



# **Market Operator Monthly Report**

## **June 2014**

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### 1 Executive Summary

This Single Electricity Market Operator's (SEMO) report covers the month of operation of June 2014 and is published in accordance with the Single Electricity Market (SEM) Committee decision and Clause 2.144 of the Trading and Settlement Code. Trading and Settlement Code

During the month of June 2014, Settlements had no late publications as per the Trading and Settlement code.

183 general queries were received in June 2014. During the same period 154 general queries were resolved.

There were six defaults by Participants during June 2014. The largest of these was an Energy Initial invoice for €2761, which was remedied the next working day.

Formal queries continue to be answered well within the timelines stipulated in the Trading and Settlement (Code).

## 2 Monthly Statistics

### Code Breaches

Breaches of the Trading & Settlement Code were noted in the following areas.

Code Breaches			
Area		Major	Minor
Data Providers		-	-
Market Participants	Pricing & Scheduling	2	1
	Settlement	-	-
	Funds Transfer	6	-
	Credit Risk Management	-	-
SEMO	Pricing & Scheduling	-	1
	Settlement	-	-
	Funds Transfer	-	-
	Credit Risk Management	-	-
	Other	-	-
<b>Total</b>		<b>8</b>	<b>2</b>

Table 1 - Code Breaches

Further details of each of the code breaches noted above are set out in [Appendix A](#)

Key:

- Major Breach - late publishing of invoices, default notices issued for non-payment or similar.
- Minor Breach - deadlines not met, but any financial implication to Participants. This includes late posting of pricing and settlement runs.

### ***Joining and Terminating Parties and Units***

No parties joined the Market in June 2014.

There were no terminating parties in June 2014.

No new units became effective in the Market in June 2014.

No units were de-registered from the Market in June 2014.

### ***Suspension of Participants***

There have been no Suspension Orders issued by the Market Operator at this time.

### 3 Financial Statistics

#### Total Charges for Each Currency

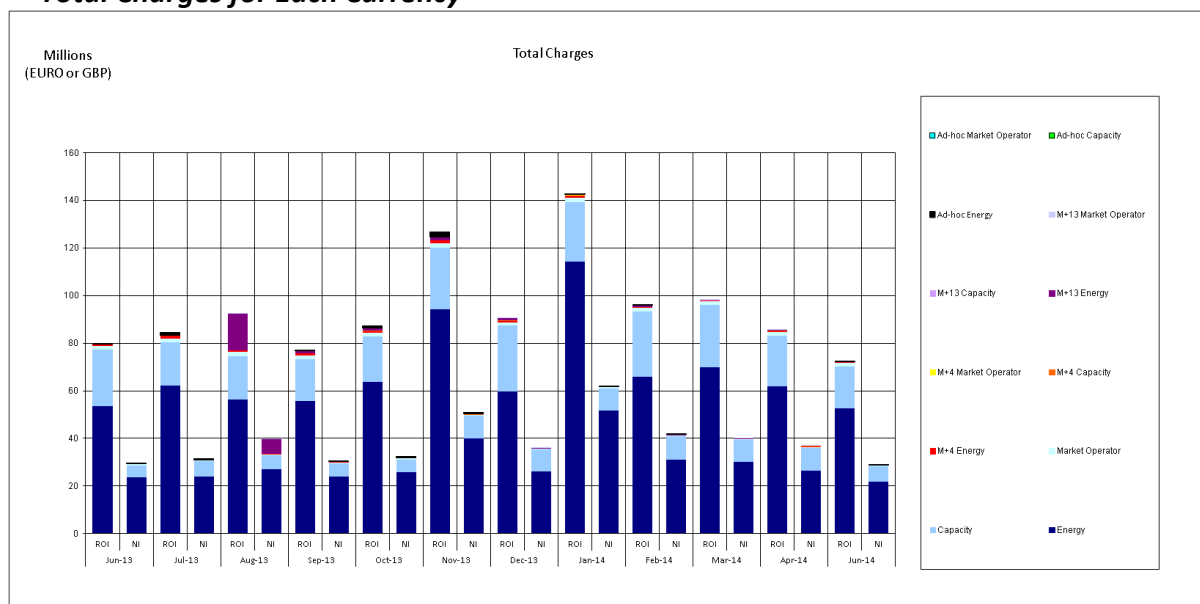


Figure 1 - Total Charges for Each Currency

Market	June 2014	
	ROI	NI
Energy	€52,841,751	£21,944,762
Capacity	€17,596,855	£6,361,219
Market Operator	€1,312,068	£345,121
M+4 Energy	€423,771	£120,971
M+4 Capacity	€115,751	£44,784
M+4 Market Operator	€4,163	£1,003
M+13 Energy	€89,169	£41,125
M+13 Capacity	€18,685	£9,461
M+13 Market Operator	€1,015	£416
Ad-hoc Energy	€28,526	£2,532
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
<b>Total</b>	<b>€72,431,754</b>	<b>£28,871,396</b>

Table 2 - Total Charges for Each Currency

Notes relating to Table 2 and 3:

- Month of inclusion based on Invoice Date.
- Amounts are after application of Settlement Reallocations.
- Previous month's data is available in [Appendix G](#).

## Total Payments for Each Currency

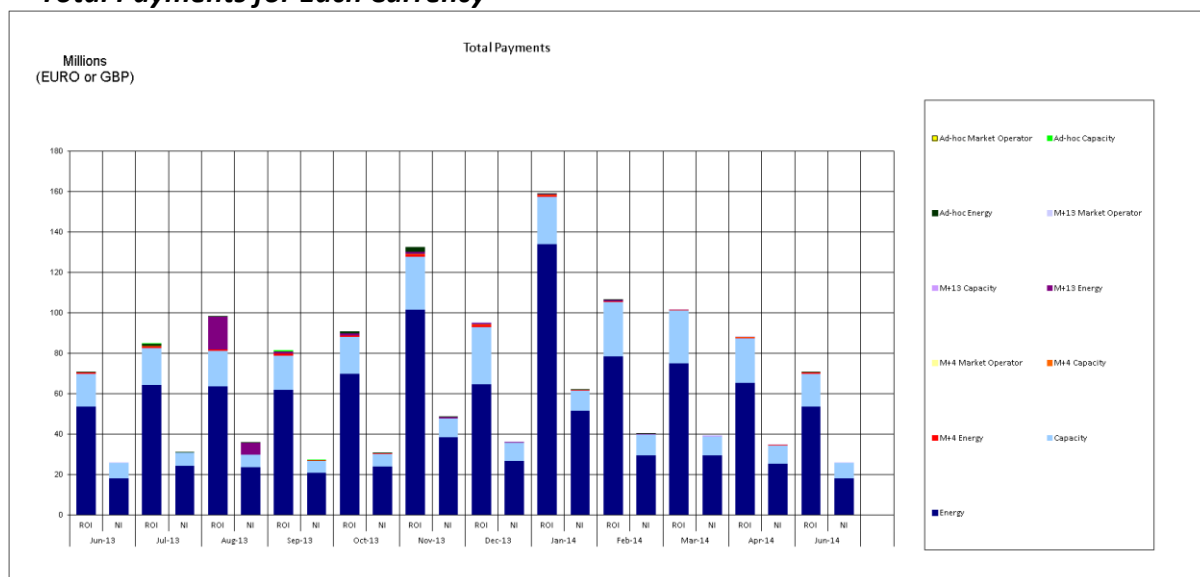


Figure 2 - Total Payments for Each Currency

Market	June 2014	
	ROI	NI
Energy	€53,863,542	£18,301,490
Capacity	€16,268,862	£7,464,865
M+4 Energy	€424,333	£121,134
M+4 Capacity	€121,415	£40,186
M+4 Market Operator	€4,246	£1,005
M+13 Energy	€106,227	£50,771
M+13 Capacity	€17,319	£10,564
M+13 Market Operator	€1,015	£416
Ad-hoc Energy	€10,805	£30
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
<b>Total</b>	<b>€70,817,764</b>	<b>£25,990,462</b>

Table 3 - Total Payments for Each Currency



**Total Balancing Costs**

Balancing Costs arise in the Energy and Capacity markets when the summed payments to the SEM from Participants in respect of their Supplier Units do not meet the summed payments to Participants from the SEM in respect of their Generator Units.

Although, it is intended the Energy Payments and Energy Charges should be balanced through the mechanism of the Error Supplier Unit in each jurisdiction, because Energy Payments are made against Market Schedule Quantities while the Error Supplier Unit volumes are calculated against Metered Generation, the different application of Loss Factors means that there is frequently an imbalance between the Energy Payments and Energy Charges.

With regard to the Energy Settlement, the Balancing Costs have been calculated as follows for the entire month:

June 2014	
Imbalance (Energy Only)	-€18,661,594.91

Table 4 - Balancing Costs for Energy Settlement

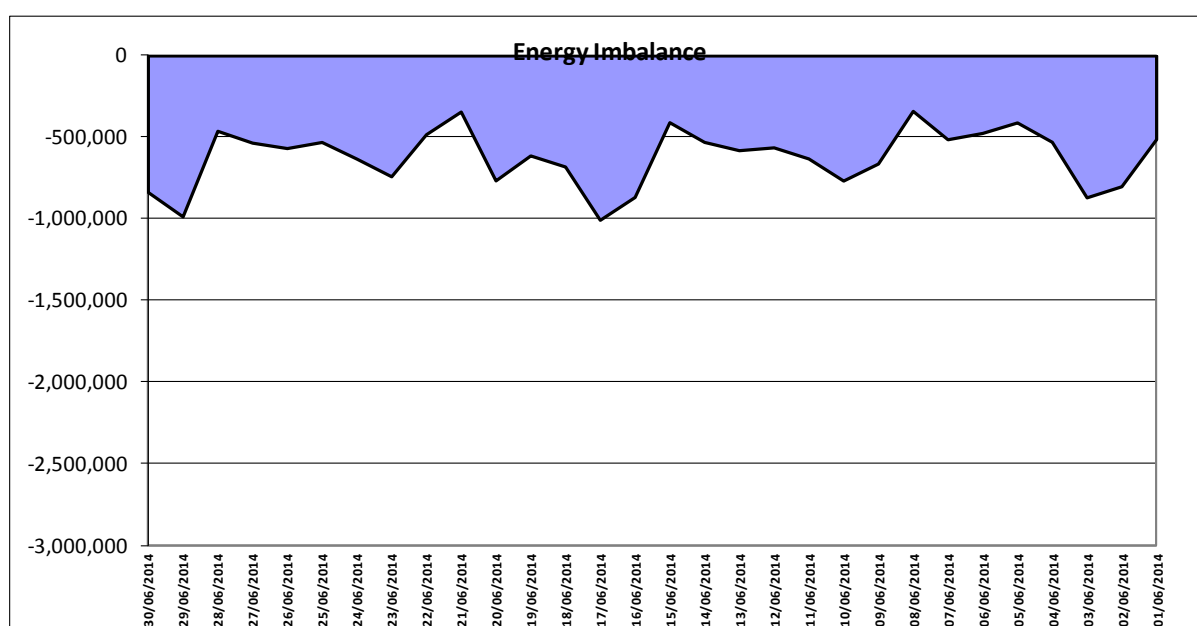


Figure 3 – Energy Imbalances

The full Balancing Cost of the SEM is determined by the summation of the daily payment amounts for Energy Imbalance, Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges combined with the weekly Make Whole Payments and Testing Charges.

Historical values for testing charges have been provided in [Appendix E](#) .

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The figures for the full Balancing Cost of the SEM since the last Market Operator report are shown below, as well as the VAT Balancing Costs.

In tables 5 and 6 below:

- Positive values indicate Payments were greater than Charges.
- Negative values indicate Charges were greater than Payments.

Date Of Invoice	Week No	SEM Balancing Costs	VAT Balancing Costs
06/06/2014	21	-€326,019.47	-€82,173.40
13/06/2014	22	-€802,412.50	-€18,940.35
20/06/2014	23	-€566,638.49	-€51,931.44
27/06/2014	24	-€559,663.83	-€346,567.51

**Table 5 - Balancing Costs for Trading Payments and Charges**

SEM Balancing Costs are provided based on daily exchange rates, VAT Balancing Costs are based on the Invoicing day exchange rate. VAT Balancing costs exclude Currency Cost related VAT.

It is intended that the algorithms set out in the Trading and Settlement Code will lead to a balanced Capacity Market. However, rounding precisions within the systems may result in an imbalance being introduced into the equations. This imbalance may lead to funding requirements to ensure that all payments out are made as per the terms of the Code.

With regard to the Capacity Settlement, the Balancing Costs have been as follows:

June 2014	
Capacity Charges	-€37,483,075.05
Capacity Payments	€37,482,836.26
Balancing Costs	-€238.78
VAT	€973.26

**Table 6 - Balancing Costs for Capacity Settlement**

Historical figures, the current financial year full Balancing Costs for both Trading and Capacity are provided in [Appendix H](#). VAT Balancing costs exclude Currency Cost related VAT.

### Total Currency Costs

Currency Costs in the SEM are calculated with respect to the difference in Exchange Rates due to two components:

- 1) Invoice Currency Costs: - in respect of the difference between the Trading Day Exchange Rate (and Annual Capacity Exchange Rate in respect of Capacity Settlement) and the Exchange Rate on the Date of Invoice (being the date of issue of the Invoice) for Trading Payments and Charges.
- 2) Payment Period Currency Costs: - in respect of the difference between the Exchange Rates between the Date of Invoice and the Date of Payment.

Although the Code uses the term Currency Cost, the currency differences may end up as a benefit or a cost to the Participant depending on how the Exchange Rate fluctuates between the Billing Period, Invoice Date and Payment Date. In the table below, where this value is positive this means there was an overall benefit to Participants, negative values mean there was an overall cost to Participants resulting from trading in two currencies. Figures are shown in Sterling (£).

Last Date Of Billing Period	Date Of Invoice	Week No	Currency Costs For Energy Settlement (Invoice and Payment)	Currency Cost Adjustment for Inter-jurisdictional SRAs	Total Currency Cost
31/05/2014	06/06/2014	21	-£17,013.25	-£2,880.58	-£19,893.83
07/06/2014	13/06/2014	22	-£17,940.98	£6,376.83	-£11,564.15
14/06/2014	20/06/2014	23	£29,474.08	£6,677.98	£36,152.06
21/06/2014	27/06/2014	24	£17,808.01	-£3,607.30	£14,200.70

**Table 7 - Total Currency Costs for Trading Payments and Charges**

The Total Currency Cost figures detailed above show the Currency Cost for each Billing Period including Invoice Currency Costs, Payment Period Currency Costs, and Inter-jurisdictional SRA Currency Costs.

Over the period of this report Currency Costs for each week represented a benefit to Participants of up to £36,152.06 and a cost of €-19,893.83. Whether Currency Costs are a cost or benefit to Participants is directly related to whether the currency is rising or falling between the billing period, invoice date and payment dates.

Settlement Reallocation Agreements between the two currency zones continue to present volatility in the Currency Costs that appear in the Energy market each week. The value of these adjustments is detailed separately above in each Billing Period.

The Currency Costs, for the current financial year, with respect to Initial Capacity Settlement are set out below. Figures are shown in Sterling (£).

Date Of Invoice	Capacity Month	Currency Costs For Capacity Settlement
09/07/2014	June 2014	-90,946.70

**Table 8 - Total Currency Costs for Capacity Payments and Charges**

**Cumulative Imperfections Costs Vs Budget**

The value of Cumulative Imperfections Costs Vs Budget is calculated as the sum of Total Constraint Payments, Total Uninstructed Imbalance Payments, Total Testing Charges and Total Make Whole Payments, as compared against the Total Imperfections Charges, being the weekly budget for these Imperfections Costs.

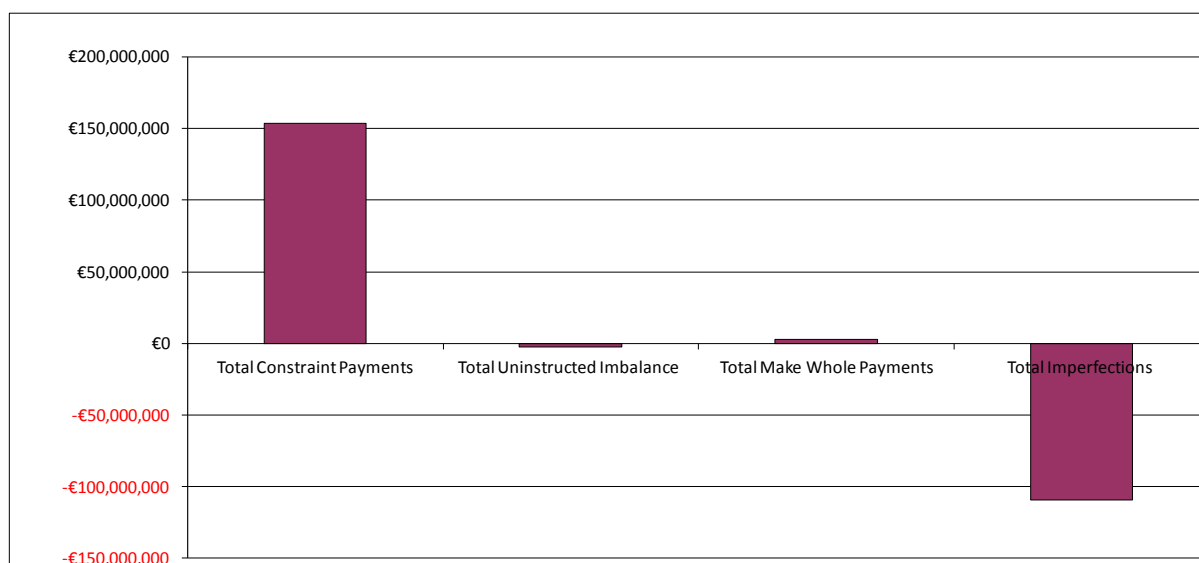
These values have been collected across the months since the start of the new financial year, 1st October 2013. The values expressed in Euros are as follows.

This table makes use of the values taken from the Initial Settlement Run of Trading payments and charges.

Total Constraint Payments	Total Uninstructed Imbalance	Total Make Whole Payments	Total Imperfections
€154,193,780.89	-€2,190,269.90	€2,704,128.17	-€109,263,545.51

**Table 9 – Cumulative Imperfections Costs Vs Budget**

This is demonstrated in the figure below.



**Figure 4 - Cumulative Imperfections Costs Vs Budget**

The daily and weekly data that comprised these values is shown in [Appendix E](#).

**Financial Changes between Initial Settlement and Subsequent Reruns**

The following graphs provide a breakdown of resettlement amounts for the M+4 resettlement period of February 2014 and M+13 resettlement period of May 2013 for Energy and Capacity.

## Market Operator Monthly Report

### 3.1.1 Energy Market

Note: - For Figure 6, 8, 9, net values are shown.

- Positive amounts indicate net additional payments by Participants (Charges).
- Negative amounts indicate net additional payment to be made to Participants (Payments).

The reverse is true for Figure 7 & 10.

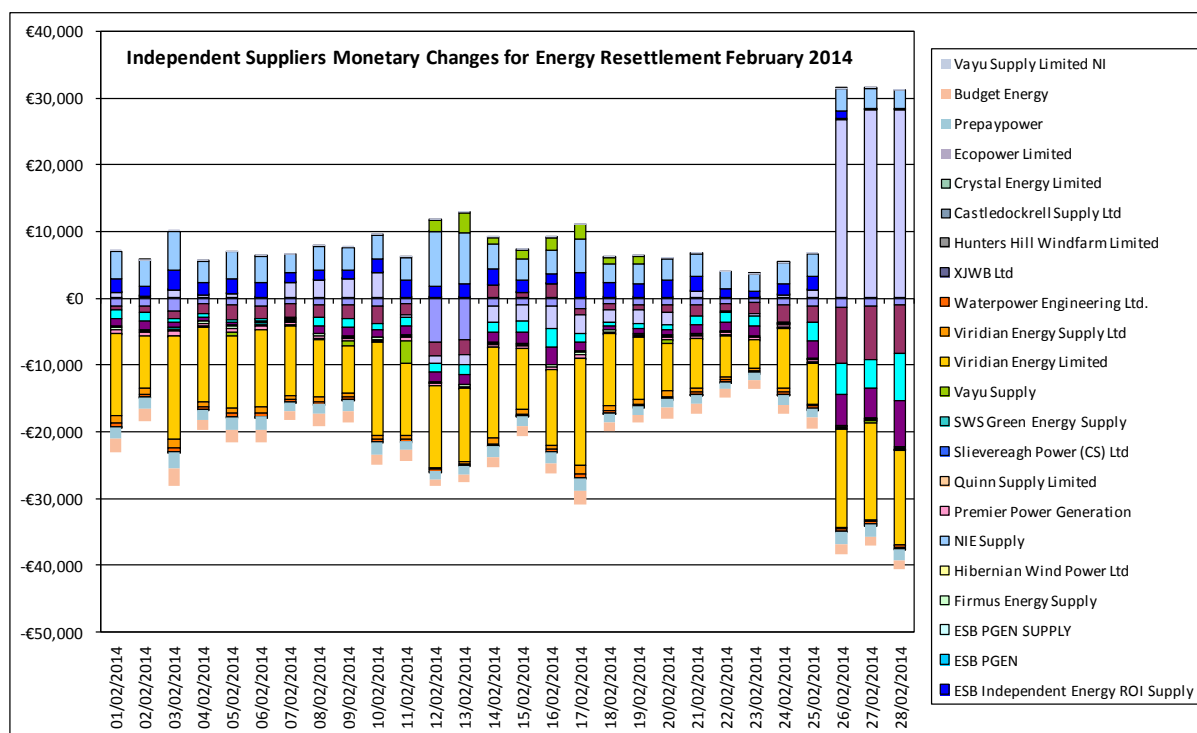


Figure 5 – Independent Suppliers Monetary Changes for Energy Resettlement – February 2014

The above variances relates purely to rounding for Participant's between initial and M+4 Resettlement.

# Market Operator Monthly Report

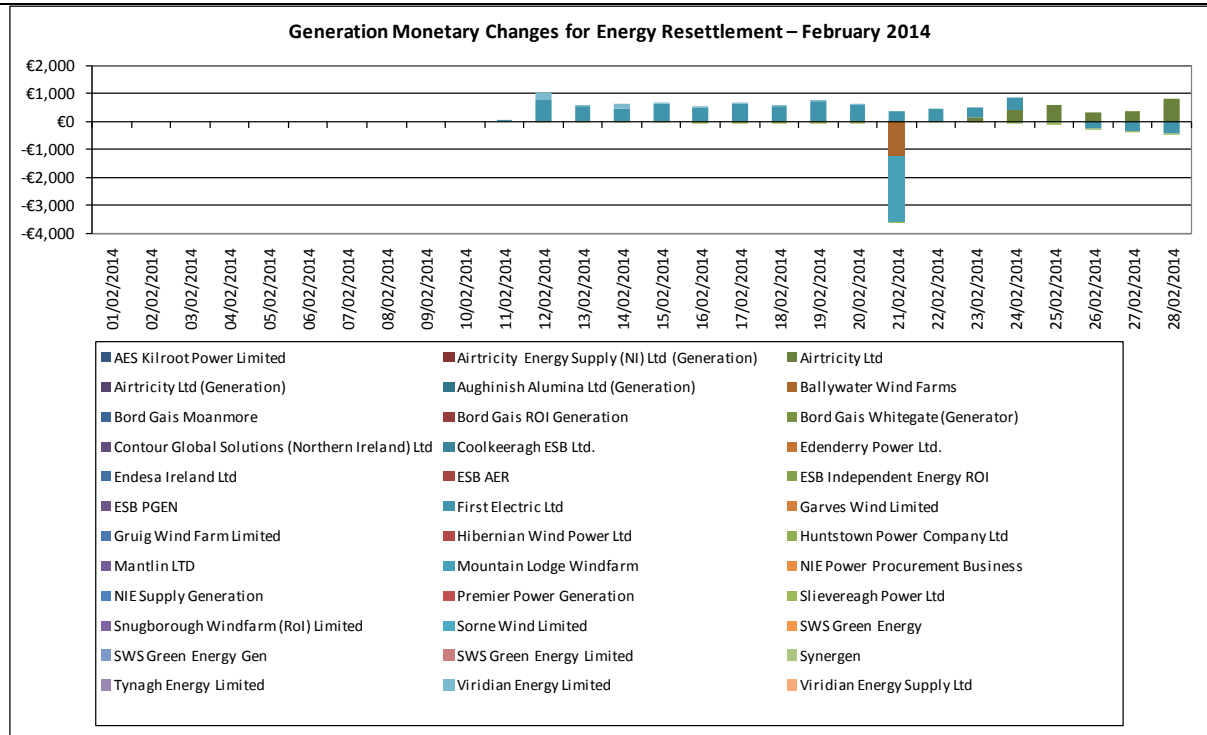


Figure 6 – Generation Monetary Changes for Energy Resettlement – February 2014

Changes noted above are driven by updates to Meter Data.

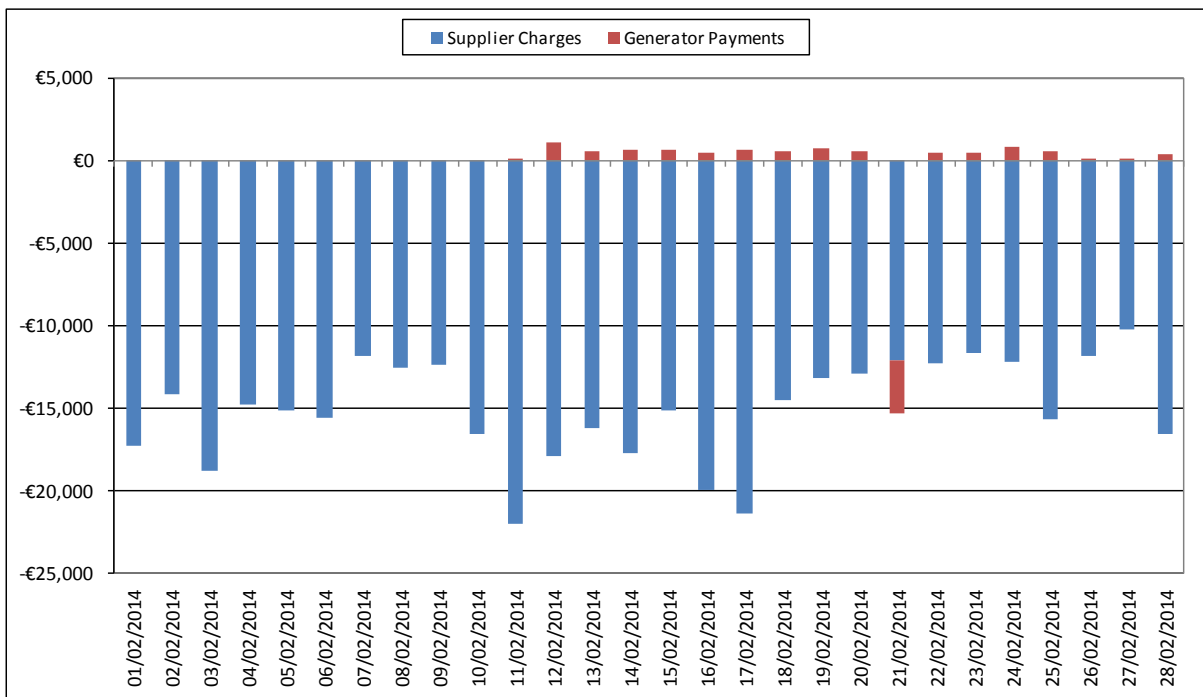


Figure 7 – Total Monetary Changes for Energy Resettlement – February 2014

M+13 Resettlement

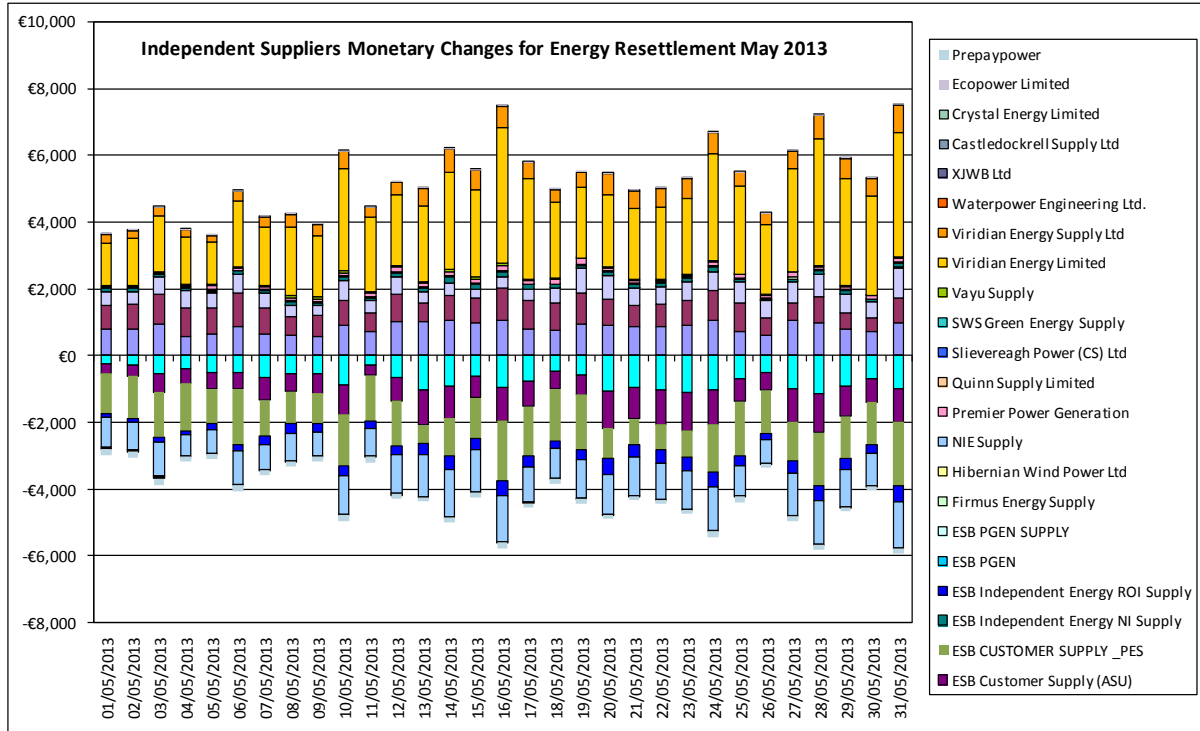


Figure 8 - Independent Suppliers Monetary Changes for Energy Resettlement – May 2013

Changes noted above are driven by updates to Non-Price Effecting Metered Demand from the original Day +4 submissions and a re-price on Trade Dates 11<sup>th</sup>, 12<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup>, 24<sup>th</sup>, 25<sup>th</sup>, 29<sup>th</sup>, 30<sup>th</sup> and 31<sup>st</sup> May 2013.

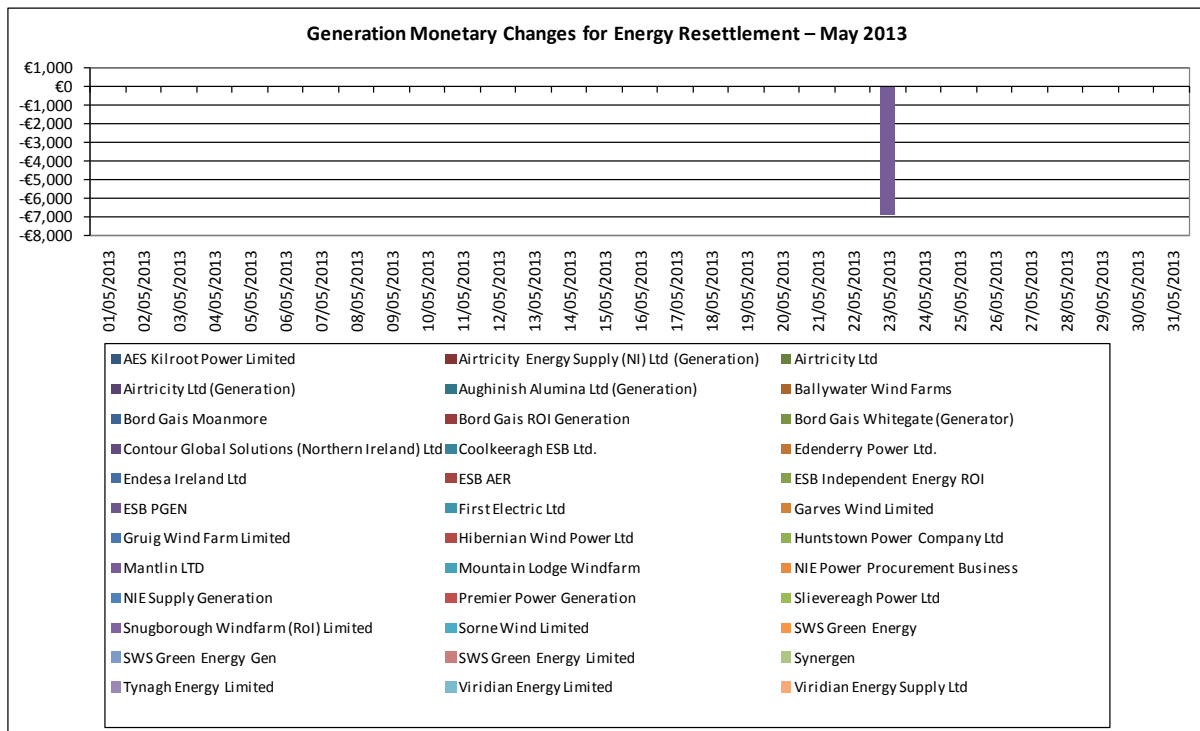


Figure 9 - Generation Monetary Changes for Energy Resettlement – May 2013

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Changes noted above are due to updated Dispatch Quantities.

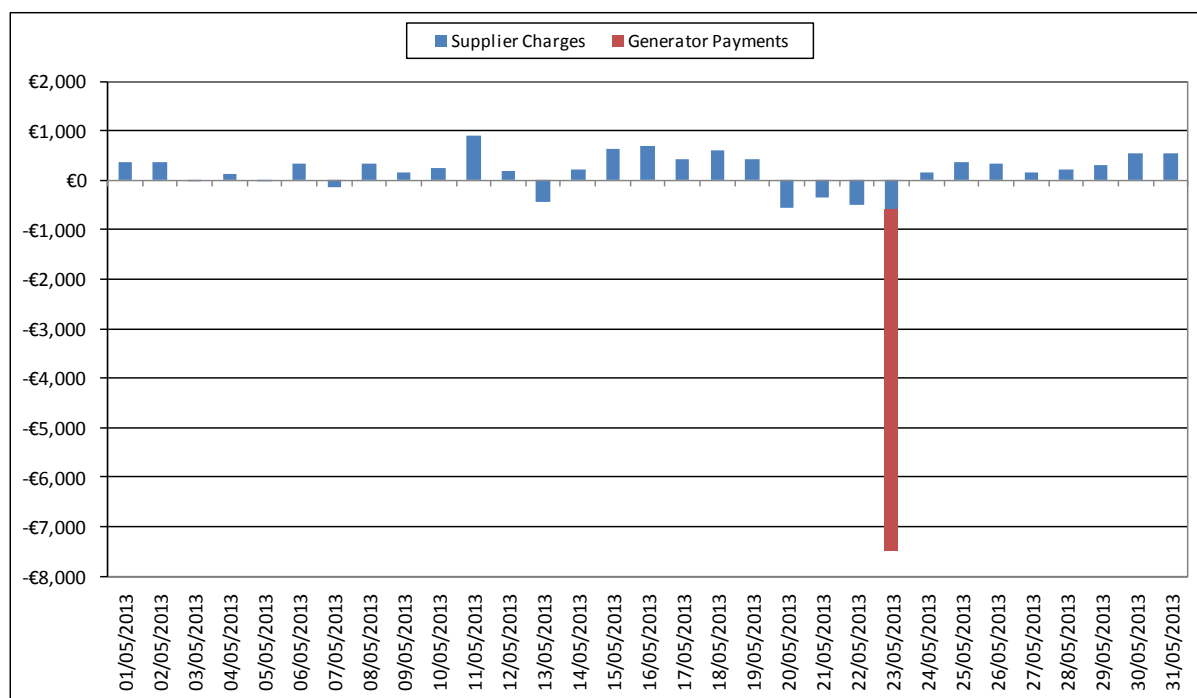


Figure 10 - Total Monetary Changes for Energy Resettlement – May 2013

### 3.1.2 Capacity Market

Note: - For Figure 12, 13 & 16 net values are shown.

- Positive amounts indicate net additional payments by Participants (Charges).
- Negative amounts indicate net additional payment to be made to Participants (Payments)

The reverse is true for Figure 14 & 22.

The changes in Capacity are graphed below showing the variance in monetary terms as opposed to percentage terms. As the Jurisdictional Error Supply Units can be significantly affected by resettlement, this is more reflective of the monetary redistribution in M+4 and M+13. Please also note that as of June 2011 the Jurisdictional Error Supply Unit (ROI) is now a Retail Supply unit. The Jurisdictional Error Supply Unit (NI) is unchanged.

#### M+4 Resettlement

Under resettlement, charges originally attributed to the Jurisdictional Error Supplier Units, have now been redistributed among Market Participants.



# Market Operator Monthly Report

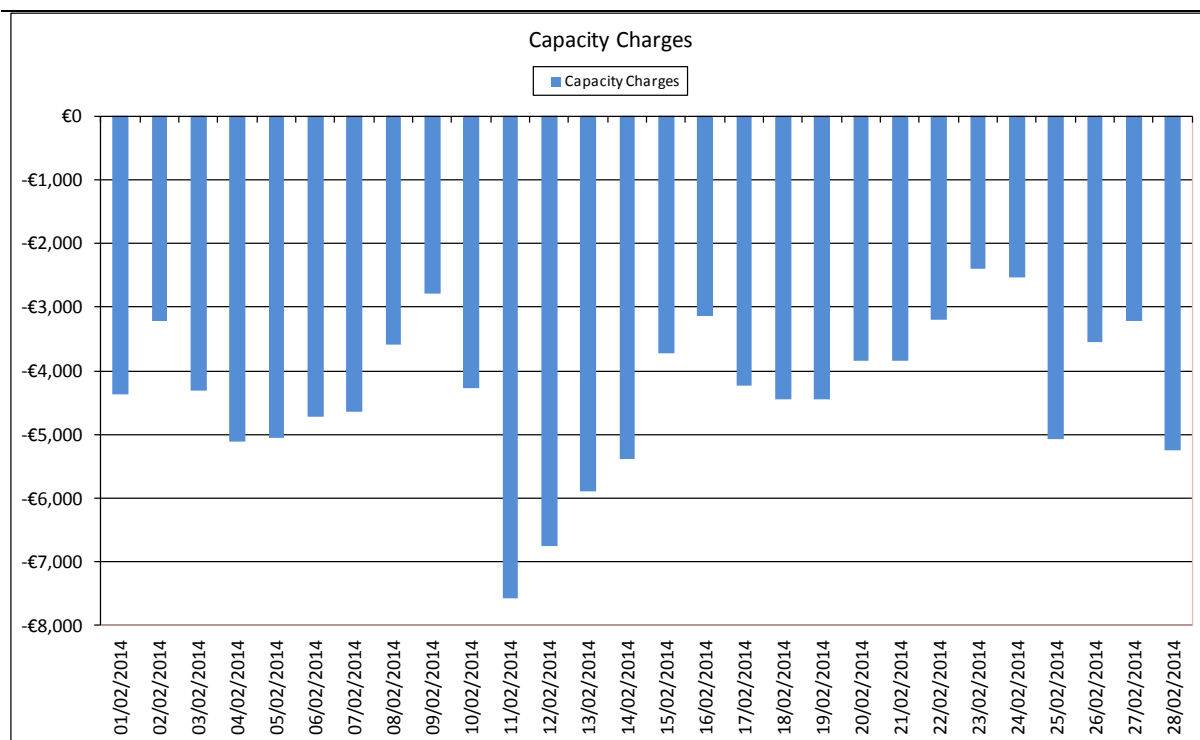


Figure 11 - Independent Suppliers Monetary Changes for Capacity Resettlement – February 2014

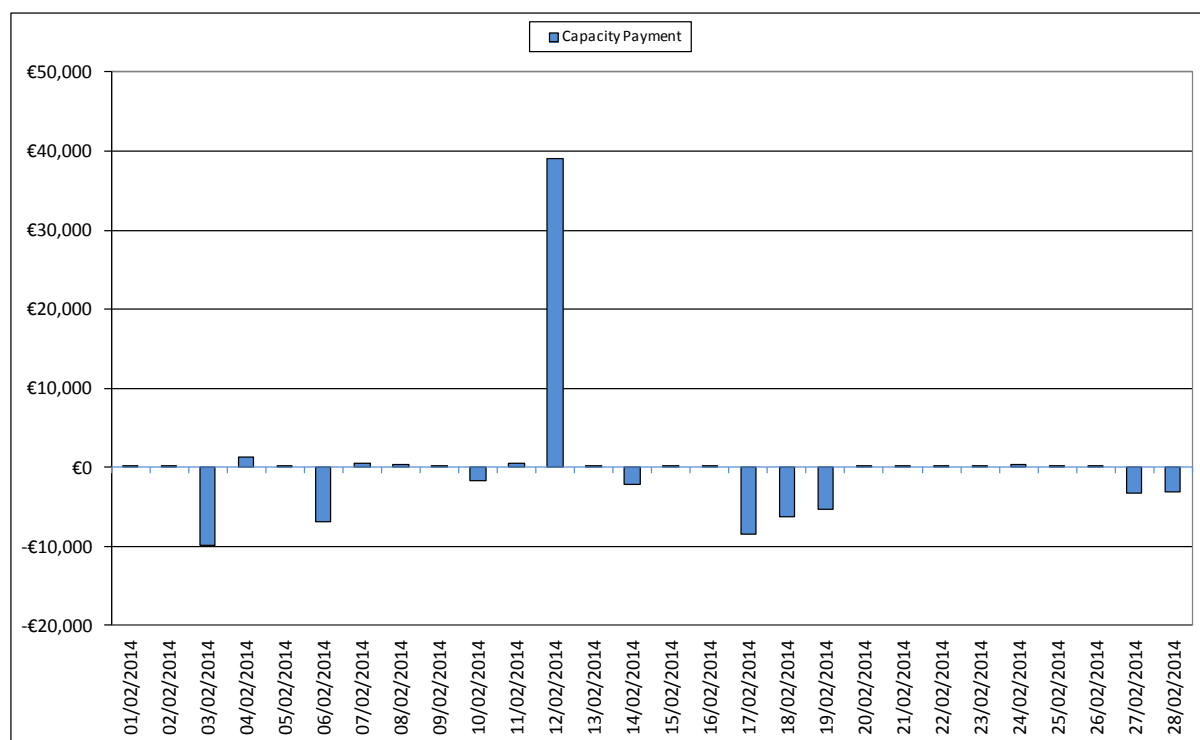
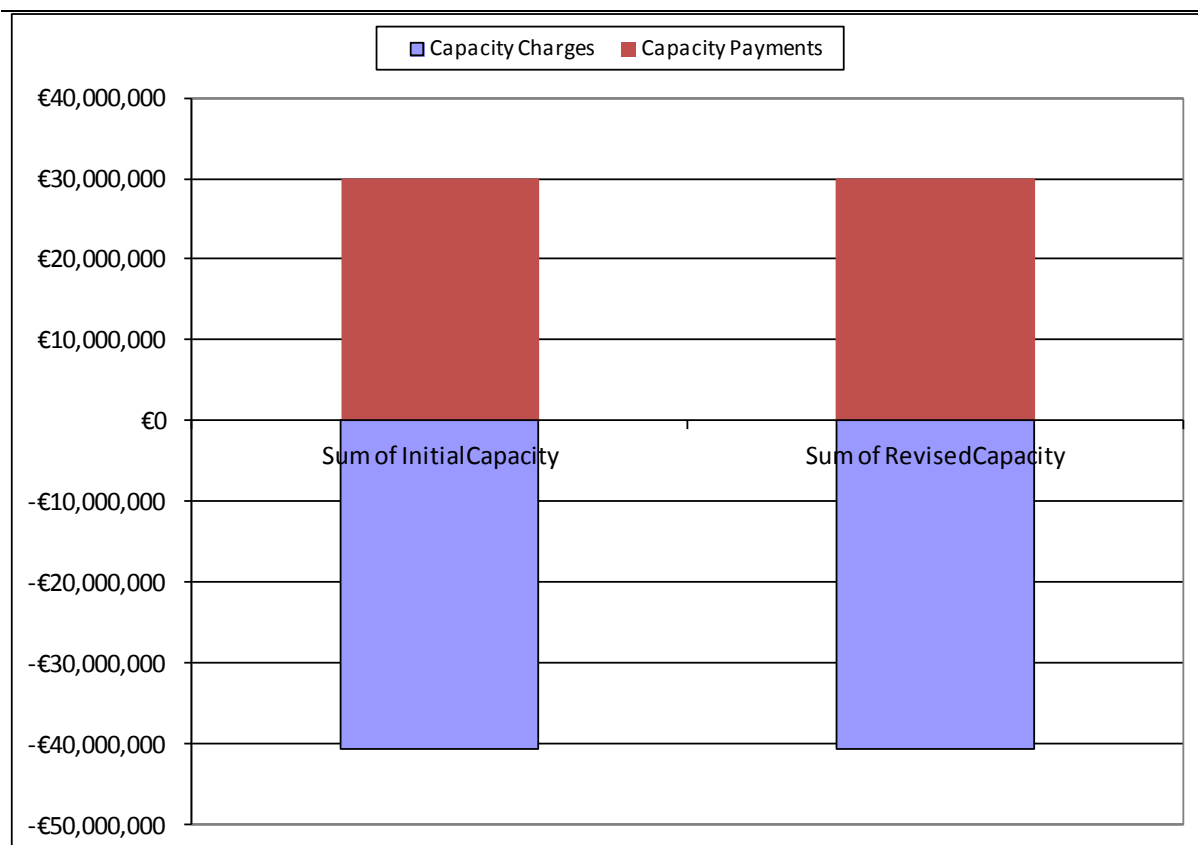


Figure 12 - All Generation Monetary Change for Capacity Resettlement – February 2014

The changes above are driven by updated meter data for Autonomous Price Taker generators.

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**Figure 13 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement February 2014**

The above graph demonstrates that due to all the individual changes to payment and charge amounts on a Supplier or Generator Unit basis, the overall Capacity Market resettlement Charge and Payment amounts have not changed due to resettlement.

## M+13 Resettlement

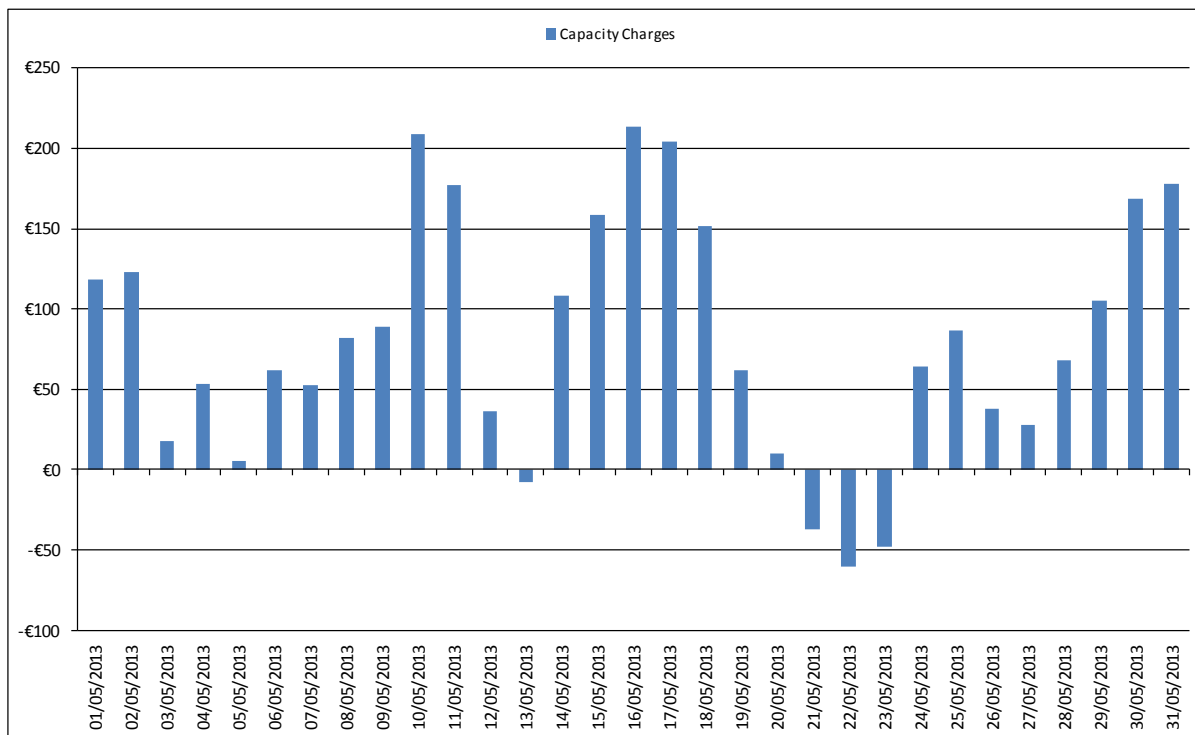


Figure 14 - Independent Suppliers Monetary Changes for Capacity Resettlement – May 2013

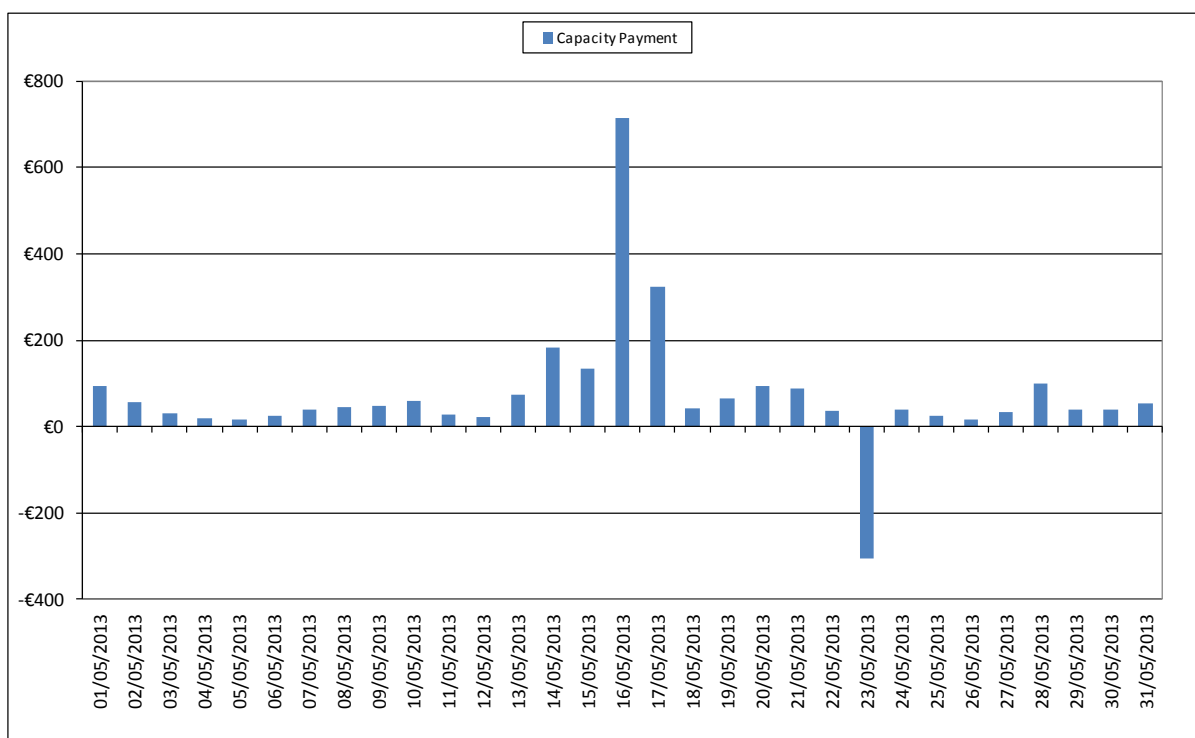
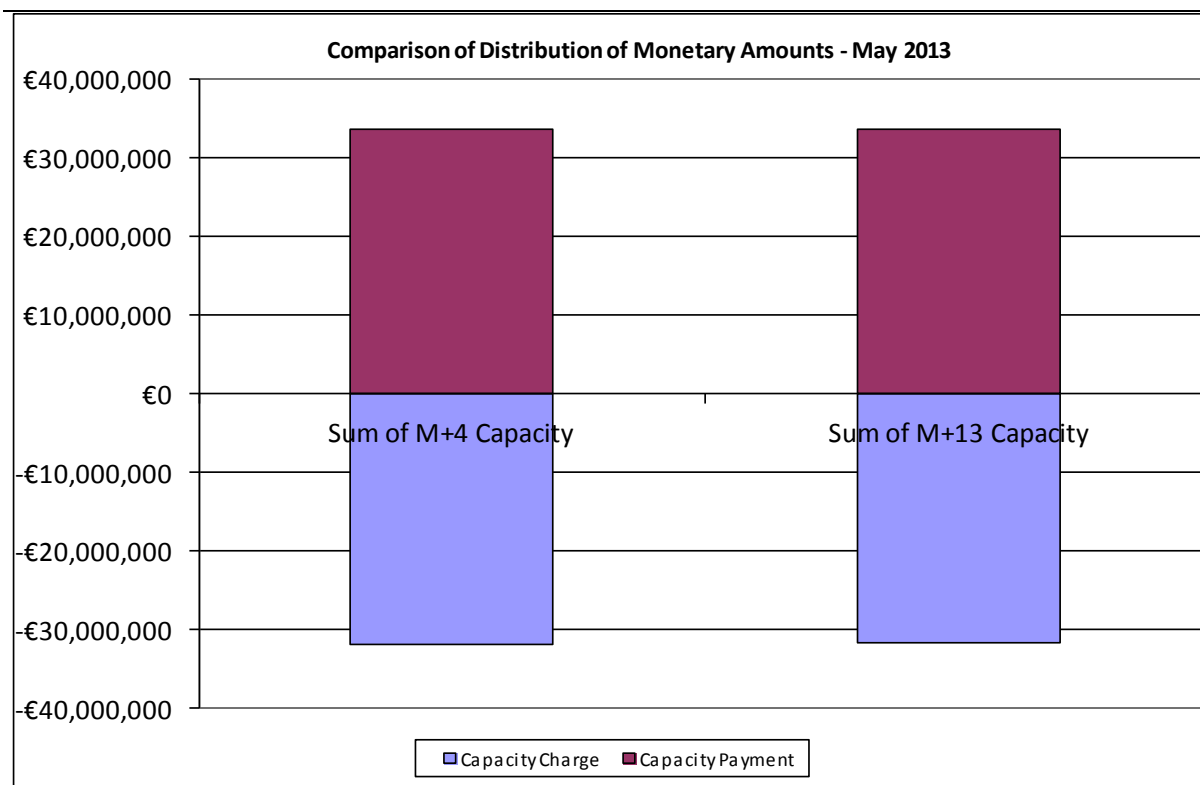


Figure 15 - All Generation Monetary Change for Capacity Resettlement – May 2013

## Market Operator Monthly Report



**Figure 16 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – May 2013**

The above graph demonstrates despite all the individual changes to payment and charge amounts on a Supplier or Generator Unit basis, the overall Capacity Market resettlement Charge and Payment amounts have not changed due to resettlement.

## 4 Helpdesk Call Statistics

The statistics presented in Table 10 - Helpdesk Call Statistics covers the month of June 2014.

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	170	146	24	180	2.82	155
Important	8	7	1	7	0.86	7
Urgent	5	1	4	1	0.34	1
Settlement	10	2	8	11	10.04	11
Credit	0	0	0	0	0.00	0
Dispute	0	0	0	0	0.00	0
Data	0	0	0	1	8.85	1
<b>Total/Average</b>	<b>193</b>	<b>156</b>	<b>37</b>	<b>200</b>	<b>4.58</b>	<b>175</b>

Table 10 – Helpdesk Statistics

Definitions:

- *Resolved within the Period* refers to queries raised and resolved within the calendar month of June 2014.
- *Resolved in the Period* refers to queries resolved within June 2014, and includes queries raised before this time.
- *Resolution Time (Working Days)* refers to average time to resolve, in working days, for this category of query. It is calculated based on all queries for the category, not just June 2014.
- *Not Resolved* refers to queries raised but not resolved within June 2014.
- *Urgent* are general queries which may have an impact on market operations. SEMO has an internal objective to resolve these within 3 working days; however, this is not mandated service level under the Trading & Settlement Code.
- *Disputes* are where a dispute has been raised over the outcome of a data or settlement query.

The average resolution time for General Queries has decreased by 1.81 working days in June from 3.15 working days in May to 1.34 working days in June. SEMO has a metric to resolve General Queries within 20 Working Days. These include queries received over the phone and e-mail. There were no queries logged in June 2014 that took over 20 working days to resolve.

Data and Settlement Queries generally continue to be responded to within the timelines required by the Code, i.e. one calendar month. No Formal Query timeline extensions were required during May 2014 with regard to formal Settlement Queries.

### 5 Disputes and Queries

#### *List of Disputes by Topic*

As of 11<sup>th</sup> July there are no outstanding Disputes.

**Table 11 - List of Disputes**

#### *List of Queries by Topic*

##### 5.1.1 Data Queries

There were no formal data queries raised during the month of June 2014.

**Table 12 – Upheld Data queries by topic**

##### 5.1.2 Settlement Queries

There were ten Settlement queries raised in June 2014. Out of this seven were upheld. As at 11<sup>th</sup> July 2014 there are two open queries.

Topic	Number Of Queries
Loss Adjustment Factors	1
Dispatch Instructions	3
MIUN Issue	1
Availability	1
NDLF Publication	1

**Table 13 – Upheld Settlement queries by topic**

- One query relating to Loss Adjustment Factors was upheld. The query was deemed to be of Low materiality (<€50,000), and will be corrected during the next scheduled resettlement which is M+13.
- Three queries in relation to Dispatch Instructions were upheld. These were deemed to be of low materiality and will be corrected during the next scheduled resettlement which is M+4.
- One query relating to MIUN issue was upheld. The issue was deemed to be of low materiality (<€50,000), and will be corrected during the next scheduled resettlement which is M+4.
- One query relating to Availability was upheld. The issue was deemed to be of low materiality (<€50,000) and will be corrected during the next scheduled resettlement which is M+4.
- One query relating to NDLF publication was upheld. As there is no material impact from this issue this published NDLF data will be corrected during the next scheduled resettlement which is M+13.

### *Unresolved Queries*

There are three unresolved Settlement queries as at 11<sup>th</sup> July 2014. There are no unresolved Data queries.

A full list of all the Data and Settlement queries raised is contained in [Appendix B](#).

### 6 Central Systems

#### *Proportion of Default Data Used*

On review of the Commercial Offer Data used in the MSP runs, 73.54% of data used was submitted by Participants through the normal Bid-Offer process. 26.32% of the data used was based on Standing Commercial Offer Data. 0.13% of the data used was based on adjusted offer data. None of the data used was based on Default Commercial Offer Data (Default differs from Standing in that it is based on the initial Default data submitted during registration process and not on more recent Standing Data submitted by the Participant through the Market Participant Interface). Details by unit are provided in [Appendix F](#).

#### *Proportion of Estimated Meter Data used in Initial Settlement and Resettlement*

This is not calculable presently.

#### *List of System Errors and Re-runs*

##### **6.1.1 Re-Pricing and Resettlement Runs**

There were no Re-Price runs carried out in June 2014.

There were no Resettlement runs carried out in June 2014.

##### **6.1.2 System Errors**

There were no defects identified in June 2014 that required resettlement. There were no system defects identified in June 2014 that required re-pricing.

Details are provided in Appendix C: List of All System Errors and Failures.



### 6.2 Operational Timings

This section lists the operation timings of MSP software runs and Settlement runs.

There are five run types for MSP software,

- Ex-Ante 1 Indicative, run on Trading Day – 1 calendar day,
- Ex-Ante 2 Indicative, run on Trading Day – 1 calendar day,
- With In Day 1 Indicative, run on Trading Day,
- Ex-Post Indicative, run on Trading Day + 1 calendar day, and
- Ex-Post Initial, run on Trading Day + 4 calendar days.

The following tables and graphs provide details for the postings of the MSP for June 2014.

#### 6.2.1 MSP Postings June 2014

Process	On Time	< 1 hr late	> 1 hr late	Not done
Gate Close EA	30-30	0-30	0-30	0
Post EA1	29-30	0-30	1-29	0
Post EA2	29-30	0-30	0-30	1
Post WD1	29-30	0-30	0-30	1
Post EP1	30-30	0-30	0-30	0
Post EP2	30-30	0-30	0-30	0

Table 14 - Operational Timings

Process	On Time	< 1 hr late	> 1 hr late	Not done
Gate Close	100%	0%	0%	0%
Post EA1	96%	0%	4%	0%
Post EA2	96%	0%	0%	4%
Post WD1	96%	0%	0%	4%
Post EP1	100%	0%	0%	0%
Post EP2	100%	0%	0%	0%

Table 15 - Operational Timings (% on time)

# Market Operator Monthly Report

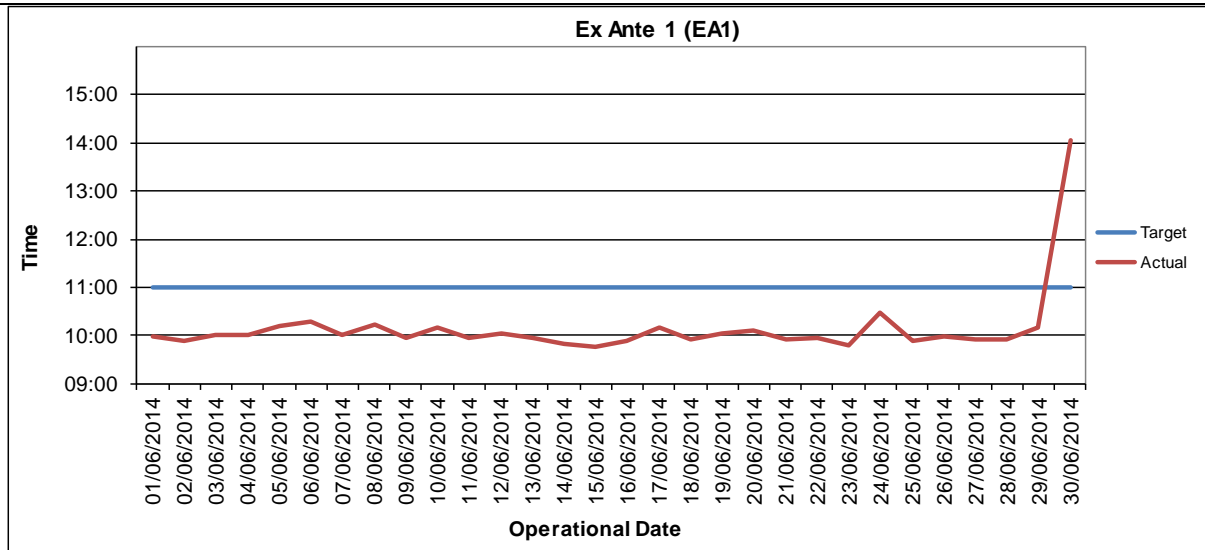


Figure 17 – Ex-Ante 1

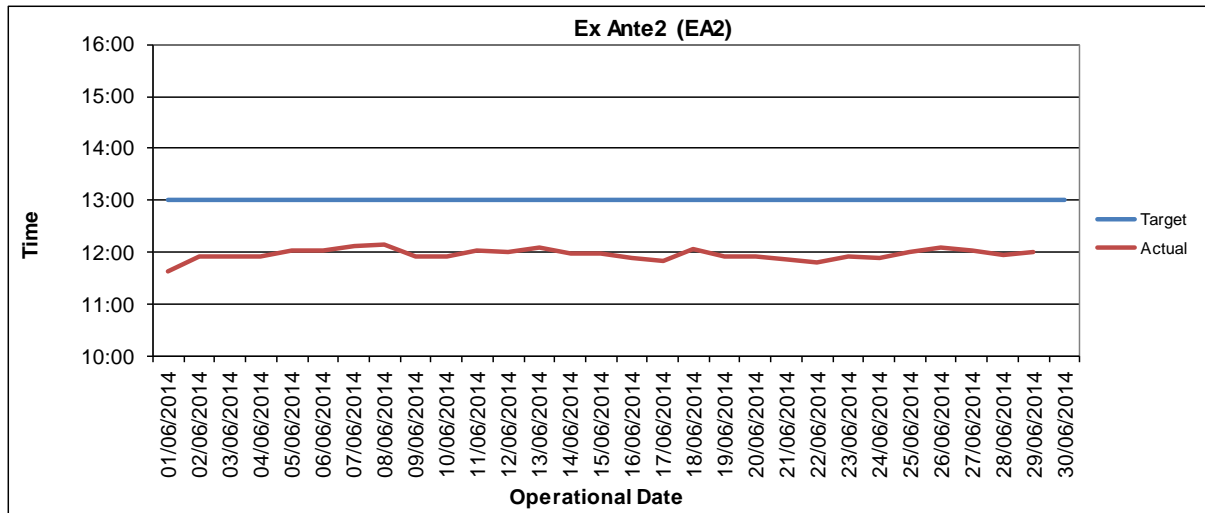


Figure 18 – Ex-Ante 2

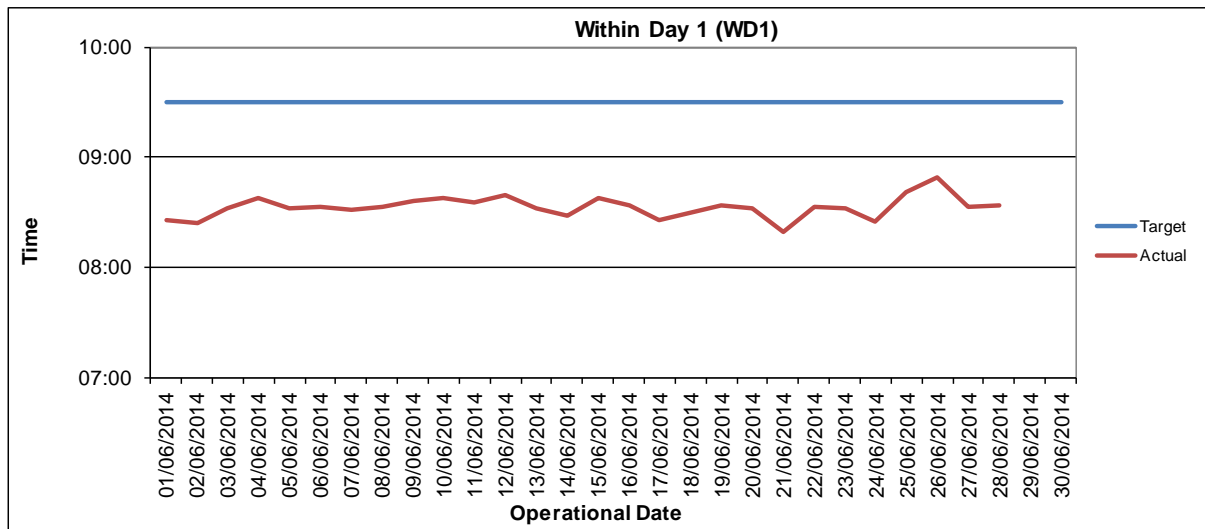


Figure 19 – Within Day 1

# Market Operator Monthly Report

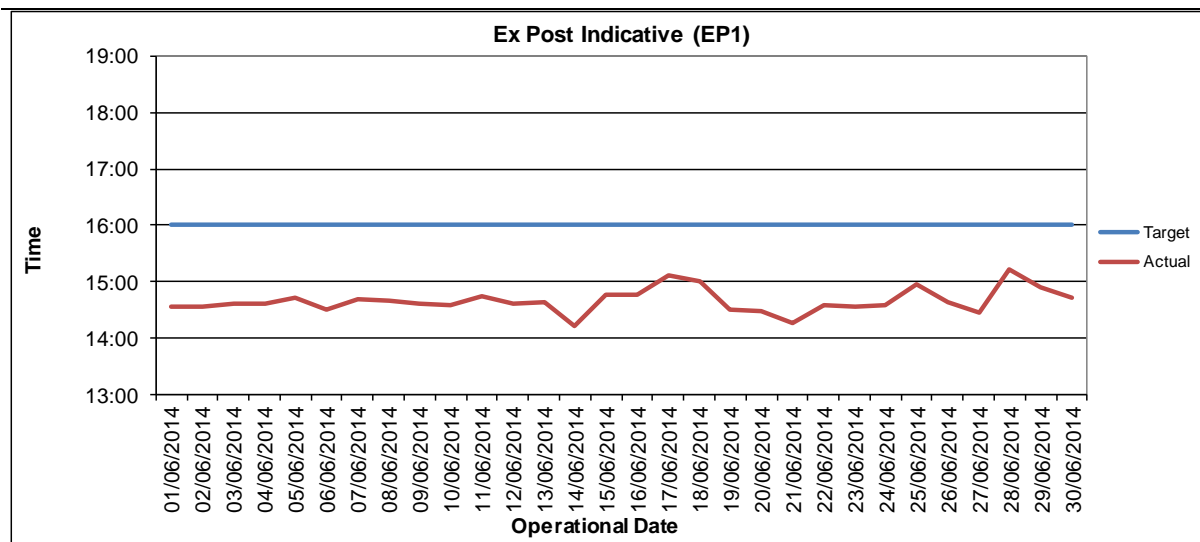


Figure 20 - Ex-Post Indicative

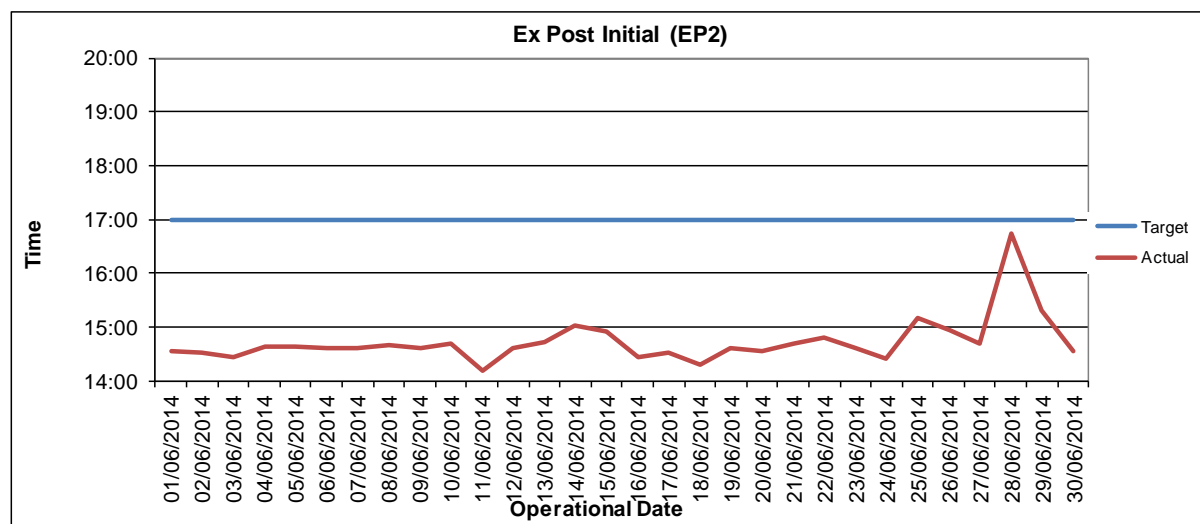


Figure 21 - Ex-Post Initial

Details of the operational timings of the Market System and Price (MSP) runs and Gate Closure are provided in [Appendix D](#).

## 6.2.2 MSP Algorithms

The Market Operator has two different certified solvers used to determine Unit Commitment. These solvers use the Lagrangian Relaxation (LR) and Mixed Integer Programming (MIP) methodologies.

The primary solver used in the SEM is Lagrangian Relaxation (LR). Under certain schedule outcomes where a significant pricing event is observed, the MSP software is re-run using the Mixed Integer Programming (MIP) solver. The outcomes of the two solvers are compared. Where solution determined using the MIP solver provides a better overall solution, this solution may be selected for publishing. An updated policy document on the use of MIP has been published and is available on the SEMO website [here](#).

In June 2014, there were five instances of publishing with the MIP solver.

A detail of historical runs and dates where the MIP algorithm has been used for published results is provided in [Appendix I](#).

## 6.2.3 Settlement Postings June 2014

The publication timings for Settlement runs are provided below.

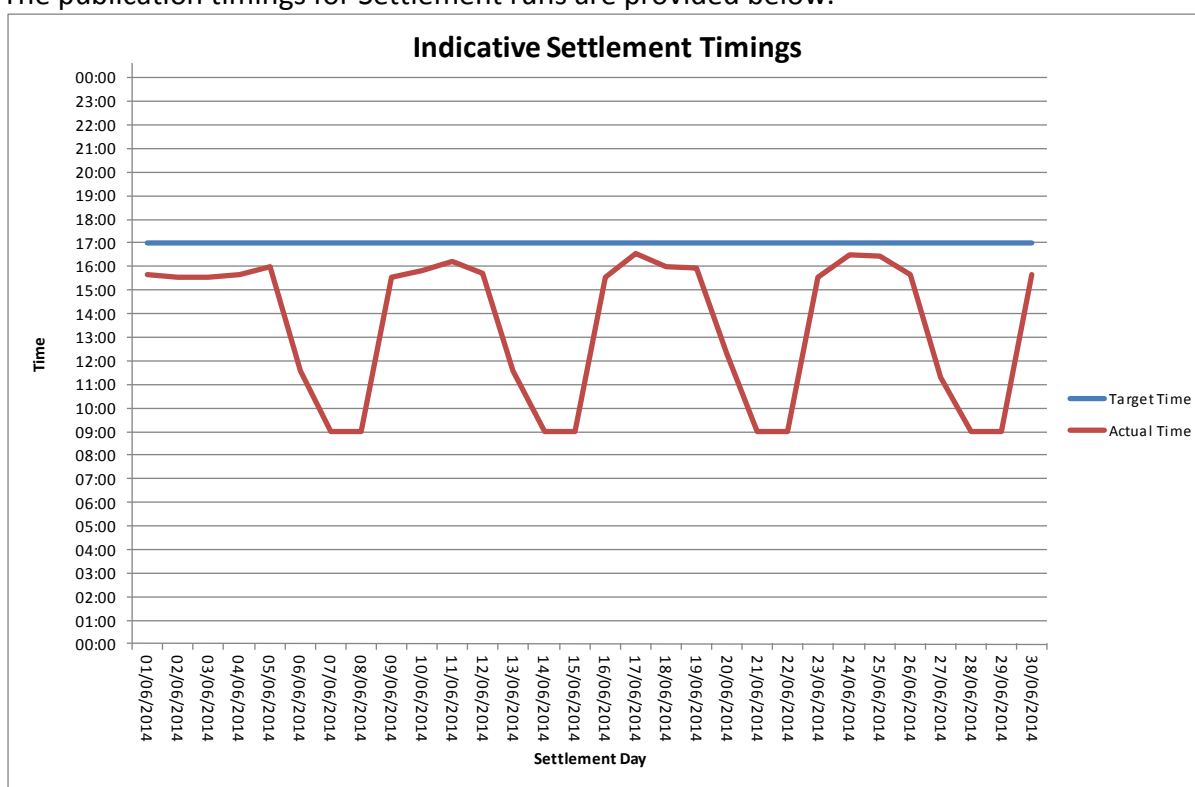


Figure 22 - Indicative Settlement Postings

## Market Operator Monthly Report

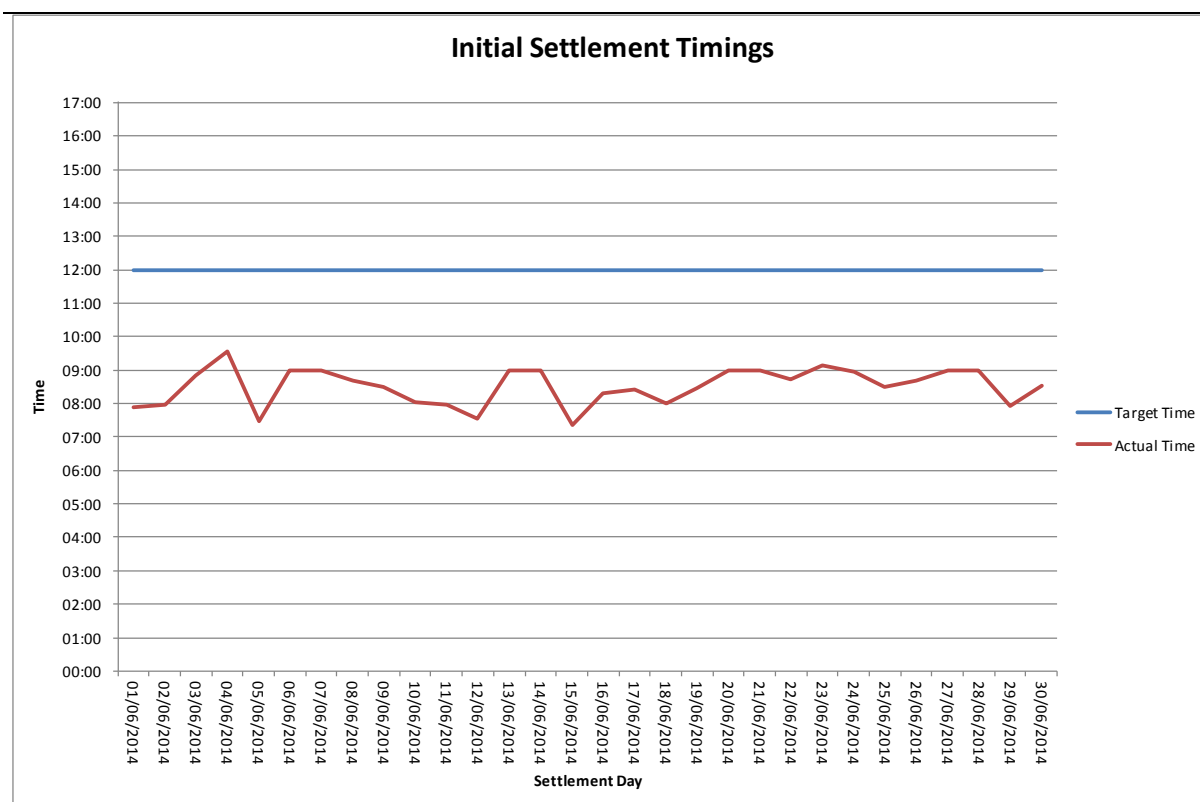


Figure 23 - Initial Settlement Postings

Further details of any delays noted above are provided in Appendix A

### 6.5 Market System Releases

#### 6.5.2 Release SEM R2.5.0 (Proposed Deployment: November 2014)

Approval for the proposed scope for this release was received from the Regulatory Authorities on May 1<sup>st</sup>, 2014. The High Level Impact Assessment (HLIA) was published to the industry on May 7<sup>th</sup>, 2014.

The approved scope for this release is as follows:

CR Ref.	System	Description
SEM_PC_CR322	STL	Eligible Availability for Energy Limited Units Under Test
SEM_PC_CR327	MI	Event Queuing
SEM_PC_CR333	STL	Functionality to apply PUGDOG, Ttariff on a Trading Day basis
SEM_PC_CR332	STL	Issue Zero Invoices
SEM_PC_CR330	MI	Changes to IART Report

The design phase for this release was complete in June. The software is scheduled for delivery at the end of July after which System Integration Testing will commence.

During June we were advised that HMRC are introducing new rules with respect to the application of VAT to supplies of wholesale electricity in the domestic UK market. This will require a change to the Central Market Systems and this is currently being assessed by our

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vendors with a view to including this in scope for the November release, subject to approval and vendor capacity. Information in relation to this was published to the industry on June 25<sup>th</sup>. Further updates will be issued as they become available.

To support this release, SEMO intends to put in place the necessary communication framework to give maximum visibility and optimum engagement with our key stakeholders. This framework will include:

- Interface documentation set as applicable (e.g. MPI User Guide, MPUD etc);
- Updates on release progress at each Market Operator Conference Call (MOCC) and Modifications Committee meeting; and
- A dedicated phase of Market Testing to support the release.

### 6.5.3 Release SEM R2.6.0 (Proposed Deployment: April 2015)

The release cut-off date for the SEM R2.6.0 release to the Central Market Systems was published on May 14<sup>th</sup>. This date has been set to:

**Friday, September 5<sup>th</sup>, 2014**

### 7 Occasional Components

#### ***7.1 Disaster Recovery/Business Continuity Tests***

There was one Business Continuity Tests performed during June 2014.

#### ***7.2 Administered Settlement***

There was no requirement to run Administered Settlement during June 2014.

#### ***7.3 Communications or Systems Failures***

There were a number of Market Interface System issues during June 2014;

Some of the CMS applications reported errors when trying to connect to the Market Oracle database. Investigation discovered that the underlying hardware had caused the connection issues with these applications. A decision was made before WD1 to move the Oracle production database to the Dublin site along with the CMS applications. This would allow further investigation by both SEMO and the hardware vendor to continue. During the procedure driven switch & testing process the CMS applications were unavailable to participants. When the Central Market Systems were back fully operational and tested we then progressed the hardware issue with the vendor. These issues seen on the Belfast hardware infrastructure have now been addressed. SEMO have requested a post incident report from the hardware vendor.

The IA reported an issue when trying to connect from AMP to the NG interface. Investigation by Market Systems discovered that NG had changes the address of this interface. A call was logged with Unicorn who with consultation with NG amended the AMP configuration.

It was discovered that Daily Aggregated Load Forecast files did not successfully load to the SEMO public website. The process that loads the files had rejected the files. The specific files and the load process were rerun and the files loaded & published successfully.

Dublin NCC reported errors when trying to run RCUC workflows. Investigation did not see any issues but the Dublin RCUI GUI was restarted as a precaution. NCC logged back into RCUC after the restart and all the workflows came up.

#### ***7.4 Denial of Service Attacks***

There was no Denial of Service Attacks during June 2014.

***7.5 Submission of Parameters to RAs for Approval***

No Parameters were submitted to the Regulatory Authorities in June 2014.



## 8 Appendix A: Detail of Code Breaches

### Market Participant

18/06/2014	Money In	Timing	Participant	Payment Default	First Electric Ltd PT_400058 defaulted on a Week 6 2014 M+4 Energy invoice.	Participant error.	A default notice was issued to the Participant.	Major
18/06/2014	Money In	Timing	Participant	Payment Default	Aughrim Power Supply Limited PT_400119 defaulted on Week 6 2014 M+4 and Week 22 2014 Initial Energy invoices.	Participant error.	A default notice was issued to the Participant.	Major
13/06/2014	Money In	Timing	Participant	Payment Default	Activation Energy DSU PT_400090 defaulted on a May 2014 Initial FMOIC invoice.	Participant error.	A default notice was issued to the Participant.	Major
11/06/2014	Money In	Timing	Participant	Payment Default	Ecopower Supply Limited PT_400068 defaulted on Week 21 2014 Initial, Week 5 2014 M+4, Week 18 2014, and M+13 Energy invoices.	Participant error.	A default notice was issued to the PT.	Major
05/06/2014	Money In	Timing	Participant	Payment Default	Ecopower Supply Limited PT_400068 defaulted on a Week 20 2014 Initial Energy invoice.	Participant error.	A default notice was issued to the participant.	Major
20/06/2014	Money In	Timing	Participant	Payment Default	PT_400119 Aughrim Power Supply Ltd defaulted on a Week 22 2014 Initial and a Week 6 2014 M+4 MO invoice.	Participant error.	A Default Notice was issued to the Participant.	Major
16/06/2014	EA2	Timing	Participant	Operational	PT_400037 GU_400500 Under Market test for Trade Date 17/06/2014. Participant submitted a different nomination profile into EA2 Gate Window than submitted into EA1 Gate Window.	Change in test profile for Trade Date 17/06/2014.	Trading and Settlement Code 5.172A was detailed to the Participant. SEMO asked for this not to occur again.	Major
16/06/2014	WD1	Timing	Participant	Operational	PT_400037 GU_400500 Under Market test for Trade Date 16/06/2014. Participant submitted a different nomination profile into WD1 Gate Window than submitted into EA1 Gate Window.	Change in testing for the Trade Date.	Trading and Settlement Code 5.172A was detailed to the Participant. SEMO asked for this not to occur again.	Major
16/06/2014	EP1	n/a	Participant	Operational	Alarm Message E in EP1 TD20140615 at 05:30 on 20140616 due to: PS plant TH does not reach pond target at 05:30 of 2014-06-16.	TH Submitted a Target Reservoir Level whilst being unavailable. Therefore Target could not be met.	LR published as no price event.	Minor

**Table 16 - Code Breaches – Market Participants**

### Data Provider

There were no issues to report in June 2014

**Table 17 - Code Breaches – Data Providers**

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### *SEMO - Pricing and Scheduling*

29/06/2014	EA2	Quality	SEMO	Operational	EA2 for Trading Day 30/06/2014 was cancelled under Scenario 1 (EA1 not published by 11:00)	EA1 delayed due to Central Market Systems, causing cancellation of EA2.	EA2 cancelled as per SEMO run cancellation policy.	Minor
29/06/2014	WD1	Timing	SEMO	System	WD1 for Trading Day 29/06/2014 was cancelled under Scenario 10 (WD1 MSP Software could not be initiated at 08:30)	The WD1 was not published as the Central Market Systems were unavailable	WD1 was cancelled as per the run cancellation policy.	Minor

**Table 18 - Code Breaches – Pricing and Scheduling**

### *SEMO – Settlements*

There were no issues to report in June 2014

**Table 19 - Code Breaches – Settlements**

### *SEMO - Funds Transfer*

There were no issues to report in June 2014

**Table 20 - Code Breaches – Funds Transfer**

### *SEMO - Credit Management*

There were no issues to report in June 2014

Table 21 - Code Breaches – Credit Management

*SEMO – Other*

There were no issues to report in June 2014

**9 Appendix B: List of Queries by Type**

*Data Queries*

Table 21 - Data Queries

**Settlement Queries**

Summary Title	Description	ID	Logged On	Date sent to MP
Loss Adjustment Factors	Incorrect TLAF was applied to Unit GU 400410 on the Rerun (M+4) Settlement (TLAF for GU 401470 was applied). Query also applies to the 13th of January (M+4). Please review and advise.	PT_400032	2014-06-05	2014-06-06
Dispatch Instructions	Unit GU_400260 (Unit LI5). Missing Desync instruction at 21:01 on 1st May 2014. This results in uninstructed imbalances for the unit.	PT_400030	2014-06-05	2014-06-06
Dispatch Instructions	Incorrect DIs were sent to the SEM for GU_401380 (Athea Windfarm Phase 1) and GU_400920 (Dromada Windfarm Phase 1) on D+3 for the 19/06/2014. Corrected DIs are now available.	Eirgrid	2014-06-26	2014-07-09
Dispatch Instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400362 (Turlough Hill Unit 3) on the 08/05/2014.	Eirgrid	2014-06-26	2014-07-01
MIUN issue	Querying the MGEU_IA_NIMOYLE_I_NIMOYLE values in PIR for settlement date 19/06/2014 for trading periods 00:30-01:00, 01:30-02:00, and 02:30-03:00. The values in the Error report in AMP are different to the PIR for this settlement date. Can you please confirm what values are applied to generator the MG EU value for these periods?	NI_MOYLE	2014-06-26	2014-07-09
Availability	Incorrect Availability Declarations were sent to the SEM for GU_400362 (Turlough Hill Unit 3) for the 08/05/2014.	Eirgrid	2014-06-26	2014-07-01

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NDLF Publication	The PIR data does not seem correct for our supplier unit PT_500028 for 13/02/2014. The SNDLF published is not the sum of the NDLF + NDA published within the same PIR.	PT_500036/34	2014-06-30	2014-07-07
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**Table 22 - Settlement Queries**

## 10 Appendix C: List of All System Errors and Failures

The definitions of the statuses used for the List of All System Errors and Failures are:

- In Progress: Fix being identified and implemented.
- Resolved: Fix has been implemented, but reruns have not been performed.
- Closed: Required reruns have been performed and error-failure has been completely rectified.

Note: Items in the List of All System Errors and Failures that have status 'Closed' in this months report will not appear in subsequent Monthly Market Operator Reports as they are no longer open issues.

Issue No.	Description	Effect	Fixed from	Re-Pricing	Resettlement	Status
-	There were no system defects identified in June 2014 that required repricing or resettlement	-	-	-	-	-

**Table 23 - List of System Errors and Failures**

## 11 Appendix D: Details of Operational Timings

### Market Schedule and Price Runs

Operational Date	EA1		EA2		WD1		EP1		EP2	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
01/06/2014	11:00	10:00	13:00	11:39	09:30	08:26	16:00	14:34	17:00	14:34
02/06/2014	11:00	09:53	13:00	11:56	09:30	08:24	16:00	14:34	17:00	14:31
03/06/2014	11:00	10:01	13:00	11:55	09:30	08:32	16:00	14:37	17:00	14:27
04/06/2014	11:00	10:02	13:00	11:55	09:30	08:38	16:00	14:37	17:00	14:39
05/06/2014	11:00	10:13	13:00	12:03	09:30	08:32	16:00	14:43	17:00	14:39
06/06/2014	11:00	10:18	13:00	12:02	09:30	08:33	16:00	14:31	17:00	14:36
07/06/2014	11:00	10:01	13:00	12:07	09:30	08:31	16:00	14:42	17:00	14:36
08/06/2014	11:00	10:15	13:00	12:09	09:30	08:33	16:00	14:40	17:00	14:40
09/06/2014	11:00	09:57	13:00	11:55	09:30	08:36	16:00	14:37	17:00	14:37
10/06/2014	11:00	10:11	13:00	11:56	09:30	08:38	16:00	14:35	17:00	14:41
11/06/2014	11:00	09:57	13:00	12:02	09:30	08:35	16:00	14:45	17:00	14:11
12/06/2014	11:00	10:04	13:00	12:00	09:30	08:39	16:00	14:37	17:00	14:36
13/06/2014	11:00	09:57	13:00	12:05	09:30	08:32	16:00	14:39	17:00	14:43
14/06/2014	11:00	09:50	13:00	11:58	09:30	08:28	16:00	14:13	17:00	15:02
15/06/2014	11:00	09:46	13:00	11:58	09:30	08:38	16:00	14:46	17:00	14:55
16/06/2014	11:00	09:53	13:00	11:53	09:30	08:34	16:00	14:46	17:00	14:27
17/06/2014	11:00	10:10	13:00	11:51	09:30	08:26	16:00	15:07	17:00	14:31
18/06/2014	11:00	09:56	13:00	12:04	09:30	08:30	16:00	15:00	17:00	14:18
19/06/2014	11:00	10:03	13:00	11:55	09:30	08:34	16:00	14:31	17:00	14:37
20/06/2014	11:00	10:07	13:00	11:55	09:30	08:32	16:00	14:29	17:00	14:34
21/06/2014	11:00	09:55	13:00	11:52	09:30	08:19	16:00	14:17	17:00	14:42
22/06/2014	11:00	09:58	13:00	11:49	09:30	08:33	16:00	14:35	17:00	14:49
23/06/2014	11:00	09:49	13:00	11:55	09:30	08:32	16:00	14:34	17:00	14:36
24/06/2014	11:00	10:30	13:00	11:53	09:30	08:25	16:00	14:36	17:00	14:24
25/06/2014	11:00	09:53	13:00	12:00	09:30	08:41	16:00	14:58	17:00	15:10
26/06/2014	11:00	10:00	13:00	12:06	09:30	08:49	16:00	14:38	17:00	14:56
27/06/2014	11:00	09:55	13:00	12:03	09:30	08:33	16:00	14:27	17:00	14:41
28/06/2014	11:00	09:56	13:00	11:57	09:30	08:34	16:00	15:13	17:00	16:45
29/06/2014	11:00	10:11	13:00	12:00	09:30		16:00	14:54	17:00	15:19
30/06/2014	11:00	14:05	13:00		09:30	08:34	16:00	14:43	17:00	14:34

Table 24 – MSP Runs



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### Settlement Runs

Trading Day	INDICATIVE				INITIAL			
	Target Date	Actual Date	Target Time	Actual Time	Trading Day	Actual Date	Target Time	Actual Time
01/06/2014	02/06/2014	02/06/2014	17:00	15:38	01/06/2014	06/06/2014	12:00	07:53
02/06/2014	03/06/2014	03/06/2014	17:00	15:32	02/06/2014	09/06/2014	12:00	07:58
03/06/2014	04/06/2014	04/06/2014	17:00	15:31	03/06/2014	10/06/2014	12:00	08:50
04/06/2014	05/06/2014	05/06/2014	17:00	15:40	04/06/2014	11/06/2014	12:00	09:34
05/06/2014	06/06/2014	06/06/2014	17:00	15:59	05/06/2014	12/06/2014	12:00	07:29
06/06/2014	09/06/2014	09/06/2014	17:00	11:33	06/06/2014	13/06/2014	12:00	09:00
07/06/2014	09/06/2014	09/06/2014	17:00	09:00	07/06/2014	13/06/2014	12:00	09:00
08/06/2014	09/06/2014	09/06/2014	17:00	09:00	08/06/2014	13/06/2014	12:00	08:41
09/06/2014	10/06/2014	10/06/2014	17:00	15:32	09/06/2014	16/06/2014	12:00	08:29
10/06/2014	11/06/2014	11/06/2014	17:00	15:49	10/06/2014	17/06/2014	12:00	08:03
11/06/2014	12/06/2014	12/06/2014	17:00	16:12	11/06/2014	18/06/2014	12:00	07:57
12/06/2014	13/06/2014	13/06/2014	17:00	15:42	12/06/2014	19/06/2014	12:00	07:33
13/06/2014	16/06/2014	16/06/2014	17:00	11:33	13/06/2014	20/06/2014	12:00	09:00
14/06/2014	16/06/2014	16/06/2014	17:00	09:00	14/06/2014	20/06/2014	12:00	09:00
15/06/2014	16/06/2014	16/06/2014	17:00	09:00	15/06/2014	20/06/2014	12:00	07:21
16/06/2014	17/06/2014	17/06/2014	17:00	15:33	16/06/2014	23/06/2014	12:00	08:18
17/06/2014	18/06/2014	18/06/2014	17:00	16:32	17/06/2014	24/06/2014	12:00	08:24
18/06/2014	19/06/2014	19/06/2014	17:00	15:59	18/06/2014	25/06/2014	12:00	08:01
19/06/2014	20/06/2014	20/06/2014	17:00	15:56	19/06/2014	26/06/2014	12:00	08:28
20/06/2014	23/06/2014	23/06/2014	17:00	12:18	20/06/2014	27/06/2014	12:00	09:00
21/06/2014	23/06/2014	23/06/2014	17:00	09:00	21/06/2014	27/06/2014	12:00	09:00
22/06/2014	23/06/2014	23/06/2014	17:00	09:00	22/06/2014	27/06/2014	12:00	08:43
23/06/2014	24/06/2014	24/06/2014	17:00	15:33	23/06/2014	30/06/2014	12:00	09:08
24/06/2014	25/06/2014	25/06/2014	17:00	16:29	24/06/2014	01/07/2014	12:00	08:57
25/06/2014	26/06/2014	26/06/2014	17:00	16:26	25/06/2014	02/07/2014	12:00	08:29
26/06/2014	27/06/2014	27/06/2014	17:00	15:40	26/06/2014	03/07/2014	12:00	08:42
27/06/2014	30/06/2014	30/06/2014	17:00	11:17	27/06/2014	04/07/2014	12:00	09:00
28/06/2014	30/06/2014	30/06/2014	17:00	09:00	28/06/2014	04/07/2014	12:00	09:00
29/06/2014	30/06/2014	30/06/2014	17:00	09:00	29/06/2014	04/07/2014	12:00	07:56
30/06/2014	01/07/2014	01/07/2014	17:00	15:40	30/06/2014	07/07/2014	12:00	08:32

Table 25 - Settlement Runs

## 12 Appendix E: Imperfections Charge

This appendix provides daily data for the Constraint Payments, Uninstructed Imbalance Payments and Imperfections Charges, and as well as the weekly values of Make Whole Payments and Testing Charges.

The following table is updated to take account of the values calculated in the Initial Settlement runs only.

Historical information will be shown in Appendix E until completion of the current financial year. Information prior to that can be found in previous Monthly Market Operator Reports.

Date	Constraints Payments	Uninstructed Imbalances Payments	Imperfections Charges
01/01/2014	€955,074.54	€15,701.02	-€363,523.63
02/01/2014	€869,584.76	-€51,270.96	-€411,223.19
03/01/2014	€981,299.90	-€6,763.65	-€416,729.57
04/01/2014	€842,597.58	-€984.25	-€406,468.19
05/01/2014	€1,017,892.87	-€3,304.71	-€374,451.32
06/01/2014	€1,027,467.78	€69,008.95	-€421,209.86
07/01/2014	€1,131,050.74	-€4,313.68	-€429,731.89
08/01/2014	€652,565.38	-€39,328.22	-€457,907.14
09/01/2014	€748,152.68	-€40,827.41	-€453,780.43
10/01/2014	€803,817.65	-€48,315.21	-€448,048.96
11/01/2014	€915,704.71	-€4,318.18	-€411,522.40
12/01/2014	€921,530.28	-€9,195.15	-€379,307.86
13/01/2014	€641,244.74	-€20,649.97	-€453,955.42
14/01/2014	€570,633.32	-€31,654.28	-€466,747.71
15/01/2014	€789,788.53	-€3,878.25	-€443,384.59
16/01/2014	€619,904.29	-€24,560.52	-€456,869.59
17/01/2014	€515,211.70	-€66,689.58	-€454,608.47
18/01/2014	€520,405.35	-€19,031.76	-€421,586.87
19/01/2014	€808,100.39	-€9,045.86	-€397,800.00
20/01/2014	€917,028.91	-€62,048.37	-€448,388.85
21/01/2014	€976,768.66	-€27,263.63	-€444,554.65
22/01/2014	€617,107.10	-€48,174.53	-€447,356.40
23/01/2014	€636,348.17	€11,856.06	-€449,699.08
24/01/2014	€858,787.11	-€3,889.75	-€436,805.26
25/01/2014	€867,668.14	€24,013.08	-€387,936.33
26/01/2014	€1,067,111.91	€8,950.68	-€369,381.21
27/01/2014	€667,942.56	-€16,961.92	-€434,460.28
28/01/2014	€857,567.91	-€2,690.66	-€447,652.80
29/01/2014	€700,070.05	-€18,250.06	-€461,431.27
30/01/2014	€686,455.61	-€5,466.72	-€462,829.04
31/01/2014	€777,271.35	€2,344.09	-€442,761.53
01/02/2014	€1,092,287.94	€46,296.79	-€399,482.81
02/02/2014	€1,040,876.64	-€7,906.04	-€372,329.72
03/02/2014	€814,552.07	-€23,152.17	-€442,954.07
04/02/2014	€765,620.92	-€4,186.12	-€446,429.95
05/02/2014	€619,745.34	-€24,997.27	-€447,492.36

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06/02/2014	€570,059.13	-€14,226.00	-€454,172.29
07/02/2014	€733,072.53	-€5,600.31	-€442,576.92
08/02/2014	€1,126,907.52	€1,739.38	-€390,725.34
09/02/2014	€654,441.39	€49,019.47	-€374,840.33
10/02/2014	€769,918.90	-€26,132.58	-€448,629.96
11/02/2014	€743,530.15	€740.24	-€449,191.11
12/02/2014	€790,821.83	-€29,220.96	-€445,981.56
13/02/2014	€730,779.98	-€898.33	-€445,971.03
14/02/2014	€698,505.74	-€1,078.62	-€458,004.41
15/02/2014	€634,027.20	€15,043.38	-€395,023.34
16/02/2014	€566,490.77	-€9,244.53	-€388,347.11
17/02/2014	€650,193.75	-€11,780.63	-€447,842.88
18/02/2014	€546,435.98	-€32,788.64	-€454,115.28
19/02/2014	€661,463.66	€2,436.11	-€441,435.28
20/02/2014	€627,222.04	-€36,929.66	-€429,485.89
21/02/2014	€772,285.98	-€33,430.62	-€424,158.80
22/02/2014	€1,047,041.63	€15,965.37	-€384,643.79
23/02/2014	€647,688.10	€6,359.48	-€365,258.95
24/02/2014	€593,693.03	€32,810.10	-€427,977.07
25/02/2014	€673,092.66	€47,042.36	-€425,753.08
26/02/2014	€737,469.64	€33,371.98	-€427,771.92
27/02/2014	€599,427.86	€18,597.29	-€438,598.48
28/02/2014	€486,170.94	€35,027.71	-€436,398.07
01/03/2014	€551,273.11	€13,733.62	-€402,126.07
02/03/2014	€253,643.88	€21,061.91	-€380,791.02
03/03/2014	€838,469.31	€31,907.86	-€440,202.27
04/03/2014	€532,230.85	-€34,892.63	-€449,787.29
05/03/2014	€569,397.10	€23,555.80	-€438,585.32
06/03/2014	€627,047.33	€28,301.63	-€445,574.58
07/03/2014	€791,058.04	-€23,188.94	-€422,122.27
08/03/2014	€524,758.24	€10,428.20	-€373,550.80
09/03/2014	€757,796.75	-€45,810.91	-€384,189.33
10/03/2014	€554,422.76	-€50,527.70	-€435,033.51
11/03/2014	€490,320.26	-€80,176.23	-€441,302.05
12/03/2014	€474,930.61	-€50,381.14	-€448,528.36
13/03/2014	€535,105.11	-€90,832.92	-€452,732.25
14/03/2014	€750,264.06	-€16,885.72	-€425,233.91
15/03/2014	€565,699.81	€6,798.70	-€370,939.19
16/03/2014	€260,949.62	€8,107.37	-€352,376.53
17/03/2014	€564,851.76	€17,272.05	-€364,550.61
18/03/2014	€461,877.22	-€10,830.22	-€397,299.39
19/03/2014	€638,241.59	€2,103.82	-€404,183.93
20/03/2014	€366,615.71	-€20,983.02	-€414,658.34
21/03/2014	€596,761.02	-€1,539.05	-€422,392.61
22/03/2014	€421,180.67	€3,792.17	-€386,455.45
23/03/2014	€533,746.14	-€13,893.35	-€370,919.40
24/03/2014	€556,053.41	-€5,517.38	-€412,252.02
25/03/2014	€499,032.80	-€21,665.91	-€424,799.72
26/03/2014	€645,898.84	-€47,573.09	-€436,022.93
27/03/2014	€618,021.01	-€94,304.81	-€440,855.08

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28/03/2014	€474,746.28	-€19,091.39	-€428,576.54
29/03/2014	€396,800.83	-€14,274.61	-€390,148.61
30/03/2014	€601,577.41	-€5,279.56	-€347,892.04
31/03/2014	€709,881.34	-€36,965.35	-€413,090.30
01/04/2014	€493,506.80	-€62,047.30	-€420,270.95
02/04/2014	€390,689.63	€1,285.10	-€416,199.09
03/04/2014	€805,100.52	-€7,736.37	-€419,384.63
04/04/2014	€480,942.40	-€9,391.04	-€410,276.35
05/04/2014	€437,083.55	€30.09	-€365,827.83
06/04/2014	€361,422.25	-€11,522.38	-€330,325.19
07/04/2014	€548,948.94	-€31,726.93	-€399,979.51
08/04/2014	€424,359.83	-€13,685.38	-€398,299.01
09/04/2014	€549,232.01	-€5,003.33	-€401,907.82
10/04/2014	€419,557.15	-€21,387.03	-€413,392.52
11/04/2014	€464,961.09	-€16,069.99	-€403,394.20
12/04/2014	€538,279.15	-€1,971.04	-€349,655.90
13/04/2014	€429,660.02	€4,249.05	-€337,368.15
14/04/2014	€173,425.17	-€19,212.43	-€398,627.50
15/04/2014	€409,386.74	-€5,372.55	-€388,585.54
16/04/2014	€387,544.85	-€8,738.90	-€391,905.20
17/04/2014	€353,527.14	-€21,038.69	-€393,877.38
18/04/2014	€406,743.60	-€11,653.05	-€383,249.86
19/04/2014	€326,411.09	€1,994.99	-€351,174.26
20/04/2014	€542,284.63	-€4,968.48	-€321,329.94
21/04/2014	€612,266.82	€2,530.54	-€311,006.56
22/04/2014	€507,354.80	-€13,928.47	-€373,861.21
23/04/2014	€468,135.27	-€29,267.76	-€380,271.71
24/04/2014	€406,217.05	-€12,686.25	-€386,511.77
25/04/2014	€522,164.29	€890.22	-€371,853.20
26/04/2014	€316,953.67	€8,739.69	-€338,460.42
27/04/2014	€434,994.12	-€842.19	-€338,502.78
28/04/2014	€471,489.47	-€34,016.83	-€395,652.40
29/04/2014	€367,047.29	-€4,206.25	-€395,371.12
30/04/2014	€366,195.91	-€27,414.20	-€393,628.42
01/05/2014	€246,053.16	-€19,877.85	-€403,408.92
02/05/2014	€164,891.37	-€16,241.91	-€394,309.86
03/05/2014	€313,454.83	-€6,018.51	-€355,317.37
04/05/2014	€430,617.78	€1,155.53	-€327,028.46
05/05/2014	€347,517.05	-€10,044.89	-€326,831.33
06/05/2014	€487,998.49	-€8,440.55	-€373,854.74
07/05/2014	€397,934.98	€2,071.56	-€379,285.51
08/05/2014	€592,137.89	€9,579.27	-€392,179.12
09/05/2014	€298,375.07	-€6,659.56	-€374,231.73
10/05/2014	€309,315.85	€11,549.56	-€342,295.24
11/05/2014	€349,749.11	-€5,463.16	-€325,086.80
12/05/2014	€166,271.11	-€239.14	-€385,574.87
13/05/2014	€279,317.38	-€5,163.93	-€392,422.70
14/05/2014	€237,720.41	-€23,285.90	-€403,609.34
15/05/2014	€222,011.67	-€24,282.91	-€398,967.77
16/05/2014	€233,415.69	-€3,024.00	-€377,298.82

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17/05/2014	€308,186.07	-€6,138.88	-€332,321.56
18/05/2014	€234,907.17	€1,363.53	-€333,272.56
19/05/2014	€192,322.12	-€20,970.09	-€388,734.22
20/05/2014	€234,992.31	-€9,746.08	-€399,176.24
21/05/2014	€173,709.13	-€13,617.56	-€389,481.89
22/05/2014	€214,372.91	-€5,978.99	-€381,807.55
23/05/2014	€429,485.31	€104.55	-€368,448.27
24/05/2014	€120,386.81	€3,517.61	-€340,924.69
25/05/2014	€431,999.65	-€7,602.62	-€338,246.61
26/05/2014	€176,577.63	-€25,612.19	-€392,322.04
27/05/2014	€308,483.53	-€15,136.56	-€392,314.32
28/05/2014	€352,011.89	-€13,476.82	-€391,502.13
29/05/2014	€99,509.99	€11,099.11	-€395,064.51
30/05/2014	€255,905.57	€89.21	-€386,852.62
31/05/2014	€379,068.63	€152.04	-€343,634.28
01/06/2014	€261,003.12	€571.99	-€318,603.87
02/06/2014	€165,838.14	-€15,541.65	-€344,586.55
03/06/2014	€331,556.56	-€56,629.79	-€378,964.60
04/06/2014	€429,071.88	-€4,314.04	-€379,297.07
05/06/2014	€358,997.74	-€5,038.60	-€383,585.81
06/06/2014	€487,730.63	€2,802.43	-€360,546.63
07/06/2014	€220,520.47	-€751.79	-€336,252.03
08/06/2014	€361,149.72	€16,474.04	-€315,278.89
09/06/2014	€315,698.15	-€9,318.41	-€370,824.11
10/06/2014	€251,984.32	-€8,421.60	-€386,114.43
11/06/2014	€310,158.70	-€29,461.16	-€389,098.29
12/06/2014	€226,996.18	-€9,451.22	-€385,744.09
13/06/2014	€171,777.03	€2,805.23	-€389,471.04
14/06/2014	€188,321.32	-€5,152.64	-€349,441.32
15/06/2014	€149,192.87	-€2,456.74	-€324,494.04
16/06/2014	€256,838.15	-€3,466.28	-€370,984.94
17/06/2014	€189,683.98	-€661.51	-€388,732.17
18/06/2014	€548,711.45	€3,978.34	-€391,485.74
19/06/2014	€477,957.50	-€1,625.21	-€378,462.71
20/06/2014	€171,599.50	-€8,288.37	-€373,735.56
21/06/2014	€212,960.89	€2,244.01	-€335,411.92
22/06/2014	€344,462.96	-€1,044.99	-€323,495.35
23/06/2014	€214,222.79	-€4,890.90	-€376,348.18
24/06/2014	€323,543.08	-€13,536.72	-€389,182.42
25/06/2014	€312,334.26	-€3,592.78	-€393,119.37
26/06/2014	€357,703.94	-€71.89	-€380,628.72
27/06/2014	€259,711.86	-€1,302.11	-€374,028.78
28/06/2014	€223,536.38	€3,657.05	-€337,593.94
29/06/2014	€291,603.87	-€30,266.41	-€321,113.40
30/06/2014	€315,767.89	-€12,389.49	-€365,692.35

**Table 26 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges**

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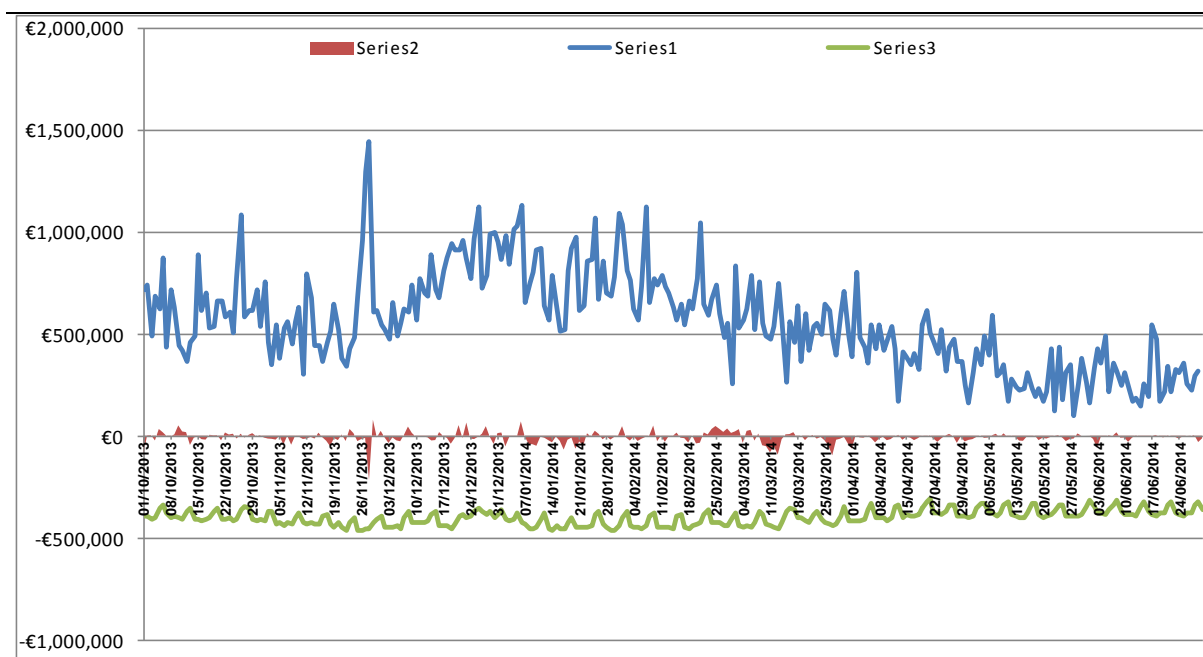


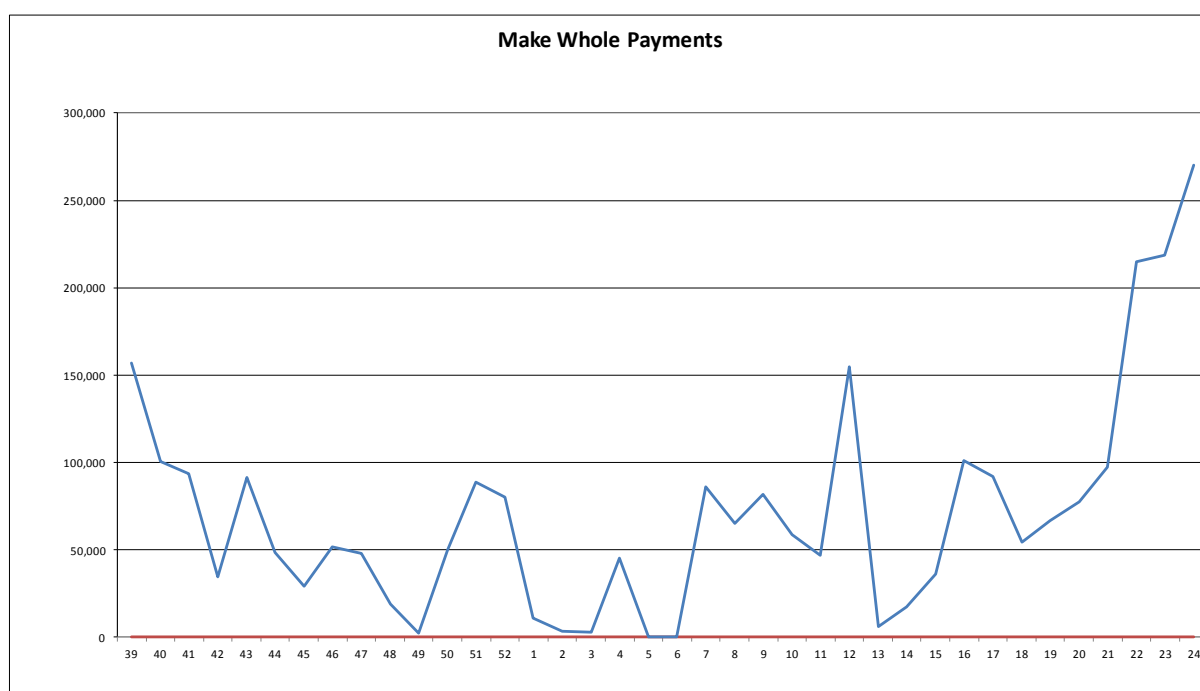
Figure 24 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Week No	Make Whole Payments
39	€157,154.18
40	€100,559.86
41	€93,700.82
42	€34,755.70
43	€91,699.33
44	€48,763.34
45	€29,311.13
46	€51,580.95
47	€47,924.57
48	€18,836.02
49	€2,320.81
50	€50,370.62
51	€88,625.27
52	€80,442.97
1	€11,198.45
2	€3,215.89
3	€2,907.21
4	€45,212.77
5	€0.24
6	€0.21
7	€86,074.69
8	€65,438.76
9	€82,008.00
10	€58,736.16
11	€46,720.09
12	€154,971.87
13	€6,346.71
14	€17,151.75
15	€35,987.24

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16	€101,005.68
17	€91,892.49
18	€54,274.01
19	€66,864.22
20	€77,322.61
21	€97,206.32
22	€215,071.80
23	€218,478.64
24	€269,996.77

**Table 27 - Make Whole Payments**



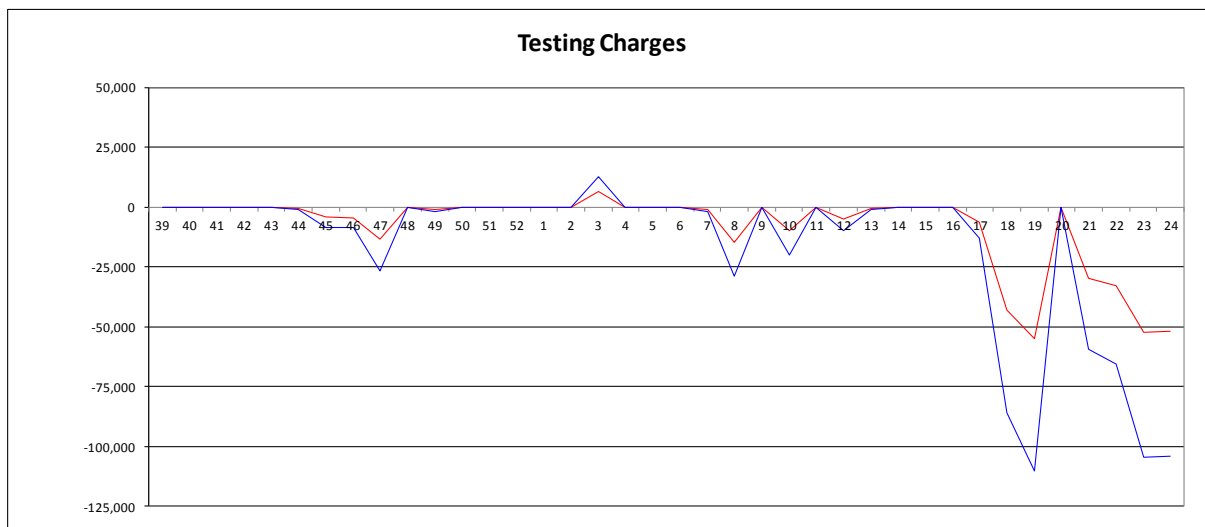
**Figure 25 - Make Whole Payments**

Week No	Testing Charges
39	€0.00
40	€0.00
41	€0.00
42	€0.00
43	€0.00
44	-€464.74
45	-€4,169.12
46	-€4,361.08
47	-€13,358.69
48	€0.00
49	-€983.42
50	€0.00
51	€0.00
52	€0.00
1	€0.00
2	€0.00
3	€6,382.50
4	€0.00

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5	€0.00
6	€0.00
7	-€971.99
8	-€14,525.39
9	€0.00
10	-€10,047.37
11	€0.00
12	-€4,842.44
13	-€452.54
14	€0.00
15	€0.00
16	€0.00
17	-€6,369.87
18	-€42,879.16
19	-€55,135.72
20	€0.00
21	-€29,681.62
22	-€32,784.19
23	-€52,367.06
24	-€52,022.02

**Table 28 - Testing Charges**



**Figure 24 - Testing Charges**



**13 Appendix F: Default Commercial Offer Data Used**

The table below lists for each unit the number of times in operations during June 2014 where the Commercial Offer Data was based on a Participant submission within the Market window, or based on Standing Data or Default Data submitted.

PNAME	RNAME	Manual	Adjusted	Standing	COUNT
PT_400116	DSU_401400			30	30
PT_400090	DSU_401270			1	1
PT_400101	DSU_401300			1	1
PT_400106	DSU_401330	39			39
PT_400090	DSU_401270	29			29
PT_400101	DSU_401300	29			29
PT_500074	GU_501250		5		5
PT_400024	GU_400120	30			30
PT_400024	GU_400121	30			30
PT_400026	GU_400140	30			30
PT_400030	GU_400180	38			38
PT_400030	GU_400181	38			38
PT_400030	GU_400182	38			38
PT_400030	GU_400183	38			38
PT_400030	GU_400200	37			37
PT_400030	GU_400201	37			37
PT_400030	GU_400202	36			36
PT_400030	GU_400203	37			37
PT_400030	GU_400210	36			36
PT_400030	GU_400211	36			36
PT_400030	GU_400220	36			36
PT_400030	GU_400221	36			36
PT_400030	GU_400240	36			36
PT_400030	GU_400250	36			36
PT_400030	GU_400251	36			36
PT_400030	GU_400252	36			36
PT_400030	GU_400260	36			36
PT_400030	GU_400270	36			36
PT_400030	GU_400271	37			37
PT_400030	GU_400272	38			38
PT_400030	GU_400280	36			36
PT_400030	GU_400281	36			36
PT_400030	GU_400290	36			36
PT_400030	GU_400300	38			38
PT_400030	GU_400311	38			38
PT_400030	GU_400323	38			38
PT_400030	GU_400360	36			36
PT_400030	GU_400361	36			36
PT_400030	GU_400362	36			36
PT_400030	GU_400363	36			36
PT_400030	GU_400370	36			36
PT_400030	GU_400850	38			38
PT_400032	GU_400430	27			27
PT_400034	GU_400940	27			27

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PT_400034	GU_401090	27		27
PT_400034	GU_401440	27		27
PT_400035	GU_400480	54		54
PT_400037	GU_400500	31		31
PT_400041	GU_400530	52		52
PT_400044	GU_400540	54		54
PT_400054	GU_400620	27		27
PT_400055	GU_400630	27		27
PT_400062	GU_401550	22		22
PT_400062	GU_401551	22		22
PT_400062	GU_401560	22		22
PT_400062	GU_401570	22		22
PT_400062	GU_401580	22		22
PT_400064	GU_400750	30		30
PT_400064	GU_400751	30		30
PT_400064	GU_400752	30		30
PT_400064	GU_400753	30		30
PT_400064	GU_400754	30		30
PT_400064	GU_400760	30		30
PT_400064	GU_400761	30		30
PT_400064	GU_400762	31		31
PT_400064	GU_400770	30		30
PT_400064	GU_400771	30		30
PT_400064	GU_400780	30		30
PT_400064	GU_400781	30		30
PT_400075	GU_400930	64		64
PT_400077	GU_400950	27		27
PT_400078	GU_401010	30		30
PT_400078	GU_401011	30		30
PT_500024	GU_500040	39		39
PT_500024	GU_500041	30		30
PT_500027	GU_500130	84		84
PT_500027	GU_500131	84		84
PT_500027	GU_500140	84		84
PT_500040	GU_500280	30		30
PT_500040	GU_500281	30		30
PT_500040	GU_500282	30		30
PT_500040	GU_500283	30		30
PT_500040	GU_500284	30		30
PT_500045	GU_500820	30		30
PT_500045	GU_500821	30		30
PT_500045	GU_500822	30		30
PT_500045	GU_500823	30		30
PT_500045	GU_500824	30		30
PT_500045	GU_500825	30		30
PT_500048	GU_500904	49		49
PT_500050	GU_501040	27		27
PT_500050	GU_501050	27		27
PT_500050	GU_501150	27		27
PT_500050	GU_501190	27		27
PT_500053	GU_501130	30		30
PT_500066	GU_501210	27		27

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PT_400021	GU_400021			30	30
PT_400021	GU_400050			30	30
PT_400021	GU_400060			30	30
PT_400021	GU_400070			30	30
PT_400021	GU_400080			30	30
PT_400021	GU_400591			30	30
PT_400021	GU_400600			30	30
PT_400021	GU_400910			30	30
PT_400021	GU_400920			30	30
PT_400021	GU_401080			30	30
PT_400021	GU_401380			30	30
PT_400021	GU_401600			30	30
PT_400025	GU_400130			30	30
PT_400030	GU_400310			30	30
PT_400032	GU_400430			3	3
PT_400034	GU_400940			3	3
PT_400034	GU_401090			3	3
PT_400034	GU_401440			3	3
PT_400038	GU_400550			30	30
PT_400050	GU_400650			30	30
PT_400050	GU_400660			30	30
PT_400050	GU_401000			30	30
PT_400050	GU_401060			30	30
PT_400050	GU_401150			30	30
PT_400050	GU_401240			30	30
PT_400050	GU_401250			30	30
PT_400054	GU_400620			3	3
PT_400055	GU_400630			3	3
PT_400062	GU_400730			30	30
PT_400062	GU_400731			30	30
PT_400062	GU_400840			30	30
PT_400062	GU_401310			30	30
PT_400062	GU_401550			9	9
PT_400062	GU_401551			9	9
PT_400062	GU_401560			9	9
PT_400062	GU_401570			9	9
PT_400062	GU_401580			9	9
PT_400066	GU_401320			21	21
PT_400066	GU_401370			21	21
PT_400066	GU_401410			21	21
PT_400066	GU_401420			21	21
PT_400066	GU_401430			21	21
PT_400077	GU_400950			3	3
PT_400082	GU_401100			30	30
PT_400087	GU_401230			30	30
PT_400123	GU_401470			30	30
PT_500021	GU_500010			30	30
PT_500021	GU_500740			30	30
PT_500021	GU_501160			30	30
PT_500032	GU_500211			30	30
PT_500032	GU_501120			30	30
PT_500039	GU_500270			30	30

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PT_500044	GU_500720			30	30
PT_500047	GU_500790			30	30
PT_500050	GU_501040			3	3
PT_500050	GU_501050			3	3
PT_500050	GU_501150			3	3
PT_500050	GU_501190			3	3
PT_500061	GU_501170			30	30
PT_500062	GU_501180			30	30
PT_500066	GU_501210			3	3
PT_500074	GU_501250			26	26
PT_500069	I_NIMOYLE		1		1
PT_400096	I_ROIEWIC		1		1
PT_400021	I_ROIEWIC	30			30
PT_500021	I_NIMOYLE	30			30
PT_500024	I_NIMOYLE	30			30
PT_500075	I_NIMOYLE	56			56
PT_500031	I_NIMOYLE	30			30
PT_500069	I_NIMOYLE	87			87
PT_500058	I_NIMOYLE	30			30
PT_500037	I_NIMOYLE	30			30
PT_400113	I_ROIEWIC	30			30
PT_400096	I_ROIEWIC	86			86
PT_400115	I_ROIEWIC	30			30
PT_400136	I_ROIEWIC	59			59
PT_500070	I_NIMOYLE	35			35
PT_400108	I_ROIEWIC	36			36
PT_400099	I_ROIEWIC	30			30
PT_400030	I_ROIEWIC	31			31
	<b>Total</b>	<b>3861</b>	<b>7</b>	<b>1382</b>	<b>5250</b>
	<b>Percentage</b>	<b>73.54%</b>	<b>0.13%</b>	<b>26.32%</b>	<b>100%</b>

Table 29 - Default Commercial Data Used

## 14 Appendix G: Total Charges and Payments Data

The tables below list historical values for Total Charges and Total Payments in the SEM by month and currency since start of the SEM.

- Month of inclusion based on invoice date.
- Amounts are after application of Settlement Reallocation.

Market		Energy	Capacity	Market Operator	M+4 Energy	M+4 Capacity	M+4 Market Operator	M+13 Energy	M+13 Capacity	M+13 Market Operator	Ad-hoc Energy	Ad-hoc Capacity	Ad-hoc Market Operator	Total
Jun-13	ROI	£53,639,376.33	£23,772,504.60	£1,559,489.89	£540,072.04	£142,565.06	£7,016.24	£102,851.57	£13,071.70	£771.48	£998.47	£0.00	£0.00	79,778,717.38
	NI	£23,668,207.38	£5,028,617.48	£449,494.74	£57,959.79	£29,005.42	£934.94	£79,008.70	£15,600.91	£697.05	£156,734.88	£0.00	£0.00	29,486,261.29
Jul-13	ROI	£62,352,631.32	£18,204,333.81	£1,583,236.61	£975,631.58	£172,502.45	£7,848.20	£63,562.31	£16,373.37	£690.66	£904,389.43	£100,791.99	£0.00	84,381,991.73
	NI	£23,916,092.51	£6,533,901.21	£432,681.38	£92,026.95	£16,773.81	£694.39	£14,400.35	£3,081.82	£130.14	£204,040.13	£152.19	£0.00	31,213,974.88
Aug-13	ROI	£56,496,937.96	£18,035,531.87	£1,912,592.26	£627,109.44	£97,756.86	£9,727.88	£15,214,588.11	£12,273.00	£808.64	£0.00	£0.00	£0.00	92,407,326.02
	NI	£27,126,182.07	£5,775,203.97	£544,995.28	£40,928.60	£52,444.19	£3,674.11	£6,235,909.64	£5,483.53	£223.46	£0.00	£0.00	£0.00	39,785,044.85
Sep-13	ROI	£55,820,919.05	£17,453,995.09	£1,590,840.77	£871,046.03	£104,726.26	£5,239.42	£999,727.04	£165,703.71	£11,019.16	£0.00	£324,142.04	£0.00	77,347,358.57
	NI	£24,090,106.60	£5,421,565.87	£449,859.41	£232,772.49	£25,268.64	£1,265.21	£119,141.06	£13,356.37	£112.60	£0.00	£78,558.74	£0.00	30,432,006.99
Oct-13	ROI	£63,823,874.40	£19,230,805.66	£1,459,680.53	£665,669.95	£112,389.91	£4,962.50	£1,056,400.80	£25,936.14	£883.81	£1,141,610.70	£0.00	£0.00	87,522,214.40
	NI	£25,790,053.14	£5,439,039.21	£415,013.56	£77,362.24	£11,759.56	£437.51	£286,637.75	£5,978.86	£356.54	£375,245.80	£0.00	£0.00	32,401,884.17
Nov-13	ROI	£94,237,410.27	£26,111,830.04	£1,768,924.89	£1,095,479.88	£186,255.41	£10,667.03	£1,203,541.15	£58,436.00	£1,881.53	£2,162,845.35	£0.00	£0.00	126,837,271.55
	NI	£40,120,956.32	£9,383,627.04	£512,345.05	£79,171.25	£13,455.28	£753.82	£304,333.70	£18,778.73	£614.32	£591,913.98	£0.00	£0.00	51,025,949.49
Dec-13	ROI	£59,731,699.86	£27,864,400.43	£1,135,385.04	£777,997.00	£175,711.33	£8,515.85	£874,795.89	£44,746.05	£1,825.43	£0.00	£0.00	£0.00	90,615,076.88
	NI	£26,108,999.75	£9,220,782.35	£325,646.22	£58,193.58	£77,917.35	£571.58	£137,253.25	£14,599.87	£487.47	£0.00	£0.00	£0.00	35,944,451.42
Jan-14	ROI	£114,421,340.65	£24,793,160.86	£2,129,762.27	£798,055.27	£127,352.61	£7,984.34	£204,139.96	£36,418.59	£1,561.86	£473,584.35	£0.00	£0.00	142,993,360.76
	NI	£51,824,850.54	£9,142,377.84	£617,870.56	£62,006.75	£10,003.11	£595.49	£67,335.86	£14,491.45	£574.85	£141,821.26	£0.00	£0.00	61,881,927.71
Feb-14	ROI	£66,102,607.16	£27,393,747.26	£1,496,376.58	£305,733.65	£76,911.71	£2,819.89	£479,013.35	£22,451.87	£9,128.65	£381,194.91	£0.00	£0.00	96,269,985.03
	NI	£31,130,342.59	£9,846,758.26	£422,869.39	£25,720.60	£3,900.39	£240.37	£187,918.65	£15,303.03	£942.92	£235.51	£0.00	£0.00	41,634,232.31
Mar-14	ROI	£70,041,213.49	£26,285,336.21	£1,449,159.95	£261,906.17	£61,216.38	£2,226.19	£92,283.95	£30,407.22	£960.16	£0.00	£0.00	£0.00	98,224,709.72
	NI	£30,175,818.70	£9,293,564.48	£406,620.40	£46,940.79	£7,639.04	£408.77	£52,408.32	£11,933.67	£470.83	£0.00	£0.00	£0.00	39,995,805.00
Apr-14	ROI	£62,098,778.40	£21,155,742.39	£1,388,175.41	£528,104.58	£142,466.39	£4,901.73	£242,053.48	£38,030.86	£1,783.00	£0.00	£0.00	£0.00	85,600,036.24
	NI	£26,448,426.91	£9,644,850.74	£386,840.18	£307,948.88	£77,962.26	£2,649.15	£53,805.05	£9,613.13	£381.03	£0.00	£0.00	£0.00	36,932,477.33
May-14	ROI	£68,945,192.38	£22,029,381.87	£1,615,436.17	£629,905.18	£213,410.99	£7,659.07	£192,421.65	£21,030.53	£1,110.05	£429,407.30	£0.00	£0.00	94,084,955.19
	NI	£28,649,957.73	£7,313,397.03	£439,831.96	£149,812.37	£34,908.87	£997.82	£58,386.93	£9,959.93	£468.77	£0.03	£0.00	£0.00	36,657,721.44
Jun-14	ROI	£52,841,750.77	£17,596,854.80	£1,312,068.35	£423,771.26	£115,750.72	£4,162.65	£89,169.46	£18,685.28	£1,014.73	£28,526.30	£0.00	£0.00	72,431,754.32
	NI	£21,944,762.06	£6,361,219.34	£345,120.63	£120,971.43	£44,784.33	£1,003.03	£41,125.48	£9,461.42	£415.67	£2,532.18	£0.00	£0.00	28,871,395.57

Table 30 - Total Charges by Month

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Market		Energy	Capacity	M+4 Energy	M+4 Capacity	M+4 Market Operator	M+13 Energy	M+13 Capacity	M+13 Market Operator	Ad-hoc Energy	Ad-hoc Capacity	Ad-hoc Market Operator	Total
Jun-13	ROI	€62,856,676.93	€22,620,279.73	€495,012.84	€137,864.81	€7,303.60	€61,553.46	€12,972.87	€771.42	€7,168.09	€0.00	€0.00	€86,199,603.75
	NI	€20,005,532.91	€5,952,891.95	€123,662.20	€32,894.53	€1,059.57	€67,817.83	€15,562.24	€697.08	€160,132.43	€0.00	€0.00	€26,360,250.74
Jul-13	ROI	€64,373,421.59	€18,247,432.96	€964,041.86	€173,902.58	€7,906.35	€55,507.11	€17,916.41	€690.80	€924,828.19	€100,969.43	€0.00	€84,866,617.28
	NI	€24,434,329.71	€6,507,406.51	€94,802.99	€15,679.58	€710.78	€12,978.92	€1,777.48	€190.12	€206,821.52	€0.00	€0.00	€31,274,637.61
Aug-13	ROI	€63,981,400.27	€17,490,496.02	€574,908.31	€103,763.23	€10,083.25	€16,006,162.20	€10,709.76	€808.95	€986.69	€0.00	€0.00	€98,179,318.68
	NI	€23,798,215.28	€6,256,493.76	€56,417.87	€47,293.31	€2,768.68	€5,757,671.12	€6,849.67	€223.45	€18,449.41	€0.00	€0.00	€35,944,382.55
Sep-13	ROI	€62,051,092.84	€16,936,760.25	€1,068,679.90	€128,081.30	€7,144.86	€971,541.05	€151,818.04	€11,020.17	€0.00	€416,852.38	€0.00	€81,742,990.79
	NI	€21,229,997.89	€5,817,250.40	€156,880.27	€5,515.98	€108.46	€19,000.09	€25,023.77	€112.65	€0.00	€92.64	€0.00	€27,253,982.15
Oct-13	ROI	€70,147,828.86	€18,147,894.98	€704,498.56	€112,615.82	€6,476.59	€907,795.23	€25,996.67	€883.97	€1,040,063.76	€0.00	€0.00	€91,094,054.44
	NI	€24,161,387.51	€6,338,740.34	€71,964.41	€11,643.56	€445.89	€216,015.53	€5,767.60	€356.54	€303,081.27	€0.00	€0.00	€31,109,402.65
Nov-13	ROI	€101,727,467.69	€26,117,243.83	€1,224,763.25	€189,998.42	€12,263.50	€1,215,831.35	€57,206.41	€1,470.22	€2,187,635.43	€0.00	€0.00	€132,733,880.10
	NI	€38,593,632.08	€9,396,822.98	€111,667.01	€10,330.33	€754.66	€405,512.07	€19,818.44	€503.29	€523,998.04	€0.00	€0.00	€49,063,038.90
Dec-13	ROI	€65,016,104.57	€28,265,983.93	€814,481.63	€237,772.30	€8,560.54	€742,019.49	€45,101.88	€1,753.62	€0.00	€0.00	€0.00	€95,131,777.96
	NI	€26,883,033.60	€8,854,167.97	€62,225.77	€25,458.47	€563.46	€254,389.50	€14,183.48	€467.80	€0.00	€0.00	€0.00	€36,094,490.05
Jan-14	ROI	€134,009,133.84	€23,642,517.67	€793,440.19	€126,432.23	€7,824.65	€221,578.57	€36,894.00	€1,646.36	€479,971.01	€0.00	€0.00	€159,319,438.52
	NI	€51,714,479.92	€10,157,332.65	€82,843.03	€10,154.76	€543.56	€66,035.81	€14,046.97	€605.11	€109,684.36	€0.00	€0.00	€62,155,726.17
Feb-14	ROI	€78,679,881.12	€26,819,095.36	€904,687.52	€76,805.50	€2,536.46	€531,739.65	€29,343.21	€10,349.43	€443,421.38	€0.00	€0.00	€106,897,859.63
	NI	€29,747,186.53	€10,347,544.45	€37,918.21	€4,082.15	€214.26	€179,315.25	€9,737.45	€350.80	€3.55	€0.00	€0.00	€40,326,352.65
Mar-14	ROI	€75,149,006.14	€26,180,620.54	€259,644.98	€60,397.08	€2,170.67	€127,303.70	€28,200.28	€960.40	€0.00	€0.00	€0.00	€101,808,303.79
	NI	€29,749,446.42	€9,292,032.85	€46,950.40	€8,326.93	€408.65	€52,017.29	€13,760.80	€471.08	€0.00	€0.00	€0.00	€39,163,414.42
Apr-14	ROI	€65,482,679.64	€21,981,963.17	€549,302.08	€147,627.43	€4,399.40	€259,726.57	€38,566.49	€1,783.33	€0.00	€0.00	€0.00	€88,466,048.11
	NI	€25,517,456.45	€8,979,409.88	€903,950.50	€73,719.22	€2,138.60	€56,294.66	€9,188.57	€381.08	€0.00	€0.00	€0.00	€34,942,538.96
May-14	ROI	€68,502,489.93	€22,405,052.21	€652,683.44	€210,307.65	€7,807.32	€249,029.58	€16,425.79	€1,110.17	€9,581.32	€0.00	€0.00	€92,054,487.41
	NI	€27,515,054.00	€7,036,489.15	€150,145.26	€37,452.65	€999.79	€81,713.52	€13,718.04	€468.77	€3.89	€0.00	€0.00	€34,836,045.07
Jun-14	ROI	€53,863,542.49	€16,268,861.66	€424,333.36	€121,415.36	€4,245.54	€106,227.35	€17,318.53	€1,014.63	€10,805.33	€0.00	€0.00	€70,817,764.25
	NI	€18,301,490.12	€7,464,864.99	€121,134.45	€40,186.30	€1,005.32	€50,770.87	€10,564.39	€415.66	€29.76	€0.00	€0.00	€25,990,461.86

Table 31 - Total Payments by Month

## 15 Appendix H: Full Balancing Costs

Historical figures for full Balancing Costs of both the Trading and Capacity Markets, for the current financial year (October to September), are provided below. Information related to periods before this is available in previous Monthly Market Operator Reports.

- Positive values indicate Payments were greater than Charges.
- Negative values indicate Charges were greater than Payments.

### Trading Market

Date Of Invoice	Week No	SEM Balancing Costs	VAT Balancing Costs
04/10/2013	38	-€674,643.65	-€7,304.11
11/10/2013	39	€1,470,454.75	€282,967.81
18/10/2013	40	€1,565,540.72	€261,420.05
25/10/2013	41	€1,216,501.47	-€203,049.68
01/11/2013	42	€1,582,640.50	€227,924.39
08/11/2013	43	€2,175,993.38	€368,919.09
15/11/2013	44	€234,229.47	€89,641.72
22/11/2013	45	€893,912.83	€182,707.89
29/11/2013	46	€112,506.60	€1,606.89
06/12/2013	47	€2,647,032.97	€215,777.46
13/12/2013	48	€752,640.18	€133,576.36
20/12/2013	49	€1,841,603.06	€263,539.44
03/01/2014	50	€2,846,523.20	€390,127.91
03/01/2014	51	€3,745,323.83	€500,276.98
10/01/2014	52	€3,597,778.03	€450,932.98
17/01/2014	1	€3,228,601.37	€473,806.13
24/01/2014	2	€1,326,598.20	€473,806.13
31/01/2014	3	€2,554,714.89	€273,646.36
07/02/2014	4	€2,844,930.59	€413,677.68
14/02/2014	5	€2,595,824.97	€344,267.69
21/02/2014	6	€2,011,856.07	€289,132.53
28/02/2014	7	€1,795,332.18	€260,445.50
07/03/2014	8	€1,243,165.04	€640,903.32
14/03/2014	9	€842,764.84	€498,771.98
21/03/2014	10	€566,483.84	€51,979.84
28/03/2014	11	€604,404.46	€287,653.95
04/04/2014	12	€1,005,736.03	€ 304,802.51
11/04/2014	13	€508,440.18	€ 423,038.98
18/04/2014	14	-€217,860.87	€ 56,687.76
25/04/2014	15	€843,391.20	-€ 37,846.05
02/05/2014	16	-€420,682.47	€188,369.50
09/05/2014	17	€347,401.87	-€241,641.43
16/05/2014	18	-€886,208.32	€41,357.12
23/05/2014	19	-€1,046,996.68	-€292,108.29
30/05/2014	20	-€686,867.47	-€79,044.71
06/06/2014	21	-€326,019.47	-€82,173.40
13/06/2014	22	-€802,412.50	-€18,940.35
20/06/2014	23	-€566,638.49	-€51,931.44
27/06/2014	24	-€559,663.83	-€346,567.51

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**Table 32 – Full Balancing Costs for Trading Charges and Payments**

Note: SEM Balancing Costs are provided based on daily exchange rates; VAT Balancing Costs are based on the Invoicing Date Trading Day exchange rate. VAT Balancing costs exclude Currency Cost related VAT.

### ***Capacity Market***

<b>Invoice Month</b>	<b>SEM Balancing Costs</b>	<b>VAT Balancing Costs</b>
October 2013	-€304.76	-€94.05
November 2013	-€372.56	€2,045.28
December 2013	-€394.40	€-454.73
January 2014	-€424.40	-€1,164.62
February 2014	-€330.78	-€1,955.12
March 2014	-€332.7	€5,757.11
April 2014	-€294.96	-€3,446.68
May 2014	-€278.55	€1,776.78
June 2014	-€238.78	€973.06

**Table 33 - Balancing Costs for Capacity Settlement**

Note: SEM Capacity Balancing Costs and VAT Balancing Costs are provided based on Annual Capacity exchange rate. VAT Balancing costs exclude Currency Cost related VAT.



## 16 Appendix I: MSP Algorithms

The Market Operator has two different certified solvers used to determine Unit Commitment. These solvers use the Lagrangian Relaxation (LR) and Mixed Integer Programming (MIP) methodologies.

The primary algorithm used in the SEM is Lagrangian Relaxation (LR). Under certain schedule outcomes this solution is compared to results achieved using MIP. The SEMO policy on the use of MIP has been updated and is available from the SEMO website [here](#).

Historical information on runs and dates where the MIP algorithm has been used for published results is provided below.

Month	Ex-Ante	Ex-Ante 2	Ex-Post Indicative	Ex-Post Initial	Within Day
May 2013	-	-	-	-	-
June 2013	-	18/06/2013	-	-	-
July 2013	-	-	-	25/07/2013	16/07/2013
August 2013	-	13/08/2013	14/08/2013	-	05/08/2013
September 2013	-	24/09/2013	05/09/2013	12/09/2013	03/09/2013 30/09/2013
October 2013	-	-	30/10/2013	07/10/2013, 24/10/2013 & 30/10/2013	-
November 2013	-	-	14/11/2013 20/11/2013	14/11/2013	17/11/2013 30/11/2013
December 2013	02/12/2013 03/12/2013	02/12/2013	02/12/2013 21/12/2013	-	19/12/2013

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Month	Ex-Ante	Ex-Ante 2	Ex-Post Indicative	Ex-Post Initial	Within Day
January 2014	07/01/2014	-	05/01/2014 19/01/2014	04/01/2014 19/01/2014 21/01/2014	-
February 2014	26/02/2014	-	-	-	-
March 2014	-	26/03/2014 27/03/2014	15/03/2014 27/03/2014	22/03/2014	13/03/2014
April 2014	-	11/04/2014	-	07/04/2014	
May 2014	-	-	-	-	26/05/2014
June 2014	17/06/2014	-	18/06/2014 29/06/2014	-	25/06/2014 26/06/2014

Table 34 - MIP Algorithms

Operational Date	Trade Date	Run Type	LR Peak SMP	MIP Peak SMP	Published
04/03/2013	05/03/2013	EA1	€586.55	€301.78	MIP
11/03/2013	11/03/2013	WD1	€629.46	€333.37	MIP
11/03/2013	12/03/2013	EA2	€561.28	€221.27	MIP
12/03/2013	11/03/2013	EP1	€1,350.64	€699.49	MIP
15/03/2013	11/03/2013	EP2	€1,350.64	€699.49	MIP
17/03/2013	18/03/2013	EA1	€576.04	€346.00	MIP
18/03/2013	19/03/2013	EA2	€682.41	€346.00	MIP
19/03/2013	18/03/2013	EP1	€576.04	€372.23	MIP
20/03/2013	24/03/2013	EP2	€625.32	€168.48	MIP
21/03/2013	21/03/2013	WD1	€596.97	€259.45	MIP
27/03/2013	26/03/2013	EP1	€508.83	€265.65	MIP
30/03/2013	30/03/2013	WD1	€556.86	€396.00	MIP
30/03/2013	29/03/2013	EP1	€732.81	€414.64	MIP
30/03/2013	26/03/2013	EP2	€509.19	€265.65	MIP
09/04/2013	09/04/2013	WD1	€710.75	€123.59	MIP
29/04/2013	29/04/2013	WD1	€1000.00	€168.92	MIP
17/06/2013	18/06/2013	EA2	€576.24	€84.08	MIP
16/07/2013	16/07/2013	WD1	583.17	48.11	MIP
29/07/2013	25/07/2013	EP2	€591.29	€97.59	MIP
05/08/2013	05/08/2013	WD1	€1,000	€47.02	MIP
12/08/2013	13/08/2013	EA2	€591.14	€91.37	MIP

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15/08/2013	14/08/2013	EP1	€590.51	€79.91	MIP
03/09/2013	03/09/2013	WD1	€591.42	€96.56	MIP
06/09/2013	05/09/2013	EP1	€598.70	€116.29	MIP
16/09/2013	12/09/2013	EP2	€1000.00	€313.90	MIP
23/09/2013	24/09/2013	EA2	€609.58	€98.56	MIP
30/09/2013	30/09/2013	WD1	-€100.00	€31.47	MIP
11/10/2013	07/10/2013	EP2	€1000.00	€77.71	MIP
28/10/2013	24/10/2013	EP2	€517.40	€517.40	MIP
31/10/2013	30/10/2013	EP1	€596.88	€363.43	MIP
03/11/2013	30/10/2013	EP2	€596.88	€363.43	MIP
15/11/2013	14/11/2013	EP1	€555.85	€511.00	MIP
18/11/2013	14/11/2013	EP2	€679.09	€511.00	MIP
17/11/2013	17/11/2013	WD1	€638.64	€572.75	MIP
21/11/2013	20/11/2013	EP1	€ -100.00	€268.28	MIP
30/11/2013	30/11/2013	WD1	€568.78	€283.21	MIP
01/12/2013	02/12/2013	EA1	€569.78	€264.13	MIP
01/12/2013	02/12/2013	EA2	€569.78	€265.85	MIP
02/12/2013	02/12/2013	WD1	€651.62	€243.25	MIP
02/12/2013	03/12/2013	EA1	€1000.00	€311.25	MIP
21/12/2013	21/12/2013	WD1	€637.14	€308.15	MIP
23/12/2013	19/12/2013	EP2	€633.99	€371.89	MIP
08/01/2014	04/01/2014	EP2	€683.07	€550.00	MIP
06/01/2014	05/01/2014	EP1	€683.07	€550.86	MIP
06/01/2014	07/01/2014	EA1	€609.67	€238.04	MIP
20/01/2014	19/01/2014	EP1	€678.86	€592.00	MIP
23/01/2014	19/01/2014	EP2	€678.86	€592.00	MIP
25/01/2014	21/01/2014	EP2	€683.13	€405.24	MIP
26/02/2014	27/02/2014	EA1	€567.34	€172.40	MIP
13/03/2014	09/03/2014	EP2	€1000.00	€359.19	MIP
15/03/2014	15/03/2014	WD1	€1166.98	€101.84	MIP
22/03/2014	21/03/2014	EP1	€583.98	€337.87	MIP
26/03/2014	27/03/2014	EA2	€1000.00	€337.87	MIP
27/03/2014	27/03/2014	WD1	€1000.00	€486.54	MIP
27/03/2014	28/03/2014	EA2	€1000.00	€179.49	MIP
10/04/2014	11/04/2014	EA2	€539.67	€143.88	MIP
03/04/2014	07/04/2014	EP2	€573.67	€670.25	MIP
26/05/2014	26/05/2014	WD1	€578.28	€301.71	MIP
16/06/2014	17/06/2014	EA1	€562.05	€534.28	MIP
19/06/2014	18/06/2014	EP1	€551.50	€526.61	MIP
30/06/2014	29/06/2014	EP1	€1,000	€956.83	MIP
25/06/2014	25/06/2014	WD1	€930.72	€57.32	MIP
26/06/2014	26/06/2014	WD1	€1,000	€69.50	MIP

Table 35 - MIP Vs LR Peak Price Comparison