



Market Operator Monthly Report

January 2014

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1 Executive Summary

This Single Electricity Market Operator's (SEMO) report covers the month of operation of January 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 January 2014 Settlements had no late publications as per the Trading and Settlement code.

174 general queries were received in January 2014. During the same period 163 general queries were resolved.

There were four defaults by Participants during January 2014. The largest of these was an Energy M+4 invoice default for €249.31, 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

2.1 Code Breaches

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

Code Breaches			Major	Minor
Area				
Data Providers			0	0
Market Participants	Pricing & Scheduling		-	-
	Settlement		-	-
	Funds Transfer		4	-
	Credit Risk Management		3	-
SEMO	Pricing & Scheduling		-	8
	Settlement		-	-
	Funds Transfer		-	-
	Credit Risk Management		-	-
	Other		-	-
Total			7	8

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.

2.2 *Joining and Terminating Parties and Units*

No new parties joined the Market in January 2014.

There were no terminating parties in January 2014.

Two new units became effective in the Market in January 2014.

- SU_400172 – Castledockrell (Supply)
- GU_401470 – Taurbeg Limited

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

2.3 *Suspension of Participants*

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

3 Financial Statistics

3.1 Total Charges for Each Currency

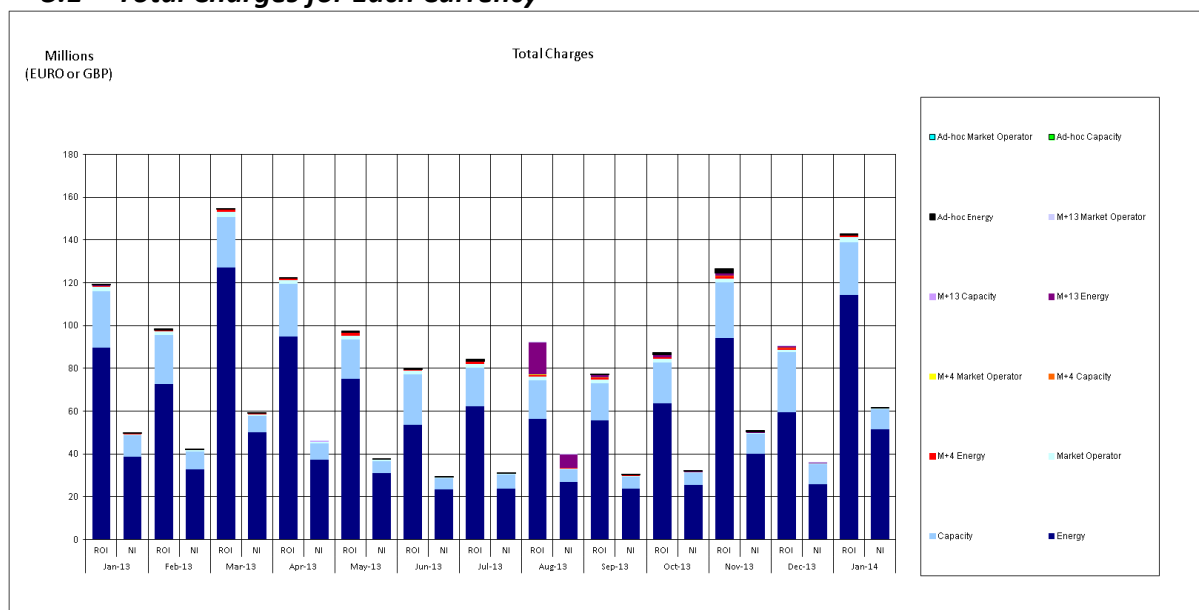


Figure 1 - Total Charges for Each Currency

Market	January 2014	
	ROI	NI
Energy	€114,421,341	£51,824,851
Capacity	€24,793,161	£9,142,378
Market Operator	€2,129,762	£617,871
M+4 Energy	€798,055	£62,007
M+4 Capacity	€127,353	£10,003
M+4 Market Operator	€7,984	£595
M+13 Energy	€204,140	£67,336
M+13 Capacity	€36,419	£14,491
M+13 Market Operator	€1,562	£575
Ad-hoc Energy	€473,584	£141,821
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€142,993,361	£61,881,928

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](#).

3.2 Total Payments for Each Currency

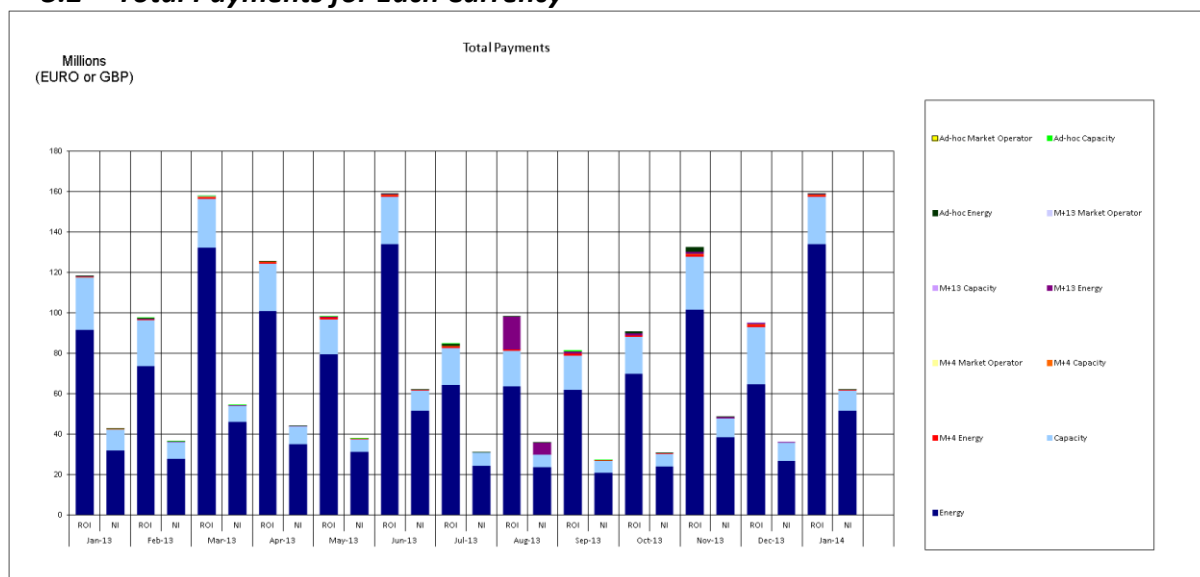


Figure 2 - Total Payments for Each Currency

Market	January 2014	
	ROI	NI
Energy	€134,009,134	£51,714,480
Capacity	€23,642,518	£10,157,333
M+4 Energy	€793,440	£82,843
M+4 Capacity	€126,432	£10,155
M+4 Market Operator	€7,825	£544
M+13 Energy	€221,579	£66,036
M+13 Capacity	€36,894	£14,047
M+13 Market Operator	€1,646	£605
Ad-hoc Energy	€479,971	£109,684
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€159,319,439	£62,155,726

Table 3 - Total Payments for Each Currency

3.3 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:

	January 2014
Imbalance (Energy Only)	-€34,246,150.99

Table 4 - Balancing Costs for Energy Settlement

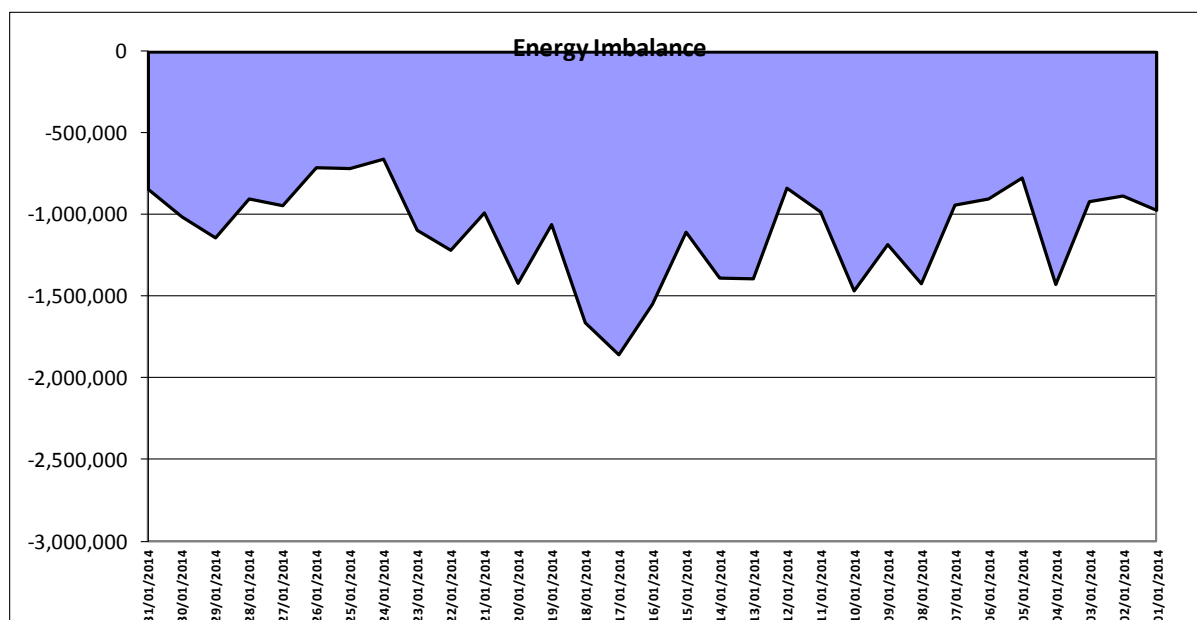


Figure 3 – Energy Imbalances

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.

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

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
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

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:

January 2014	
Capacity Charges	-€58,809,163.67
Capacity Payments	€58,808,739.26
Balancing Costs	-€424.40
VAT	-€1,164.62

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.

3.4 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
21/12/2013	03/01/2014	50	£29,077.87	£10,074.67	£39,152.54
28/12/2013	03/01/2014	51	-£2,085.74	£1,120.03	-£965.71
04/01/2014	10/01/2014	52	£8,229.95	£9,143.06	£17,373.01
11/01/2014	17/01/2014	1	£12,236.63	£307.04	£12,543.68
18/01/2014	24/01/2014	2	-£41,219.59	£9,239.13	-£31,980.46
25/01/2014	31/01/2014	3	-£47,726.66	£4,218.11	-£43,508.55

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 £39,152.54 and a cost of €-43,508.55. 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.

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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
11/02/2014	January 2014	-£35,935.97

Table 8 - Total Currency Costs for Capacity Payments and Charges

3.5 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
€244,881,829.74	€1,012,350.74	€3,210,341.83	-€206,023,224.70

Table 9 – Cumulative Imperfections Costs Vs Budget

This is demonstrated in the figure below.

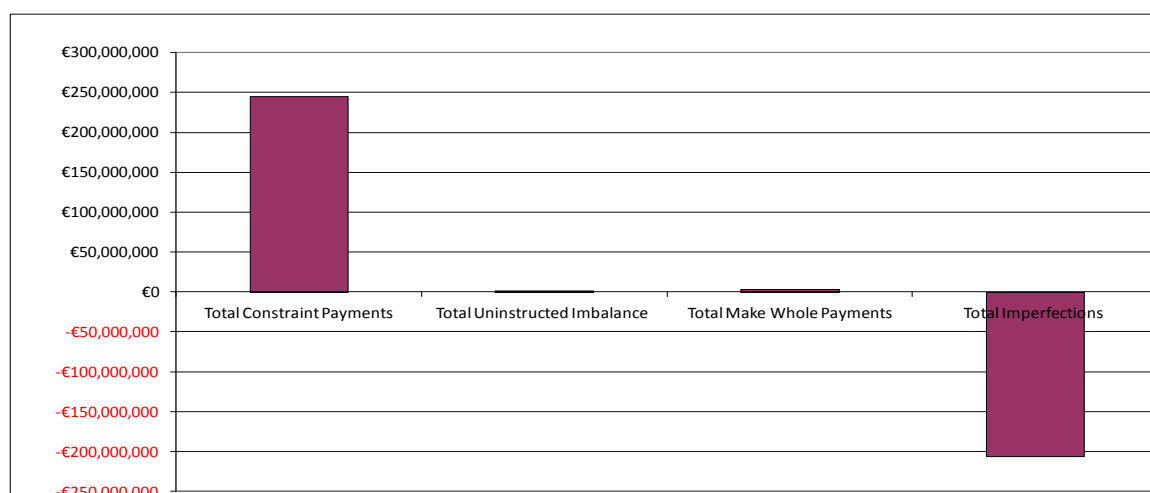


Figure 4 - Cumulative Imperfections Costs Vs Budget

The daily and weekly data that comprised these values is shown in Appendix E.

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3.6 Financial Changes between Initial Settlement and Subsequent Reruns

The following graphs provide a breakdown of resettlement amounts for the M+4 resettlement period of September 2013 and M+13 resettlement period of December 2012 for Energy and Capacity.

3.6.1 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.

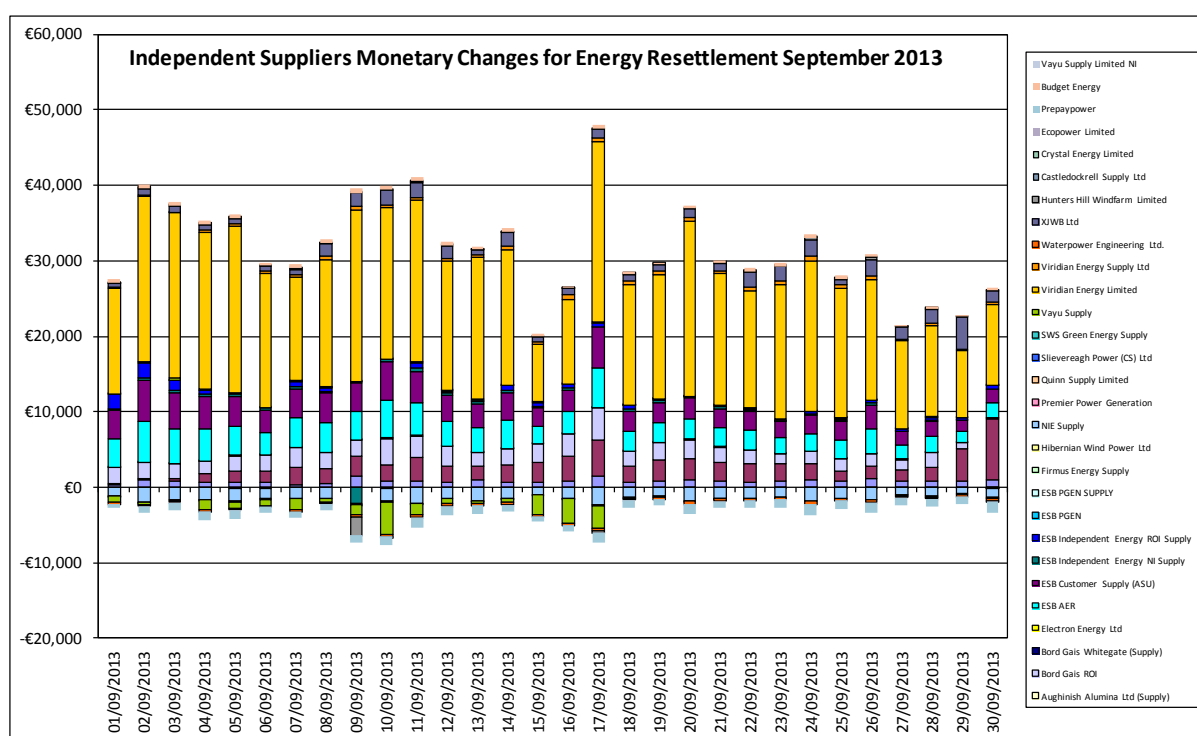


Figure 5 – Independent Suppliers Monetary Changes for Energy Resettlement – September 2013

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

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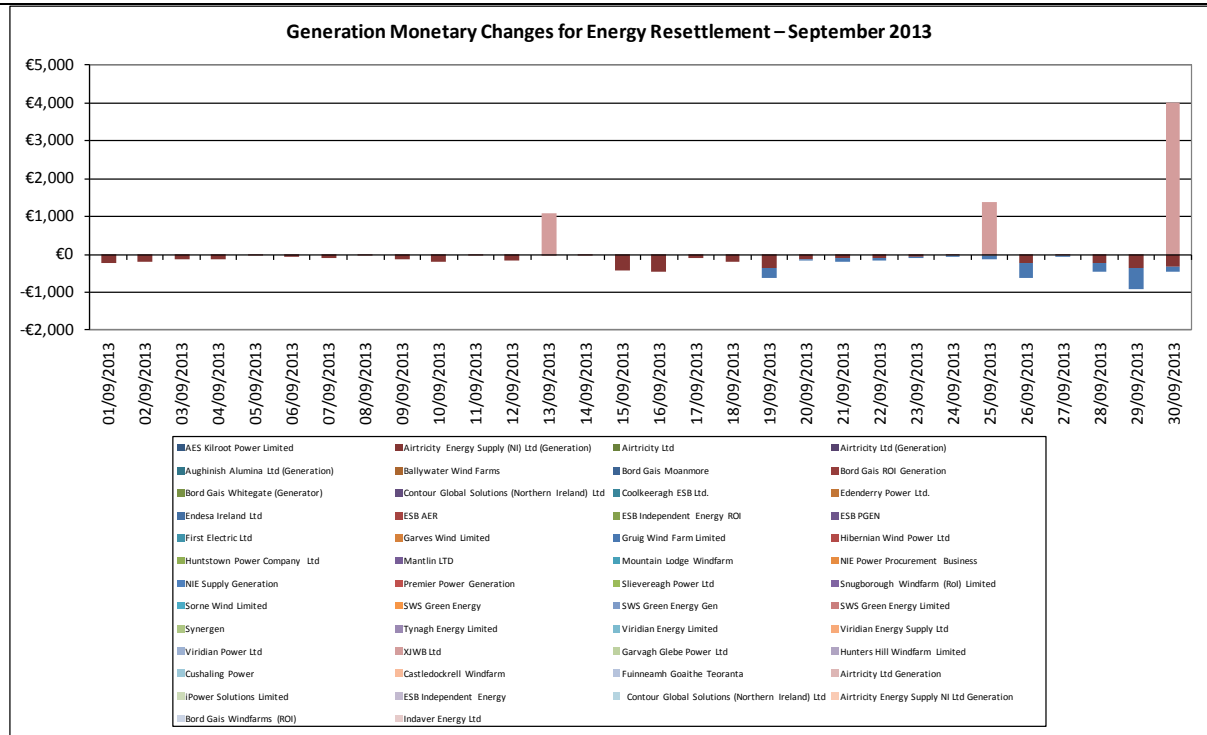


Figure 6 – Generation Monetary Changes for Energy Resettlement – September 2013

Changes noted above are due to revised meter data for a PPMG on Trade Date 30th September 2013.

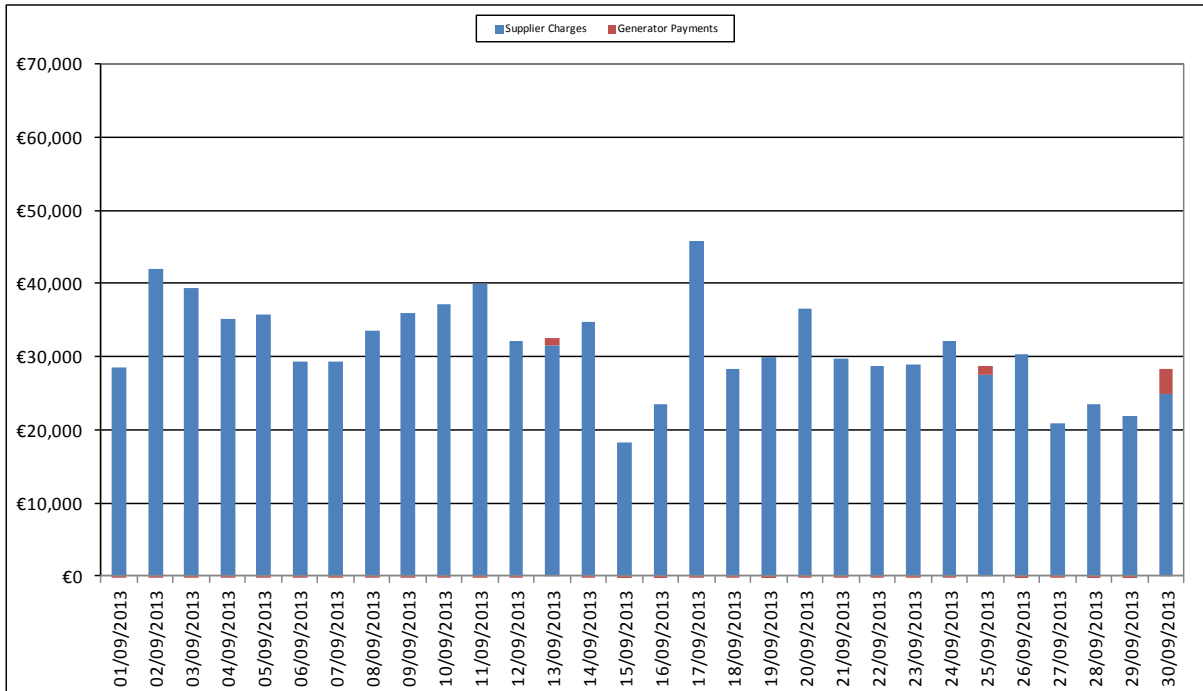


Figure 7 – Total Monetary Changes for Energy Resettlement – September 2013

M+13 Resettlement

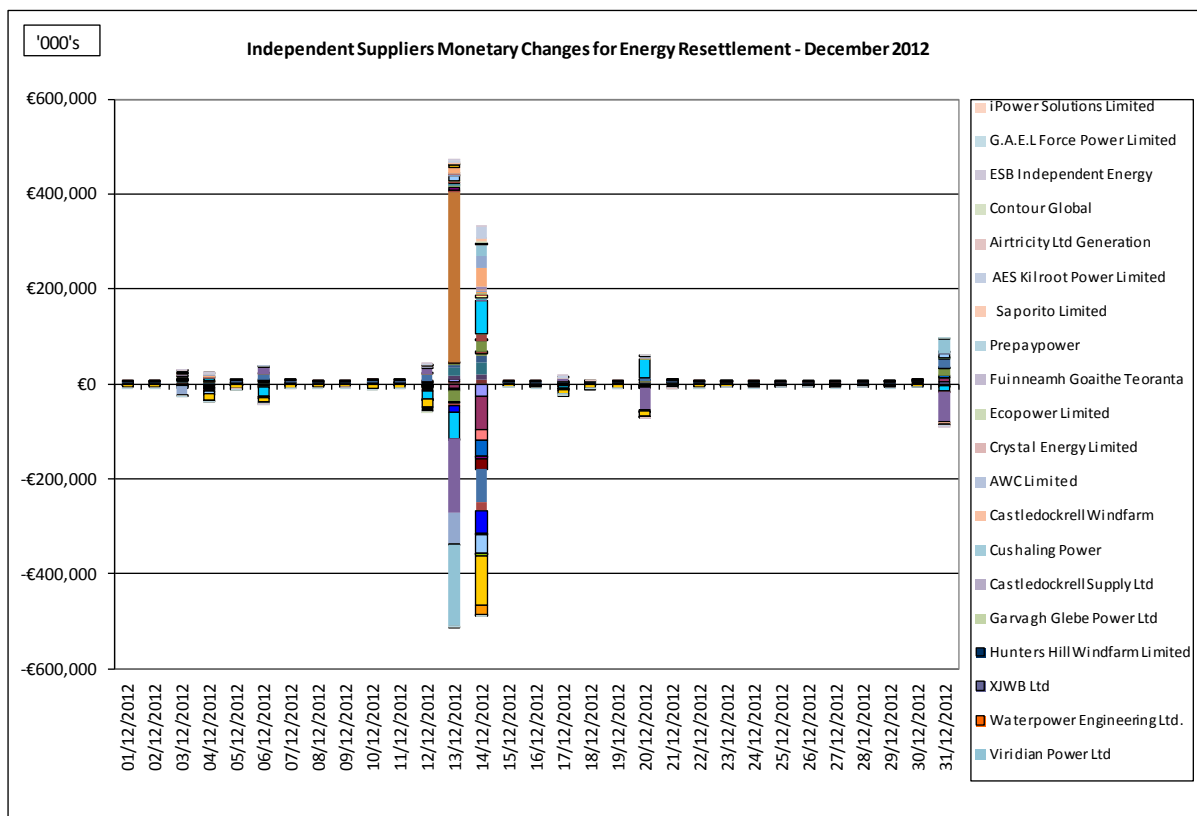


Figure 8 - Independent Suppliers Monetary Changes for Energy Resettlement – December 2012

Changes noted above are driven by updates to Non-Price Effecting Metered Demand from the original Day +4 submissions.

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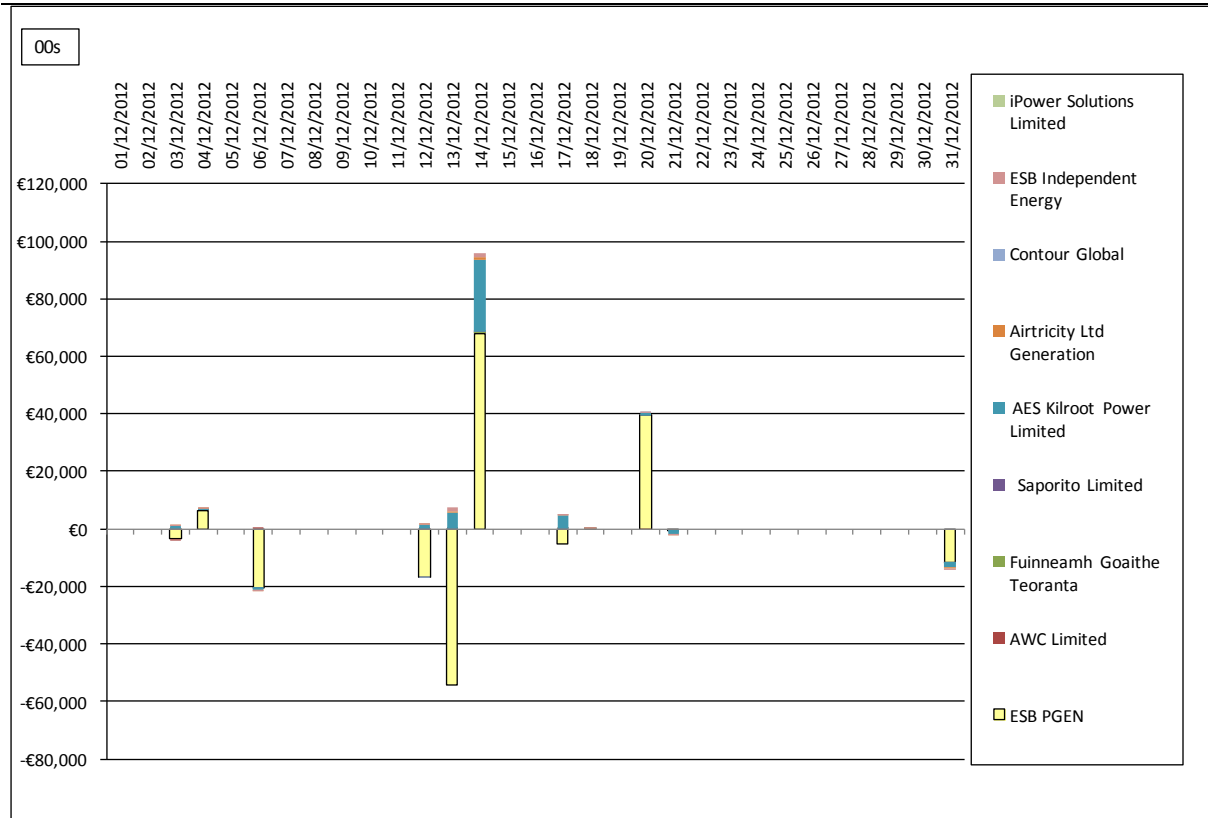


Figure 9 - Generation Monetary Changes for Energy Resettlement – December 2012

Changes noted above are due to re-prices on Trade Dates 3rd, 6th, 12th, 13th, 17th, 20th and 31st December 2012.

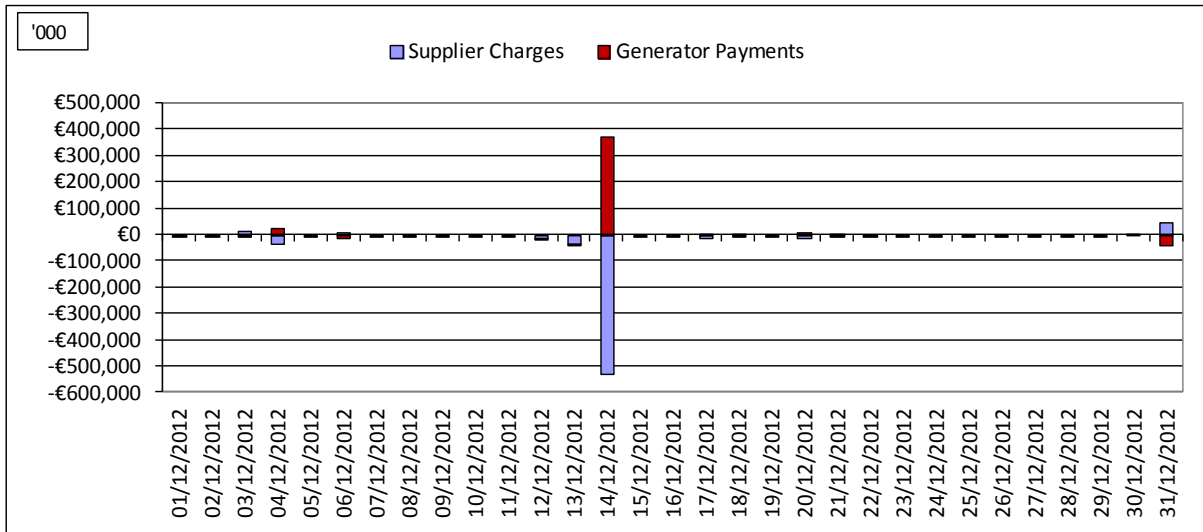


Figure 10 - Total Monetary Changes for Energy Resettlement – December 2012

3.6.2 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.

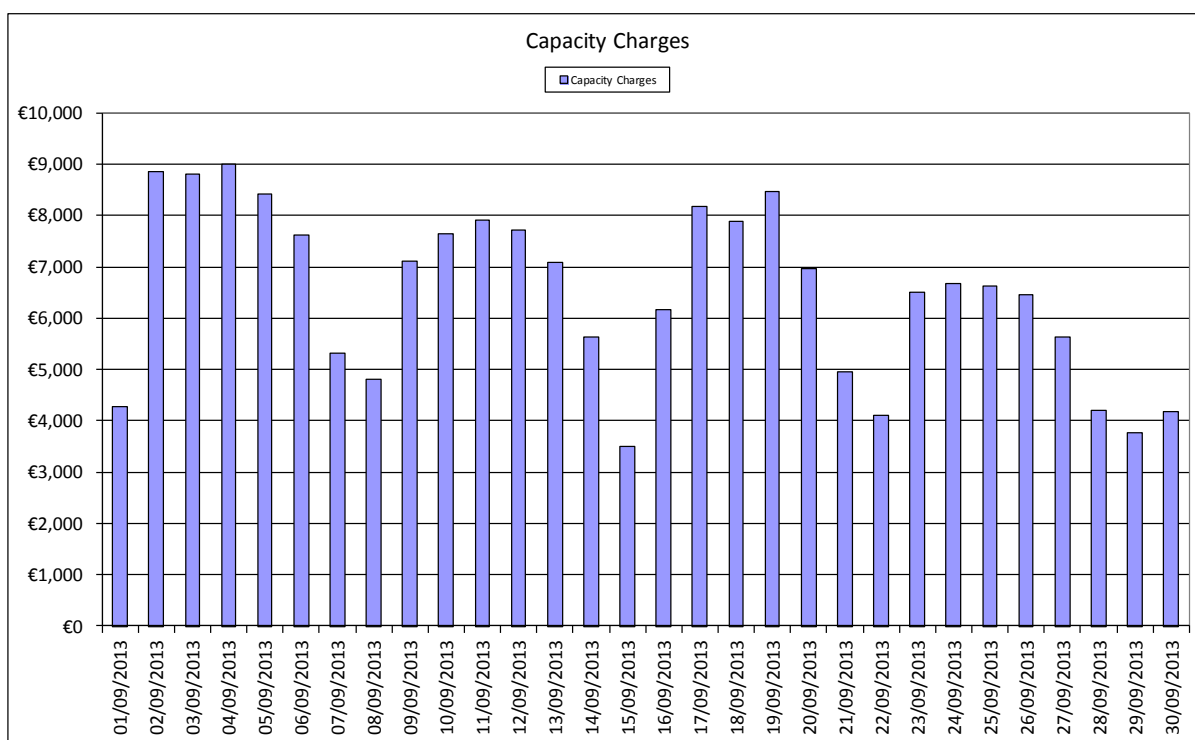


Figure 11 - Independent Suppliers Monetary Changes for Capacity Resettlement – September 2013

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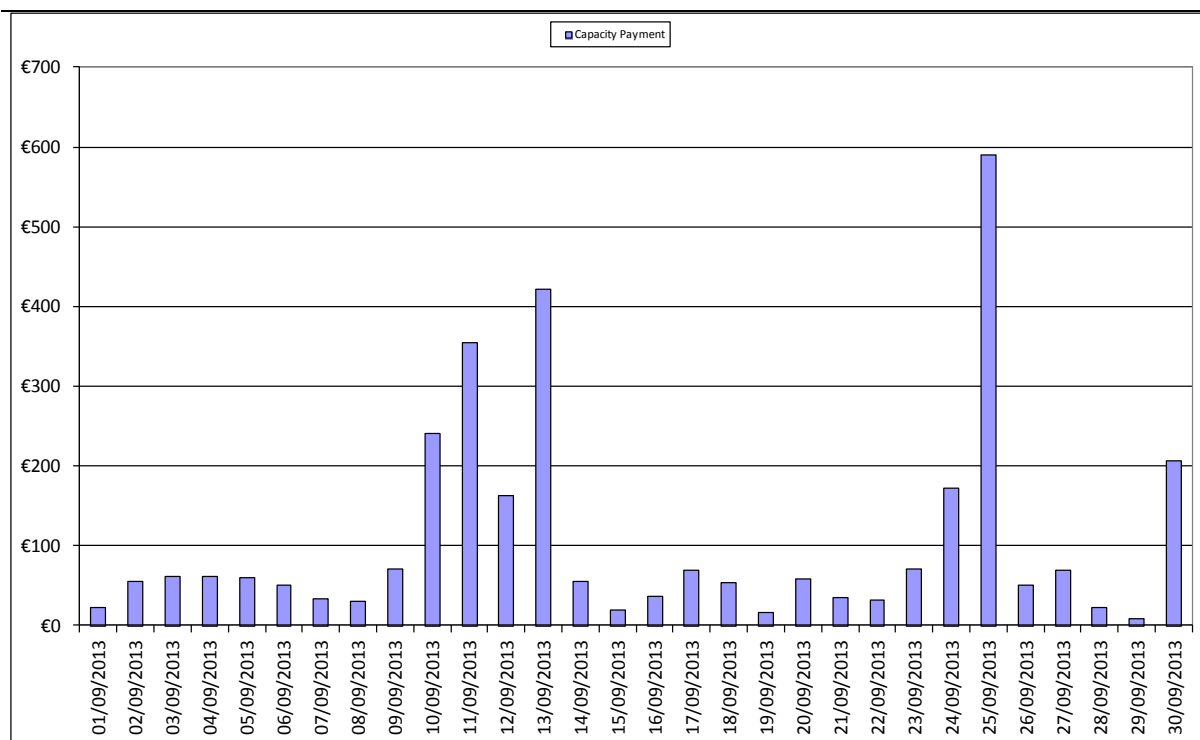


Figure 12 - All Generation Monetary Change for Capacity Resettlement – September 2013

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



Figure 13 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement – September 2013

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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

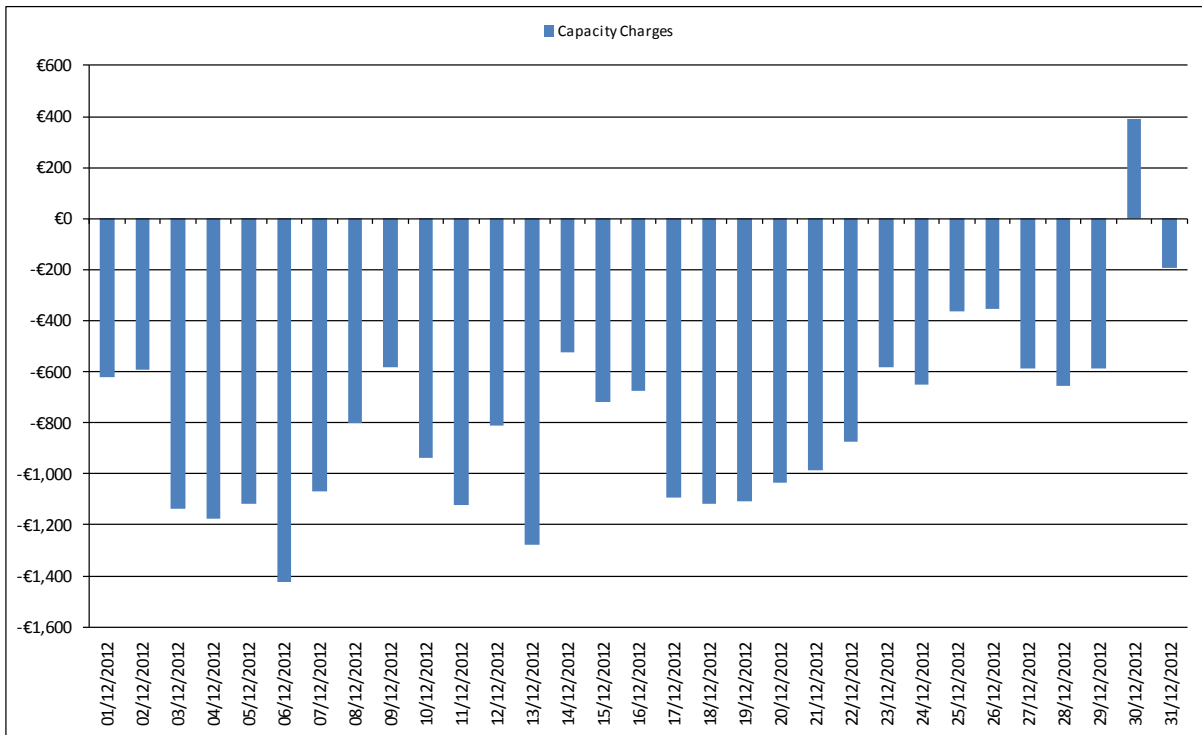


Figure 14 - Independent Suppliers Monetary Changes for Capacity Resettlement – December 2012

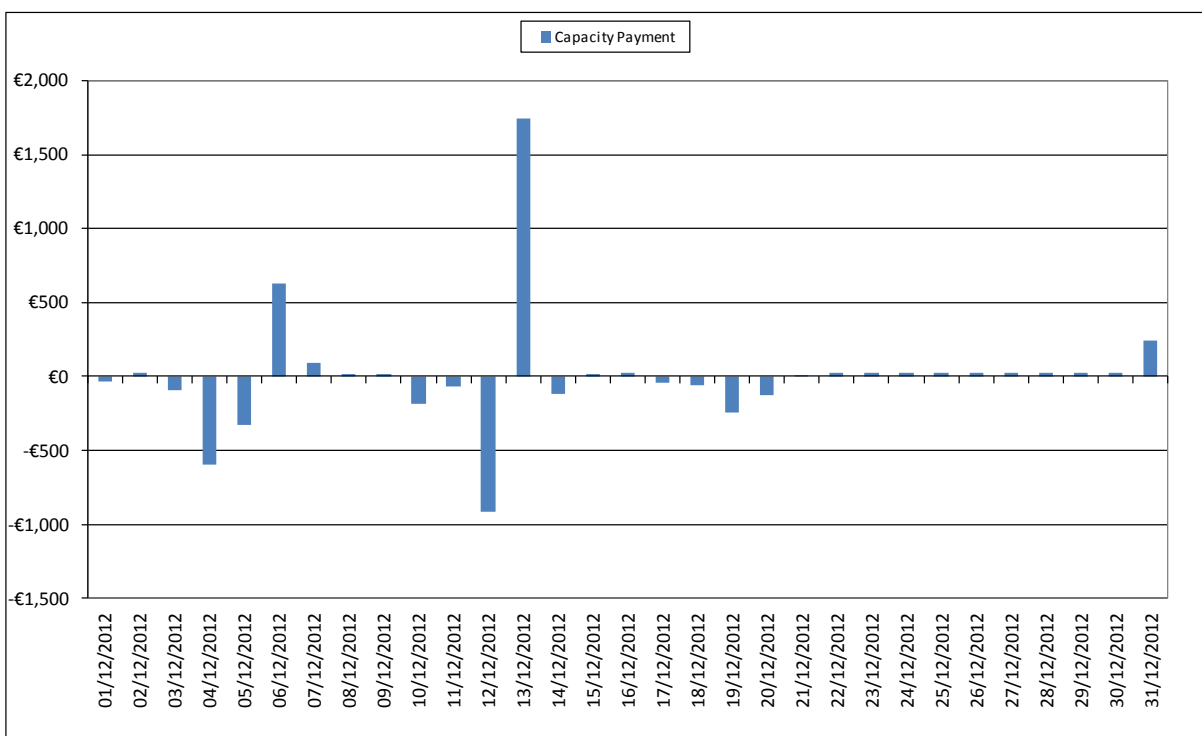


Figure 15 - All Generation Monetary Change for Capacity Resettlement – December 2012

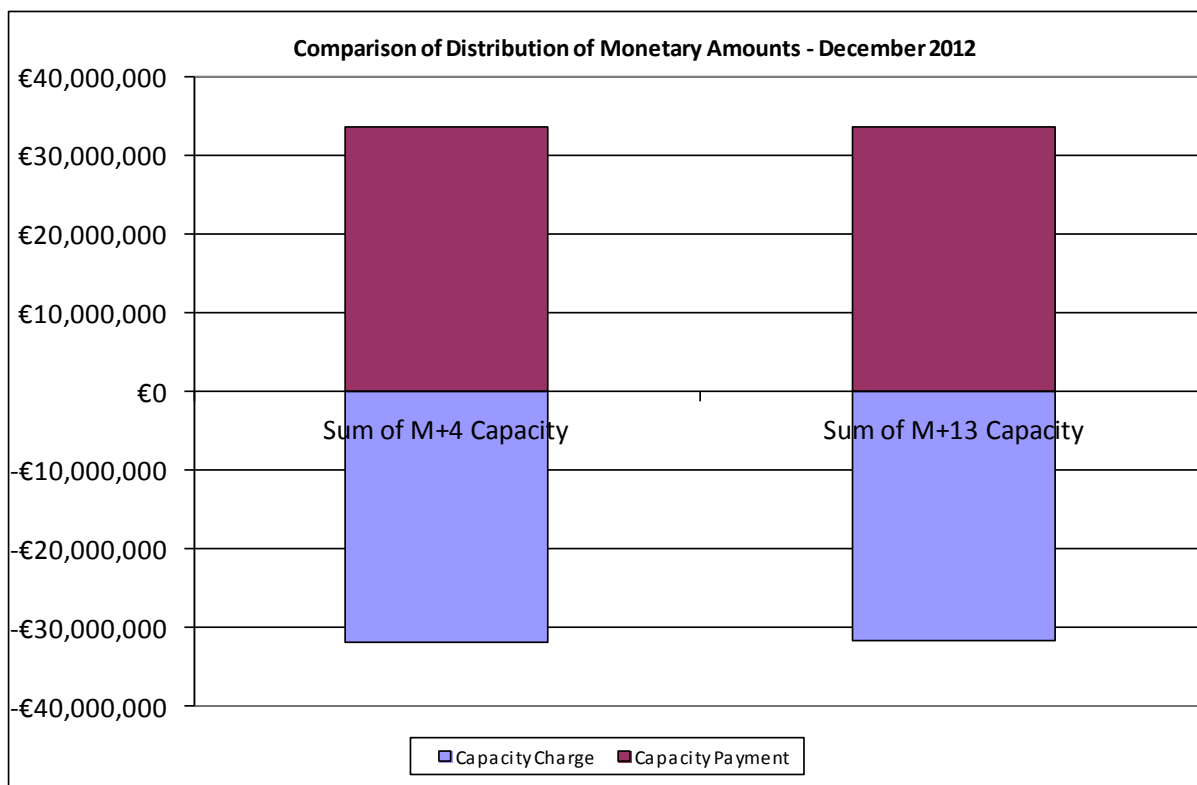


Figure 16 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – December 2012

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 January 2014.

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	168	149	19	157	1.83	143
Important	6	5	1	6	3.83	3
Urgent	1	1	0	1	0.27	1
Settlement	18	15	3	17	4.72	17
Credit	0	0	0	0	0.00	0
Dispute	0	0	0	1	7.93	1
Data	4	4	0	4	1.53	4
Total/Average	197	174	23	186	4.02	169

Table 10 – Helpdesk Statistics

Definitions:

- *Resolved within the Period* refers to queries raised and resolved within the calendar month of January 2014.
- *Resolved in the Period* refers to queries resolved within January 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 January 2014.
- *Not Resolved* refers to queries raised but not resolved within January 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 0.15 working days in December from 2.18 working days in December to 2.03 working days in January. SEMO has a metric to resolve General Queries within 20 Working Days. These include queries received over the phone and e-mail. There were 2 queries logged in December 2013 that took over 20 working days to resolve. There are currently 3 pending calls that have been open longer than 20 working days.

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 December 2013 with regard to formal Settlement Queries.

5 Disputes and Queries

5.1 List of Disputes by Topic

As of 6th February there are 16 outstanding Disputes.

Dispute	Raised	Resolved
F0053411 – F0053421	02-05-2013	Ongoing
F0053512 – F0053514	09-05-2013	Ongoing
F0053576 – F0053577	13-05-2013	Ongoing

Table 11 - List of Disputes

5.1 List of Queries by Topic

5.1.1 Data Queries

Four Data Queries were raised in January 2014. Three were upheld. Two were relating to incorrect Actual Availability and two were relating to incorrect Dispatch Instructions.

Topic	Number Of Queries
Meter Data	1
Actual Availabilities	1
Dispatch Instructions	2

Table 12. Queries by topic

5.1.2 Settlement Queries

There were 18 Settlement Queries raised in January 2014. 17 were upheld. There is one unresolved queries as at 14th February 2014.

Topic	Number Of Queries
Eligible Availability	2
Availability	6
Metered Data	3
Dispatch Instructions	5
MIUN's	1

Table 13 – Upheld Settlement Queries by topic

- Two queries relating to incorrect calculated Eligible Availability were upheld. Both were deemed to be of low materiality (<€50,000) and will be corrected during the next scheduled resettlement which is M+4.
- Six queries relating to incorrect Availability data were upheld. They were all deemed to be of low materiality (<€50,000). One was corrected for Initial settlement, one required no resettlement, the remaining four will be corrected during the next scheduled resettlement which is M+4 and M+13 respectively.
- Three queries relating to incorrect Meter Data were raised. All three were upheld. Two were deemed to be of low materiality (<€50,000) and both will be settled at the next scheduled resettlement which is M+4. The third query has been calculated as high materiality. This will be addressed in an ad-hoc Resettlement which will be communicated to the market in due course.
- Five queries relating to incorrect Dispatch Instructions were upheld. Four were deemed to be of low materiality (<€50,000) and will be corrected during the next scheduled resettlement which is M+4 and M+13 respectively. The fifth query has been calculated as high materiality. This will be addressed in an ad-hoc Resettlement which will be communicated to the market in due course.
- There was one upheld MIUN query over the period. An updated MIUN file was sent to AMP, no resettlement was required.

5.2 Unresolved Queries

There is one unresolved Settlement Query as at 14th February 2014.

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

6 Central Systems

6.1 Proportion of Default Data Used

On review of the Commercial Offer Data used in the MSP runs, 75.85% of data used was submitted by Participants through the normal Bid-Offer process. 24.13% of the data used was based on Standing Commercial Offer Data. 0.02% 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](#).

6.2 Proportion of Estimated Meter Data used in Initial Settlement and Resettlement

This is not calculable presently.

6.3 List of System Errors and Re-runs

6.3.1 Re-Pricing and Resettlement Runs

There was one Resettlement run for January 2014. This was Energy Week 47, 2013.

6.3.2 System Errors

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

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

6.4 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 January 2014.

6.4.1 MSP Postings January 2014

Process	On Time	< 1 hr late	> 1 hr late	Not done
Gate Close EA	31-31	0-31	0-31	0
Post EA1	31-31	0-31	0-31	0
Post EA2	31-31	0-31	0-31	0
Post WD1	31-31	0-31	0-31	0
Post EP1	31-31	0-31	0-31	0
Post EP2	31-31	0-31	0-31	0

Table 14 - Operational Timings

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

Table 15 - Operational Timings (% on time)

Market Operator Monthly Report

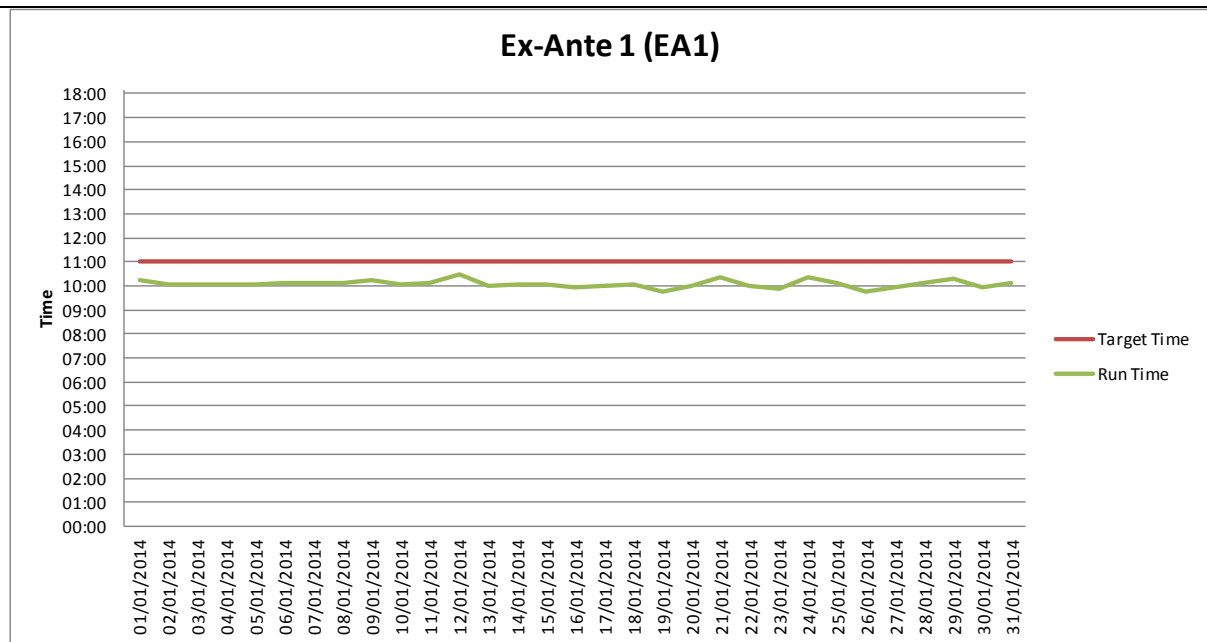


Figure 17 – Ex-Ante 1

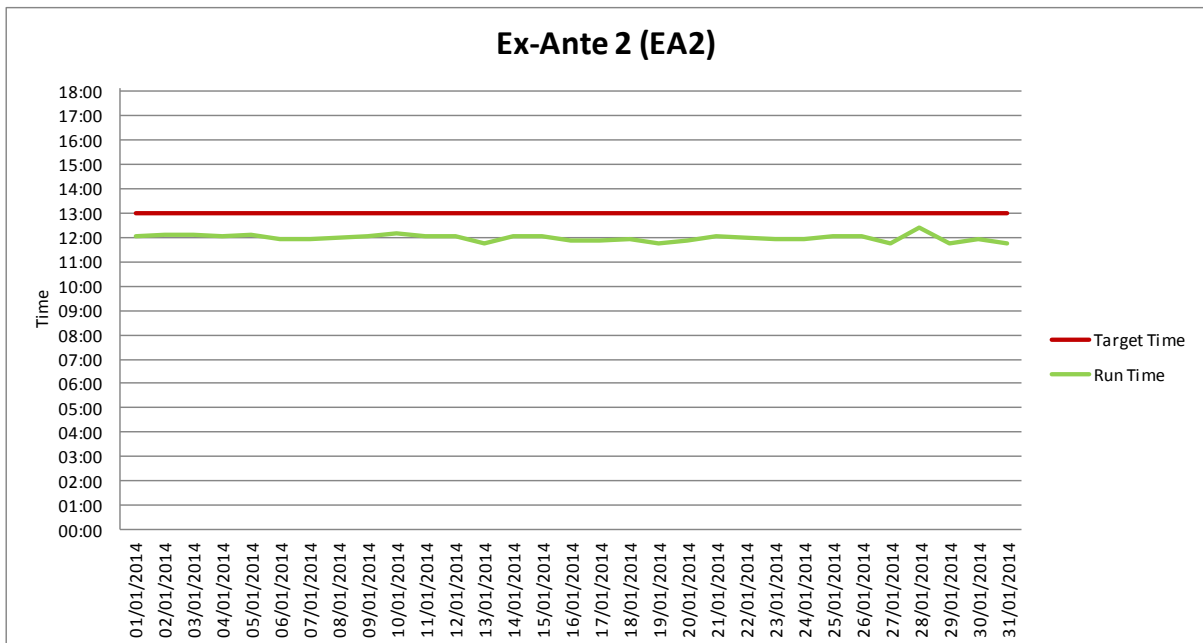


Figure 18 – Ex-Ante 2

Market Operator Monthly Report

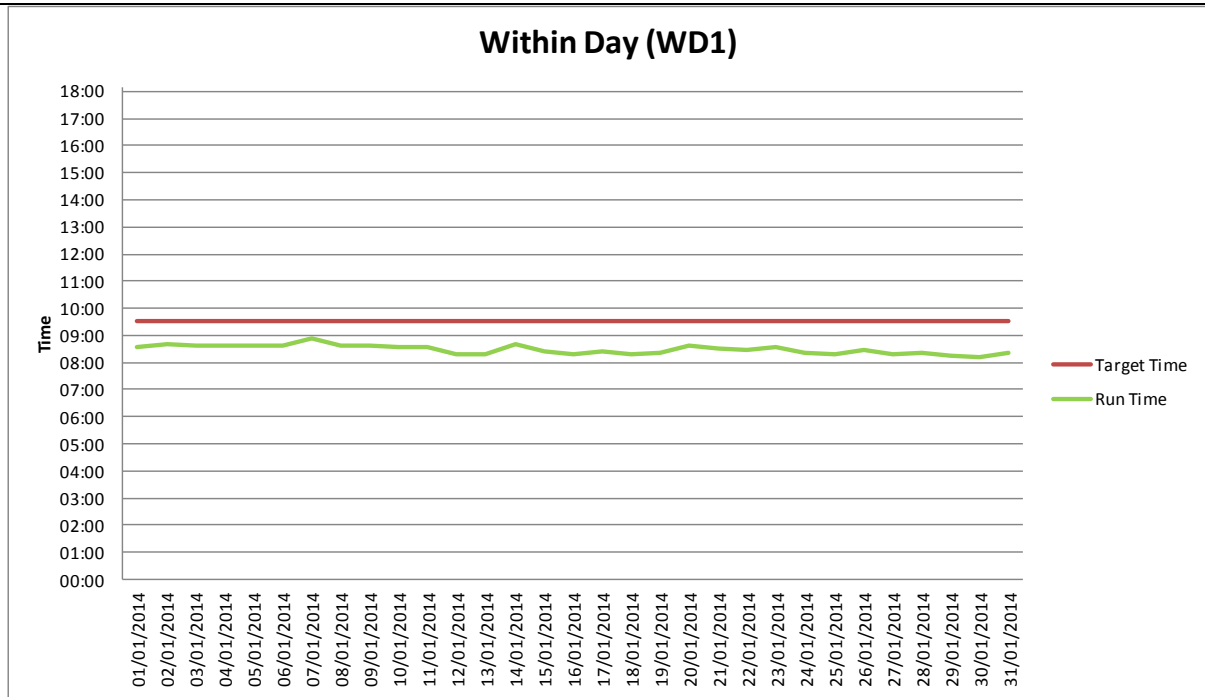


Figure 19 – Within Day 1

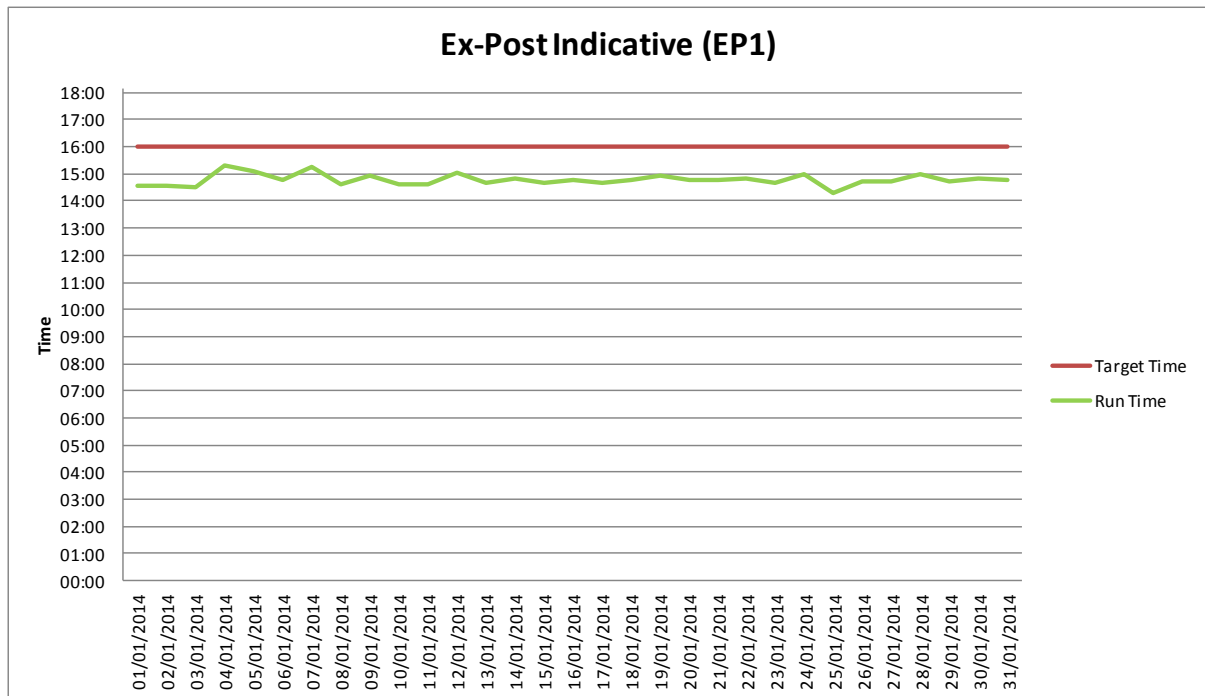


Figure 20 - Ex-Post Indicative

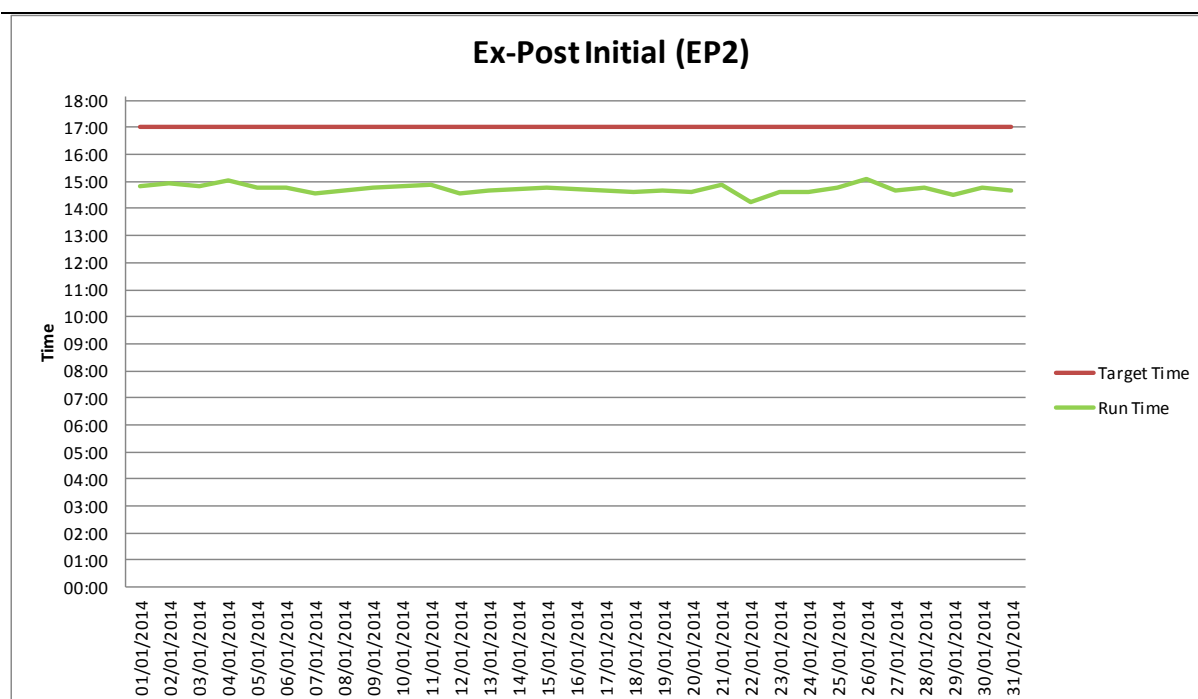


Figure 21 - Ex-Post Initial

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

6.4.2 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 January 2014, there were 6 instances of publishing with the MIP solver.

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

6.4.3 Settlement Postings January 2014

The publication timings for Settlement runs are provided below.

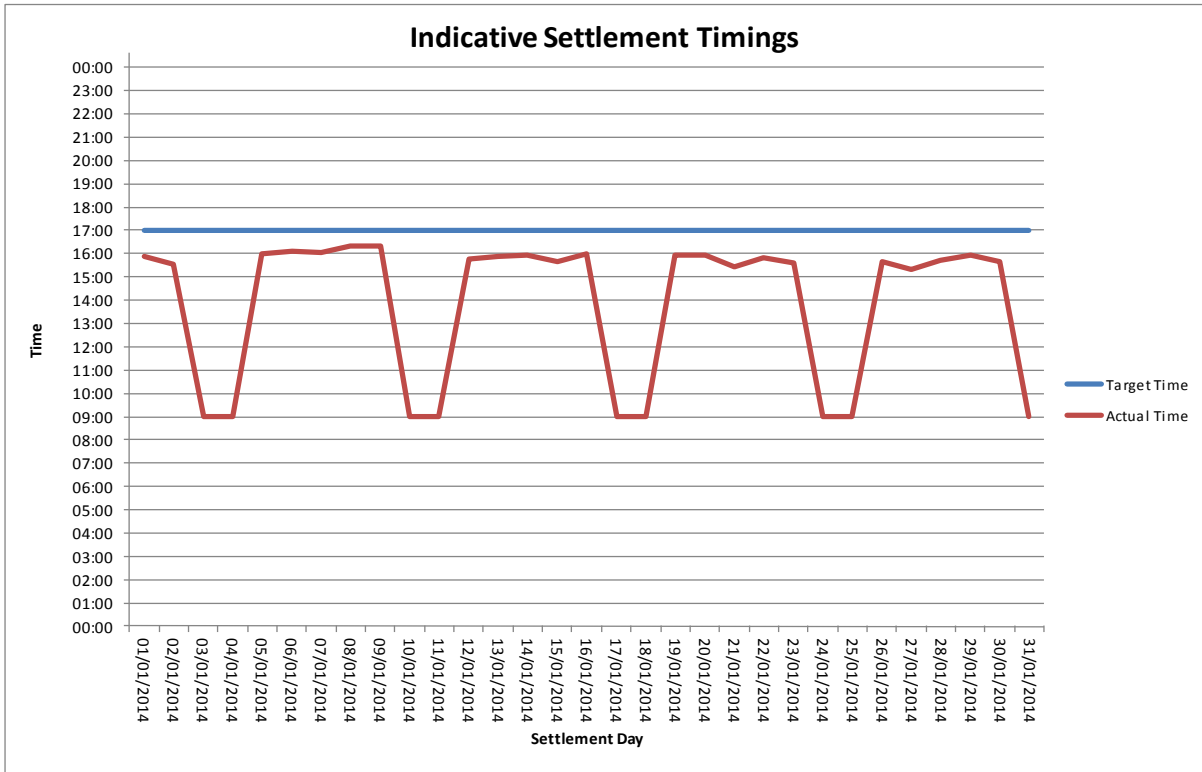


Figure 22 - Indicative Settlement Postings

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

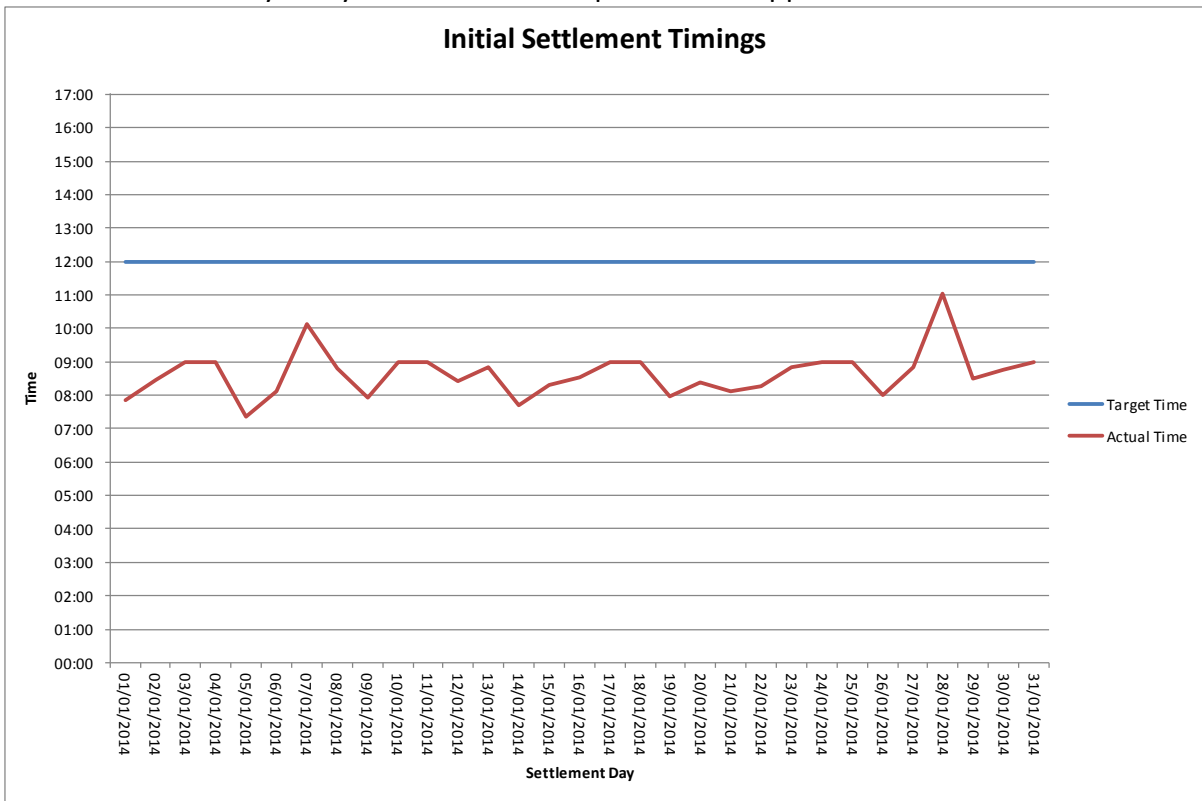


Figure 23 - Initial Settlement Postings

6.5 Market System Releases

6.5.1 Release SEM R2.4.0 (Proposed Deployment: May 16th, 2014)

The following table outlines the approved scope for the SEM R2.4.0 release to the Central Market Systems:

CR Ref.	System	Description
SEM_PC_CR271	MI	Automated FX download to the Central Market Systems
SEM_PC_CR320	MI	Dispatch Instruction Validation Change
SEM_PC_CR324	MI	Event Warning for DAM event
SEM_PC_CR292	MI	MDP dropdown in the MPI
SEM_PC_CR226	MI	Pop-up reminder for digital certificate renewal
SEM_PC_CR323	STL	Bad Debt Smearing Calculation
SEM_PC_CR309	STL	Tax File Import
SEM_PC_CR325	STL	Automated Data Imports
SEM_PC_CR326	STL	Historical Process Warnings

The following are the high-level milestones for the SEM R2.4.0 release:

- The Design phase will complete in early February.
- The Market Participant Update Document (MPUD) to align with the SEM R2.4.0 release is to be published on February 12th.
- The software is scheduled for delivery from our vendors on February 28th.
- System Integration Testing will run from March 3rd to April 25th inclusive.
- The Market Test phase will run from April 9th to April 25th inclusive.
- Deployment is scheduled for Friday May 16th, subject to successful completion of all testing.

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

The release cut-off date for the SEM R2.5.0 release to the Central Market Systems is:

Friday, February 21st, 2014

7 Occasional Components

7.1 Disaster Recovery/Business Continuity Tests

There was no Business Continuity Tests performed during January 2014.

7.2 Administered Settlement

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

7.3 Communications or Systems Failures

There were a number of Market Interface system issues during January 2014;

A time out error was seen by SONI TSO when submitting RCUC information – a call was logged with the CMS vendor who identified a defect, a workaround is now in place for both TSOs until the permanent fix is delivered as part of the R2.4.0 May release.

There were a number of MIUN issues in January related to Excessive Area calculation – a fix has now been deployed to the MIUN productions systems.

Market Operations reported a problem with e-mail in Support Works – the problem was identified with the mail service in Support Works. This service was restarted which addressed the issue.

There was an issue highlighted accessing POMAX via VDI – investigation discovered that it was for a single users VDI profile only. The issue was quickly resolved by IT.

The Instruction Profiler in MA was reported by Market Operations as not responding – investigation discovered an issue on one of the internal web servers. A restart of Tomcat resolved the issue.

There was a power cut in the Oval Server Room that affected some SEMO applications – Market Systems IT on-call was contacted by the NCC. All CMS applications were checked and verified as operational – as all apps are running ‘active’ out of Belfast. However there were a number supporting applications that were running in Dublin. One of these SharePoint, was not available to Market Operations for a brief period. Any application identified as having a single ‘setup’ will be addressed in 2014.

An issue was identified for some users when trying to access the VDI’s – problem was identified with the server managing the VDI’s.

The DataPub report failed to publish on the SEMO public website – issue was identified with the batch job that generates the report. The process was restarted and the report published.

IT discovered while running through the morning checks that MA in Belfast was offline – this was not a problem as MA in Dublin was available. Investigation discovered that an AIX service had crashed. The service logs were cleared down and restarted – information was passed to the CMS vendor for review and comment.

NIE MDP had issues with Meter Data submission. NIE successfully submitted meter data after a retry but this issue is still under investigation.

7.4 Denial of Service Attacks

There was no Denial of Service Attacks during January 2014.

7.5 Submission of Parameters to RAs for Approval

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

8 Appendix A: Detail of Code Breaches

8.1 Market Participant

29/01/2014	Money In	Timing	Participant	Payment Default	PT_400074 (Electron Energy) Defaulted on a Week 38 2013 M+4 Energy Invoice.	Participant error	A Default Notice was issued to the participant	Major
22/01/2014	Money In	Timing	Participant	Payment Default	PT_400100 (Viridian Energy Supply Ltd) defaulted on Week 51 2012 M+13 Energy Invoice.	Participant Error	A Default Notice was issued to the participant	Major
10/01/2014	Money In	Timing	Participant	Payment Default	PT_400118 (Fuinneamh Gaoithe Teoranta) defaulted on a December 2013 FMOC.	Participant error	A Default Notice was issued to the participant	Major
09/01/2014	CRM	Timing	Participant	Credit	Waterpower Engineering (CP_400045) defaulted on a CCIN issued on 07/01/2013	CCIN was not resolved within the T&SC timeframes	Waterpower Engineering (CP_400045) paid outstanding invoices the next working day to close the CCIN	Major
08/01/2014	Money In	Timing	Participant	Payment Default	PT_400068 (Ecopower Supply) defaulted on Week 51 2013 Initial and Week 50 2013 Initial EN invoices	Participant Error	A Default Notice was issued to the participant	Major
07/01/2014	CRM	Timing	Participant	Credit	Waterpower Engineering (CP_400045) defaulted on a CCIN issued on 02/01/2014	CCIN was not resolved within the T&SC timeframes	Waterpower Engineering (CP_400045) paid outstanding invoices the next working day to close the CCIN	Major
03/01/2014	CRM	Timing	Participant	Credit	Waterpower Engineering (CP_400045) defaulted on a CCIN issued on 31/12/2013	CCIN was not resolved within the T&SC timeframes	Waterpower Engineering (CP_400045) paid outstanding invoices the next working day to close the CCIN	Major

Table 16 - Code Breaches – Market Participants

8.2 Data Provider

There were no issues to report in January 2014

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8.3 SEMO - Pricing and Scheduling

29/01/2014	WD1	Timing	SEMO	File Submission	There was a delay to the publication of WD1 Moyle MIUNs for Trading Day 29/01/2014 past the 09:30 deadline.	The MIUN calculator was unable to return Moyle MIUN's for trading day 29/01/2014 by the 09:30 deadline.	MIUN calculator was unable to produce MIUN's by the 09:30. IT provided the zero file and the Contingency process was implemented and MIUN's for Moyle were set to Zero. These were published at 09:44	Minor
							A market message was published to inform Participants of the delay and updated in relation to the report.	
28/01/2014	EA2	Timing	SEMO	File Submission	There was a delay to the publication of EA2 Moyle MIUNs for Trading Day 29/01/2014 past the 13:00 deadline.	The MIUN calculator did not return MIUNs for Moyle until after the 13:00 deadline.	MIUN calculator was unable to produce correct MIUN's by the 13:00 deadline. MIUN's for Moyle were set to Zero. IT provided the zero file and was uploaded into the CMS at 15:08.	Minor
26/01/2014	WD1	Timing	SEMO	File Submission	There was a delay to the publication of WD1 MIUNs for Trading Day 26/01/2014 past the 09:30 deadline.	The MIUN calculator did not return MIUNs for EWIC until after the 09:30 deadline.	MIUNs were returned and published at 09:32. A market message was published to inform Participants of the delay and updated in relation to the report.	Minor
24/01/2014	WD1	Timing	SEMO	File Submission	There was a delay to the publication of WD1 MIUNs for Trading Day 24/01/2014 past the 09:30 deadline.	The MIUN calculator did not return MIUNs for EWIC until after the 09:30 deadline.	MIUNs were returned and published at 09:45. A market message was published to inform Participants of the delay and updated in relation to the report.	Minor
23/01/2014	WD1	Timing	SEMO	System	There was a delay to the publication of WD1 MIUNs for Moyle for Trading Day 23/01/2014 past the 09:30 deadline.	The MIUN calculator did not return MIUNs for Moyle until after the 09:30 deadline due to excessive area being encountered.	MIUNs were returned and published at 10:06. A market message was published to inform Participants of the delay and updated in relation to the report.	Minor

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14/01/2014	WD1	Timing	SEMO	File Submission	There was a delay to the publication of WD1 MIUNs for Trading Day 14/01/2014 past the 09:30 deadline.	The MIUN calculator did not return MIUNs for EWIC until after the 09:30 deadline.	MIUNs were returned and published at 09:50. A market message was published to inform Participants of the delay and updated in relation to the report.	Minor
12/01/2014	WD1	Timing	SEMO	System	WD1 MIUNs for Trading Day 12/01/2014 were published after the T&SC timeline of 09:30	The MIUN Calculator found excessive area in the Profile.	MIUNs for Trading Day 12/01/2014 were published at 09:31	Minor
11/01/2014	WD1	Timing	SEMO	System	WD1 MIUNs were published after the T&SC timeline of 09:30	The MIUN calculator encountered excessive area in the profile.	MIUNs for Trading Day 11/01/2014 were published at 09:55	Minor

Table 18 - Code Breaches – Pricing and Scheduling

8.4 SEMO – Settlements

There were no issues to report in January 2014

8.5 SEMO - Funds Transfer

There were no issues to report in January 2014

8.6 SEMO - Credit Management

There were no issues to report in January 2014

8.7 SEMO – Other

There were no issues to report in January 2014

9 Appendix B: List of Queries by Type

9.1 Data Queries

Summary Title	Description	ID	Logged On	Date sent to MP
Meter Generation	The NDA value is extraordinarily high in part of the day for indicative settlement for PT_500036 on 08/01/2014. In some parts of the day the NDA is causing the SNDLF to be double the NDLF value. This has lead to very high Energy, Imperfections and Variable Market Operator charges for PT_500036. The AIND_NI variable is equal to zero throughout the day.	PT_500036	2014-01-10	2014-01-15
Actual Availability	Incorrect Actual Availabilities issued for Ballylumford B32 (GU_500131) at D+3 stages. This Unit was on an outage from Calendar Day 24th from 00:00 to 00:59. Please see supporting document attached. This unit is a Price Effecting Generator and will have affected the EP2 pricing run for trade date 23/01/2014.	IA_MOYLE	2014-01-29	2014-01-30
Incorrect Dispatch Instructions	There appears to be an error in Dispatch Instructions for all units for 26th Jan 2014. Some units have dispatch instructions when the unit was actually off for a number of days, resulting in high uninstructed imbalances.	PT_400030	2014-01-30	2014-01-31
Incorrect Dispatch Instructions	There appears to be an error in Dispatch Instructions for all units for 27th Jan 2014. Some units have dispatch instructions when the unit was actually off for a number of days, resulting in high uninstructed imbalances.	PT_400030	2014-01-30	2014-01-31

Table 20 - Data Queries

9.2 Settlement Queries

Summary Title	Description	ID	Logged On	Date sent to MP
Exported Electricity	Statement 10013430 indicates that there was no electricity exported by PT_400105 on the 23 Dec but the MRSO data confirms that electricity was exported	PT_400105	2014-01-03	2014-01-07
High Uninstructed imbalances.	GU_400200 (AA1) High Uninstructed imbalances. A dispatch instruction issued on 19th Dec at 23:33 to go to 21mw exported. This instruction is missing the Market Operators data and is causing high U.I.'s.	PT_400030	2014-01-03	2014-01-27
MIUN issue	Querying the MGEU_IA_ROIEWIC values in PIR for settlement date 30/12/2013 for trading periods 05:00-05:30 and 05:30-06:00. 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?	IA_ROIEWIC	2014-01-07	2014-01-09
Dispatch Instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400500 (Dublin Bay Unit 1) on the 07/08/2013. The unit was doing a fuel change over test at their request on the evening of the 07/08/2013	GU_400500	2014-01-14	2014-01-15
Actual Availability	Incorrect Availability Declarations were sent to the SEM for GU_400500 (Dublin Bay Unit 1) on the 07/08/2013. The unit was doing a fuel change over test at their request on the evening of the 07/08/2013.	GU_400500	2014-01-14	2014-01-15

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Incorrect Dispatch Instructions	<p>Incorrect Dispatch Instructions were sent to the SEM for GU_400060 (Glanlee Wind Farm Phase 1) on the 17/08/2013. Due to transmission system work the unit was on outage from the 17/07/2013 until it was energised at 16:33 on the 17/08/2013. The unit was constrained to 0MW for the period of the outage (17/07/2013 until the 17/08/2013) and for approximately 47.5 hours after the energisation (at 16:33 on the 17/08/2013) until it first started to export at approximately 16:00 on the 19/08/2013, this was incorrect. The unit should only have been constrained to 0MW for the period of the outage from the 17/07/2013 until 16:33 on the 17/08/2013.</p>	GU_400060	2014-01-15	2014-01-20
Actual Availability	<p>Incorrect Availability Declarations were sent to the SEM for GU_400060 (Glanlee Wind Farm Phase 1) on the 17/08/2013 and 18/08/2013. Due to transmission system work the unit was on outage from the 17/07/2013 until it was energised at 16:33 on the 17/08/2013. The unit submitted availability data for the period of the outage (17/07/2013 until the 17/08/2013) and for approximately 47.5 hours after the energisation (at 16:33 on the 17/08/2013) until it first started to export at approximately 16:00 on the 19/08/2013, this was incorrect. The unit was unavailable from the energisation at 16:33 on the 17/08/2013 until it first started to export at approximately 16:00 on the 19/08/2013. Please note the Availability Declarations (to 0MW) sent to the SEM on D+3 for the period 00:00 until 16:00 on the 19/08/2013 were / are correct.</p>	GU_400060	2014-01-15	2014-01-20
Eligible Availability	<p>Unit gu_400200 was on test running for an extended period in November but was not allocated a test EA value. The dates affected are the 12th to 16th and 18th to 28th November. Could you review and advise.</p>	PT_400030	2014-01-15	2014-02-03

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Incorrect Dispatch Instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400220 (Erne Unit 3) on the 25/11/2013. The unit was doing market testing and the Dispatch Instructions were incorrectly not sent to the SEM. Dispatch Instructions to follow the metering are now available.	GU_400220	2014-01-17	2014-01-27
Actual Availability	Incorrect Availability Declarations were sent to the SEM for GU_400220 (Erne Unit 3) on the 25/11/2013 and 26/11/2013. The unit was doing market testing at this time.	GU_400220	2014-01-17	2014-01-27
Incorrect Dispatch Instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400910 (Boggeragh Wind Farm Phase 1) for the 03/01/2014. Due to transmission system issues the unit was on outage from 00:29 on the 03/01/2014 until it was energised at 16:39 on the 04/01/2014, the unit should be constrained to 0MW for this period. The following Dispatch Instructions are now available:RESOURCE_NAME INSTR_TIMESTAMP INSTR_CODE INSTR_COMB_CODE DISP_INSTR_MW GU_400910 03/01/2014 00:29 WIND LOCL 0 GU_400910 03/01/2014 00:29 MWOFF 0Please note the correct Dispatch Instructions for the 04/01/2014 were sent to the SEM on D+3.	GU_400910	2014-01-17	2014-01-23
Actual Availability	Incorrect Availability Declarations were sent to the SEM for GU_400910 (Boggeragh Wind Farm Phase 1) for the 03/01/2014 and 04/01/2014. Due to transmission system issues the unit was on outage from 00:29 on the 03/01/2014 until it was energised at 16:39 on the 04/01/2014, the unit has supplied availability data for this period. See	GU_400910	2014-01-17	2014-01-23
Metered Generation	No Export Data for 24/12/13 included in Initial Wk51 Settlement. See attached meter read for 24/12/13 which shows export for that date.	PT_500059	2014-01-17	2014-01-23

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Incorrect Meter Data	We have been informed by SEMO/MRSO that an incorrect usage factor associated with MPRN registered against SU_400020 was included in their aggregations for the 6th and 7th Jan 2014. This usage factor was amended for the 8th January so there is no impact to subsequent dates. The incorrect Meter Demand has subsequently been used for Initial Invoicing of Billing Week 1 2014_	SU_400020	2014-01-21	2014-01-29
Actual Availability	Incorrect Availability Declarations were sent to the SEM for GU_400182 (Aghada CT12) for the 20/12/2012. The unit failed to sync at 11:53 and so should have been unavailable from 11:52 (the time of the SYNC instruction) as per the FAILSYNC process	GU_400182	2014-01-27	2014-01-29
Actual Availability	Incorrect MIN_GEN_MW availability declarations of 0MW were sent to the SEM for GU_401230 for the 19-21/12/2013	GU_401230	2014-01-27	2014-01-28

Table 21 - 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 January 2014 that required repricing or resettlement	-	-	-	-	-

Table 22 - List of System Errors and Failures

11 Appendix D: Details of Operational Timings

11.1 Market Schedule and Price Runs

Operational Day	EA1 Postings		EA2 Postings		WD1 Postings		EP1 Postings		EP2 Postings	
	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual
01/01/2014	11:00	10:15:00	13:00	12:04	09:30	08:33	16:00	14:33	17:00	14:50
02/01/2014	11:00	10:03:00	13:00	12:06	09:30	08:40	16:00	14:35	17:00	14:57
03/01/2014	11:00	10:02:00	13:00	12:08	09:30	08:37	16:00	14:31	17:00	14:51
04/01/2014	11:00	10:04:00	13:00	12:02	09:30	08:37	16:00	15:18	17:00	15:03
05/01/2014	11:00	10:02:00	13:00	12:06	09:30	08:36	16:00	15:07	17:00	14:46
06/01/2014	11:00	10:06:00	13:00	11:55	09:30	08:38	16:00	14:48	17:00	14:47
07/01/2014	11:00	10:08:00	13:00	11:57	09:30	08:53	16:00	15:16	17:00	14:35
08/01/2014	11:00	10:06:00	13:00	12:00	09:30	08:37	16:00	14:37	17:00	14:39
09/01/2014	11:00	10:15:00	13:00	12:02	09:30	08:38	16:00	14:55	17:00	14:46
10/01/2014	11:00	10:05:00	13:00	12:11	09:30	08:33	16:00	14:38	17:00	14:50
11/01/2014	11:00	10:06:00	13:00	12:02	09:30	08:34	16:00	14:37	17:00	14:53
12/01/2014	11:00	10:28:00	13:00	12:02	09:30	08:17	16:00	15:04	17:00	14:34
13/01/2014	11:00	09:59:00	13:00	11:47	09:30	08:18	16:00	14:41	17:00	14:41
14/01/2014	11:00	10:05:00	13:00	12:04	09:30	08:42	16:00	14:50	17:00	14:42
15/01/2014	11:00	10:04:00	13:00	12:02	09:30	08:23	16:00	14:40	17:00	14:46
16/01/2014	11:00	09:56:00	13:00	11:54	09:30	08:18	16:00	14:45	17:00	14:44
17/01/2014	11:00	10:01:00	13:00	11:52	09:30	08:26	16:00	14:41	17:00	14:41
18/01/2014	11:00	10:05:00	13:00	11:55	09:30	08:17	16:00	14:46	17:00	14:36
19/01/2014	11:00	09:47:00	13:00	11:47	09:30	08:20	16:00	14:57	17:00	14:39
20/01/2014	11:00	09:59:00	13:00	11:52	09:30	08:38	16:00	14:47	17:00	14:36
21/01/2014	11:00	10:23:00	13:00	12:03	09:30	08:30	16:00	14:46	17:00	14:54
22/01/2014	11:00	10:00:00	13:00	12:00	09:30	08:29	16:00	14:50	17:00	14:15
23/01/2014	11:00	09:54:00	13:00	11:58	09:30	08:33	16:00	14:40	17:00	14:38
24/01/2014	11:00	10:20:00	13:00	11:57	09:30	08:20	16:00	14:58	17:00	14:38
25/01/2014	11:00	10:06:00	13:00	12:02	09:30	08:17	16:00	14:19	17:00	14:47
26/01/2014	11:00	09:47:00	13:00	12:04	09:30	08:29	16:00	14:42	17:00	15:07
27/01/2014	11:00	09:58:00	13:00	11:45	09:30	08:19	16:00	14:42	17:00	14:41
28/01/2014	11:00	10:07:00	13:00	12:23	09:30	08:21	16:00	14:59	17:00	14:45
29/01/2014	11:00	10:17:00	13:00	11:47	09:30	08:16	16:00	14:43	17:00	14:29
30/01/2014	11:00	09:58:00	13:00	11:55	09:30	08:12	16:00	14:51	17:00	14:47
31/01/2014	11:00	10:07:00	13:00	11:46	09:30	08:21	16:00	14:48	17:00	14:39

Table 23 – MSP Runs

Market Operator Monthly Report

11.2 Settlement Runs

Trading Day	INDICATIVE				INITIAL			
	Target Date	Actual Date	Target Time	Actual Time	Trading Day	Actual Date	Target Time	Actual Time
01/01/2014	02/01/2014	02/01/2014	17:00	15:52	01/01/2014	08/01/2014	12:00	07:51
02/01/2014	03/01/2014	03/01/2014	17:00	15:31	02/01/2014	09/01/2014	12:00	08:28
03/01/2014	06/01/2014	06/01/2014	17:00	09:00	03/01/2014	10/01/2014	12:00	09:00
04/01/2014	06/01/2014	06/01/2014	17:00	09:00	04/01/2014	10/01/2014	12:00	09:00
05/01/2014	06/01/2014	06/01/2014	17:00	15:58	05/01/2014	10/01/2014	12:00	07:22
06/01/2014	07/01/2014	07/01/2014	17:00	16:06	06/01/2014	13/01/2014	12:00	08:06
07/01/2014	08/01/2014	08/01/2014	17:00	16:02	07/01/2014	14/01/2014	12:00	10:07
08/01/2014	09/01/2014	09/01/2014	17:00	16:20	08/01/2014	15/01/2014	12:00	08:49
09/01/2014	10/01/2014	10/01/2014	17:00	16:18	09/01/2014	16/01/2014	12:00	07:56
10/01/2014	13/01/2014	13/01/2014	17:00	09:00	10/01/2014	17/01/2014	12:00	09:00
11/01/2014	13/01/2014	13/01/2014	17:00	09:00	11/01/2014	17/01/2014	12:00	09:00
12/01/2014	13/01/2014	13/01/2014	17:00	15:46	12/01/2014	17/01/2014	12:00	08:24
13/01/2014	14/01/2014	14/01/2014	17:00	15:54	13/01/2014	20/01/2014	12:00	08:50
14/01/2014	15/01/2014	15/01/2014	17:00	15:55	14/01/2014	21/01/2014	12:00	07:42
15/01/2014	16/01/2014	16/01/2014	17:00	15:38	15/01/2014	22/01/2014	12:00	08:19
16/01/2014	17/01/2014	17/01/2014	17:00	15:59	16/01/2014	23/01/2014	12:00	08:32
17/01/2014	20/01/2014	20/01/2014	17:00	09:00	17/01/2014	24/01/2014	12:00	09:00
18/01/2014	20/01/2014	20/01/2014	17:00	09:00	18/01/2014	24/01/2014	12:00	09:00
19/01/2014	20/01/2014	20/01/2014	17:00	15:56	19/01/2014	24/01/2014	12:00	07:58
20/01/2014	21/01/2014	21/01/2014	17:00	15:55	20/01/2014	27/01/2014	12:00	08:22
21/01/2014	22/01/2014	22/01/2014	17:00	15:26	21/01/2014	28/01/2014	12:00	08:07
22/01/2014	23/01/2014	23/01/2014	17:00	15:49	22/01/2014	29/01/2014	12:00	08:17
23/01/2014	24/01/2014	24/01/2014	17:00	15:37	23/01/2014	30/01/2014	12:00	08:50
24/01/2014	27/01/2014	27/01/2014	17:00	09:00	24/01/2014	31/01/2014	12:00	09:00
25/01/2014	27/01/2014	27/01/2014	17:00	09:00	25/01/2014	31/01/2014	12:00	09:00
26/01/2014	27/01/2014	27/01/2014	17:00	15:39	26/01/2014	31/01/2014	12:00	08:01
27/01/2014	28/01/2014	28/01/2014	17:00	15:19	27/01/2014	03/02/2014	12:00	08:51
28/01/2014	29/01/2014	29/01/2014	17:00	15:41	28/01/2014	04/02/2014	12:00	11:03
29/01/2014	30/01/2014	30/01/2014	17:00	15:55	29/01/2014	05/02/2014	12:00	08:30
30/01/2014	31/01/2014	31/01/2014	17:00	15:39	30/01/2014	06/02/2014	12:00	08:46
31/01/2014	03/02/2014	03/02/2014	17:00	09:00	31/01/2014	07/02/2014	12:00	09:00

Table 24 - 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

Table 25 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Market Operator Monthly Report

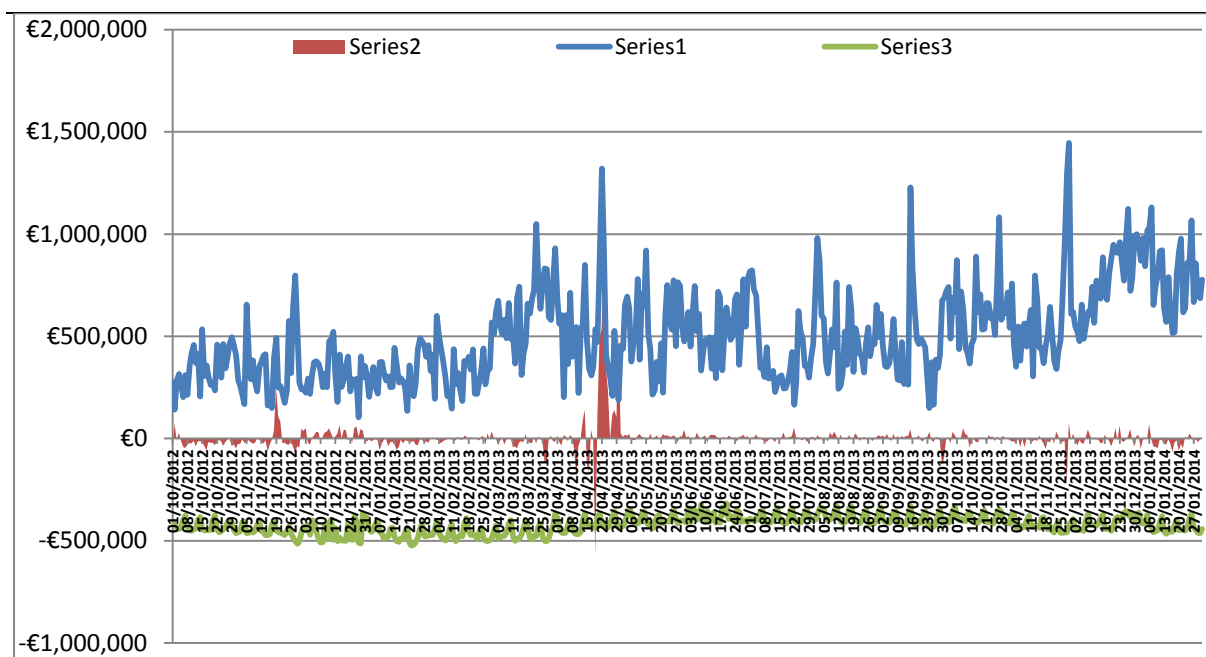


Figure 24 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Week No	Make Whole Payments
39	€0.11
40	€32,465.05
41	€0.00
42	€0.00
43	€0.04
44	€5.72
45	€0.00
46	€0.05
47	€0.00
48	€0.00
49	€0.00
50	€0.35
51	€0.21
52	€0.24
1	€0.24
2	€0.21
3	€0.21
4	€0.24
5	€0.24
6	€0.21
7	€8,938.29
8	€0.09
9	€23.23
10	€0.00
11	€23.23
12	€52,182.82
13	€0.00
14	€71,642.27
15	€73,481.00

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16	€81,292.53
17	€52,199.40
18	€70,072.32
19	€37,414.41
20	€66,483.30
21	€78,719.65
22	€88,898.98
23	€79,581.12
24	€63,206.12
25	€67,963.43
26	€28,516.84
27	€69,438.67
28	€133,461.73
29	€68,797.92
30	€125,522.82
31	€83,131.52
32	€123,570.97
33	€162,448.85
34	€101,313.36
35	€63,915.90
36	€31,502.25
37	€145,370.36
38	€113,232.85
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

Table 26 - Make Whole Payments

Market Operator Monthly Report

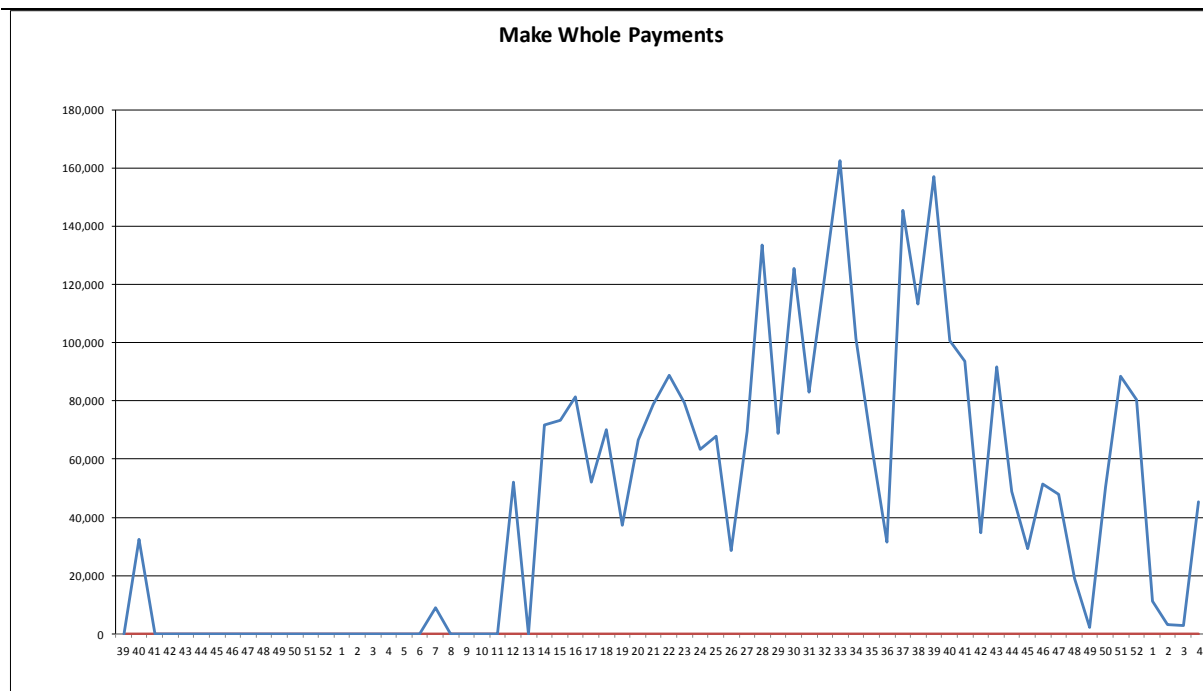


Figure 25 - Make Whole Payments

Week No	Testing Charges
39	-€24,767.27
40	-€37,940.16
41	-€74,369.80
42	-€22,197.43
43	-€41,005.58
44	-€47,075.17
45	-€39,222.31
46	-€73,973.28
47	€0.00
48	€0.00
49	€0.00
50	€0.00
51	€0.00
52	€0.00
1	€0.00
2	€0.00
3	€0.00
4	€0.00
5	€0.00
6	€0.00
7	€0.00
8	€0.00
9	€0.00
10	€0.00
11	€0.00
12	€28,917.83
13	€0.00
14	€0.00

Market Operator Monthly Report

15	€0.00
16	€0.00
17	€0.00
18	€0.00
19	€0.00
20	-€405,577.14
21	€0.00
22	€0.00
23	€0.00
24	€0.00
25	€0.00
26	€0.00
27	€0.00
28	€0.00
29	-€7,265.83
30	€0.00
31	€0.00
32	€0.00
33	-€2,378.90
34	€0.00
35	€0.00
36	-€12,436.63
37	€0.00
38	€0.00
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

Table 27 - Testing Charges

Market Operator Monthly Report

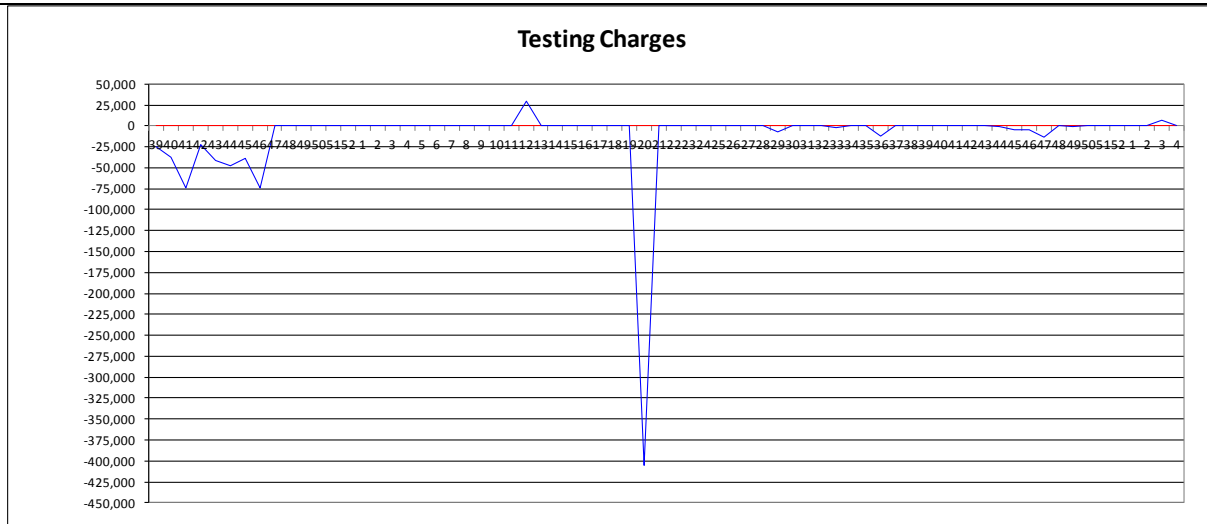


Figure 26 - Testing Charges

13 Appendix F: Default Commercial Offer Data Used

The table below lists for each unit the number of times in operations during January 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			19	19
PT_400090	DSU_401270			9	9
PT_400116	DSU_401400	13			13
PT_400101	DSU_401300			1	1
PT_400090	DSU_401270	23			23
PT_400101	DSU_401300	30			30
PT_400123	GU_401470		1		1
PT_400024	GU_400120	31			31
PT_400024	GU_400121	31			31
PT_400026	GU_400140	31			31
PT_400030	GU_400180	38			38
PT_400030	GU_400181	40			40
PT_400030	GU_400182	40			40
PT_400030	GU_400183	38			38
PT_400030	GU_400200	42			42
PT_400030	GU_400201	42			42
PT_400030	GU_400202	39			39
PT_400030	GU_400203	42			42
PT_400030	GU_400210	40			40
PT_400030	GU_400211	40			40
PT_400030	GU_400220	38			38
PT_400030	GU_400221	41			41
PT_400030	GU_400240	41			41
PT_400030	GU_400250	40			40
PT_400030	GU_400251	40			40
PT_400030	GU_400252	41			41
PT_400030	GU_400260	41			41
PT_400030	GU_400270	44			44
PT_400030	GU_400271	40			40
PT_400030	GU_400272	57			57
PT_400030	GU_400280	40			40
PT_400030	GU_400281	39			39
PT_400030	GU_400290	41			41
PT_400030	GU_400300	40			40
PT_400030	GU_400311	40			40
PT_400030	GU_400323	40			40
PT_400030	GU_400360	39			39
PT_400030	GU_400361	39			39
PT_400030	GU_400362	39			39
PT_400030	GU_400363	41			41
PT_400030	GU_400370	40			40
PT_400030	GU_400850	40			40
PT_400032	GU_400380	27			27
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	55			55
PT_400037	GU_400500	32			32
PT_400041	GU_400530	54			54
PT_400044	GU_400540	55			55
PT_400050	GU_400650	5			5
PT_400055	GU_400630	27			27
PT_400064	GU_400750	31			31
PT_400064	GU_400751	31			31
PT_400064	GU_400752	31			31
PT_400064	GU_400753	31			31
PT_400064	GU_400754	31			31
PT_400064	GU_400760	31			31
PT_400064	GU_400761	31			31
PT_400064	GU_400770	31			31
PT_400064	GU_400771	31			31
PT_400064	GU_400780	31			31
PT_400064	GU_400781	31			31
PT_400075	GU_400930	45			45
PT_400077	GU_400950	27			27
PT_400078	GU_401010	32			32
PT_400078	GU_401011	32			32
PT_500024	GU_500040	32			32
PT_500024	GU_500041	31			31
PT_500027	GU_500130	90			90
PT_500027	GU_500131	90			90
PT_500027	GU_500140	90			90
PT_500040	GU_500280	32			32
PT_500040	GU_500281	32			32
PT_500040	GU_500282	32			32
PT_500040	GU_500283	31			31
PT_500040	GU_500284	31			31
PT_500045	GU_500820	31			31
PT_500045	GU_500821	31			31
PT_500045	GU_500822	31			31
PT_500045	GU_500823	31			31
PT_500045	GU_500824	31			31
PT_500045	GU_500825	31			31
PT_500048	GU_500901	52			52
PT_500048	GU_500902	52			52
PT_500048	GU_500903	52			52
PT_500050	GU_501150	27			27
PT_500050	GU_501190	27			27
PT_500053	GU_501130	31			31
PT_500066	GU_501210	27			27
PT_400021	GU_400021			31	31
PT_400021	GU_400050			31	31
PT_400021	GU_400060			31	31
PT_400021	GU_400070			31	31
PT_400021	GU_400080			31	31
PT_400021	GU_400591			31	31

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PT_400021	GU_400600			31	31
PT_400021	GU_400910			31	31
PT_400021	GU_400920			31	31
PT_400021	GU_401080			31	31
PT_400025	GU_400130			31	31
PT_400030	GU_400310			31	31
PT_400032	GU_400380			4	4
PT_400032	GU_400430			4	4
PT_400034	GU_400940			4	4
PT_400034	GU_401090			4	4
PT_400034	GU_401440			4	4
PT_400038	GU_400550			31	31
PT_400050	GU_400650			27	27
PT_400050	GU_400660			31	31
PT_400050	GU_401000			31	31
PT_400050	GU_401060			31	31
PT_400050	GU_401150			31	31
PT_400050	GU_401240			31	31
PT_400050	GU_401250			31	31
PT_400055	GU_400630			4	4
PT_400062	GU_400730			31	31
PT_400062	GU_400731			31	31
PT_400062	GU_400840			31	31
PT_400066	GU_401320			31	31
PT_400066	GU_401430			31	31
PT_400077	GU_400950			4	4
PT_400082	GU_401100			31	31
PT_400087	GU_401230			31	31
PT_500021	GU_500010			31	31
PT_500021	GU_500740			31	31
PT_500021	GU_501160			31	31
PT_500024	GU_500040			1	1
PT_500032	GU_500211			31	31
PT_500032	GU_501120			31	31
PT_500039	GU_500270			31	31
PT_500044	GU_500720			31	31
PT_500047	GU_500790			31	31
PT_500050	GU_501150			4	4
PT_500050	GU_501190			4	4
PT_500061	GU_501170			31	31
PT_500062	GU_501180			31	31
PT_500066	GU_501210			4	4
PT_400021	I_ROIEWIC	31			31
PT_500024	I_NIMOYLE	31			31
PT_500021	I_NIMOYLE	31			31
PT_500069	I_NIMOYLE	92			92
PT_500031	I_NIMOYLE	31			31
PT_500058	I_NIMOYLE	31			31
PT_400113	I_ROIEWIC	31			31
PT_400096	I_ROIEWIC	91			91
PT_500037	I_NIMOYLE	31			31
PT_400115	I_ROIEWIC	31			31

Market Operator Monthly Report

PT_500070	I_NIMOYLE	35			35
PT_400108	I_ROIEWIC	39			39
PT_400099	I_ROIEWIC	31			31
PT_400030	I_ROIEWIC	31			31
Total		3813	1	1213	5027
Percentage		75.85%	0.02%	24.13%	100%

Table 28 - 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
Jan-13	ROI	£89,827,878.57	£26,334,617.52	£2,179,428.02	£275,938.89	£60,704.91	£2,917.73	£338,895.92	£104,549.76	£3,484.00	£485,756.37	£0.00	£0.00	119,614,171.69
	NI	£38,908,867.22	£9,892,058.69	£625,001.59	£114,941.48	£16,060.27	£787.73	£79,831.02	£23,734.39	£794.02	£102,060.65	£0.00	£0.00	49,764,137.06
Feb-13	ROI	£72,865,873.54	£22,784,571.67	£1,864,807.04	£202,860.04	£90,593.84	£2,270.62	£210,440.14	£55,013.84	£2,455.48	£411,882.56	£4,580.15	£0.00	98,495,348.92
	NI	£32,936,712.97	£8,462,296.20	£550,141.87	£114,801.30	£34,659.85	£1,115.24	£103,408.99	£30,682.40	£1,022.45	£64,545.24	£108,480.69	£0.00	42,407,867.20
Mar-13	ROI	£127,314,463.58	£23,722,798.04	£2,291,239.29	£864,841.00	£174,940.58	£8,550.98	£186,631.48	£857.64	£2,030.63	£975.81	£35,849.23	£0.00	154,603,178.26
	NI	£50,188,227.14	£7,867,652.16	£670,314.56	£168,687.60	£25,656.56	£1,296.87	£192,392.70	£19,921.59	£1,759.69	£326.36	£40,303.36	£0.00	59,176,538.59
Apr-13	ROI	£94,898,266.67	£24,603,683.43	£1,748,803.30	£804,681.41	£212,498.40	£9,193.22	£80,220.96	£20,929.63	£916.08	£48.99	£0.00	£0.00	122,379,242.09
	NI	£37,421,753.53	£7,712,011.14	£502,580.98	£118,654.43	£33,935.90	£1,120.40	£148,272.63	£40,588.36	£1,442.34	£0.00	£0.00	£0.00	45,980,359.71
May-13	ROI	£75,322,037.00	£18,225,439.33	£1,992,774.31	£1,158,818.37	£146,111.71	£15,573.02	£111,887.20	£28,127.61	£1,193.04	£152,210.12	£652.17	£0.00	97,154,823.88
	NI	£31,159,914.52	£5,593,300.54	£573,502.76	£82,329.55	£16,818.23	£626.00	£137,450.86	£29,792.11	£1,305.88	£59,854.79	£266.11	£0.00	37,655,161.35
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	£482,681.38	£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	£27,064,400.43	£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

Table 29 - 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
Jan-13	ROI	€91,759,322.00	€25,712,722.97	€274,887.70	€51,586.65	€2,809.90	€332,982.49	€101,294.32	€3,484.23	€419,922.27	€0.00	€0.00	€118,659,012.53
	NI	€32,027,783.27	€10,446,605.69	€121,418.33	€23,726.56	€1,485.52	€77,993.90	€26,479.72	€794.11	€135,435.31	€0.00	€0.00	€42,861,722.41
Feb-13	ROI	€73,704,113.80	€23,029,404.56	€199,730.87	€87,310.46	€1,919.17	€210,628.92	€55,032.66	€2,455.70	€294,099.32	€26,403.93	€0.00	€97,611,099.39
	NI	€27,818,032.41	€8,376,133.85	€122,937.80	€37,714.70	€925.87	€103,468.58	€30,688.62	€1,022.54	€74,109.24	€89,510.50	€0.00	€36,654,544.11
Mar-13	ROI	€132,581,329.95	€23,933,777.63	€854,530.25	€170,044.84	€3,205.75	€186,261.22	€17,546.38	€2,030.72	€102,825.18	€34,807.36	€0.00	€157,892,359.28
	NI	€46,332,187.69	€7,780,431.46	€185,025.05	€29,721.69	€1,214.91	€192,287.94	€5,154.36	€1,759.68	€0.00	€40,546.06	€0.00	€54,568,328.84
Apr-13	ROI	€100,948,367.03	€23,458,654.50	€807,793.67	€206,615.70	€7,720.47	€80,292.46	€20,961.03	€915.98	€15,278.90	€0.00	€0.00	€125,546,599.74
	NI	€35,045,424.03	€8,627,034.92	€119,014.70	€39,049.40	€1,115.60	€148,303.90	€40,600.32	€1,442.59	€132,224.24	€0.00	€0.00	€44,154,209.70
May-13	ROI	€79,510,881.07	€17,301,213.34	€1,115,672.13	€140,740.46	€14,573.32	€112,291.28	€35,779.70	€1,189.42	€224,599.73	€414.39	€0.00	€98,457,354.84
	NI	€31,347,092.48	€6,357,878.47	€111,377.22	€21,468.44	€1,305.48	€139,334.16	€23,234.36	€1,305.31	€1,089.56	€473.49	€0.00	€38,004,558.97
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	€130.12	€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

Table 30 - 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.

15.1 Trading Market

Date Of Invoice	Week No	SEM Balancing Costs	VAT Balancing Costs
05/10/2012	39	-€1,077,539.06	€20,257.96
12/10/2012	40	-€692,560.91	-€104,333.10
19/10/2012	41	-€1,258,033.40	€31,919.77
26/10/2012	42	-€646,984.66	-€54,760.48
02/11/2012	43	-€970,686.14	-€9,966.85
09/11/2012	44	-€508,715.25	€6,228.89
16/11/2012	45	-€636,721.45	-€22,097.99
23/11/2012	46	-€813,412.49	-€100,206.95
30/11/2012	47	-€1,259,783.89	-€49,499.93
07/12/2012	48	-€723,279.80	-€107,658.75
14/12/2012	49	-€180,494.54	€96,306.36
21/12/2012	50	-€897,747.20	-€120,196.01
21/12/2012	51	-€593,996.15	€-88,195.77
04/01/2013	52	-€1,077,836.51	-€9,406.58
11/01/2013	53	-€862,900.80	-€704,411.86
18/01/2013	1	-€1,242,645.13	-€74,124.96
25/01/2013	2	-€1,384,005.15	-€44,938.68.
01/02/2013	3	-€1,413,334.62	-€749,099.00
08/02/2013	4	-€573,311.06	€-110,612.60
15/02/2013	5	-€683,271.00	-€150,504.58
22/02/2013	6	-€1,304,677.00	-€ 87,285.68
01/03/2013	7	-€955,481.00	-€63,387.10
08/03/2013	8	€521,885.20	-€37,612.20
15/03/2013	9	€780,017.82	-€191,346.31
22/03/2013	10	€76,682.83	-€ 33,779.34
29/03/2013	11	€1,751,026.70	€226,127.75
05/04/2013	12	€1,481,990.19	€233,031.06
12/04/2013	13	€900,447.74	€169,797.61
19/04/2013	14	€174,491.87	€79,222.01
26/04/2013	15	-€124,155.84	€55,001.41
03/05/2013	16	€4,194,033.05	€95,195.72
10/05/2013	17	€588,449.05	€72,510.56
17/05/2013	18	€1,201,538.52	€231,453.11
24/05/2013	19	€533,643.75	€171,819.33
31/05/2013	20	€726,548.40	€151,511.16
07/06/2013	21	€1,451,045.71	-€107,404.19
14/06/2013	22	€36,158,415.40	€81,081.91
21/06/2013	23	€33,532,711.17	€254,620.85
28/06/2013	24	€32,560,665.31	€137,013.94
05/07/2013	25	€30,755,155.90	-€270,703.40
12/07/2013	26	-€1,089,924.40	€262,177.74

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Date Of Invoice	Week No	SEM Balancing Costs	VAT Balancing Costs
19/07/2013	27	-€563,128.35	-€68,673.69
26/07/2013	28	-€714,901.13	-€40,860.48
02/08/2013	29	€205,917.92	€66,609.70
09/08/2013	30	€1,437,026.89	€247,168.27
16/08/2013	31	€707,065.78	€132,509.43
23/08/2013	32	€558,514.35	€164,313.15
30/08/2013	33	€444,519.00	€66,601.88
06/09/2013	34	€739,427.97	€46,104.76
13/09/2013	35	€503,537.51	€120,987.81
20/09/2013	36	-€397,801.42	-€15,480.32
27/09/2013	37	€1,900,605.03	€349,945.09
04/10/2013	38	-€674,643.65	-€7304.11
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

Table 31 – 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.

15.2 Capacity Market

Invoice Month	SEM Balancing Costs	VAT Balancing Costs
October 2011	-€393.18	€0.02
November 2011	-€429.87	€0.02
December 2011	-€455.01	€0.04
January 2012	-€378.81	€0.05
February 2012	-€353.95	€0.01
March 2012	-€353.86	€0.05
April 2012	-€260.80	€0.02

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Invoice Month	SEM Balancing Costs	VAT Balancing Costs
May 2012	-€256.60	€0.05
June 2012	-€220.29	€0.06
July 2012	-€225.36	€0.05
August 2012	-€242.79	€0.02
September 2012	-€254.31	€0.03
October 2012	-€345.29	€0.00
November 2012	-€375.57	€0.04
December 2012	-€390.80	€0.04
January 2013	-€412.09	-€0.02
February 2013	-€333.91	€4,279.75
March 2013	-€358.50	€8,568.37
April 2013	-€253.55	€180.62
May 2013	-€251.13	€0.04
June 2013	-€148.82	€0.03
July 2013	-€221.96	-668.47
August 2013	-€235.63	€79.92
September 2013	-€978.79	-€129.09
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

Table 32 - 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
September 2012	-	-	-	-	14/09/2012
October 2012	-	-	14/10/2012	07/10/2012 21/10/2012	-
November 2012	-	01/11/2012	29/11/2012 30/11/2012	29/11/2012	-
December 2012	-	-	06/12/2012 28/12/2012	02/12/2012 16/12/2012	-
January 2013	-	-	22/01/2013 31/01/2013	08/01/2013 25/01/2013 26/01/2013	06/01/2013
February 2013	10/02/2013	01/02/2013	-	03/02/2013	06/02/2013 18/02/2013
March 2013	05/03/2013 18/03/2013	12/03/2013 19/03/2013	11/03/2013 18/03/2013 26/03/2013 29/03/2013	11/03/2013 26/03/2013	11/03/2013 21/03/2013 20/03/2013 30/03/2013
April 2013	-	-	-	-	09/04/2013 29/04/2013

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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
January 2014	07/01/2014	-	05/01/2014 19/01/2014	04/01/2014 19/01/2014 21/01/2014	-

Table 33 - 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

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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
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	€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

Table 34 - MIP Vs LR Peak Price Comparison