willingness to pay for an improvement in performance standards; and if penalties are to be introduced, the risks should reflect the potential loss that customers would be subject to as a result of a fall in performance standards.

In the current price control, the RAs decided that a reward mechanism equivalent to 2.5 per cent of total internal costs would be implemented for out-performing targets for four key performance indicators (KPIs). In its price control submission, SEMO has proposed a reward mechanism of 3 per cent of total internal costs (to a maximum of €300,000 per annum). Based on the proposed allowance, the two approaches would result in the following upper bounds:

	2010-2011	2011-2012	2012-2013
Current approach	242,975	252,950	255,725
Proposed approach	291,570	300,000	300,000

**Table 37: Proposed pot for KPI incentive scheme - Source: EE analysis of SEMO data**

It is proposed as well that in terms of assessing the KPIs, a measure be taken at the end of each quarter using the average value of each KPI over that period. Should the KPI be achieved in the given period the reward for that quarter shall be earned. This allows SEMO to continue to be incentivised should it fail against a KPI in any particular quarter. This approach represents a relaxation of the prevailing criteria. Ultimately the following assumptions would be applied:

1. The metric is delivered within one hour of the targeted time;
2. External factors outside the Market Operators direct control are excluded e.g. Limited Communication failure by Market Participant, late provision of data by System Operators or the Meter Data Provider, Government policy changes, Regulatory Authorities' policy changes etc; and
3. The first two weeks after a System Release are excluded from the annual target.

The RAs are of the view that It will be important to continue to provide SEMO with the right incentives to maintain their current good performance; however, as SEMO has suggested to increase the reward pot and change the horizon for the achievement record (quarterly assessment), it may be appropriate to increase the difficulty in achieve SEMO's proposed targets. Therefore the RAs proposes that the assumption 3 (first two weeks after a System Release) is removed. This would incentivize SEMO to give even more importance to the stress test processes that is followed by the implantation of system in production environments.

### 13.1.3 SEMO'S PROPOSALS FOR NEW KPIS

SEMO has also proposed new targets for the existing KPIS and two new KPIS.

	Weighting		Target		Upper bound	
	Current	Proposed	Current	Proposed	Current	Proposed
Ex-ante pricing report	0.2	0.1	99%	97%	100%	100%
Ex-post initial pricing report	0.2	0.1	99%	97%	100%	100%
Invoicing	0.4	0.2	90%	95%	95%	100%
Credit Cover Increase Notices	0.2	0.1	98%	98%	100%	100%
SEMO related Resettlement queries	-	0.25	-	<30	-	10
General queries	-	0.25	-	97%	-	99%

**Table 38: SEMO's proposals for KPI incentive scheme**

The choice of indicators needs to be based on what aspects of SEMO's performance are of greatest importance to market participants. The RAs Welcome responses from market participants on the relevance of the two new KPIS and whether the weight distribution proposed by SEMO corresponds to the expectations of market participants. The RAs would welcome as well the suggestion of new KPIS.

RAS PROPOSAL 18: THE RAS WELCOME VIEW FROM MARKET PARTICIPANTS PRIOR TO THE DETERMINATION ON KPIS

### 13.2 OPEX SAVINGS

A well established regulatory tool to incentivise OPEX efficiency is RPI-X incentive regulation. The concept involves limiting price changes to general inflation less a specified "X" factor. The aim of the "X" factor is to reflect the expected change in productivity of the regulated company over and above the expected change in productivity for the economy as a whole, reflected in the rate of inflation.

RPI-X regulation can provide strong incentives for efficiency, as any savings above the predicted rate "X" can be kept by the firm, and it is therefore in the interest of the firm to out-perform as it can earn a rate of return that is higher than normal.

SEMO would be subject to a Revenue cap regime i.e. receive a 'revenue allowance' where the RAs would agree the revenues that SEMO should be allowed to earn. Tariffs would be calculated so as to recover these revenues on the basis of projected market volumes. However, in the event that out-turn market volumes differ from these projections, any over- or under-recovery of revenue would be taken into account in finalising tariffs for the following year.

Hence, this approach would protect SEMO from revenue uncertainty arising from (partly at least) exogenous changes in market volumes.

The “X” factor should reflect the extent to which:

- SEMO is capable of increasing its productivity in relation to other sectors of the economy; and
- The prices of inputs employed in the regulated industry grow more or less rapidly than the input prices faced by other sectors of the economy.

The “X” factor should be zero if it is believed that SEMO is capable of achieving exactly the same productivity growth rate and faces the same rate of input price inflation as other sectors of the competitive economy. If SEMO is able to achieve more rapid productivity growth (for example, due to rapid technological advancements in IT) or to realize lower input price inflation than other sectors of the economy (for example, because wage inflation is lower than the rate of growth in prices for other inputs), then SEMO should be required to pass the associated benefits on to its customers in the form of lower prices. Whilst a zero “X” factor would not force SEMO to reduce costs below the out turn rate of inflation, it will ensure an upper limit to the burden of customers. SEMO would be allowed to keep any savings achieved by under expenditure on OPEX and would bear the cost of over expenditure.

The RAs are of the view that given the proposed adjustments on payroll and other areas of OPEX, SEMOs allowance is set in a efficient level and there is no significant margin to SEMO outperform the efficiency gains of other sectors of the competitive economy.

RAS PROPOSAL 19: RPI-X TO CORRECT SEMO’S OPEX ALLOWANCE ON ANNUAL BASIS ( $X=0$ ). SEMO TO RETAIN THE SAVINGS AND BE LIABLE FOR ANY OVER EXPENDITURE ON OPEX.

### 13.3 IT RELEASE SUPPPORT INCENTIVE

SEMO has proposed that it be awarded €50,000 for every IT Release delivered on budget and within the scheduled time. Nonetheless, according to SEMO submission, penalties should not be applied on releases delivered with delay. The RAs understand that Incentive schemes should have a degree of symmetry between rewards and penalties. Hence if SEMO is unwilling to receive penalties for underperformance, the RAs are of the view that no reward should be given to SEMO for fulfilling its obligations.

RAS PROPOSAL 20: NO PROVISION FOR IT RELEASE CAPEX INCENTIVE

## 14 FORM AND MAGNITUDE OF CHARGES

As part of its role in the administration of the market there are charges which SEMO must levy in order to recover its own allowed costs and allowed market related costs. These charges consist of:

- energy and capacity charges
- the accession fee
- the participation fee
- the Imperfections Charge
- the Market Operator charges

In order to be sustainable and cost-effective, the tariffs should seek to accurately recover the costs identified in a broadly cost-reflective way and to reflect an optimal regulatory approach.

For SEMO costs, the TSC allows for allocation of costs to a number of fees and charges. In respect of this allocation, as with the cost analysis, stability is considered to be delivered given the proposal that the current split between the SEMO variable and fixed charges is maintained and that the Accession and Participation Fees continue to reflect the costs of accession and registration. It is proposed that the decisions made in the Decision Paper for the initial SEMO revenue and tariffs period, in relation to the forms of charges will be applicable in the new tariff period.

### 14.1 ENERGY AND CAPACITY CHARGES

The structure and detail of charges for energy purchased from the “pool” is defined in the TSC. It will be a per MWh charge, the amount of which will be set for each half hour. This paper does not make any new decisions in relation to the form and magnitude of energy charges.

### 14.2 ACCESSION FEES

The TSC states that the accession fee will be a fee paid to the SEMO by each applicant for accession to the TSC, to cover the SEMO’s costs incurred in assessing the application. The RAs have fixed this fee at € 1,115 for the current price control period.

Currently these fees are simply netted off overall SEMO costs. The workload in SEMO for processing a Party registration is approximately **4 days** work. With an estimate cost of €277 per day (Based on the revenue decision paper last year which allowed an weighted average cost per resource of € 61,000, divided by 220 working days) the average cost is €1,115 per party registration.



The RAs do not envisage a substantial change in the weighted average cost per resource in SEMO for the next price control, therefore The RAs are of the view that the current accession fee should prevail on the next price control.

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### 14.3 PARTICIPATION FEES

In the TSC the participation fee is defined as “the fee payable with an application to register and become a Participant in respect of any Unit. The RAs have fixed this fee at € 2,800 for the current price control period.

Currently these fees are simply netted off overall SEMO costs. The workload in SEMO for processing a Party registration is approximately **10 days** work. With an estimate cost of €277 per day (Based on the revenue decision paper last year which allowed an weighted average cost per resource of € 61,000, divided by 220 working days) the average cost is €2,800 per party registration.

The RAs do not envisage a substantial change in the weighted average cost per resource in SEMO for the next price control, therefore The RAs are of the view that the current accession fee should prevail on the next price control.

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### 14.4 MARKET OPERATOR CHARGES

The TSC states that the Market Operator Charge shall comprise of:

- a Fixed Market Operator Generator Charge, which may be different for each Generator Unit,
- a Fixed Market Operator Supplier Charge, which may be different for each Supplier Unit , and,
- a Variable Market Operator Charge applicable to all Participants in respect of their Supplier Units, expressed in €/MWh.

During the new tariff period, these charges will recover SEMO’s operational costs, the appropriate amount of depreciation associated with the SEM related capital costs incurred by EirGrid and SONI, and the appropriate WACC.

However, the TSC does not specifically state what proportion (or type) of costs should be allocated to either the fixed or the variable element of the charge for recovery. For the purposes of this consultation it is proposed the same proportions as were used in the initial tariff period will continue to apply in the new tariff period.

The RAs propose that the majority of costs, 95%, be recovered through the Variable Charge.

It is proposed that the fixed charges to Generators and Suppliers will recover the remaining 5% of all costs between them in a 95:5 ratio. That is, the revenue recovered through the Fixed Charges will be weighted to ensure that for each Generator Unit registered the revenue recovered through the Fixed MO Charge to Generators will be 19 times the revenue recovered through the fixed MO charge to Suppliers for each Supplier Unit registered.

Furthermore it is proposed that the Fixed Market Operator Charge to Generator Units varies by MW of installed capacity. This is accommodated by the TSC, which states that the Fixed Market Operator Charge to Generator Units may be different for each Generator Unit. It is proposed that the Fixed Market Operator Charge to Supplier Units varies, based on the number of Supplier Units. In summary, the proposals lead to:

- A Variable MO Charge per MWh for the new tariff period;
- A Fixed MO Charge to Generator Units per MW installed capacity. In other words, a total charge
- A Fixed MO Charge to Supplier Units per Supplier Unit

As per the initial tariff period, it is proposed that the Fixed Market Operator charge be billed on a monthly basis.

The final values of the MO tariffs will be published in the Decision Paper on the next Price Control. Nonetheless based on the proposals contained in this consultation paper and on the parameters provided by SEMO, the following tariffs would apply:

**Table 38: MO parameters and charges.**

Parameters	
% of Charge that is fixed	5%
% of Charge that is variable	95%
Number of Generator Units	155
Number of Supplier Units	65
Installed capacity on Island of Ireland (MW)	11,388
Number of GWh in pool	34,430

	Current	SEMO's	RAs
<b>Costs to be Recovered by SEMO</b>	21,168,762	22,944,000	24,868,500
Recovery via Fixed Charge	1,926,376	1,147,200	1,243,425
Recovery via Variable Charge	19,242,386	21,796,800	23,625,075
Fixed Generator Charge (per MW)	88	99	107
Fixed Supplier Charge (per Unit)	367	381	413
Variable Supplier Charge (per MWh)	0.565	0.633	0.686
Accession Fee	1,115	1,115	1,115
Participation Fee	2,788	2,788	2,788

## 15 SUMMARY OF RAS PROPOSALS

<b>REGULATORY FRAMEWORK</b>	
<b>FORM OF REGULATION</b>	RAS PROPOSAL 1: SEMO'S OPEX TO BE REGULATED UNDER RPI-X FRAMEWORK AND REVENUE CAP REGIME FOR CAPEX
<b>INDEXATION</b>	RAS PROPOSAL 2: SEMO'S ALLOWANCE TO BE CORRECT BY THE OUT-TURN INFLATION FIGURE.
<b>K FACTOR</b>	RAS PROPOSAL 3: K-FACTOR TO COMPARE RECOVERY OF REVENUE TO THE REVENUE ALLOWANCE AND NOT ACTUAL EXPENDITURE.
<b>OPEX</b>	
BASELINE (54 STAFF)	RAS PROPOSAL 4: ALLOW THE CURRENT BASELINE OF 54 STAFF
PAYROLL BENCHMARK	RAS PROPOSAL 5: THE TOTAL PAYROLL ALLOWANCE TO BE REDUCED IN THE RANGE BETWEEN 7% AND 14.26% (5% PER YEAR) OVER 3 YEARS.
PENSION DEFICIT CONTRIBUTION	RAS PROPOSAL 6: DISALLOW THE INCREASED PENSION FUND PAYMENTS
INCREASED USE OF CONTRACTORS	RAS PROPOSAL 7: DISALLOW THE PROPOSED INCREASED USE OF CONTRACTORS
ADDITIONAL RESOURCE	RAS PROPOSAL 8: THE RAS ARE OF THE VIEW THAT THIS IS A REASONABLE REQUIREMENT AND ARE MINDED TO APPROVE.
REAL PRICE EFFECT	RAS PROPOSAL 9: NO "REAL PRICE EFFECT"
<b>IT &amp; TELECOMMUNICATIONS</b>	RAS PROPOSAL 10: SEMO'S TELECOMMUNICATIONS PROPOSED BUDGETS BE ALLOWED BUT THAT WARRANTY, SUPPORT AND MAINTENANCE BE LIMITED TO 1,600, 1,800 AND 1,800 IN YEARS 1, 2 AND 3 RESPECTIVELY.
<b>FACILITIES</b>	RAS PROPOSAL 11: SEMO'S PROPOSED BUDGET FOR FACILITIES TO BE ALLOWED.
<b>PROFESSIONAL FEES</b>	RAS PROPOSAL 12: SEMO TO BE ALLOWED A BUDGET OF 640K PER YEAR FOR PROFESSIONAL FEES.
<b>GENERAL AND ADMINISTRATIVE COSTS</b>	RAS PROPOSAL 13: THE RAS PROPOSE THAT SEMO BE ALLOWED A BUDGET FOR GENERAL AND ADMINISTRATIVE COSTS OF 275K PER YEAR.
<b>CORPORATE SERVICES</b>	RAS PROPOSAL 14: SEMO'S PROPOSED BUDGET OF 300K PER YEAR FOR CORPORATE SERVICES TO BE DISALLOWED.
<b>CAPEX</b>	
MENU REGULATION VS. SINGLE ALLOWANCE	RAS PROPOSAL 15: THE RAS WELCOME VIEW FROM MARKET PARTICIPANTS PRIOR TO THE DETERMINATION OF THE CAPEX ALLOWANCE
<b>COST OF CAPITAL</b>	
<b>WACC</b>	RAS PROPOSAL 16: USE THE PREVALING BLENDED WACC FROM EIRGRID AND SONI. THE CURRENT BLEND RATE OF 3:1 TO BE APPLIED.
<b>DEPRECIATION</b>	RAS PROPOSAL 17: KEEP THE CURRENT STRAIGHT LINE DEPRECIATION MECHANISMS.
<b>INCENTIVISATION</b>	
<b>KEY PERFORMANCE INDICATORS</b>	RAS PROPOSAL 18: THE RAS WELCOME VIEW FROM MARKET PARTICIPANTS PRIOR TO THE DETERMINATION ON KPIS
<b>OPEX SAVINGS</b>	RAS PROPOSAL 19: RPI-X TO CORRECT SEMO'S OPEX ALLOWANCE ON ANNUAL BASIS (X=0). SEMO TO RETAIN THE SAVINGS AND BE LIABLE FOR ANY OVER EXPENDITURE ON OPEX.
<b>IT RELEASE SUPPORT INCENTIVE</b>	RAS PROPOSAL 20: NO PROVISION FOR IT RELEASE CAPEX INCENTIVE

## 16 PROVISION OF COMMENTS

The RAs request comments on the proposals set out in this consultation paper. All comments received will be published, unless the author specifically requests otherwise. Accordingly, respondents should submit any sections that they do not wish to be published in an appendix that is clearly marked “confidential”.

Comments on this paper should be forwarded, in electronic form, to Jean Pierre Miura at [jeanpierre.miura@uregni.gov.uk](mailto:jeanpierre.miura@uregni.gov.uk) by 17:00 on Friday 3 September 2010.