



Single Electricity
Market Operator

MARKET OPERATOR
SINGLE ELECTRICITY

Key Performance Indicator Outturn 2013-14

KPI Outturn Report 2013-14

Abstract

This document presents SEMO's performance against the regulatory approved Key Performance Indicators (KPIs) for the 2013-14 tariff year.

June 2015

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Introduction

SEMO is currently 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 2013 the *Single Electricity Market Operator (SEMO) Revenue Requirement Price Control Decision Paper commencing 1 October 2013 (SEM-13-054)* was issued. This paper increased the number of KPIs, the weightings and the incentive pot. The decision paper stated,

'Greater emphasis has been placed on incentivising SEMO to focus on the importance of customer value and service delivery. This is evidenced by an increasing number of Key Performance Indicators (KPIs), which now include System Availability. In addition to this some existing KPIs have been strengthened together with the reward available increasing from 3% of OPEX to 4%.'

This KPI paper describes SEMO's outturn performance in relation to its seven regulatory approved Key Performance Indicators (KPIs) for year one (2013-14) of the three year price control period.

Key Performance Indicators (KPIs)

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

The current seven Operational Key Performance Indicators were set out in SEMO's last Price Control (*SEM-13-054 Oct 13-Sept 16*) and monitor SEMO's performance across the following areas:

- Ex-Ante
- Ex-Post Initial
- Invoicing
- Credit Cover Increase Notice (CCINs)
- SEMO related ad hoc Resettlements
- General Queries
- Central Market System Availability

Ex-Ante

The Ex-Ante publication targets refer to the percentage of occurrences where the Ex-Ante 1 pricing reports are published on time. Currently the target time for publication is 11:00am every day, seven days a week. The Ex-Ante 1 pricing runs are carried out on D-1 and give the day-ahead forecast of Market Scheduled Quantities (MSQ) and System Marginal Price (SMP) for all units. The Ex-Ante 1 is also important for setting Interconnector Unit Nominations for Interconnector Units who have bought Interconnector Capacity, and calculating the residual Capacity that all other Interconnector Units could avail of in Ex-Ante 2 and Within-Day runs¹. Unlike prices and quantities, the Interconnector Nominations for day ahead are fixed and cannot be re-set after the Ex-Ante is published.

Ex-Post Initial

The Ex-Post Initial publication targets refer to the percentage of occurrences where the Ex-Post Initial pricing reports are published on time. Currently the target time for publication is 17:00 every day, seven days a week. The Ex-Post Initial pricing runs are carried out on D+4 and give the final SMPs and MSQs for all participants. These figures are 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. Currently for the weekly energy Market and Variable Market Operator Charge (VMOC) invoices the target is 12:00 each Friday. Capacity is invoiced at 12:00 seven working days

¹ This is in application of the principle of 'use it or loose it' which underpinned the implementation of Intraday Trading

after the end of the month, and the Fixed Market Operator Charge (FMOC) invoices are 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. Currently the target time for publications is 14:30 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 (2,156 general queries in 2013-14) 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). This is a new target introduced in the latest Revenue Requirement review, designed to capture Market Operations effectiveness for an IT point of view.

Key Performance Indicator Outturn 2013-14

The agreed SEMO Key Performance targets are set on in table 1 below².

| Metric | Weighting | Lower Bound Target | Upper Bound Target |
|--|-----------|--------------------|--------------------|
| 1 Ex-Ante Pricing Report | 0.15 | 99% | 100% |
| 2 Ex-Post Initial Pricing Report | 0.1 | 99% | 100% |
| 3 Invoicing | 0.2 | 97% | 100% |
| 4 Credit Cover Increase Notices | 0.1 | 99% | 100% |
| 5 SEMO related formal Queries | 0.2 | 9 ³ | 5 ⁴ |
| 6 General Queries | 0.15 | 97% ⁵ | 99% ⁶ |
| 7 Central Market System Availability (7AM – 5PM Mon - Sun) | 0.1 | 99.5% ⁷ | 99.9% ⁸ |

Table 1 - Summary of the agreed Key Performance Indicators

Conditions to be applied to the KPIs

The decision paper also applied the following KPI conditions

'11.3.3 The following conditions will apply:

- *The metric is delivered within one hour of the targeted time;*
- *External factors which are demonstrably outside of the Market Operator's direct control are to be 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.;*
- *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;*
- *KPI incentive pot to be set at 4% of the total OPEX revenue for each year. The increase (from 3%) is justified by the fact that the SEM Committee has increased the targets of several KPIs.'*

A number of weighting factors have also been adjusted, as a result of the additional KPI target and for the purpose of increasing emphasis on customer services.

² Extract from table 22 in SEMO Revenue Requirement Decision Paper (SEM-13-054)

³ 9 or less upheld queries incidents per quarter

⁴ 5 upheld queries incidents per quarter

⁵ 97% of Queries answered within 20 Business days

⁶ 99% of Queries answered within 20 Business days

⁷ 99.5% System availability between 7am and 5pm Monday - Sunday excluding planned outages

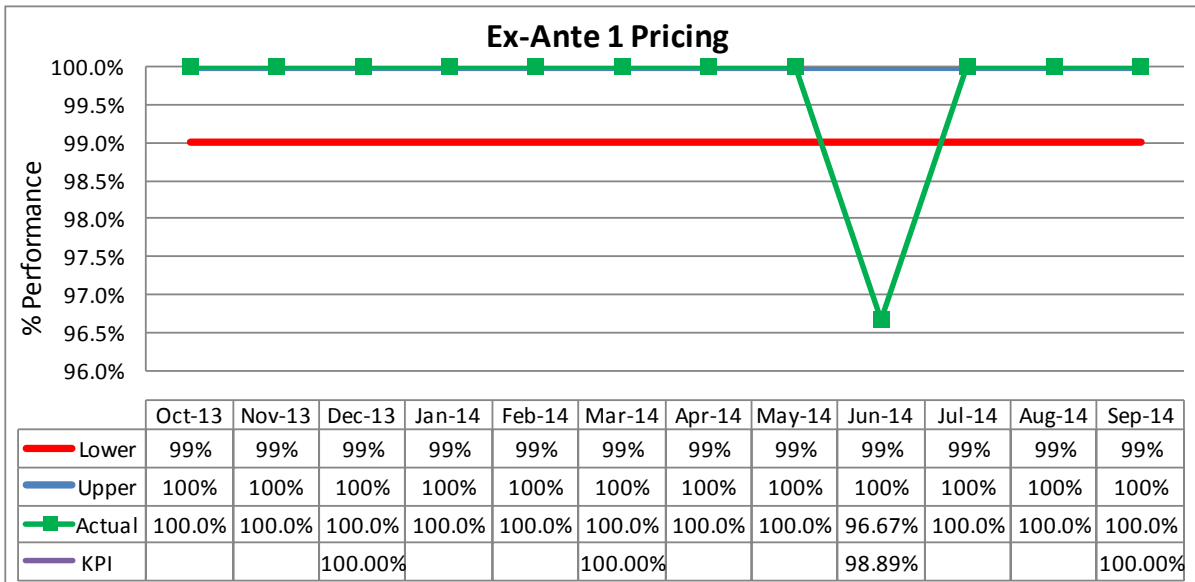
⁸ 99.9% System availability between 7am and 5pm Monday - Sunday excluding planned outages

Outturn Performance 2013-14

The SEMO Revenue Requirement Decision Paper (SEM-13-054), paragraph 11.3.3, states that the ‘KPI incentive pot to be set at 4% of the total OPEX revenue for each year’. The approved OPEX revenue for 2013-2014 was €10.173 million⁹. Four per cent of this OPEX amount translates to a KPI pot of €406,924. 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 is 99% with an upper bound limit of 100%. Performance has been stable throughout the year, except for a dip in June 2014 when an unscheduled outage of the Central Market Systems caused a delay in the Ex-Ante pricing publication. The issue, affecting the 30th June 2014, is the same detailed in the System Availability target.



Graph 1 - Ex-Ante 1 Pricing Report Performance

The bounds for this target are set very high, and just one delayed publication out of 91 in Quarter three, was enough to prevent SEMO from achieving this objective. The monetary reward realized is illustrated in table 2 below.

| Quarter1 | Quarter2 | Quarter3 | Quarter4 | Total Reward |
|----------|----------|----------|----------|--------------|
| €15,260 | €15,260 | €0 | €15,260 | €45,779 |

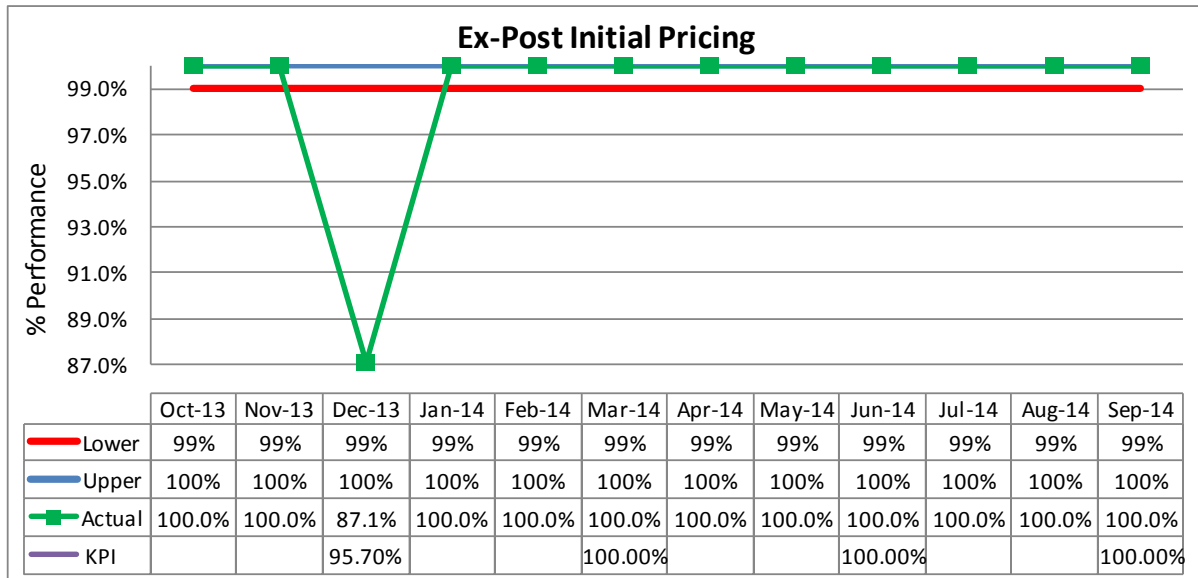
Table 2 - Ex-Ante Pricing Report outturn

Ex-Post Initial Pricing Report

⁹ Price Control approved figure for 2013-2014 of 10.006 million with indices applied

Key Performance Indicator Outturn 2013-14

The target for the Ex-Post Initial KPI is 99% with an upper bound limit of 100%. Performance dipped in December 2013 due to 4 delayed publications. These were all linked to a Registration change of a unit from APTG to VPTG which could not be resolved internally and depended on a solution provide by the vendor.



Graph 2 - Ex-Post Initial Pricing Report Performance

SEMO achieved the upper bound of Ex-Post target for Quarters two, three and four but fell short of making the target in Quarter one. The monetary reward for meeting these targets is illustrated in table 3 below.

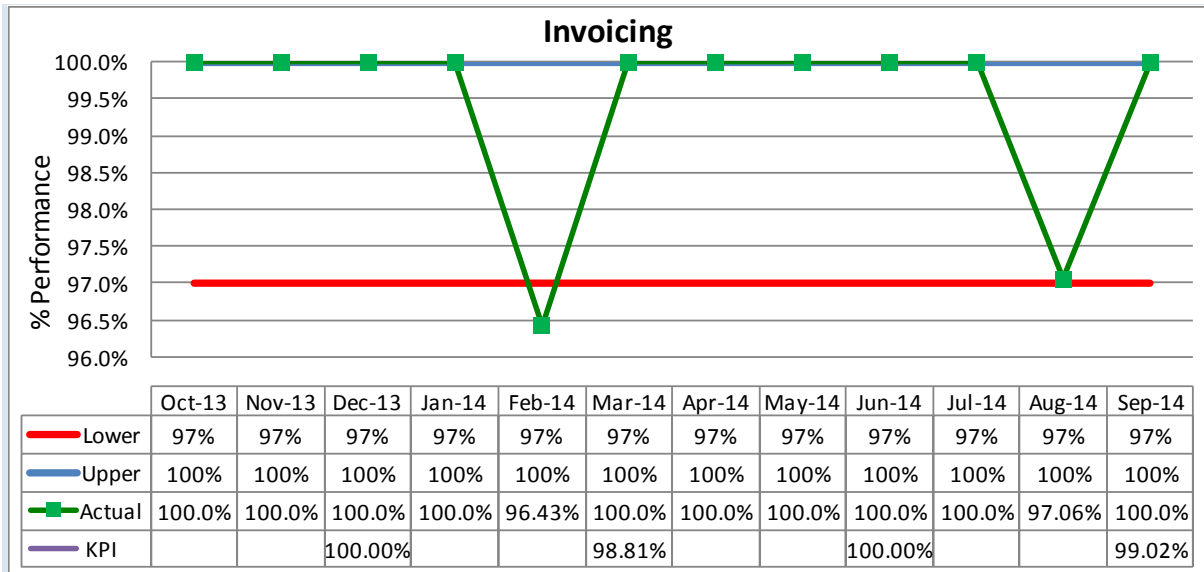
| Quarter1 | Quarter2 | Quarter3 | Quarter4 | Total Reward |
|----------|----------|----------|----------|--------------|
| €0 | €10,173 | €10,173 | €10,173 | €30,519 |

Table 3 - Ex-Post Initial Pricing Report outturn.

Invoicing

The target for the Invoicing KPI is 97% (up from 95% in previous years) with an upper bound limit of 100%. Two issues, one In February and one in August 2014 caused the delay in publication. In February 2014 an issue encountered during de-registration of an Interconnector Unit were behind the delayed FMOC invoices; while in August 2014 the delays related to operational errors during M+13 Capacity run, which was being impacted by manual recalculations for a VPTG defect fix.

Key Performance Indicator Outturn 2013-14



Graph 3 - Invoicing Performance

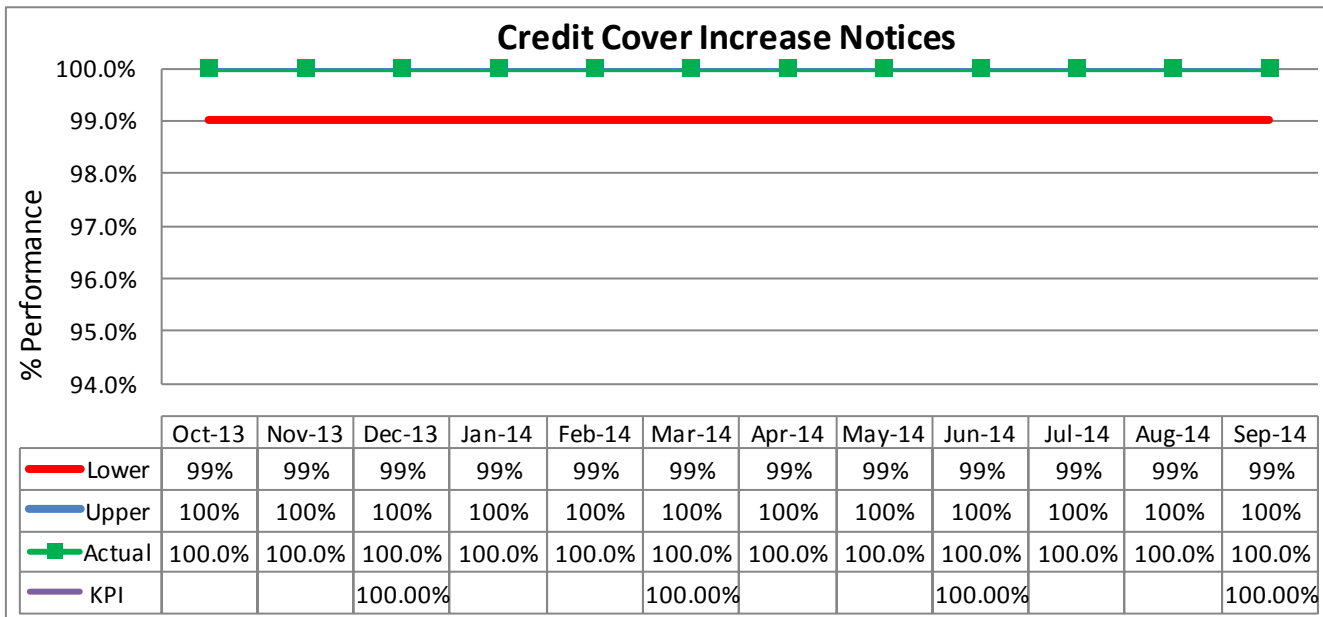
SEMO managed to achieve the lower bound target as a minimum for all Quarters with just two invoices delayed over the year. The monetary reward for meeting these targets is illustrated in table 4 below.

| Quarter1 | Quarter2 | Quarter3 | Quarter4 | Total Reward |
|----------|----------|----------|----------|--------------|
| €20,346 | €12,276 | €20,346 | €13,700 | €66,668 |

Table 4 Invoicing outturn.

Credit Cover Increase Notices

The CCIN publication is due by 2:30 pm each Working Day. The target for the Credit Cover Increase Notices (CCIN's) KPI is 99% with an upper bound limit of 100%. This is a very strict range; however, no delays were recorded in this period.



Graph 4 - Credit Cover Increase Notice Performance

Key Performance Indicator Outturn 2013-14

The upper bound of this target has been 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 |
|----------|----------|----------|----------|--------------|
| €10,173 | €10,173 | €10,173 | €10,173 | €40,692 |

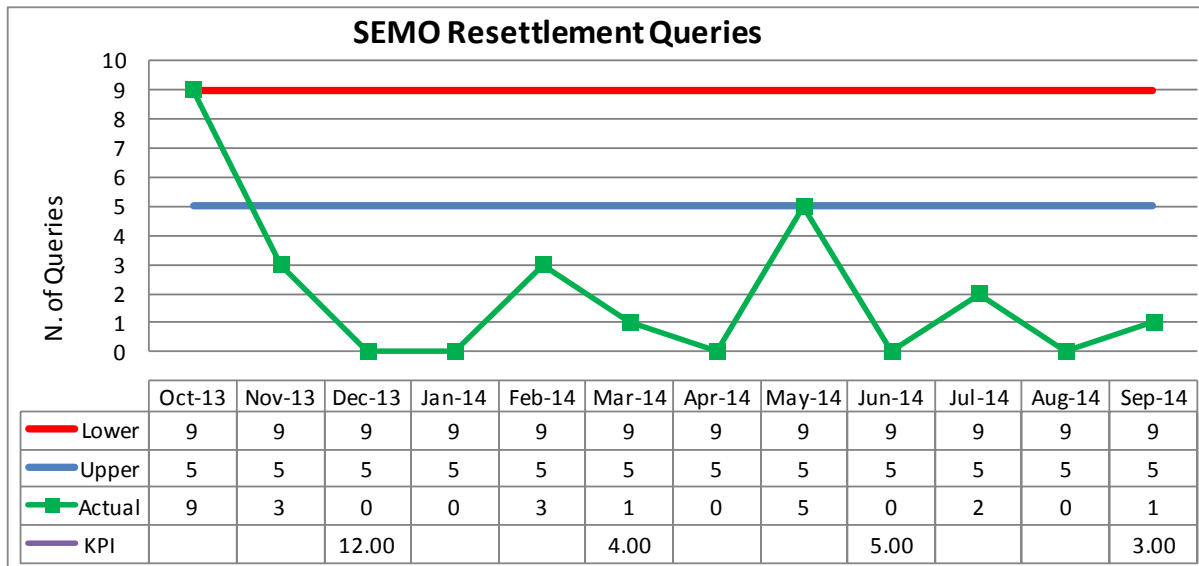
Table 5 - Credit Cover Increase Notice outturn

SEMO Resettlement Related Queries

Compared to the previous Price Control period, the target for SEMO Resettlement Related Queries has been lowered from 'less than 15' to 'less than 9' upheld queries which require Resettlement per Quarter. The upper bound of this metric is five per Quarter. This target has been exceeded or equalled in three Quarters of the financial year while Quarter one fell short due to a number of Resettlements Queries mainly linked to two areas:

- Incorrect Capacity Settlement Calculations
- Incorrect calculations of DOP for units under test

Other issues in May 2014 refer to operational errors resulting in incorrect MIUNs.



Graph 5 - SEMO Resettlement Related Queries Performance

SEMO achieved or exceeded the upper bound of this metric in Quarters two, three and four. Quarter one was affected by various instances of a single issue which resulted in multiple queries over a short period of time. The monetary reward for this target is illustrated in table 6 below.

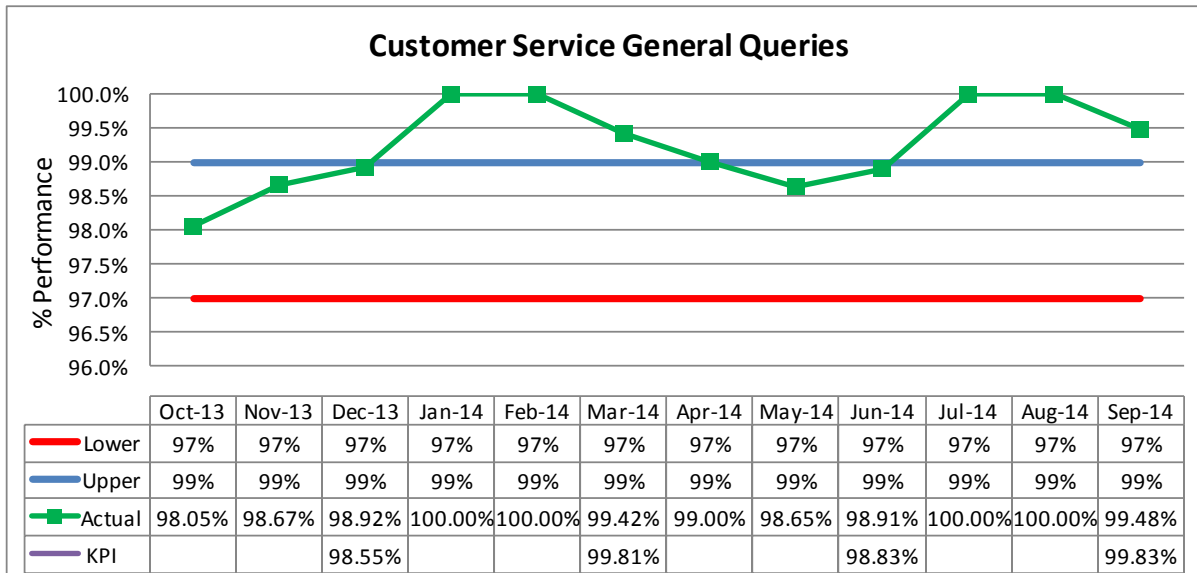
| Quarter1 | Quarter2 | Quarter3 | Quarter4 | Total Reward |
|----------|----------|----------|----------|--------------|
| €0 | €20,346 | €20,346 | €20,346 | €61,039 |

Table 6 - SEMO Related Resettlement Queries outturn

General Queries

The target for the General Queries Delivery KPI is 97% with an upper bound limit of 99%. The KPI requires that SEMO resolves 99% of its queries within 20 working days. SEMO in financial year 2013/2014 handled over 2,000

helpdesk general queries still improving from previous year achievements. There were 17 instances over the financial year where timelines could not be adhered to. This is due to a number of factors that impact resolution like the complexity and scale of the query received, resources available, priority given to formal and urgent queries, the nature of the request which could require cross functional assistance and operational performance.



Graph 6 - General Queries Performance

SEMO achieved the upper bound for two of the four Quarters and reduced rewards for Quarters one and three. The monetary reward for achieving these targets is illustrated in table 7 below.

| Quarter1 | Quarter2 | Quarter3 | Quarter4 | Total Reward |
|----------|----------|----------|----------|--------------|
| €11,801 | €15,260 | €13,938 | €15,260 | €56,259 |

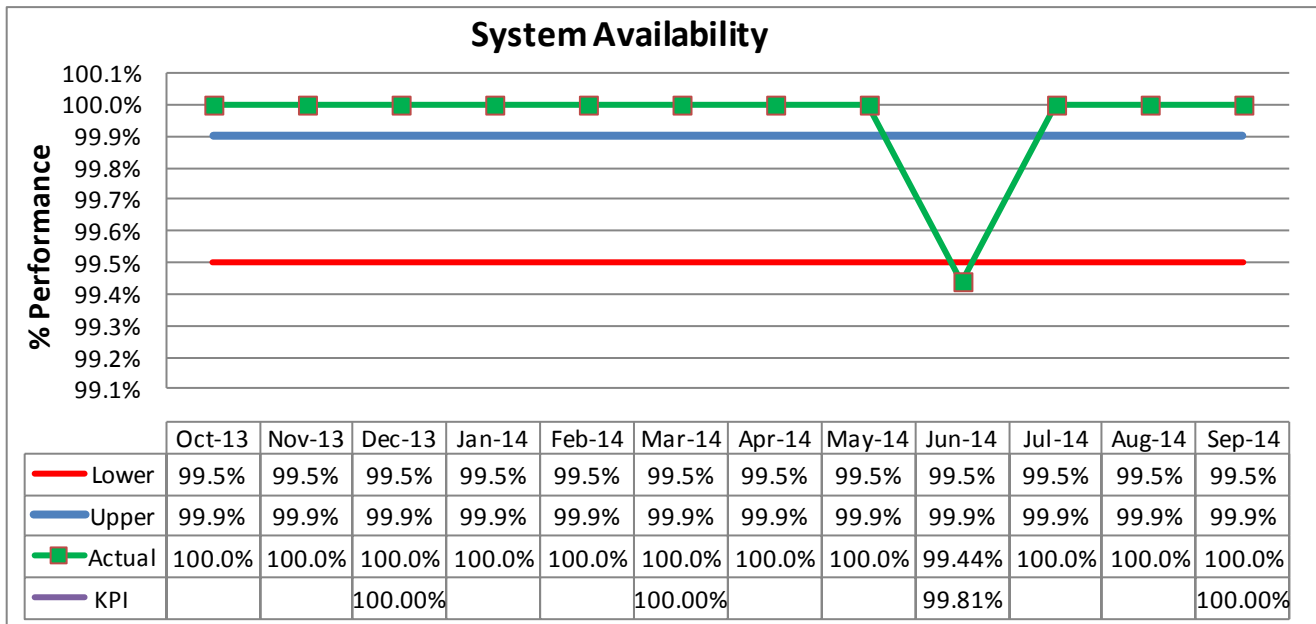
Table 7 - General Query's outturn

System Availability

The target for the System Availability KPI is 99.5% with an upper bound limit of 99.9%. This is the first time this target has been measured and there was only one occurrence that caused the system to become unavailable on the 30th June 2014 for four hours within operational time (7am to 5pm Mon to Sun). This originated from an overnight power supply failure on the Storage Area Network, causing the systems to lose connectivity with the database. On-call staff were notified at 04:00am and the issue was resolved at 11:00am.

This problem also caused the delay of the Ex-Ante Pricing Reports publication on the same date which affected performance for that target in Quarter 3.

Key Performance Indicator Outturn 2013-14



Graph 7 – System Availability Performance

SEMO exceeded the upper bound of this metric in Quarters one, two and four. The monetary reward for this target is illustrated in table 8 below.

| Quarter1 | Quarter2 | Quarter3 | Quarter4 | Total Reward |
|----------|----------|----------|----------|--------------|
| €10,173 | €10,173 | €7,969 | €10,173 | €38,488 |

Table 8 – System Availability outturn

Performance Summary against KPI Targets

Table 9 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-13-054). 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 particularly challenging for SEMO in Q1 and Q3, as some of the metrics have been strengthened to focus on the importance of customer value and service delivery and an additional metric for System Availability was also included.

| SEMP KPI Outturn 2013-2014 | | | | | | | | |
|--|------------------|---------------|------------------------|-------------------------------|-----------------------|------------------------|------------------------|--------------------------------|
| SEMO Revenue Requirement Decision Paper (SEM-13-054) paragraph 11.3.2 | | | | Performance by Quarter | | | | Overall Performance |
| Metric | Weighting | Target | Upper Bound | Oct-Dec Q1 | Jan-Mar Q2 | Apr-June Q3 | Jul-Sept Q4 | 2013-2014 |
| Ex-Ante 1 Pricing | 0.15 | 99% | 100% | 100.00% | 100.00% | 98.89% | 100.00% | 99.72% |
| Ex-Post Initial Pricing | 0.1 | 99% | 100% | 95.70% | 100.00% | 100.00% | 100.00% | 98.93% |
| Invoicing | 0.2 | 97% | 100% | 100.00% | 98.81% | 100.00% | 99.02% | 99.46% |
| Credit Cover Increase Notices | 0.1 | 99% | 100% | 100.00% | 100.00% | 100% | 100.00% | 100% |
| SEMO Resettlement | 0.2 | <9 | <5 | 12 | 4 | 5 | 3 | 24 (total) |
| Customer Service | 0.15 | 97% | 99% | 98.55% | 99.81% | 98.83% | 99.83% | 99.25% |
| System Availability (7am to 5pm Mon - Sun) ¹⁰ | 0.1 | 99.5% | 99.9% | 100.00% | 100.00% | 99.81% | 100.00% | 99.95% |

Table 9 - SEMO Performance 2013-2014

Incentive earned by SEMO

The SEMO Revenue Requirement Decision Paper (SEM-13-054) paragraph 11.3.1 states that the 'KPI incentive pot to be set at 4% of the total OPEX revenue for each year'. The approved OPEX revenue for 2013-2014 was €10.173 million. Four percent of this OPEX amount translates to a KPI pot of €406,924. The increase in the incentive (from 3% in previous year) is justified by the fact that the SEM Committee has increased the targets of several KPIs and added a seventh metric.

Table 10 below illustrates:

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

¹⁰ New metric as per SEMO Revenue Requirement Decision Paper (SEM-13-054).

Key Performance Indicator Outturn 2013-14

| Incentive earned per Quarter | | | | | |
|--|-----------------|-----------------|-----------------|-----------------|-----------------|
| Performance Indicator | Oct-Dec | Jan-Mar | Apr-June | Jul-Sept | |
| | Q1 | Q2 | Q3 | Q4 | TOTAL |
| Ex-Ante 1 Pricing | €15,260 | €15,260 | €0 | €15,260 | €45,779 |
| Ex-Post Initial Pricing | €0 | €10,173 | €10,173 | €10,173 | €30,519 |
| Invoicing | €20,346 | €12,276 | €20,346 | €13,700 | €66,668 |
| Credit Cover Increase Notices | €10,173 | €10,173 | €10,173 | €10,173 | €40,692 |
| SEMO Resettlement | €0 | €20,346 | €20,346 | €20,346 | €61,039 |
| Customer Service | €11,801 | €15,260 | €13,938 | €15,260 | €56,259 |
| System Availability (7am to 5pm Mon - Sun) | €10,173 | €10,173 | €7,969 | €10,173 | €38,488 |
| KPI reward per Quarter | €67,753 | €93,660 | €82,946 | €95,085 | €339,444 |
| Maximum Available Reward in Quarter | €101,731 | €101,731 | €101,731 | €101,731 | €406,924 |
| Percentage of Total Achieved in Quarter | 66.60% | 92.07% | 81.53% | 93.47% | 83.42% |

Table 10 – Summary of the KPI monetary reward 2013-2014

Based on a comprehensive set of KPI data SEMO have calculated the KPI reward in Table 10 above to be **€339,444**. This represents an overall percentage reward of 83.42% of the maximum amount available. The percentage is slightly higher than previous year recovery.

This KPI reward is to be recovered through the adjustment of the K Factor (see paragraph 12.3.4 of the SEMO Revenue and Tariffs Decision Paper).

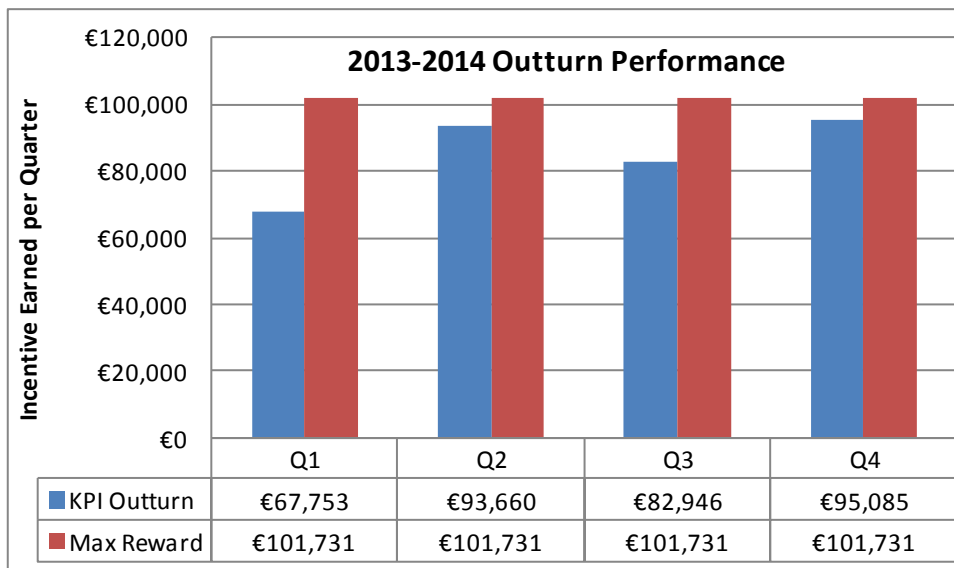
Conclusion on SEMO’s Overall performance

The KPIs set by the Regulatory Authorities were extremely challenging to attain during 2013-2014: the targets set are very high and had been increased in some instances as a result of the last Revenue Requirements review. Additional metrics were also included which added to the challenges.

It is in the first Quarter during 2013-2014, that lowest results were achieved. Registration and Settlement were the areas where issues had the largest impact. This is to be expected due to the manual nature of some Operational tasks in these areas. In particular resolution of calculation errors or defects require manual data entries which can lead to further errors. Although measure are in place to limit these errors, resources availability and a high demanding pace have a negative effect o occasion.

Very good performances were achieved in the second and fourth Quarters, while in the third Quarter one IT issue on the Central Market Systems negatively affected two of the targets.

Notwithstanding the increased challenges encountered in this financial year, the overall performance is still very high and improving from previous year signalling that SEMO staff, and in particular Market Operations, continues to improve services and efficiencies even at times of increased pressure.



Graph 8 – Overall KPI Outturn Performance per Quarter

