



Single Electricity  
Market **Operator**

MARKET OPERATOR  
SINGLE ELECTRICITY

## **SEMO KPI Performance 2017-2018**

**KPI Outturn Report 2017-2018**

**Abstract**

This document presents SEMO's performance against the regulatory approved Key Performance Indicators (KPIs) for the 2017-2018 tariff year.

28/06/2019

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### Introduction

SEMO is incentivised to manage performance through Key Performance Indicator (KPI) incentives, for achieving outcomes aimed at improving performance, promoting customer service, increasing efficiencies and delivering value to customers.

In August 2016 the *Single Electricity Market Operator (SEMO) Revenue Requirement Price Control Decision Paper commencing 1 October 2016* ([SEM-16-043](#)) was published. The Price Control covers the period beginning 1 October 2016 through to the conclusion of the decommissioning of the Single Electricity Market (SEM) and will be referred to as the 2016-2019 Price Control.

The number of KPIs and weightings were consistent with the 2013-2016 period, however, the SEM Committee agreed that it was reasonable to amend the System Availability KPI range from '99.5% to 99.9% availability' to '99.4% to 99.8 % availability' given the ageing of the some of the Market Systems that would originally have been due for replacement but instead are being maintained. The SEM Committee also endorsed the position that the KPI incentive pot be set at 4% of OPEX. A KPI for MIUNs is to be instated as per the Ex-Ante pricing report.

This KPI paper describes SEMO's outturn performance in relation to its eight regulatory approved Key Performance Indicators (KPIs) for the second year (2017-18) of the three year price control period (2016-19).

### Key Performance Indicators (KPIs)

SEMO is committed to delivering improved quality and performance levels in the processing of crucial Market Operations data. SEMO is incentivised against the delivery of eight Key Performance Indicators (KPIs) which incentivise outcomes aimed at improving performance, promoting customer service, increasing efficiencies and delivering value to customers.

The eight Operational Key Performance Indicators for the 2017-18 period were set out in SEMO's Price Control (*SEM-16-043 commencing 1 October 2016 to the conclusion of the decommissioning of the SEM<sup>1</sup>*) and monitor SEMO's performance across the following areas:

- Ex-Ante pricing report
- MIUN publication
- Ex-Post Initial pricing report
- Invoicing
- Credit Cover Increase Notice (CCINs)
- SEMO related ad hoc Resettlements
- General Queries
- Central Market System Availability (7am to 5pm Mon-Sun)

#### Ex-Ante

The Ex-Ante publication targets referred to the percentage of occurrences where the Ex-Ante 1 pricing reports were published on time. The target time for publication was 11:00am every day, seven days a week. The Ex-Ante 1 pricing runs were carried out on D-1 and gave the day-ahead forecast of Market Scheduled Quantities (MSQ) and System Marginal Price (SMP) for all units. The Ex-Ante 1 (see Ex-Ante section above) was also important for setting Interconnector Unit Nominations for Interconnector Units who had bought Interconnector Capacity, and calculating the residual Capacity that all other Interconnector Units could avail of in Ex-Ante 2 and Within-Day runs. Unlike prices and quantities, the Interconnector Nominations for day ahead were fixed and could not be re-set after the Ex-Ante is published.

#### MIUN

The MIUN publication target referred to the percentage of occurrences where MIUNs were published on time. Within Day MIUNs were to be published by 09:30. The Ex-Ante 1 MIUNs were to be published by 11:00. The Ex-Ante 2 MIUNs were to be published by 13:00.

#### Ex-Post Initial

The Ex-Post Initial publication targets referred to the percentage of occurrences where the Ex-Post Initial pricing reports were published on time. The target time for publication was 17:00 every day,

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<sup>1</sup> Legacy SEM ended 30 September 2018. I-SEM go live was 1 October 2018. The Operational Key Performance Indicators and incentives for I-SEM (period commencing 1 October 2018 will be set out in a separate price control SEM Committee decision paper.

seven days a week. The Ex-Post Initial pricing runs were carried out on D+4 and gave the final SMPs and MSQs for all participants. These figures were used for the final settlement of all Market Participants.

### Invoicing

The Invoicing targets refer to the percentage of occurrences where Invoices to all participants are published on time. For the weekly energy Market and Variable Market Operator Charge (VMOC) Initial invoices the target was 12:00 each Friday. Initial Capacity was invoiced at 12:00 seven working days after the end of the month, and the Fixed Market Operator Charge (FMOC) invoices were to be published on the first Friday after the end of the month at 12:00.

### Credit Cover Increase Notice (CCINs)

The Credit Cover Increase Notice targets refer to the percentage of occurrences where the CCINs (issued as part of the Credit Cover Reports) are published on time. The target time for publications was 17:00 every working day. CCIN reports are used to inform Market participants that their posted collateral cover is less than their required collateral cover. Participants then have two working days in which to rectify this on receipt of the CCIN.

### SEMO related ad hoc Resettlements

If the Market is settled incorrectly, a Market Participant raises a query to ensure the error is rectified. This metric refers to upheld Formal Query from Market Participants which have identified errors attributed to SEMO's operations and processes. Correction of such errors is completed in either the scheduled Resettlement (M+4 and M+13) or in an ad hoc Resettlement. The materiality of a formal query determines whether an ad hoc Resettlement run is required.

Not all Formal Queries are the result of SEMO driven issues; others are driven by external factors outside of SEMO's control. The proposed measure is to reduce the number of SEMO related issues hence the number of SEMO upheld query incidents and Resettlements per Quarter.

### General Queries

The General Queries targets refer to the percentage of occurrences where a General Query is not addressed within 20 Business days. While the Trading and Settlement Code places no obligation on SEMO to respond to general queries, SEMO has endeavored to answer all queries received (1,902 general queries in 2017-18) within set timelines. At times, depending on the complexity, scale, resource issues and operational performance, the time taken to respond to these queries can exceed 20 working days. This target is designed to maintain efficiency and customer focus within SEMO.

### Central Market System Availability

System availability is the ratio of time infrastructure systems are said to be in a functioning condition to the total time it is required or expected to be available. High availability ensures a prearranged level of operational performance will be met during a contractual measurement period (7AM – 5PM Mon - Sun).

The agreed SEMO Key Performance targets are set out in Table 1 below<sup>2</sup>.

Metric	Weighting	Lower Bound Target	Upper Bound Target
1 Ex-Ante Pricing Report	0.10	99%	100%
2 MIUN publication	0.05	99%	100%
3 Ex-Post Initial Pricing Report	0.10	99%	100%
4 Invoicing	0.20	97%	100%
5 Credit Cover Increase Notices	0.10	99%	100%
6 SEMO related formal Queries	0.20	9 <sup>3</sup>	5 <sup>4</sup>
7 General Queries	0.15	97% <sup>5</sup>	99% <sup>6</sup>
8 Central Market System Availability (7AM – 5PM Mon - Sun)	0.10	99.4% <sup>7</sup>	99.8% <sup>8</sup>

**Table 1** - Summary of the agreed Key Performance Indicators

### Conditions to be applied to the KPIs

Section 11.1 of the decision paper SEM-16-043 also outlines the following KPI conditions:

- The System Availability KPI amendment was deemed reasonable by the SEM Committee due to the aging of some systems that would ordinarily be due for replacement but instead are being maintained;
- In terms of assessing the KPIs, a measure is to be taken at the end of each Quarter using the average value of each KPI over that period;
- The KPI incentive pot for the remainder of SEM was to be maintained at 4% of the total OPEX;
- Publication of MIUNs was held to account in the same manner as the Ex-Ante Pricing report; and
- A number of weighting factors were adjusted, as a result of the additional MIUN KPI target.

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<sup>2</sup> Extract from Table 15 in SEMO Revenue Requirement Decision Paper (*SEM-16-043*)

<sup>3</sup> 9 or less upheld queries incidents per quarter

<sup>4</sup> 5 upheld queries incidents per quarter

<sup>5</sup> 97% of Queries answered within 20 Business days

<sup>6</sup> 99% of Queries answered within 20 Business days

<sup>7</sup> 99.4% System availability between 7am and 5pm Monday - Sunday excluding planned outages

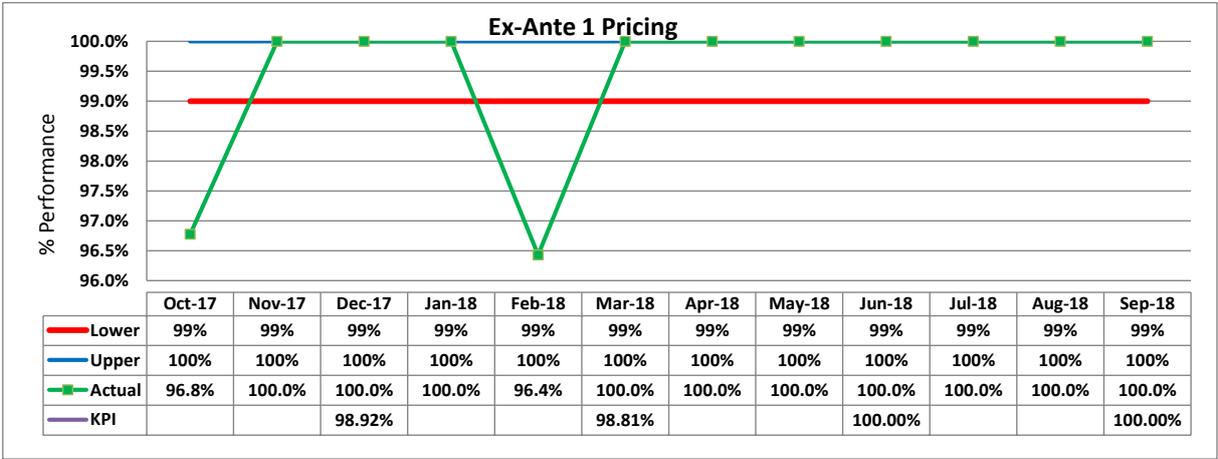
<sup>8</sup> 99.8% System availability between 7am and 5pm Monday - Sunday excluding planned outages

# Outturn Performance 2017-18

The SEMO Revenue Requirement Decision Paper (SEM-16-043), paragraph 11.1, stated that the ‘KPI incentive pot should be set at 4% of OPEX in line with current practice’. The approved OPEX revenue for 2017-2018 was €7,580,700<sup>9</sup>. Four per cent of this OPEX amount translates to a KPI pot of €303,228. The following sections detail the actual operational outturn performance against each target set out in the Price Control decision paper.

## Ex-Ante Pricing Report

The target for the Ex-Ante publications was 99% with an upper bound limit of 100%.



Graph 1 - Ex-Ante 1 Pricing Report Performance

The lower and upper bound targets were achieved in Quarters Three and Four of the Financial Year, but not in Quarter One and Two as shown in Graph 1 above.

There were 2 delays (>1hr) to the Ex-Ante 1 Pricing Report publications between October 2017 and September 2018. There was a delay to the publication of Ex-Ante 1 Market Schedule for Trade Date 30 October 2017. This was due to a technical issue with the DAM gate closure. Once this issue was resolved, the Ex-Ante 1 Market Schedule was published at 12:30. There was a delay to the publication of Ex-Ante 1 Market Schedule for Trade Date 05 February 2018. This was also due to a technical issue with the DAM gate closure. Once this issue was resolved, the Ex-Ante 1 Market Schedule was published at 13:00.

<sup>9</sup> The RA approved revenue figure for 2017-2018 of €7.47m with indices applied. The Price Control provision was superseded by a later RA revenue approval due to the change in date of I-SEM go Live.

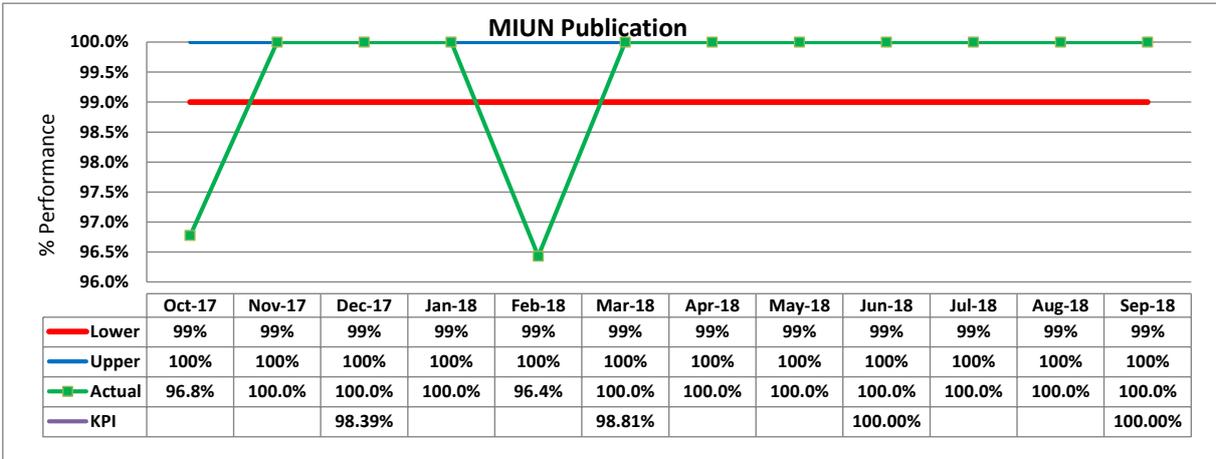
The monetary reward for meeting these targets is illustrated in Table 2 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€0	€0	€7,581	€7,581	€ 15,161

**Table 2 - Ex-Ante Pricing Report outturn**

**MIUN Publication**

The target for MIUN publication was 99% with an upper bound limit of 100%.



**Graph 2 – MIUN Publication Performance**

The lower and upper bound targets were achieved in Quarters Three and Four of the Financial Year, but not in Quarter Two as shown in Graph 2 above.

There was a delay (>1hr) to the publication of MIUNs for the Ex-Ante 1 (EA1) Market Schedule for Trade Date 30 October 2018. This was due to a technical issue with the DAM gate closure. Once the issue with the gate closure was resolved, the MIUNs were published.

There was also a delay (>1hr) to the publication of MIUNs for the Ex-Ante 1 (EA1) Market Schedule for Trade Date 05 February 2018. This was due to a technical issue with the DAM gate closure. Once the issue with the gate closure was resolved, the MIUNs were published.

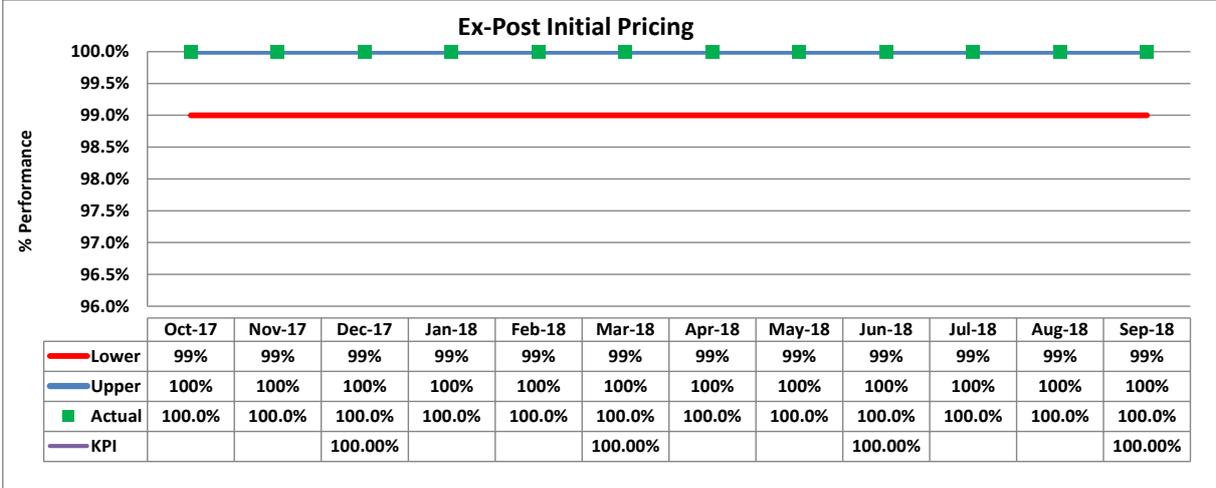
The monetary reward realised is illustrated in Table 3 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€0	€0	€3,790	€3,790	€7,581

**Table 3 - MIUN Publication Performance**

# Ex-Post Initial Pricing Report

The target for the Ex-Post Initial KPI was 99% with an upper bound limit of 100%.



**Graph 3 - Ex-Post Initial Pricing Report Performance**

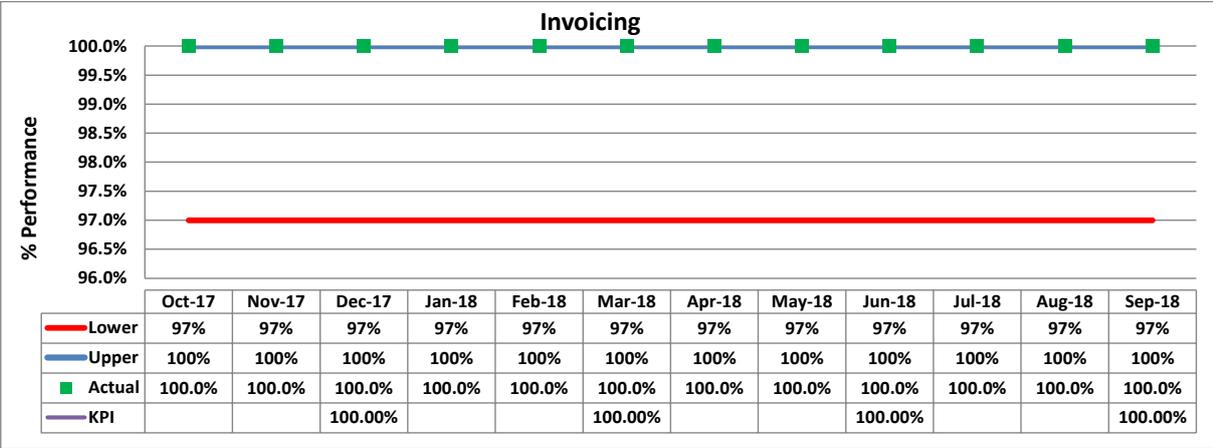
The lower and upper bound targets were achieved in all Quarters of the Financial Year, as shown in Graph 3 above. The monetary reward for meeting these targets is illustrated in Table 4 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€7,581	€7,581	€7,581	€7,581	€30,323

**Table 4 - Ex-Post Initial Pricing Report outturn.**

# Invoicing

The target for the Invoicing KPI was 97% with an upper bound limit of 100%.



**Graph 4 - Invoicing Performance**

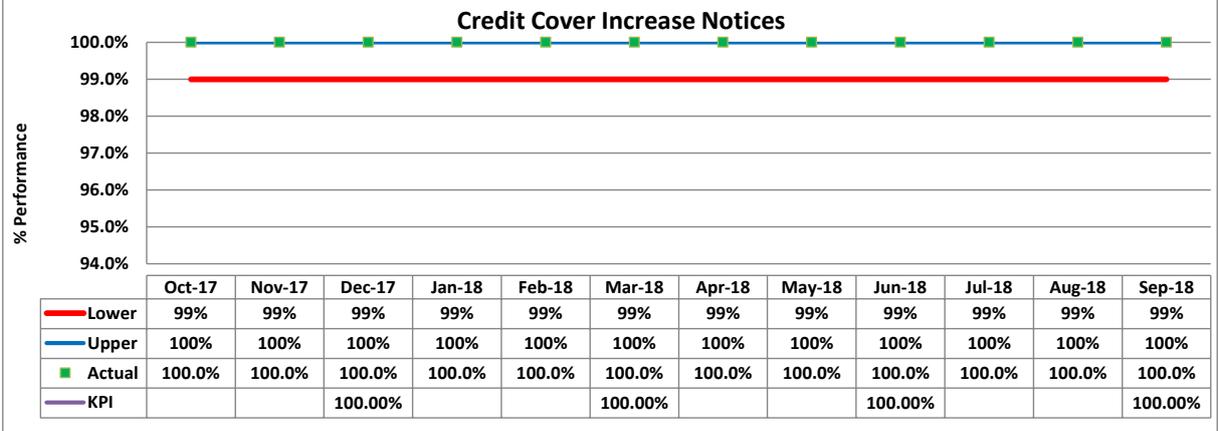
The lower and upper bound targets were achieved in all Quarters of the Financial Year, as shown in Graph 4 above. The monetary reward for meeting these targets is illustrated in Table 5 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€15,161	€15,161	€15,161	€15,161	€60,646

**Table 5 Invoicing outturn.**

### Credit Cover Increase Notices

The CCIN publication is due by 17:00 each Working Day. The target for the Credit Cover Increase Notices (CCIN’s) KPI was 99% with an upper bound limit of 100%.



**Graph 5 - Credit Cover Increase Notice Performance**

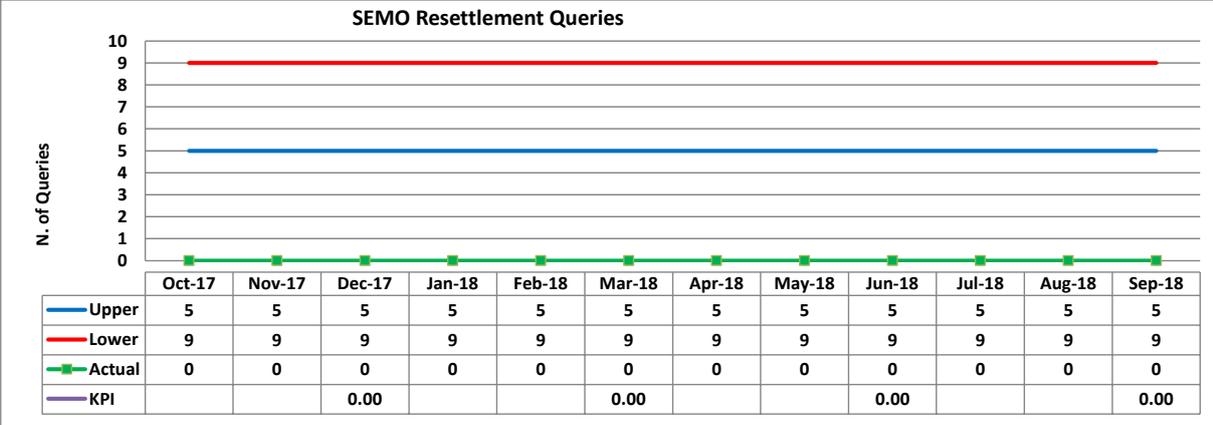
The upper and lower bound targets were achieved in all Quarters of the Financial Year, as shown in Graph 5 above. The monetary reward for meeting these targets is illustrated in Table 6 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€7,581	€7,581	€7,581	€7,581	€30,323

**Table 6 - Credit Cover Increase Notice outturn**

### SEMO Resettlement Related Queries

The target for SEMO Resettlement Related Queries was 'less than 9' upheld queries which require Resettlement per Quarter.



**Graph 6 - SEMO Resettlement Related Queries Performance**

The upper bound of this metric was five per Quarter. This target was achieved in all four Quarters of the financial year, as shown in Graph 6 above.

The lower bound of this metric was nine per Quarter. This target has been exceeded in all four Quarters of the financial year, as shown in Graph 6 above.

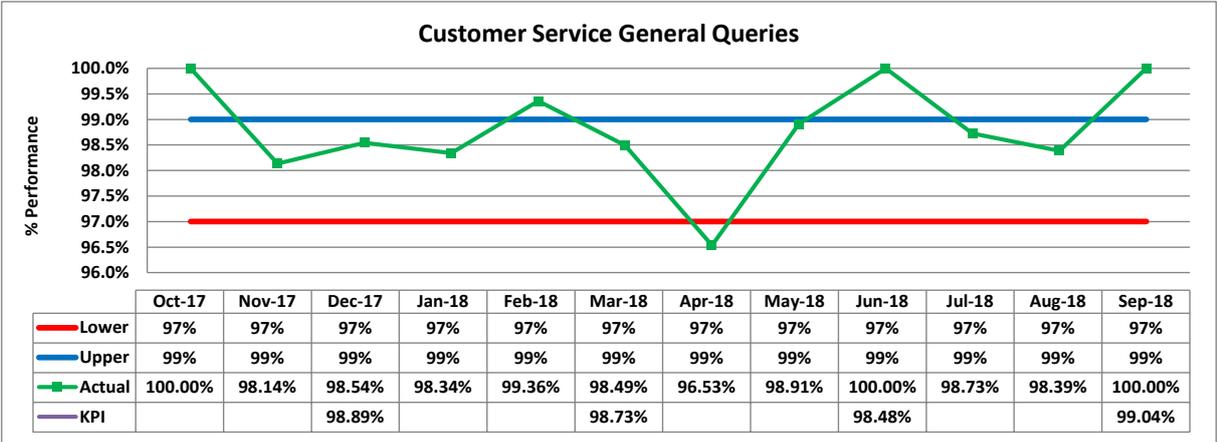
The monetary reward for achieving this target is illustrated in Table 7 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€15,161	€15,161	€15,161	€15,161	€60,646

**Table 7 - SEMO Related Resettlement Queries outturn**

## General Queries

The target for the General Queries Delivery KPI was 97% with an upper bound limit of 99%. The KPI requires that SEMO resolves 99% of its queries within 20 working days.



**Graph 7 - General Queries Performance**

In financial year 2017-2018 SEMO handled 1,902 helpdesk general queries. Query resolution time is impacted by a number of factors. For example, the complexity and scale of the query received, operational resources availability and the fact that formal and urgent queries have to be prioritized, and often the nature of the request requires cross functional assistance and/or escalation to a third party vendor.

The lower bound target was achieved in Quarters One, Two and Four of the financial year, but not in Quarter Three as shown in Graph 7 above.

The upper bound target was achieved in Quarter Two and Three of the financial year, but not in Quarter One and Four.

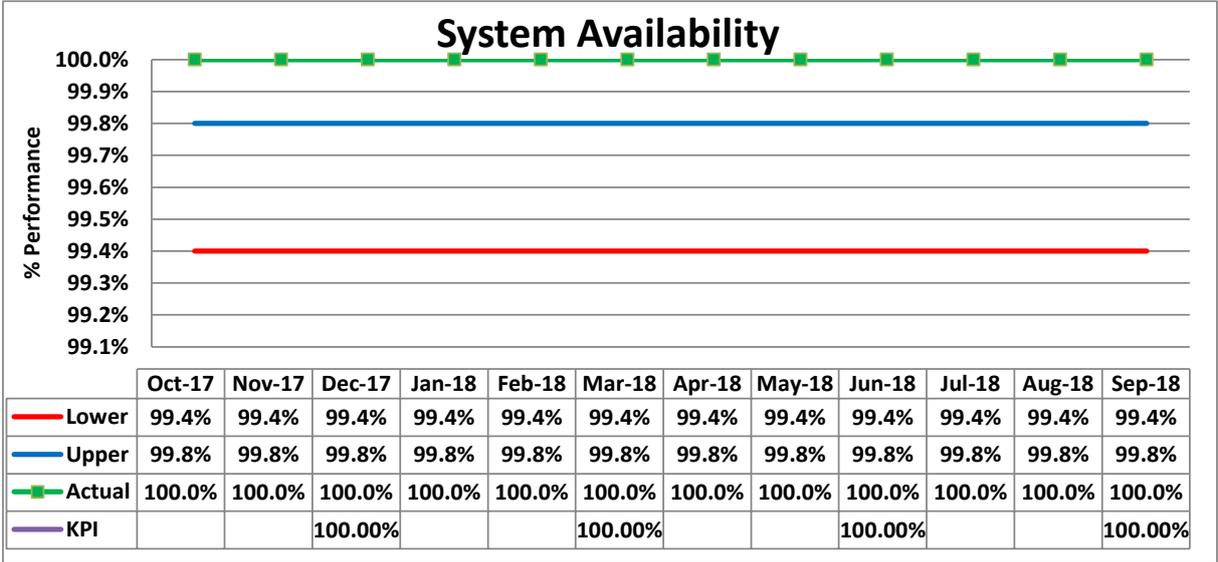
The monetary reward achieved is illustrated in Table 8 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€10,759	€9,843	€8,412	€11,371	€40,386

**Table 8 - General Query's outturn**

## System Availability

The target for the System Availability KPI was lowered from 99.5% to 99.4% with an upper bound limit lowered from 99.9% to 99.8%.



**Graph 8 – System Availability Performance**

The lower and upper bound targets of this metric have been achieved in all four Quarters of the financial year.

The monetary reward realised for these targets is illustrated in Table 9 below.

Quarter1	Quarter2	Quarter3	Quarter4	Total Reward
€7,581	€7,581	€7,581	€7,581	€30,323

**Table 9 – System Availability outturn**

## Performance Summary against KPI Targets

Table 10 below, summarises the overall Regulatory Approved KPI targets and the outturn KPI figures per Quarter. The light grey area indicates the KPI targets agreed in the SEMO Revenue Requirement Decision Paper (SEM-16-043). The darker grey columns show the percentage outturn achieved by SEMO for each KPI per Quarter while the blue column indicates the average performance over the four Quarters. These were challenging for SEMO in Quarters one and two, as the metrics were strengthened to focus on the importance of customer value and service delivery, and the System Availability was tracked for the third year.

SEMP KPI Outturn 2017-2018								
SEMO Revenue Requirement Decision Paper (SEM-16-043) Table 15				Performance by Quarter				Overall Performance
Metric	Weighting	Target	Upper Bound	Oct-Dec Q1	Jan-Mar Q2	Apr-June Q3	Jul-Sept Q4	2017-2018
Ex-Ante Pricing	0.10	99%	100%	98.92%	98.81%	100.00%	100.00%	98.87%
MIUN Publication	0.05	99%	100%	98.39%	98.81%	100.00%	100.00%	98.60%
Ex-Post Initial Pricing	0.10	99%	100%	100.00%	100.00%	100.00%	100.00%	100.00%
Invoicing	0.20	97%	100%	100.00%	100.00%	100.00%	100.00%	100.00%
Credit Cover Increase Notices	0.10	99%	100%	100.00%	100.00%	100.00%	100.00%	100.00%
SEMO Resettlement	0.20	<9	<5	0	2	0	0	2 (total)
General Queries	0.15	97%	99%	98.89%	98.73%	98.48%	99.04%	98.89%
System Availability (7am to 5pm Mon - Sun)	0.10	99.4%	99.8%	100.00%	100.00%	100.00%	100.00%	100.00%

**Table 10 - SEMO Performance 2017-2018**

### Incentive earned by SEMO

The SEMO Revenue Requirement Decision Paper (SEM-16-043) paragraph 11.1 states that the 'KPI incentive pot to be set at 4% of the total OPEX revenue for each year'. The approved OPEX revenue for 2017-2018 was €7,580,700. Four percent of this OPEX amount translates to a KPI pot of €303,228.

Table 11 below illustrates:

- The earned reward per Quarter
- The maximum available reward per Quarter
- The percentage KPI reward achieved per Quarter

<b>Incentive earned per Quarter</b>					
<b>Performance Indicator</b>	<b>Oct-Dec</b>	<b>Jan-Mar</b>	<b>Apr-June</b>	<b>Jul-Sept</b>	
	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>TOTAL</b>
Ex-Ante 1 Pricing	€0	€0	€7,581	€7,581	<b>€15,161</b>
MIUN Publication	€0	€0	€3,790	€3,790	<b>€7,581</b>
Ex-Post Initial Pricing	€7,581	€7,581	€7,581	€7,581	<b>€30,323</b>
Invoicing	€15,161	€15,161	€15,161	€15,161	<b>€60,646</b>
Credit Cover Increase Notices	€7,581	€7,581	€7,581	€7,581	<b>€30,323</b>
SEMO Resettlement	€15,161	€15,161	€15,161	€15,161	<b>€60,646</b>
General Queries	€10,759	€9,843	€8,412	€11,371	<b>€40,386</b>
System Availability (7am to 5pm Mon - Sun)	€7,581	€7,581	€7,581	€7,581	<b>€30,323</b>
<b>KPI reward per Quarter</b>	<b>€63,824</b>	<b>€62,908</b>	<b>€72,848</b>	<b>€75,807</b>	<b>€275,387</b>
<b>Maximum Available Reward in Quarter</b>	<b>€75,807</b>	<b>€75,807</b>	<b>€75,807</b>	<b>€75,807</b>	<b>€303,228</b>
<b>Percentage of Total Achieved in Quarter</b>	<b>84.19%</b>	<b>82.98%</b>	<b>96.10%</b>	<b>100.00%</b>	<b>90.82%</b>

**Table 11** – Summary of the KPI monetary reward 2017-2018

Based on a comprehensive set of KPI data SEMO have calculated the KPI reward in Table 11 above to be **€275,387**. This represents an overall percentage reward of 90.82% of the maximum amount available.

This KPI reward is to be recovered through the adjustment of the K Factor (see section 12 of the SEMO Revenue and Tariffs Decision Paper).

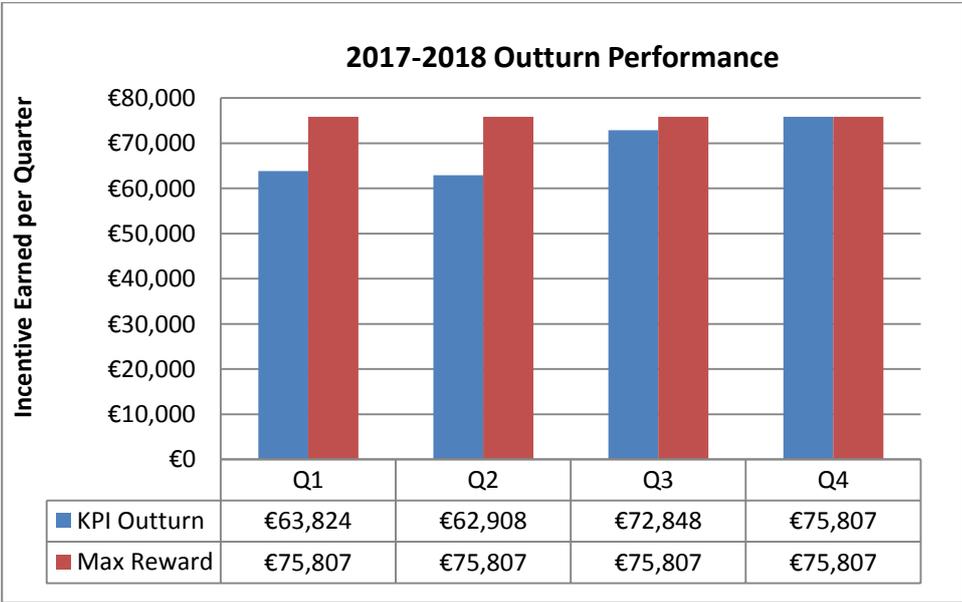
## Conclusion on SEMO’s Overall performance

In the fourth Quarter, SEMO had a very good performance; it was the only quarter in which all KPI targets were achieved.

The third Quarter had the next best performance, with a dip in outturn as a result of missing the upper bound target for general queries.

It is in the first and second Quarters during 2017-2018, that the lowest results were achieved. In the first Quarter SEMO experienced a technical issue with the DAM gate closure for Ex-Ante 1 which ultimately caused a delay to Ex-Ante 1 Market Schedule as well as the MIUN publication for the same pricing run. The second Quarter was impacted by a similar issue, the delay to an Ex-Ante 1 Market schedule was due to a technical issue with the DAM gate closure. This subsequently affected the publication of MIUNs for the same pricing run. Both Quarters were also impacted by general queries response time. The delay to resolving general queries in Quarter One and Quarter Two was due to a number of specific queries initially requiring cross functional support, and subsequently support from our vendor.

The Market Operator achieved all Ex-Post Initial Pricing, Invoicing, Credit Cover Increase Notices, SEMO Resettlement and System Availability KPI throughout all Quarters.



Graph 9 – Overall KPI Outturn Performance per Quarter