



Market Operator Monthly Report

February 2014

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1 Executive Summary

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

178 general queries were received in February 2014. During the same period 188 general queries were resolved.

There were six defaults by Participants during February 2014. The largest of these was a VMOC Initial invoice default for €43.02, 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			
Area		Major	Minor
Data Providers		-	7
Market Participants	Pricing & Scheduling	-	-
	Settlement	-	-
	Funds Transfer	8	-
	Credit Risk Management	-	-
SEMO	Pricing & Scheduling	-	2
	Settlement	1	-
	Funds Transfer	-	1
	Credit Risk Management	-	-
	Other	-	-
Total		9	10

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 February 2014.

There were no terminating parties in February 2014.

Three new units became effective in the Market in February 2014.

- GU_401500 – Leitir Guingaid Wind Farm
- GU_401540 – Monaincha Wind Farm
- GU_501250 – Dunmore Wind Farm

No units were de-registered from the Market in February 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

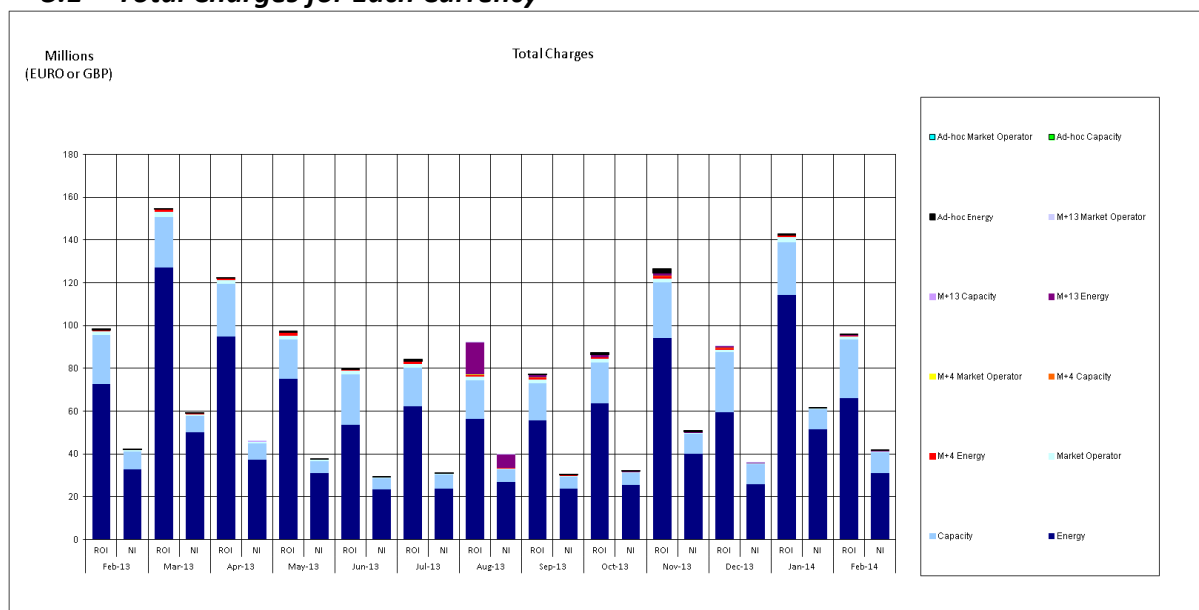


Figure 1 - Total Charges for Each Currency

Market	February 2014	
	ROI	NI
Energy	€66,102,607	£31,130,343
Capacity	€27,393,747	£9,846,758
Market Operator	€1,496,377	£422,870
M+4 Energy	€305,734	£25,721
M+4 Capacity	€76,912	£3,900
M+4 Market Operator	€2,820	£240
M+13 Energy	€479,013	£187,919
M+13 Capacity	€22,452	£15,303
M+13 Market Operator	€9,129	£943
Ad-hoc Energy	€381,195	£236
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€96,269,985	£41,634,232

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

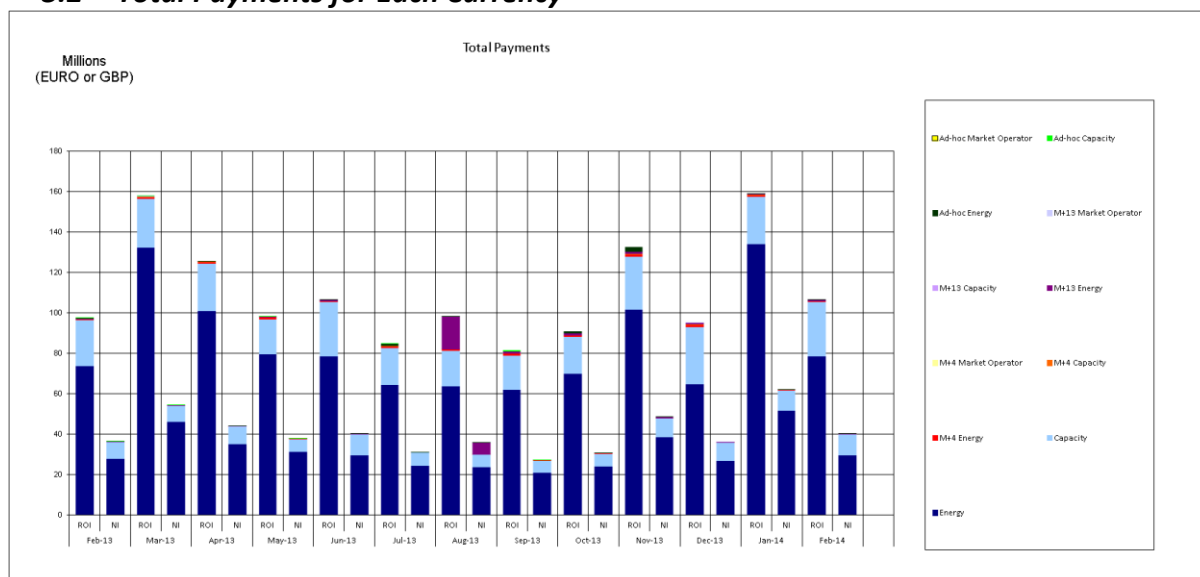


Figure 2 - Total Payments for Each Currency

Market	February 2014	
	ROI	NI
Energy	€78,679,881	£29,747,187
Capacity	€26,819,095	£10,347,544
M+4 Energy	€304,688	£37,918
M+4 Capacity	€76,806	£4,082
M+4 Market Operator	€2,536	£214
M+13 Energy	€531,740	£179,315
M+13 Capacity	€29,343	£9,737
M+13 Market Operator	€10,349	£351
Ad-hoc Energy	€443,421	£4
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€106,897,860	£40,326,353

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:

February 2014	
Imbalance (Energy Only)	-€22,735,420.75

Table 4 - Balancing Costs for Energy Settlement

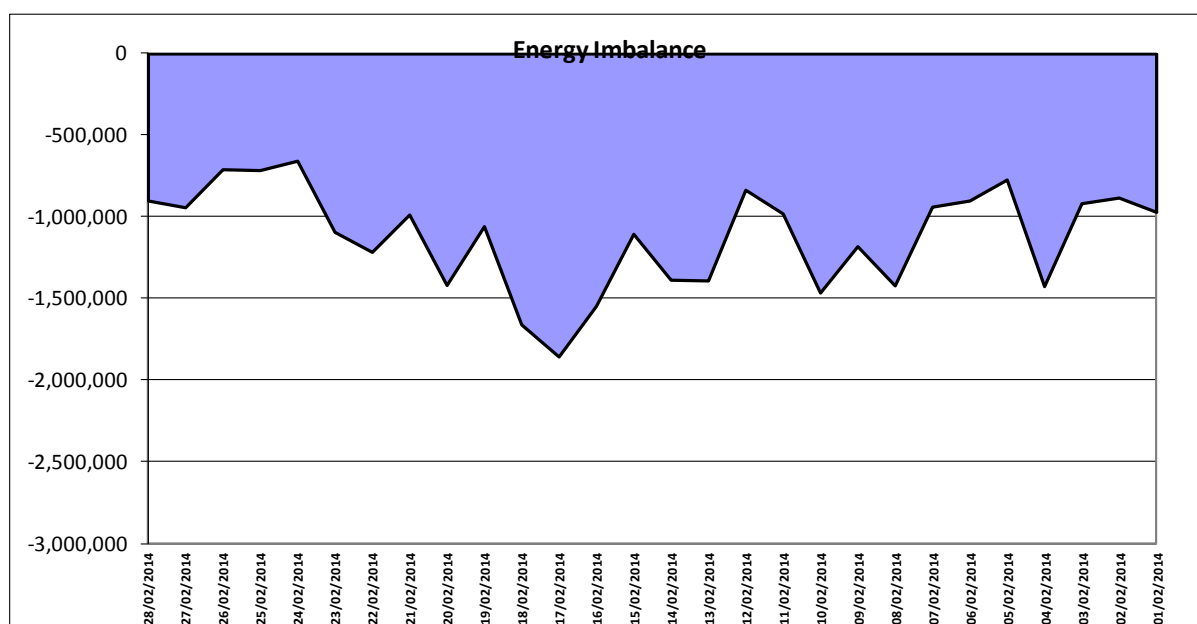


Figure 3 – Energy Imbalances

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
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

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:

February 2014	
Capacity Charges	-€55,447,827.62
Capacity Payments	€55,447,496.84
Balancing Costs	-€330.78
VAT	-€1,955.12

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
01/02/2014	07/02/2014	4	£58,090.52	-£3,178.14	£ 54,912.37
08/02/2014	14/02/2014	5	-£ 8,355.29	-£206.96	-£8,562.25
15/02/2014	21/02/2014	6	£31,405.31	£6,440.94	£37,846.25
22/02/2014	28/02/2014	7	-£1,947.75	£17,805.28	£15,857.53

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.

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
11/03/2014	February 2014	-£76,851.33

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.

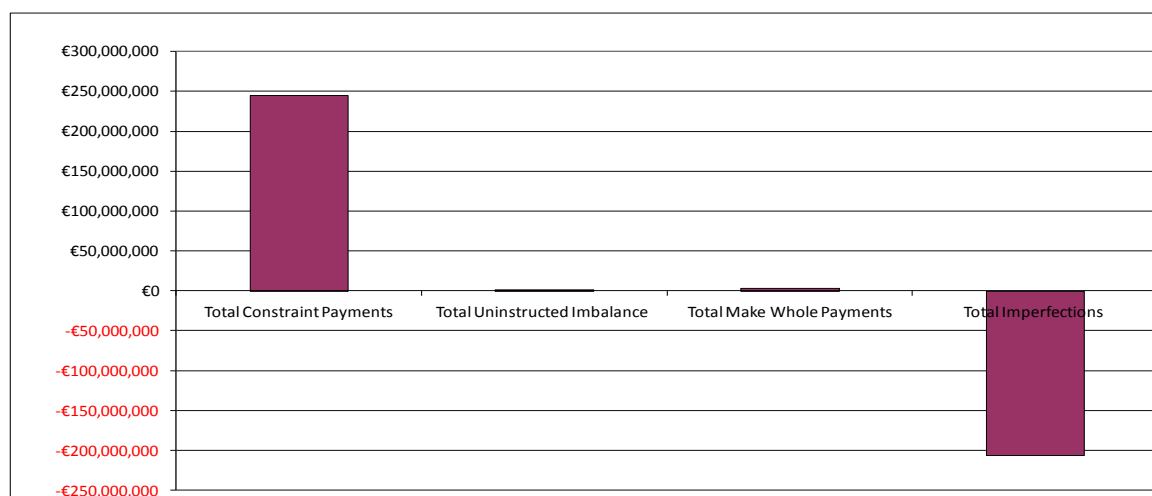


Figure 4 - Cumulative Imperfections Costs Vs Budget

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

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 October 2013 and M+13 resettlement period of January 2013 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.

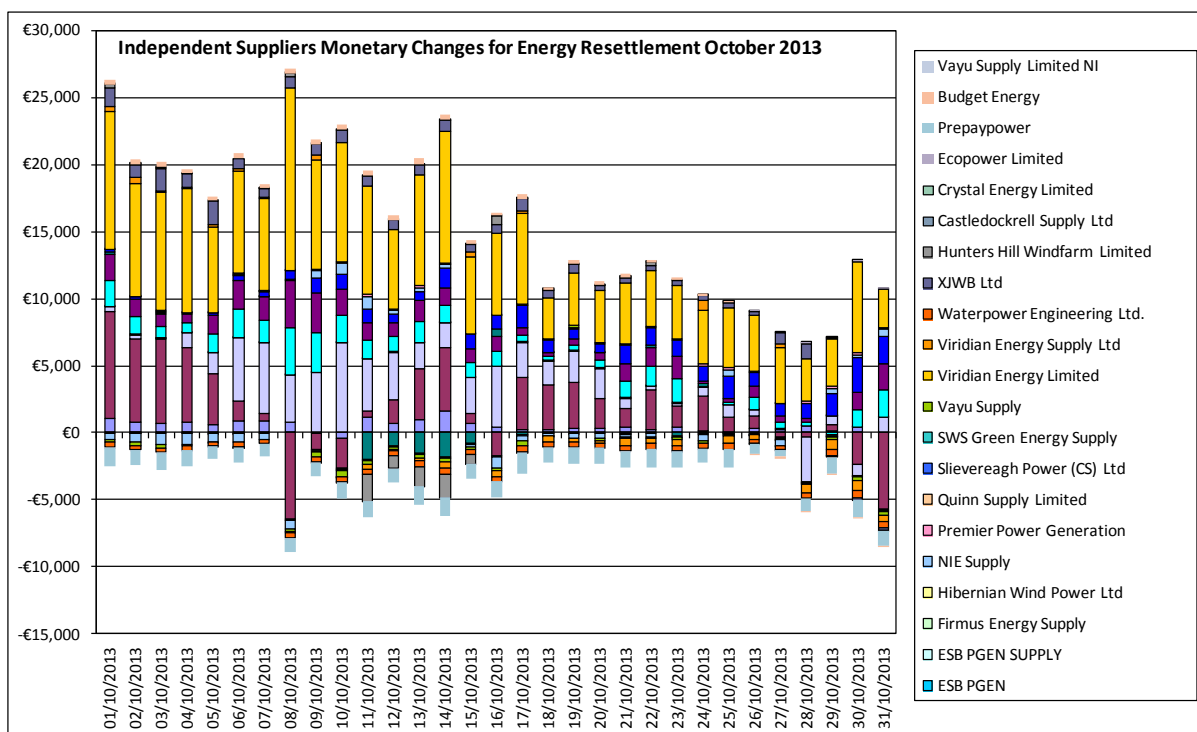


Figure 5 – Independent Suppliers Monetary Changes for Energy Resettlement – October 2013

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

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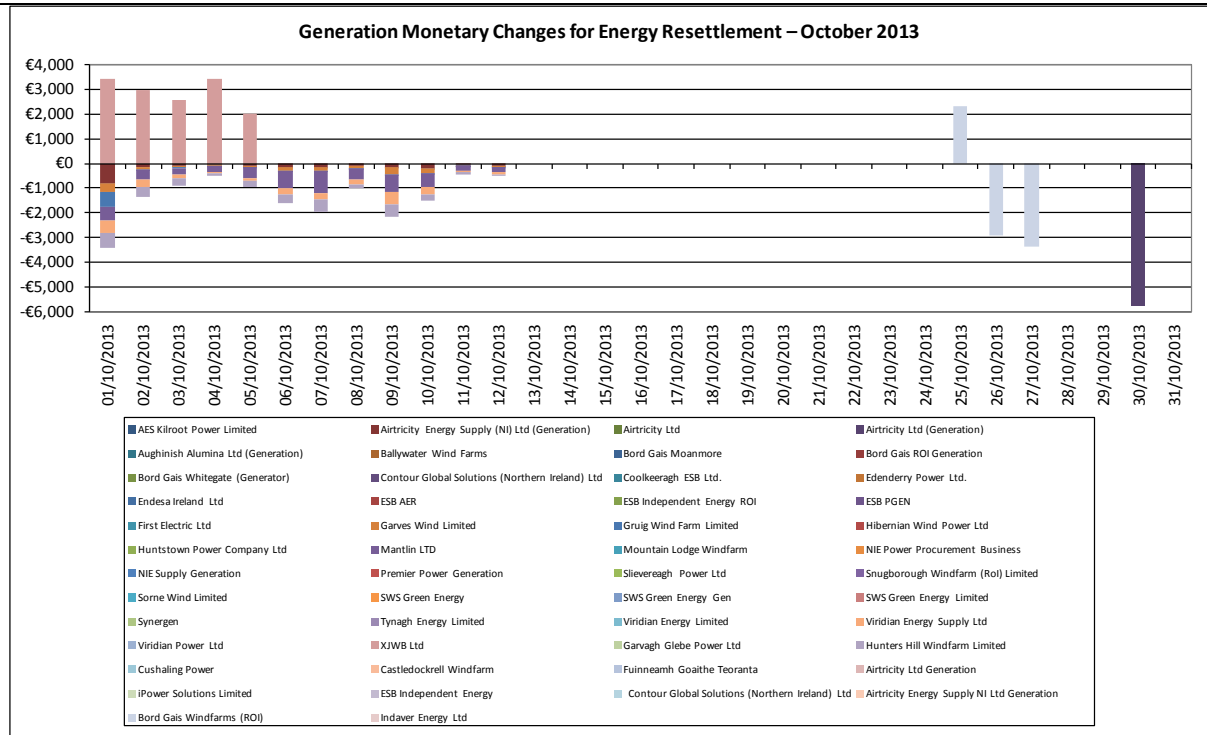


Figure 6 – Generation Monetary Changes for Energy Resettlement – October 2013

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

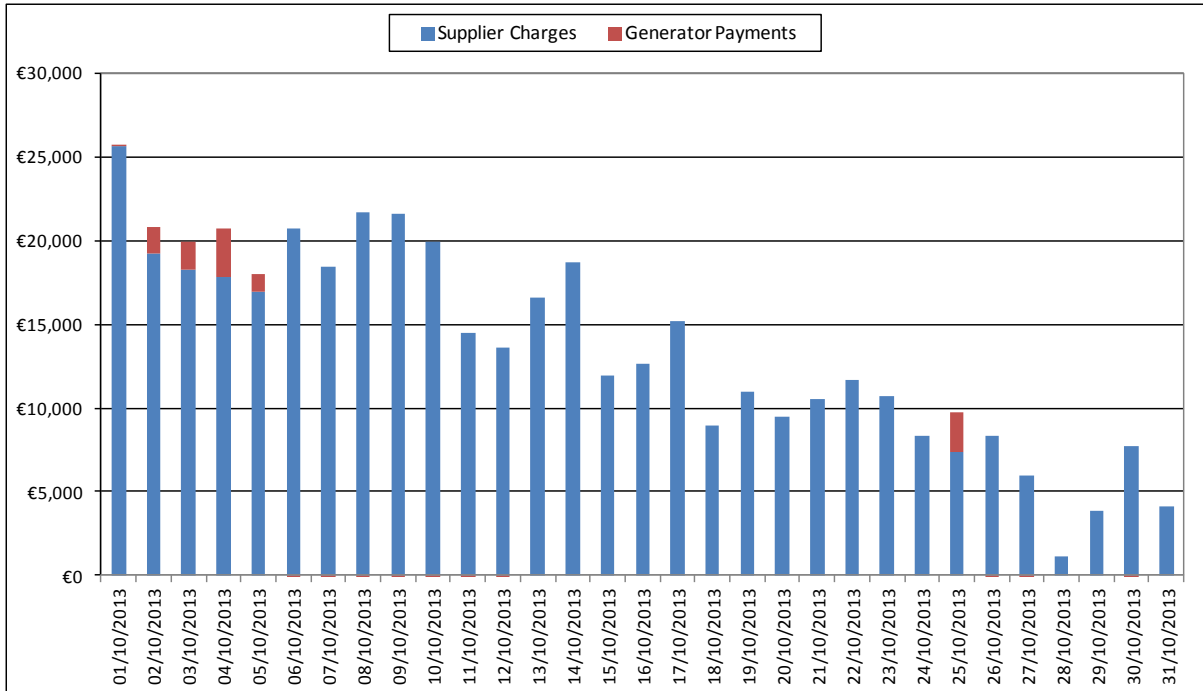


Figure 7 – Total Monetary Changes for Energy Resettlement – October 2013

M+13 Resettlement

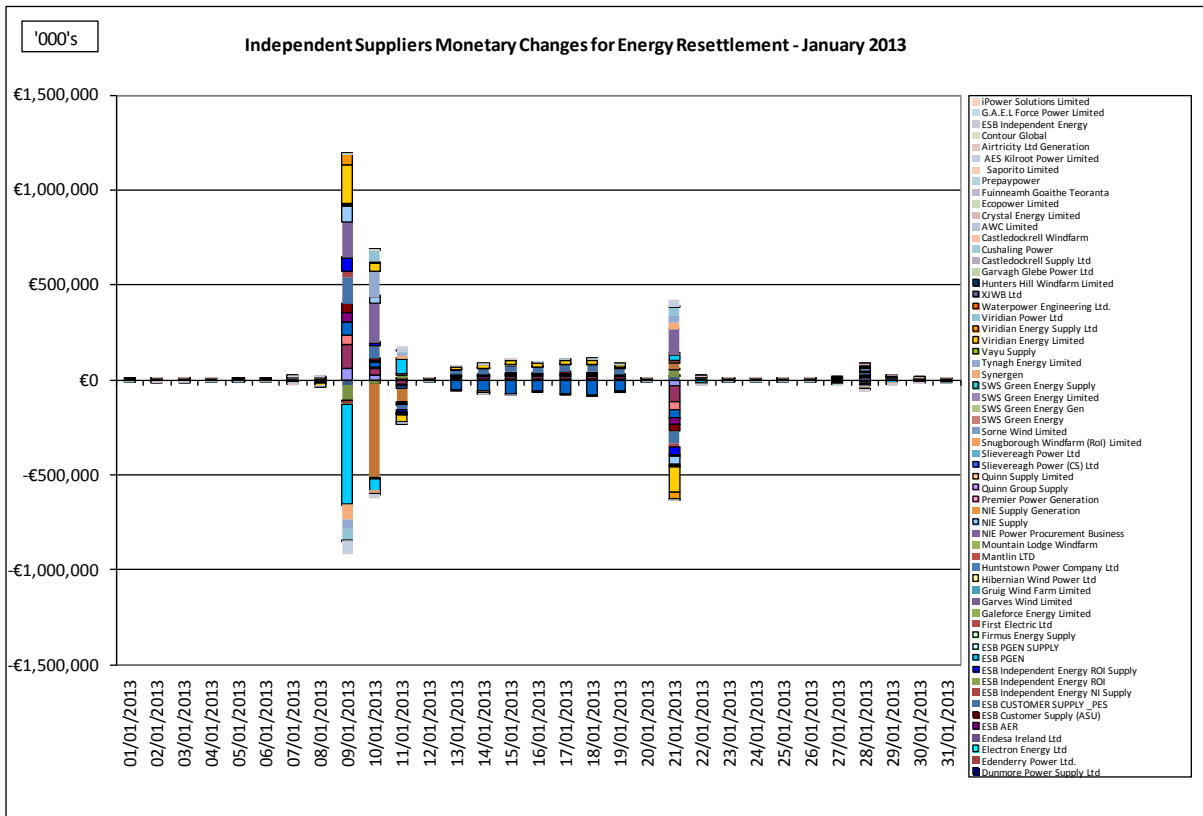


Figure 8 - Independent Suppliers Monetary Changes for Energy Resettlement – January 2013

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

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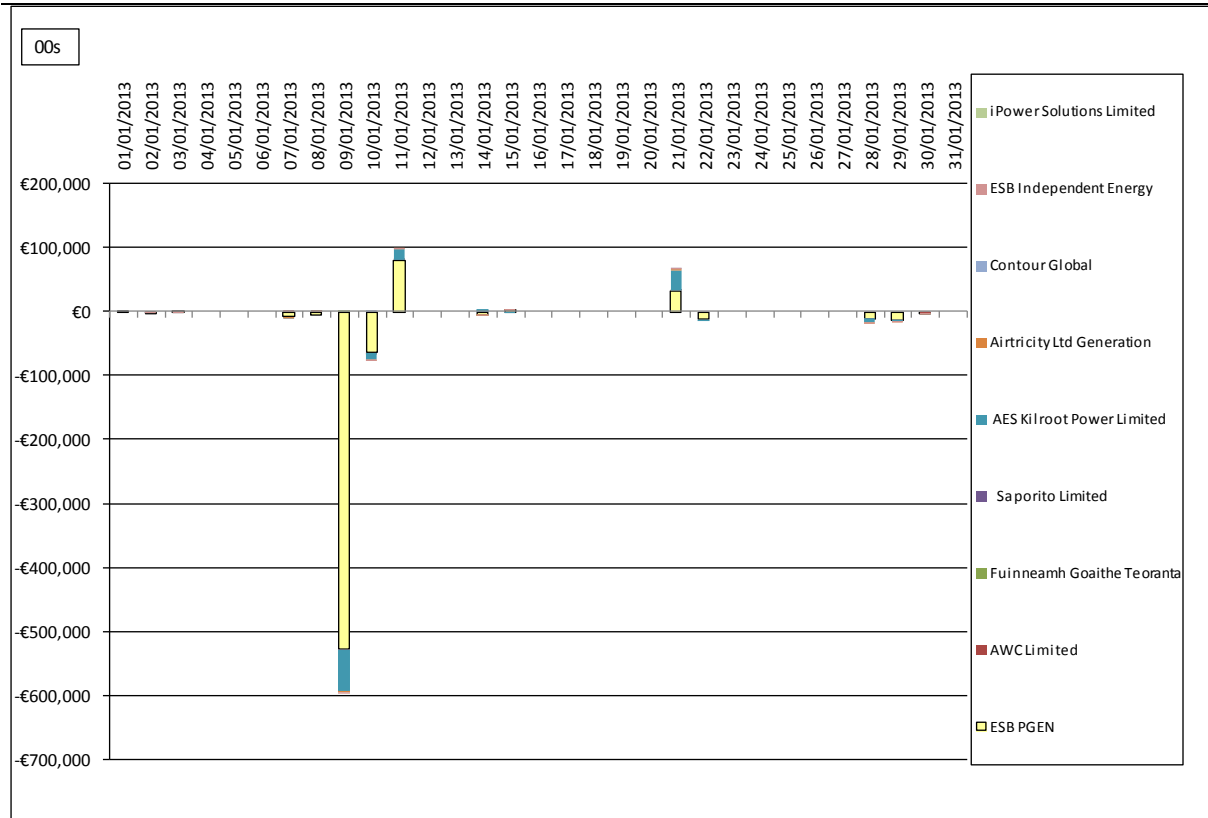


Figure 9 - Generation Monetary Changes for Energy Resettlement – January 2013

Changes noted above are due to re-prices on Trade Dates 7th, 9th, 10th, 21st, 28th and 29th January 2013.

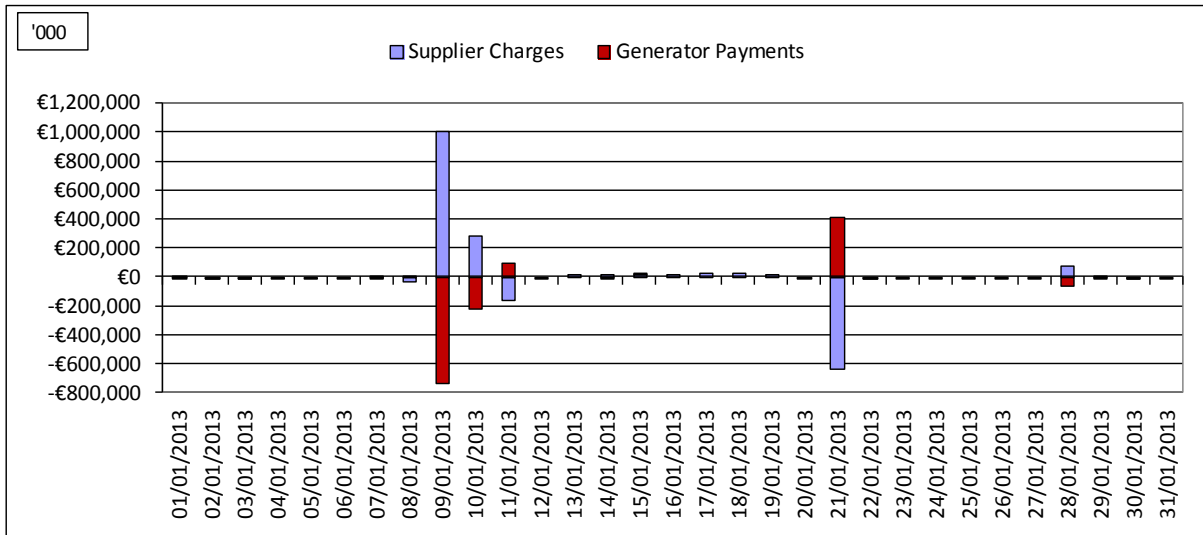


Figure 10 - Total Monetary Changes for Energy Resettlement – January 2013

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.

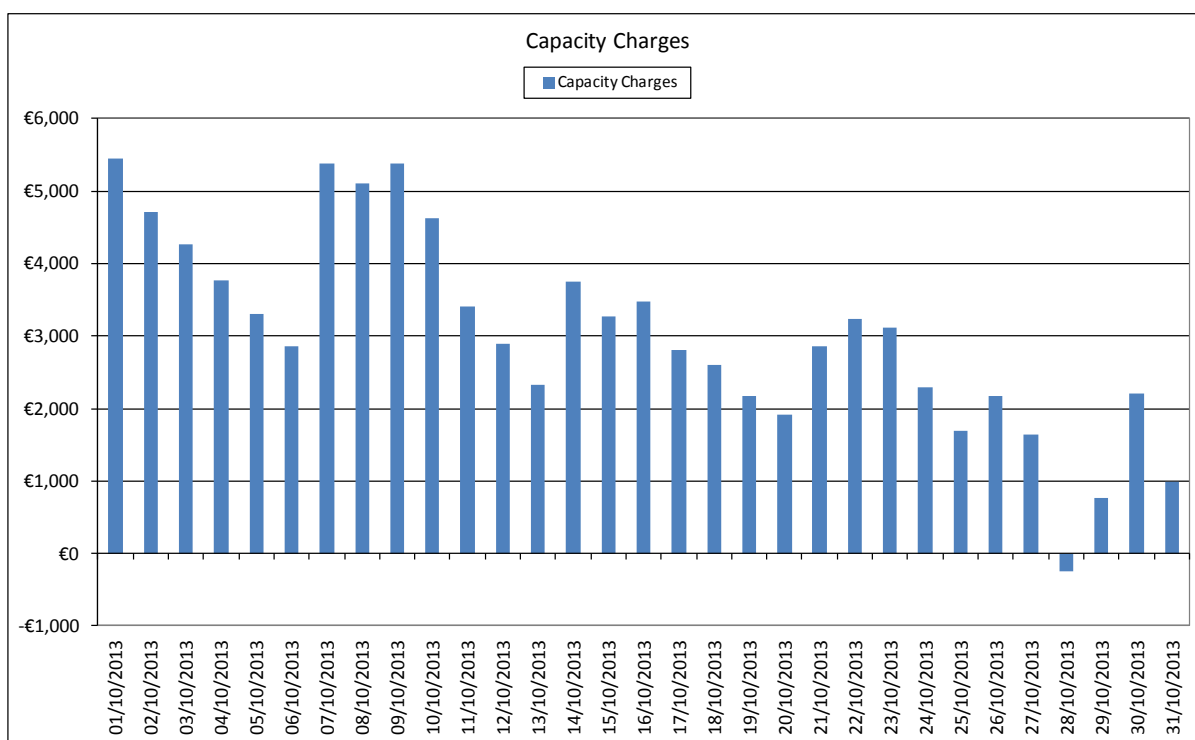


Figure 11 - Independent Suppliers Monetary Changes for Capacity Resettlement – October 2013

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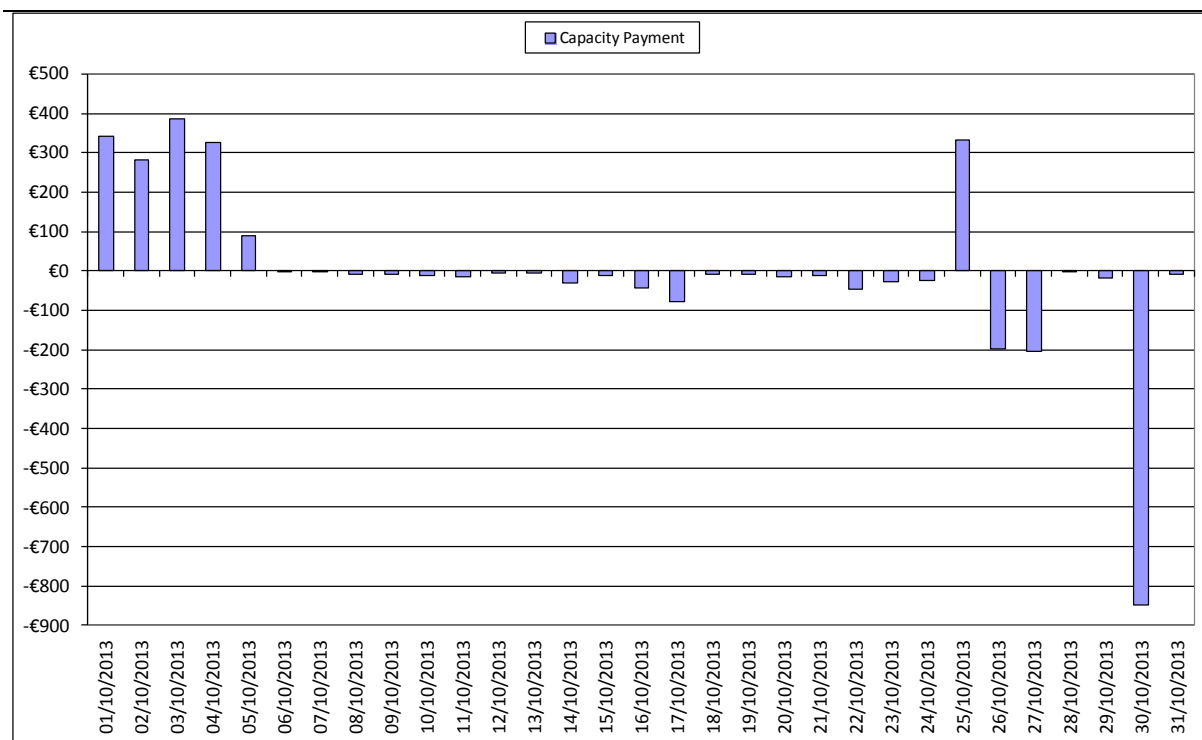


Figure 12 - All Generation Monetary Change for Capacity Resettlement – October 2013

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

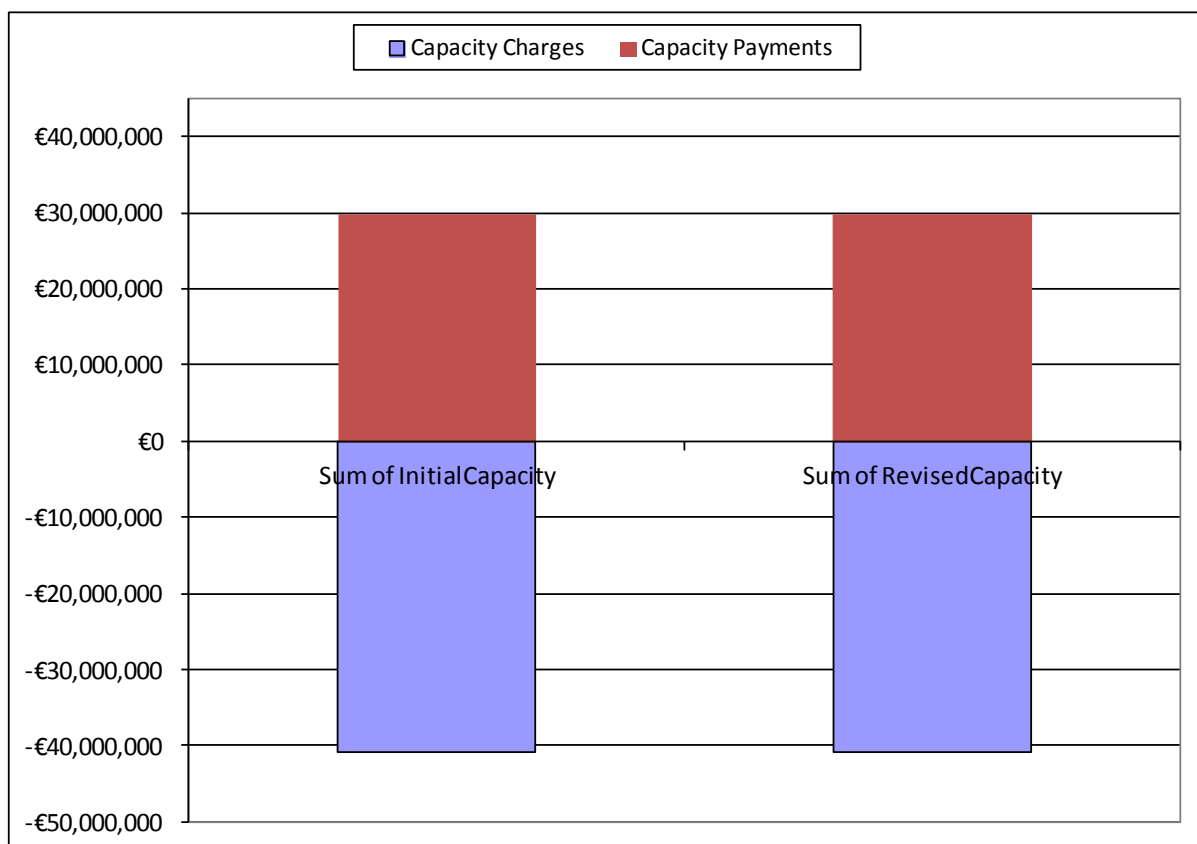


Figure 13 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement – October 2013

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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

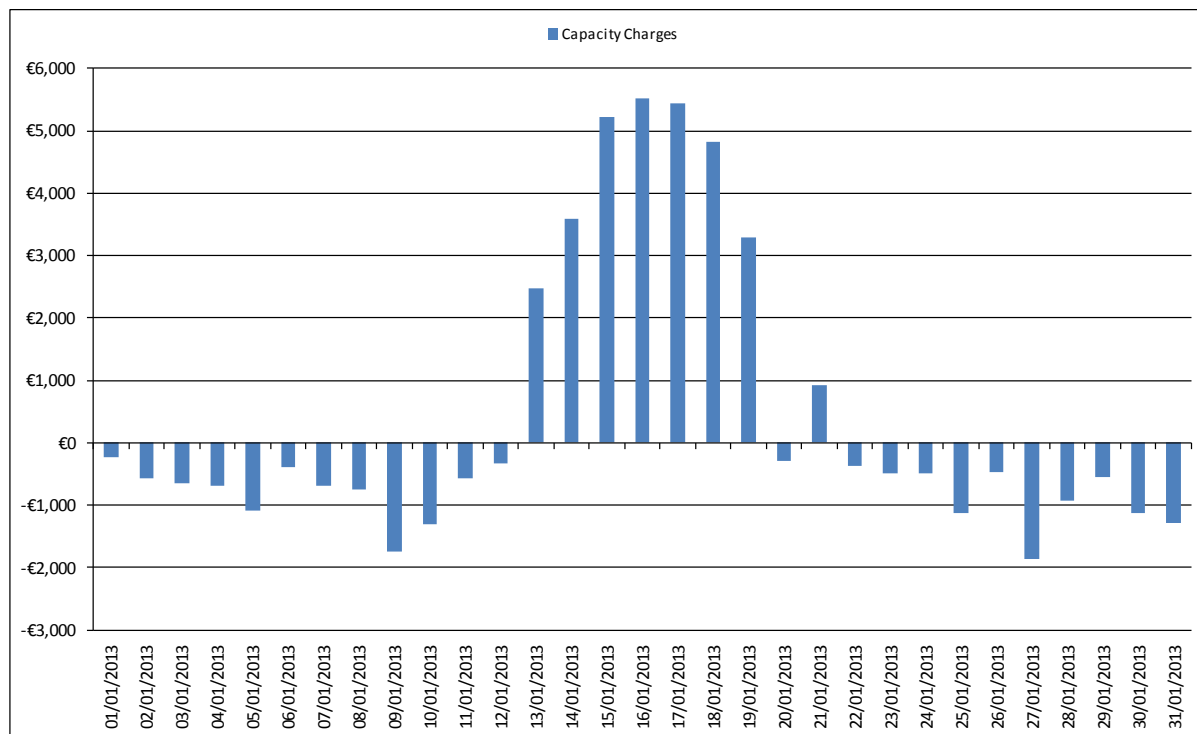


Figure 14 - Independent Suppliers Monetary Changes for Capacity Resettlement – January 2013

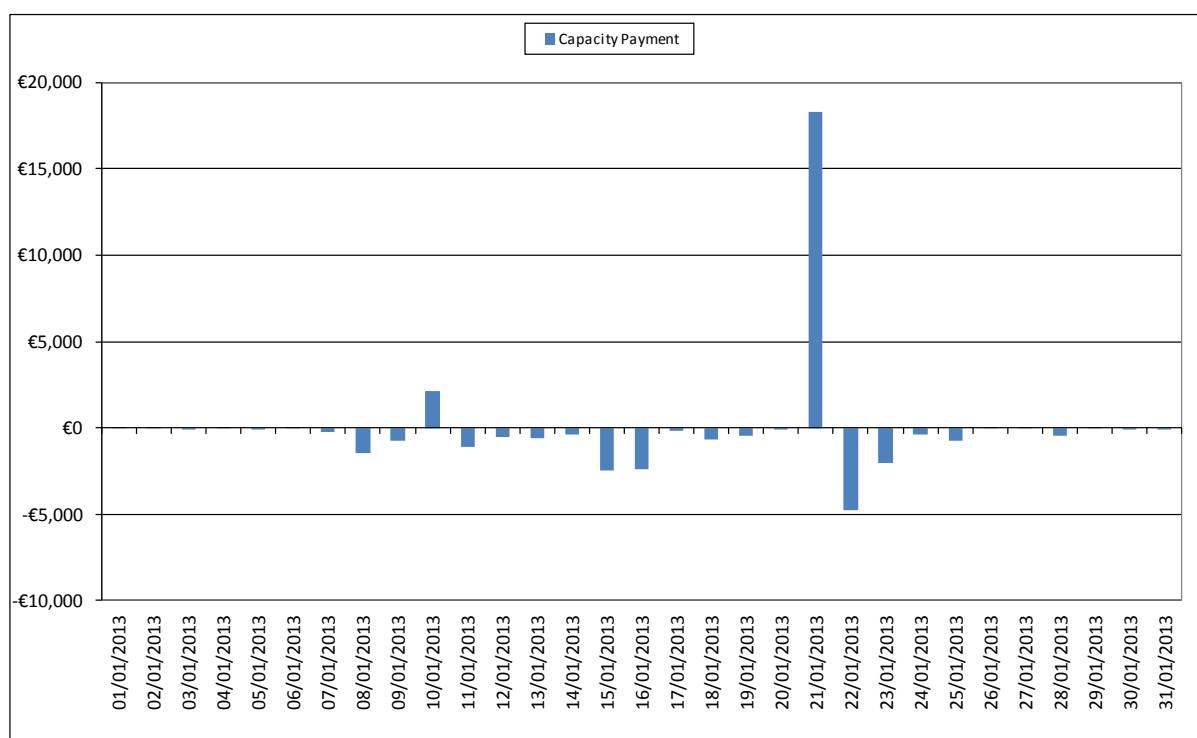


Figure 15 - All Generation Monetary Change for Capacity Resettlement – January 2013

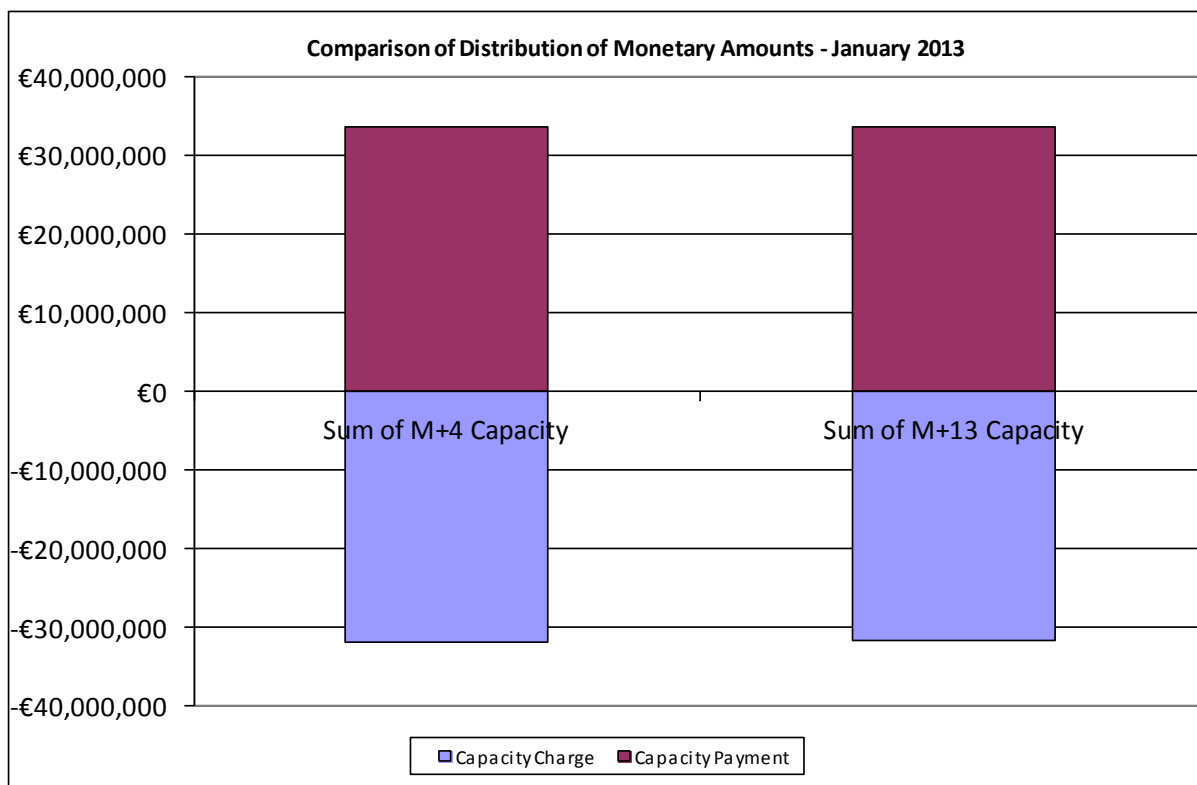


Figure 16 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – January 2013

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 February 2014.

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	173	159	14	182	1.93	171
Important	4	4	0	5	2.18	3
Urgent	1	1	0	1	1.00	0
Settlement	12	10	2	13	4.74	13
Credit	0	0	0	0	0.00	0
Dispute	0	0	0	0	0.00	0
Data	6	6	0	6	3.14	6
Total/Average	196	180	16	207	2.60	193

Table 10 – Helpdesk Statistics

Definitions:

- *Resolved within the Period* refers to queries raised and resolved within the calendar month of February 2014.
- *Resolved in the Period* refers to queries resolved within February 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 February 2014.
- *Not Resolved* refers to queries raised but not resolved within February 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 0.33 working days in February from 2.03 working days in January to 1.70 working days in February. 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 February 2013 that took over 20 working days to resolve. There is currently 1 pending call that has 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 28th 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

Six Data Queries were raised in February 2014. Five were upheld. Four were relating to incorrect Dispatch Instructions and two were relating to incorrect values for the Error Unit.

Topic	Number Of Queries
Dispatch Instructions	4
Error unit - MGEU	2

Table 12. Queries by topic

5.1.2 Settlement Queries

There were 11 Settlement Queries raised in February 2014. 10 were upheld and one was withdrawn. There are three unresolved queries as at 11th March 2014.

Topic	Number Of Queries
Availability	5
Dispatch Instructions	3
Metered Data	1
Loss Adjustment Factors	1
Exchange rates	1

Table 13 – Upheld Settlement Queries by topic

- Four queries relating to incorrect Availability data were upheld. They were all deemed to be of low materiality (<€50,000). Two were corrected for Initial Capacity settlement and two will be corrected during the next scheduled resettlement which is M+4. One query was not upheld.

- Two queries relating to incorrect Dispatch Instructions 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. One query relating to incorrect Dispatch Instructions is open.
- One query upheld relating to the exchange rate used for FMOC. The corrections were made in advance of invoicing, therefore no resettlement was required.
- One query upheld relating to Loss Adjustment Factors. This was deemed to be of low materiality (<€50,000). The corrections will be reflected in the next scheduled resettlement which is M+4.
- One query upheld relating to incorrect Meter Data. This was deemed to be of low materiality (<€50,000). The corrections will be reflected in the next scheduled resettlement which is M+4.

5.2 Unresolved Queries

There are two unresolved Data Queries and one unresolved Settlement Query as at 11th March 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, 75.37% of data used was submitted by Participants through the normal Bid-Offer process. 23.22% of the data used was based on Standing Commercial Offer Data. 1.41% 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 were four Re-Price runs carried out in February 2014.

There were three Resettlement runs carried out in February 2014.

6.3.2 System Errors

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

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

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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 February 2014.

6.4.1 MSP Postings February 2014

Process	On Time	< 1 hr late	> 1 hr late	Not done
Gate Close EA	28-28	0-28	0-28	0
Post EA1	28-28	0-28	0-28	0
Post EA2	28-28	0-28	0-28	0
Post WD1	28-28	0-28	0-28	0
Post EP1	28-28	0-28	0-28	0
Post EP2	28-28	0-28	0-28	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)

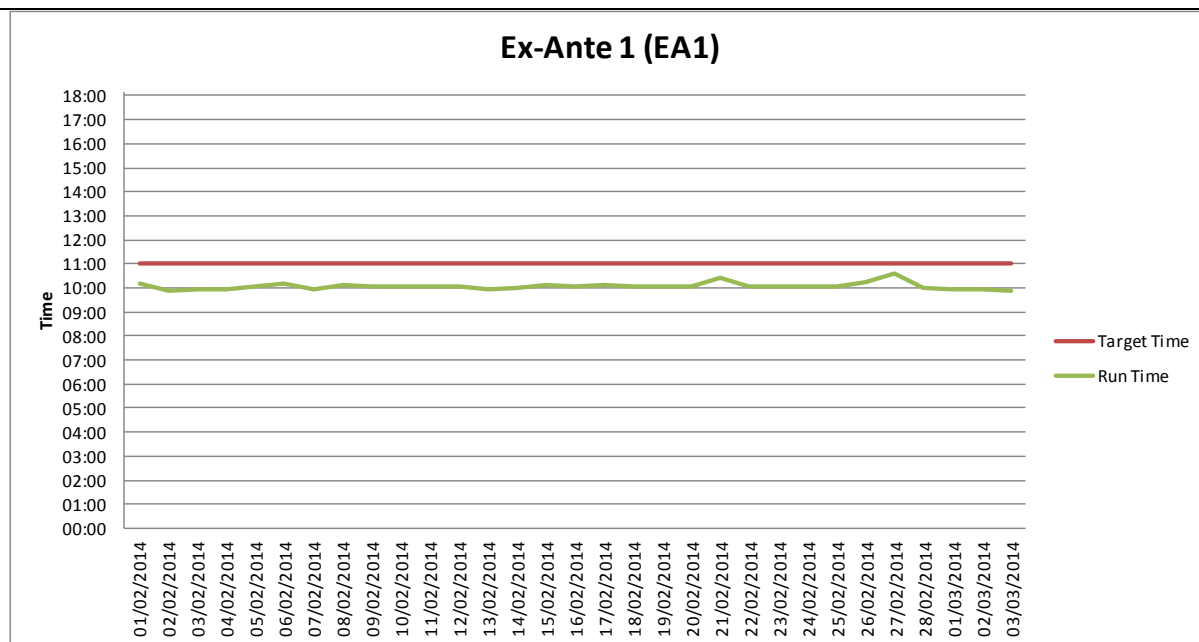


Figure 17 – Ex-Ante 1

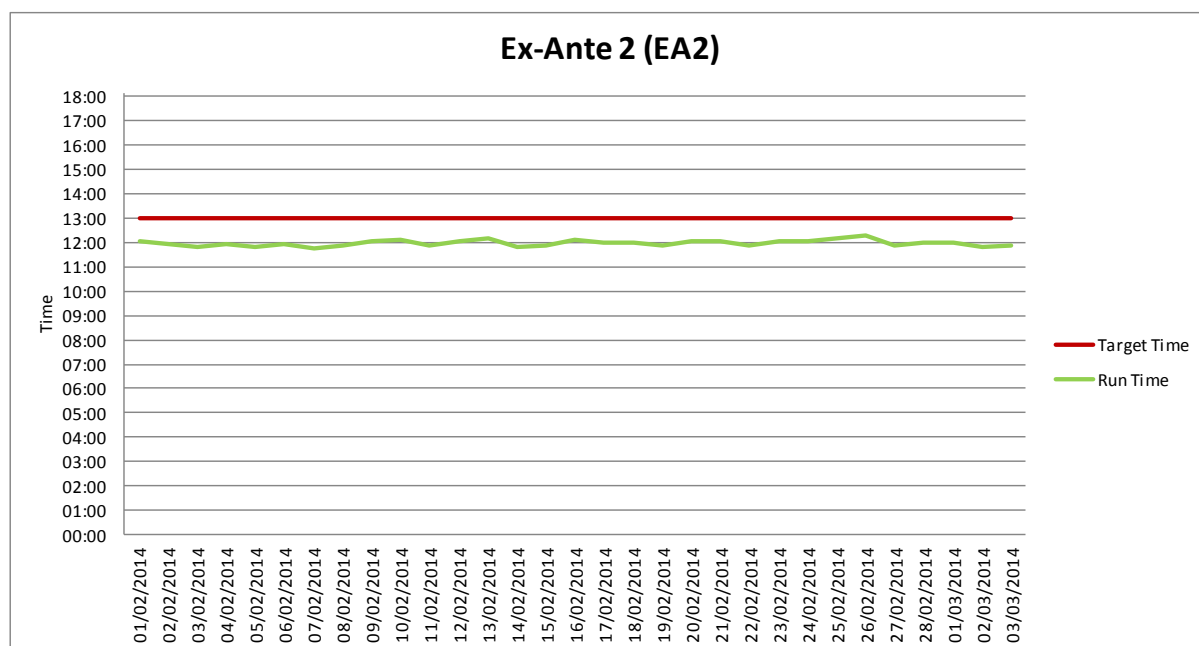


Figure 18 – Ex-Ante 2

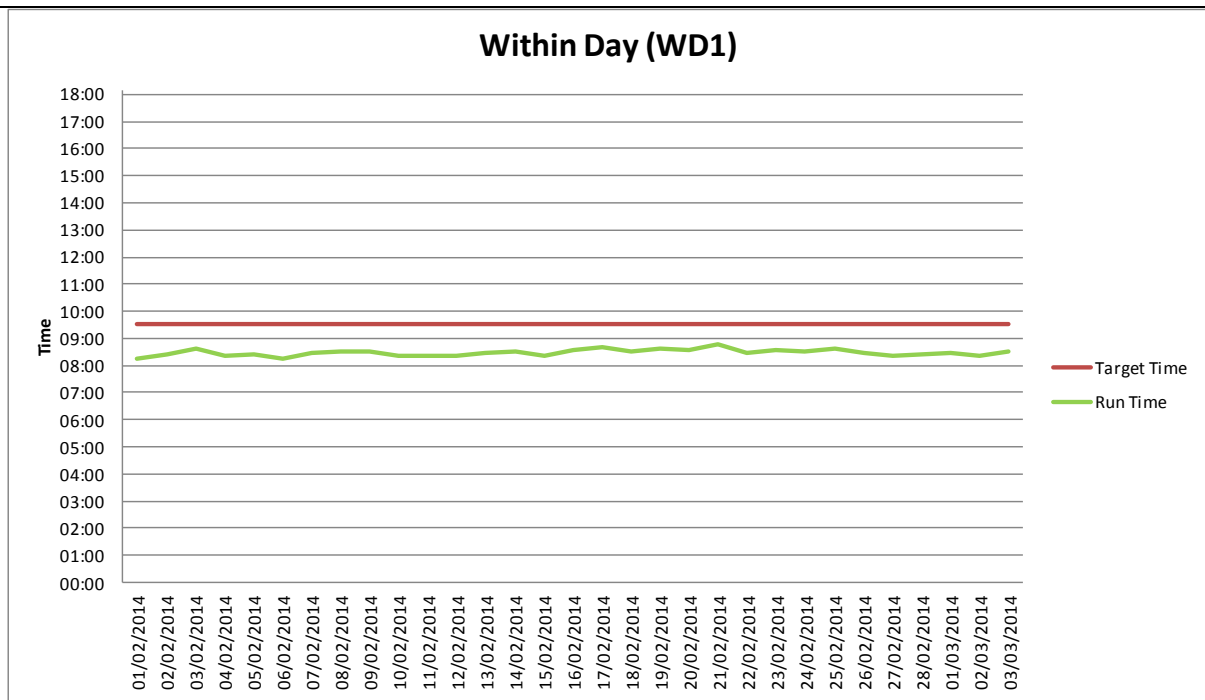


Figure 19 – Within Day 1

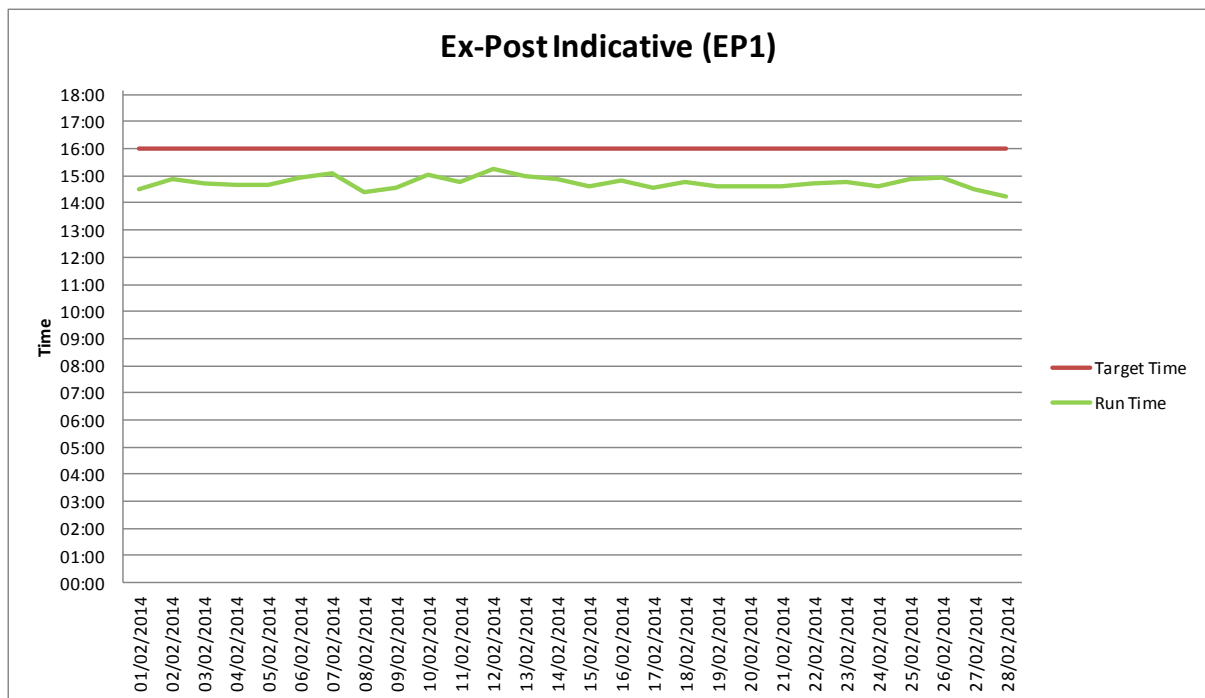


Figure 20 - Ex-Post Indicative

Market Operator Monthly Report

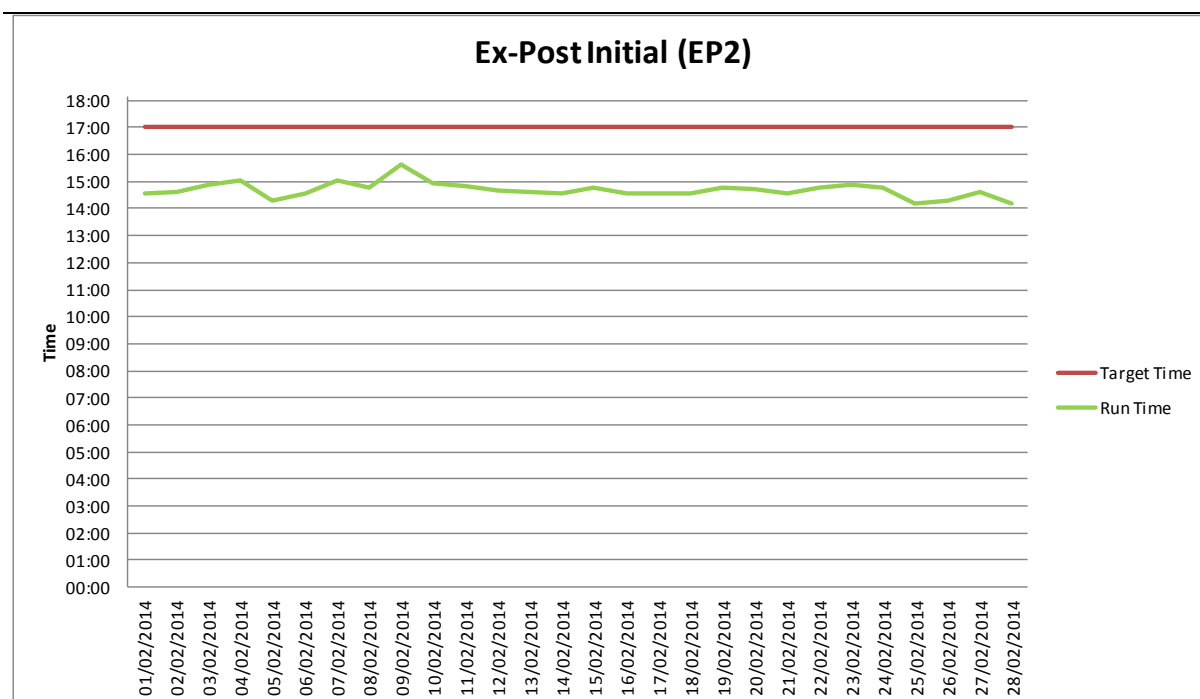


Figure 21 - Ex-Post Initial

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 February 2014, there was one instance 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 February 2014

The publication timings for Settlement runs are provided below.

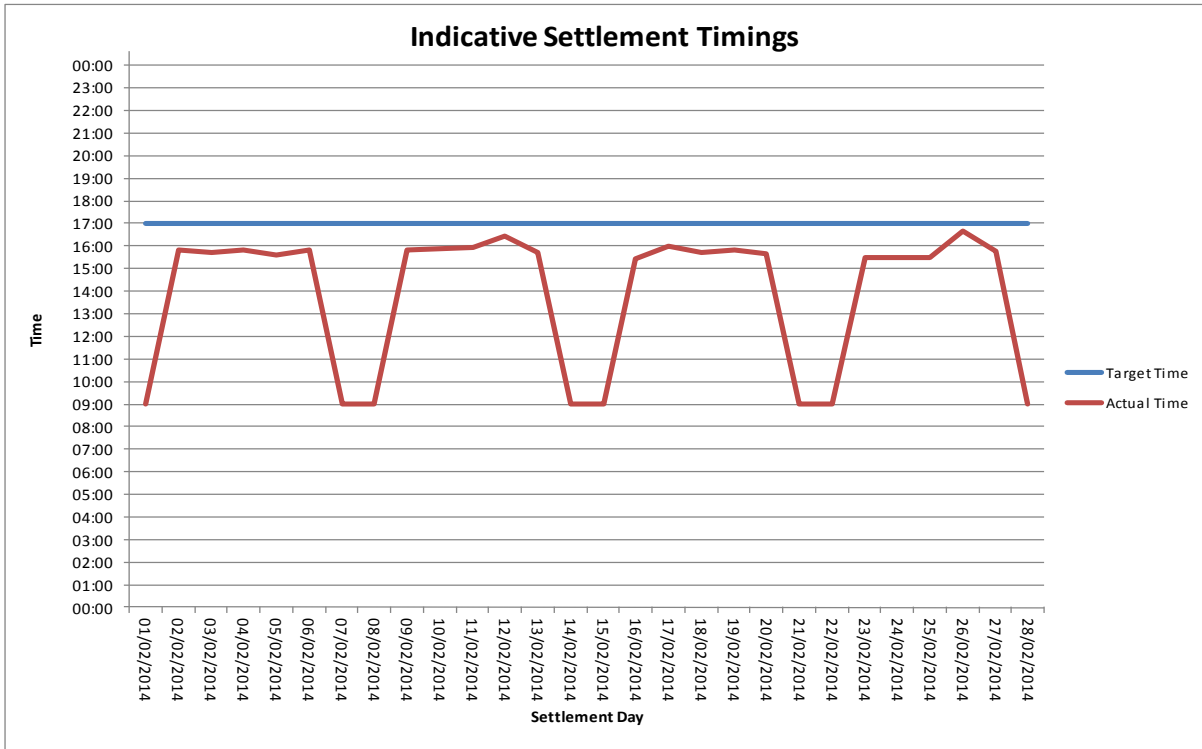


Figure 22 - Indicative Settlement Postings

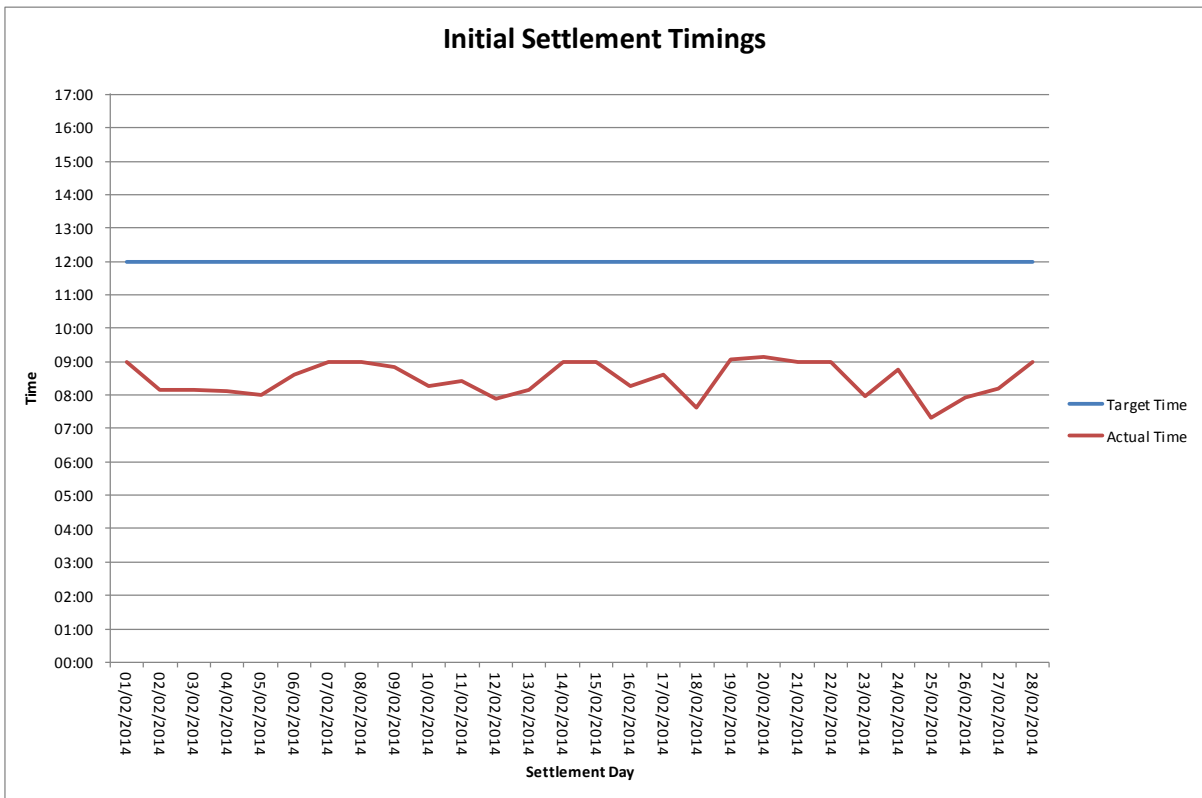


Figure 23 - Initial Settlement Postings

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

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 completed to schedule in early February.
- The Market Participant Update Document (MPUD) to align with the SEM R2.4.0 release was published on February 13th. A revision to this document was published on February 24th to remove a change mark from a previous version of the document.
- Sample files provided by our software vendors were published on February 13th.
- The software was delivered to schedule 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 was Friday, February 21st, 2014.

A number of Change Requests have been sent to our vendors for impact assessment. Once these have been received a meeting of the SDS will be held (date TBC) at which the scope for this release will be discussed.

Subsequent to the SDS meeting a release scope proposal will be issued to the Regulatory Authorities for approval. On receipt of Regulatory approval the scope will be published to the industry.

7 Occasional Components

7.1 Disaster Recovery/Business Continuity Tests

There was no Business Continuity Tests performed during February 2014.

7.2 Administered Settlement

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

7.3 Communications or Systems Failures

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

The MOI event "PUB_COD_GEN_NOMPROFILES" was failing, this was a performance issue in the SQL query - 3rd party vendor was contacted and a fix was supplied and installed- the issue is now considered resolved.

There was one occasion of a MIUN server memory issue - This was addressed by adding more memory into the MIUN servers.

There was Meter Data Submission issues reported by SONI - the issue has been identified, and a temporary fix has been applied to the resolve the issue, and Eirgrid Market Systems are working with the 3rd party vendor to achieve a permanent solution.

Some save cases were reported not to be loading on one occasion, and this was down to the tomcat service being unresponsive on the internal web server - restart of this resolved the issue.

There was 1 instance of Supportworks email not being available - restart of the mail service on the Supportworks server resolved the issue.

There was 1 instance of the SEMO data publication report not being available - issue has since been addressed, resolved and a permanent solution put in place.

SONI IT changed the IP address their SFTP site that is used in AMP, which made the site unavailable for IA's - Eirgrid Market Systems contacted Unicorn and got the issue resolved.

On 1 occasion, Supportworks would not permit a login, this issue was investigated and resolved (Server had a issue and restarted - investigation on-going for the root cause, and the system is being monitored)

On 1 occasion, the WD1 MIUN file supplied to RCUC was reported to be wrong - this turned out to have been a issue with the 3rd party vendor responsible for correcting / sending the

wrong files to the wrong people - meetings have took place since and a procedure has been put in place to be adhered to by all parties concerned.

On 1 occasion, it was reported that a submission to the MI system was failing for a participant - after investigation, the issue was identified as a issue on the participants side.

7.4 Denial of Service Attacks

There was no Denial of Service Attacks during February 2014.

7.5 Submission of Parameters to RAs for Approval

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

8 Appendix A: Detail of Code Breaches

8.1 Market Participant

12/02/2014	Money In	Timing	Participant	Payment Default	PT_400118 (Fuinneamh Gaoithe Teoranta) defaulted on a Week 40 2013 Energy Invoice.	Participant Error	Default notice was issued	Major
14/02/2014	Money In	Timing	Participant	Payment Default	PT_500057 LCC Power Limited defaulted on Week 1 2013 M+13 VMOC Invoice.	Participant Error	Default Letter was issued	Major
19/02/2014	Money In	Timing	Participant	Payment Default	PT_400068 Ecopower defaulted on Week 5 2014 Initial/Week 2 2013 M+13 Energy Invoices	Participant Error	Default Letter was issued	Major
19/02/2014	Money In	Timing	Participant	Payment Default	PT_400068 Ecopower defaulted on Week 5 2014 Initial/Week 2 2013 M+13 Energy Invoices	Participant Error	Default Letter was issued	Major
12/02/2014	Money In; FT	Timing	Participant	Payment Default	PT_400118 Fuinneamh Gaoithe Teoranta defaulted on Week 40 2013 M+4 Energy Invoice.	Participant Error	Default Letter was issued	Major
21/02/2014	Money In	Timing	Participant	Payment Default	PT_400116 Electric Exchange Limited defaulted on a January 2013 Initial FMOC invoice	Participant Error	A default notice was issued to the participant	Major
21/02/2014	Money In	Timing	Participant	Payment Default	PT_400119 Aughrim Power Supply Limited defaulted on a January 2013 Initial FMOC invoice.	Participant Error	A default notice was issued to the Participant.	Major
26/02/2014	Money In	Timing	Participant	Payment Default	PT_400069 Ecopower Supply Limited defaulted on Week 6 2014 Initial & Week 1 2014 Ad Hoc Energy Invoices.	Participant Error	A default notice was issued to the Participant.	Major

Table 16 - Code Breaches – Market Participants

8.2 Data Provider

13/02/2014	EP2	Timing	EirGrid MDP	System	The Meter D+3 data feed was submitted by Eirgrid after the cut off time of 14:00.	System issues	Eirgrid provided the meter data at 15:49 and it was uploaded to the Market Systems by Semo.	Minor
13/02/2014	EP1	Timing	EirGrid MDP	System	The METER D+1 data was submitted by Eirgrid after the cut off point of 14:00.	System Issues.	Eirgrid submitted correct data to the SEM Market Systems at 14:59.	Minor
13/02/2014	EP2	Timing	EirGrid TSO	System	ACTA D+3 data feed was sent through by Eirgrid after the cut off time of 14:00.	System Issues	Eirgrid provided the data feed at 15:49 and this was uploaded to the Market Systems by Semo.	Minor
13/02/2014	EP2	Timing	EirGrid TSO	System	The DI D+3 data feed was submitted by Eirgrid after the cut off time of 14:00.	System Issue	Eirgrid provided the data feed at 15:49 and it was uploaded to the Market Systems by Semo.	Minor
13/02/2014	EP1	Timing	EirGrid TSO	System	The ACTA D+1 data was submitted by Eirgrid after the cut of time of 14:00.	System Issues.	The correct data was submitted by Eirgrid into the SEM Market Systems at 15:49.	Minor
13/02/2014	EP1	Timing	EirGrid TSO	System	The Dispatch Instruction D+1 data was submitted by Eirgrid after the cut off time of 14:00.	System Issues.	Eirgrid submitted contingency data which SEM loaded into Market Systems at 15:49.	Minor
10/02/2014	WD1	Quality	Moyle IA	File Submission	Within Day Moyle MIUN's for Trading Day 10/02/2014 were published after the 09:30 T&SC deadline at 09:52.	Within Day Moyle MIUN's for Trading Day 10/02/2014 were revised and set to zero.	The Vendor provided a zero file for Within Day Moyle MIUN's for Trading Day 10/02/2014 which was uploaded and published at 09:52.	Minor

Table 17 - Code Breaches – Data Providers

8.3 SEMO - Pricing and Scheduling

03/02/2014	EA2	Timing	SEMO	File Submission	There was a delay to the publication of EA2 EWIC MIUNs for Trading Day 04/02/2014 past the 13:00 deadline.	The MIUN calculator did not return MIUNs for EWIC until after the 13:00 deadline.	MIUN calculator was unable to produce correct MIUN's by the 13:00 deadline. MIUN's for EWIC were set to Zero. IT provided the zero file and was uploaded into the CMS at 13:31.	Minor
13/02/2014	EP1	Quality	SEMO	Operational	The D+1 Redeclared Energy Limit datafeed for Trade Date 12/02/2014 was not submitted by Eirgrid. The file was sent to SEMO on the 07/03/2014. SEMO failed to follow up on the missing datafeed.	Operational error in following up issue with datafeed submission.	Fils was requested again and sent to SEMO on the 07/03/2014.	Minor

Table 18 - Code Breaches – Pricing and Scheduling

8.4 SEMO – Settlements

06/02/2014	FMOIC Invoicing	Timing	SEMO	System	FMOIC Invoicing for January 2014 due to be published on 07/02/2014 were postponed by one week.	System Issue	A script was successfully deployed in production on 07/02/2014. Invoices will be published on 14/02/2014.	Major
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Table 19 - Code Breaches – Settlements

Market Operator Monthly Report

8.5 SEMO - Funds Transfer

25/02/2014	FT	Quality	SEMO	System	The daily exchange rate for Trade Date 26/02/2014 was entered incorrectly into the MPI as the 27/02/2014.	System Operator issue. The controller carrying out the daily exchange process and the second controller verifying the exchange failed to notice the incorrectly submitted date.	The Publish Trading Daily Exchange Rate event was re-run manually in the MPI and this was completed at 9:51 on the 25/02/2014.	Minor
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Table 20 - Code Breaches – Funds Transfer

8.6 SEMO - Credit Management

There were no issues to report in February 2014

8.7 SEMO – Other

There were no issues to report in February 2014

9 Appendix B: List of Queries by Type

9.1 Data Queries

Summary Title	Description	ID	Logged On	Date sent to MP
MGEU	<p>Querying the MGEU_IA_NIMOYLE_I_NIMOYLE values in PIR for settlement date 29/01/2014 for trading periods 03:00–03:30, 03:30-04:00. 16:30-17:00 and 17:00-17:30.</p> <p>The values in the Error report in AMP are different to the PIR for this settlement date.</p> <p>Can you please confirm what values are applied to generator the MG EU value for these periods?</p> <p>I believe there were issues with MIUNs for this date.</p>	IA_MOYLE	2014-02-03	2014-02-10
Incorrect Dispatch Instructions	Dispatch profile appears incorrect for all Power Gen Units. This is resulting in high Uninstructed Imbalances. This may well be a continuation of query F0057514.	PT_400030	2014-02-03	2014-02-04
Incorrect Dispatch Instructions	Dispatch profile appears incorrect for all units. This is resulting in high uninstructed imbalances.	PT_400030	2014-02-03	2014-02-04
Incorrect Dispatch Instructions	Dispatch profile appears incorrect for all Power Gen Units, resulting in high uninstructed imbalances.	PT_400030	2014-02-03	2014-02-04

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MGEU	<p>Querying the MGEU_IA_NIMOYLE_I_NIMOYLE values in PIR for settlement date 29/01/2014 for trading periods 03:00–03:30, 03:30-04:00, 16:30-17:00 and 17:00-17:30.</p> <p>The values in the Error report in AMP are different to the PIR for this settlement date.</p> <p>Can you please confirm what values are applied to generator the MG EU value for these periods?</p> <p>I believe there were issues with MIUNs for this date.</p>	IA_MOYLE	2014-02-03	2014-02-10
Incorrect Dispatch Instructions	<p>SONI constraint Carrickatane GU_501190 to 0MW on the 14/2/14 at 16:30 to 17:00. The MG volumes reflect the 0MWH, however ESB has not been compensated for the constraint in the MSQ. Why is the MSQ at 0MW? Thanks.</p>	PT_500050	2014-02-19	2014-02-28

Table 21 - Data Querie

9.2 Settlement Queries

Summary Title	Description	ID	Logged On	Date sent to MP
Availability	Incorrect Availability Declarations were sent to the SEM for GU_400910 (Boggeragh Wind Farm Phase 1) for the 26/12/2013 and 27/12/2013. Due to transmission system issues the unit was on outage from 20:00 on the 26/12/2013 until it was energised at 16:25 on the 27/12/2013, the unit has supplied availability data for this period.	TSO_EirGrid	03/02/2014	04/02/2014
Availability	Incorrect Availability Declarations were sent to the SEM for GU_400500 (Dublin Bay Unit 1) for the 02/01/2014. The unit was doing a fuel change over test at their request on the evening of the 02/01/2014.	TSO_EirGrid	03/02/2014	12/02/2014
Availability	Incorrect Actual Availabilities issued for Ballylumford B31 (GU_500130) at D+3 stages. This unit is a Price Effecting Generator and will have affected the EP2 pricing run for trade date 23/01/2014.	TSO_SONI	04/02/2014	Withdrawn
Availability	Incorrect Actual Availabilities issued for Ballylumford B31 (GU_500130) at D+3 stages. This unit is a Price Effecting Generator and will have affected the EP2 pricing run for trade date 23/01/2014.	TSO_SONI	05/02/2014	06/02/2014
Availability	Incorrect Actual Availabilities issued for Ballylumford B32 (GU_500131) at D+3 stages. This unit is a Price Effecting Generator and will have affected the EP2 pricing run for trade date 23/01/2014.	TSO_SONI	05/02/2014	06/02/2014

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Exchange rate	FMOC invoices were delayed from Friday 7th of February until Friday 14th of February. This will mean the incorrect invoice day exchange rate was applied to FMOC statements. The new FX rate will need applied before invoicing on Friday 14th	PT_500031	12/02/2014	13/02/2014
Incorrect Dispatch Instructions	<p>Incorrect Dispatch Instructions were sent to the SEM for GU_400910 (Boggeragh Wind Farm Phase 1) for the 26/12/2013 and 27/12/2013. Due to transmission system issues the unit was on outage from 20:00 on the 26/12/2013 until it was energised at 16:25 on the 27/12/2013, the unit should be constrained to 0MW for this period. The following Dispatch Instructions are now available:</p> <pre>RESOURCE_NAME INSTR_TIMESTAMP INSTR_CODE INSTR_COMB_CODE DISP_INSTR_MW GU_400910 26/12/2013 20:00 WIND LOCL 0 GU_400910 26/12/2013 20:00 MWOFF 0 GU_400910 27/12/2013 16:25 WIND LCLO 0</pre>	TSO_EirGrid	03/02/2014	04/02/2014
Incorrect Dispatch Instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400500 (Dublin Bay Unit 1) on the 02/01/2014. The unit was doing a fuel change over test at their request on the evening of the 02/01/2014.	TSO_EirGrid	03/02/2014	12/02/2014
Incorrect Dispatch Instructions	Dispatch instructions for all VPTG at 6.00 and 6.30 on the 9/02/2014 are incorrect. This is different to the information that the Data Feed team issued to SEM. The impact is over 800 MWh constraining down of VPTGs for this period	TSO_EirGrid	25/02/2014	Open

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Loss Adjustment Factors	See attached email from DSO MRSO has notified TSO on 12/02/13 that the DLAF for Garracummer had changed from 10/12/13 as a result of connection of Holyford. As a result the CLAFs in the SEMO system for Garracummer from 10/12/13 to 16/02/14 are incorrect (note Planning Support and Tariffs will reload the correct values from 17/02/14)	GU_401310	21/02/2014	26/02/2014
Meter data	The meters were uncontactable for GU_401240 (Dromdeeveen Windfarm Phase 1), this resulted in SCADA being sent to the SEM for GU_401240 (Dromdeeveen Windfarm Phase 1) for the 14/02/2014 - 16/02/2014 inclusive. Meter data in now available	GU_401240	24/02/2014	05/03/2014
PIR	Can you please confirm if PIR is correct and latest data for GU_400810 for 23/06/13 at M+4	PT_400066	17/02/2014	Withdrawn

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 February 2014 that required repricing or resettlement	-	-	-	-	-

Table 23 - 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
01/02/2014	11:00	10:11:00	13:00	12:04	09:30	08:15	16:00	14:31	17:00	14:34
02/02/2014	11:00	09:54:00	13:00	11:55	09:30	08:26	16:00	14:54	17:00	14:37
03/02/2014	11:00	09:55:00	13:00	11:50	09:30	08:37	16:00	14:44	17:00	14:54
04/02/2014	11:00	09:56:00	13:00	11:58	09:30	08:22	16:00	14:39	17:00	15:04
05/02/2014	11:00	10:04:00	13:00	11:48	09:30	08:23	16:00	14:39	17:00	14:18
06/02/2014	11:00	10:11:00	13:00	11:58	09:30	08:15	16:00	14:56	17:00	14:34
07/02/2014	11:00	09:56:00	13:00	11:47	09:30	08:27	16:00	15:06	17:00	15:01
08/02/2014	11:00	10:06:00	13:00	11:52	09:30	08:30	16:00	14:24	17:00	14:45
09/02/2014	11:00	10:02:00	13:00	12:02	09:30	08:32	16:00	14:35	17:00	15:37
10/02/2014	11:00	10:02:00	13:00	12:06	09:30	08:21	16:00	15:02	17:00	14:55
11/02/2014	11:00	10:03:00	13:00	11:52	09:30	08:21	16:00	14:47	17:00	14:50
12/02/2014	11:00	10:04:00	13:00	12:02	09:30	08:22	16:00	15:16	17:00	14:39
13/02/2014	11:00	09:58:00	13:00	12:11	09:30	08:29	16:00	14:58	17:00	14:38
14/02/2014	11:00	10:00:00	13:00	11:49	09:30	08:30	16:00	14:52	17:00	14:34
15/02/2014	11:00	10:08:00	13:00	11:52	09:30	08:22	16:00	14:37	17:00	14:45
16/02/2014	11:00	10:05:00	13:00	12:06	09:30	08:35	16:00	14:50	17:00	14:35
17/02/2014	11:00	10:06:00	13:00	12:01	09:30	08:42	16:00	14:33	17:00	14:33
18/02/2014	11:00	10:03:00	13:00	11:59	09:30	08:30	16:00	14:48	17:00	14:34
19/02/2014	11:00	10:04:00	13:00	11:53	09:30	08:38	16:00	14:37	17:00	14:47
20/02/2014	11:00	10:04:00	13:00	12:02	09:30	08:33	16:00	14:37	17:00	14:42
21/02/2014	11:00	10:24:00	13:00	12:04	09:30	08:48	16:00	14:37	17:00	14:34
22/02/2014	11:00	10:02:00	13:00	11:52	09:30	08:27	16:00	14:44	17:00	14:48
23/02/2014	11:00	10:03:00	13:00	12:03	09:30	08:33	16:00	14:46	17:00	14:53
24/02/2014	11:00	10:03:00	13:00	12:03	09:30	08:32	16:00	14:38	17:00	14:48
25/02/2014	11:00	10:02:00	13:00	12:10	09:30	08:37	16:00	14:52	17:00	14:11
26/02/2014	11:00	10:15:00	13:00	12:17	09:30	08:27	16:00	14:57	17:00	14:17
27/02/2014	11:00	10:36:00	13:00	11:52	09:30	08:22	16:00	14:31	17:00	14:36
28/02/2014	11:00	10:00:00	13:00	12:01	09:30	08:26	16:00	14:15	17:00	14:12
01/03/2014	11:00	09:58:00	13:00	12:01	09:30	08:29	16:00	00:00	17:00	00:00
02/03/2014	11:00	09:55:00	13:00	11:48	09:30	08:22	16:00	00:00	17:00	00:00
03/03/2014	11:00	09:53:00	13:00	11:52	09:30	08:30	16:00	00:00	17:00	00:00

Table 24 – 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
01/02/2014	03/02/2014	03/02/2014	17:00	09:00	01/02/2014	06/02/2014	12:00	09:00
02/02/2014	03/02/2014	03/02/2014	17:00	15:50	02/02/2014	07/02/2014	12:00	08:10
03/02/2014	04/02/2014	04/02/2014	17:00	15:41	03/02/2014	10/02/2014	12:00	08:10
04/02/2014	05/02/2014	05/02/2014	17:00	15:49	04/02/2014	11/02/2014	12:00	08:06
05/02/2014	06/02/2014	06/02/2014	17:00	15:36	05/02/2014	12/02/2014	12:00	07:59
06/02/2014	07/02/2014	07/02/2014	17:00	15:49	06/02/2014	13/02/2014	12:00	08:37
07/02/2014	10/02/2014	10/02/2014	17:00	09:00	07/02/2014	13/02/2014	12:00	09:00
08/02/2014	10/02/2014	10/02/2014	17:00	09:00	08/02/2014	13/02/2014	12:00	09:00
09/02/2014	10/02/2014	10/02/2014	17:00	15:48	09/02/2014	14/02/2014	12:00	08:51
10/02/2014	11/02/2014	11/02/2014	17:00	15:53	10/02/2014	17/02/2014	12:00	08:17
11/02/2014	12/02/2014	12/02/2014	17:00	15:55	11/02/2014	18/02/2014	12:00	08:25
12/02/2014	13/02/2014	13/02/2014	17:00	16:25	12/02/2014	19/02/2014	12:00	07:54
13/02/2014	14/02/2014	14/02/2014	17:00	15:44	13/02/2014	20/02/2014	12:00	08:10
14/02/2014	17/02/2014	17/02/2014	17:00	09:00	14/02/2014	20/02/2014	12:00	09:00
15/02/2014	17/02/2014	17/02/2014	17:00	09:00	15/02/2014	20/02/2014	12:00	09:00
16/02/2014	17/02/2014	17/02/2014	17:00	15:25	16/02/2014	21/02/2014	12:00	08:17
17/02/2014	18/02/2014	18/02/2014	17:00	16:00	17/02/2014	24/02/2014	12:00	08:36
18/02/2014	19/02/2014	19/02/2014	17:00	15:42	18/02/2014	25/02/2014	12:00	07:37
19/02/2014	20/02/2014	20/02/2014	17:00	15:49	19/02/2014	26/02/2014	12:00	09:03
20/02/2014	21/02/2014	21/02/2014	17:00	15:39	20/02/2014	27/02/2014	12:00	09:09
21/02/2014	24/02/2014	24/02/2014	17:00	09:00	21/02/2014	27/02/2014	12:00	09:00
22/02/2014	24/02/2014	24/02/2014	17:00	09:00	22/02/2014	27/02/2014	12:00	09:00
23/02/2014	24/02/2014	24/02/2014	17:00	15:28	23/02/2014	28/02/2014	12:00	07:57
24/02/2014	25/02/2014	25/02/2014	17:00	15:28	24/02/2014	03/03/2014	12:00	08:46
25/02/2014	26/02/2014	26/02/2014	17:00	15:38	25/02/2014	04/03/2014	12:00	07:18
26/02/2014	27/02/2014	27/02/2014	17:00	16:38	26/02/2014	05/03/2014	12:00	07:56
27/02/2014	28/02/2014	28/02/2014	17:00	15:46	27/02/2014	06/03/2014	12:00	08:12
28/02/2014	03/03/2014	03/03/2014	17:00	09:00	28/02/2014	06/03/2014	12:00	09:00

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
06/02/2014	€570,059.13	-€14,226.00	-€454,172.29
07/02/2014	€733,072.53	-€5,600.31	-€442,576.92

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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

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

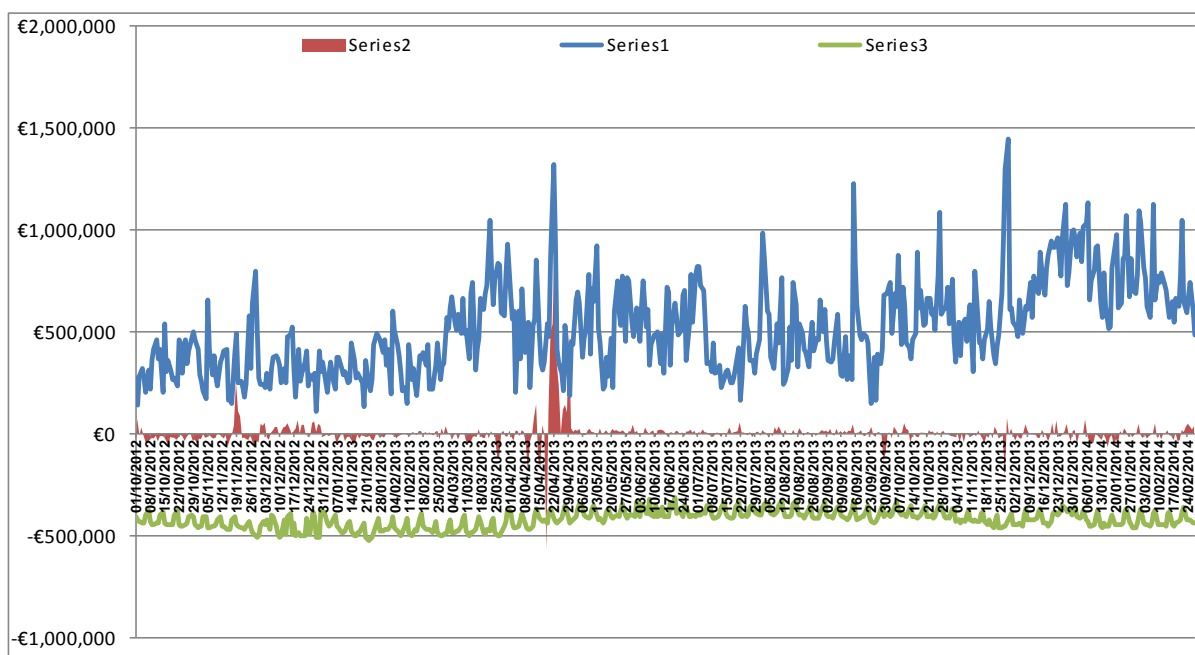


Figure 24 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Week No	Make Whole Payments
39	€0.11
40	€32,465.05
41	€0.00
42	€0.00

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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
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

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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

Table 27 - Make Whole Payments

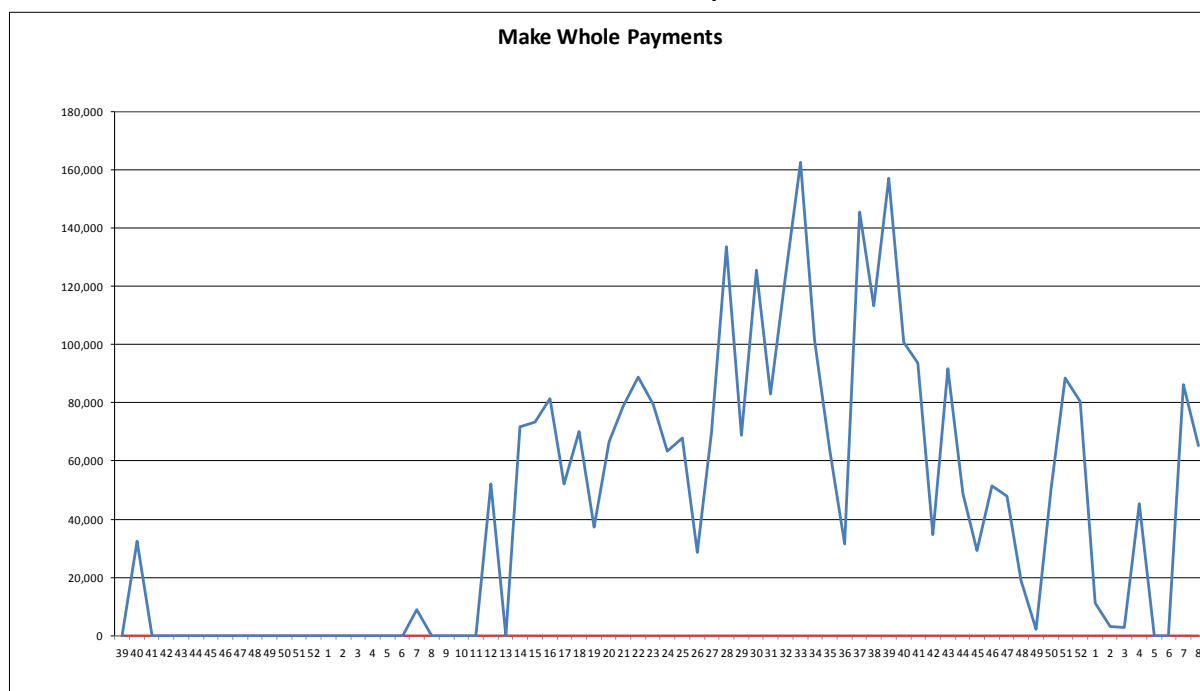


Figure 25 - Make Whole Payments

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

Market Operator Monthly Report

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
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

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50	€0.00
51	€0.00
52	€0.00
1	€0.00
2	€0.00
3	€6,382.50
4	€0.00
5	€0.00
6	€0.00
7	-€971.99
8	-€14,525.39

Table 28 - Testing Charges

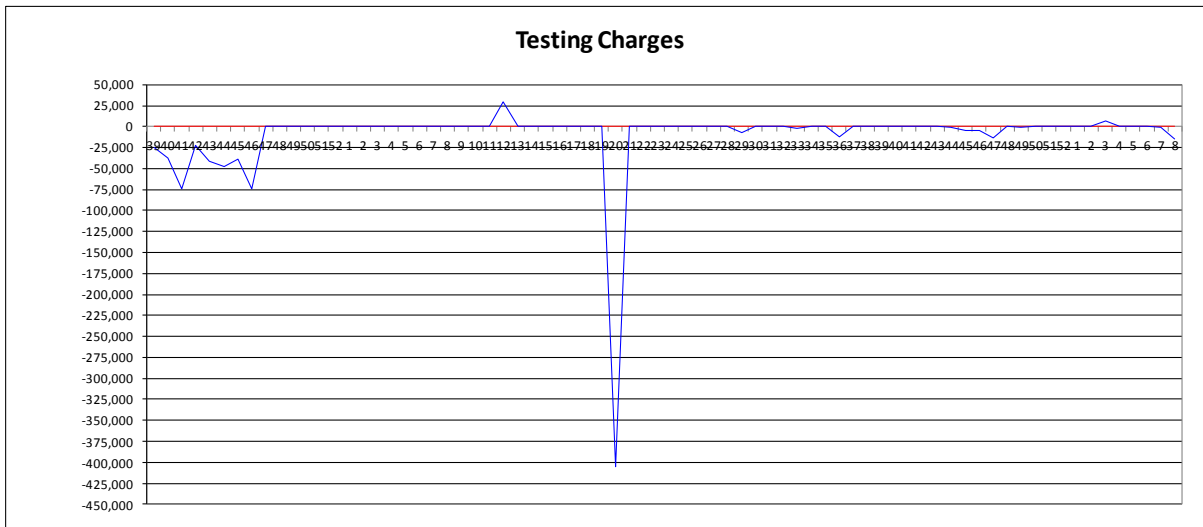


Figure 24 - Testing Charges

13 Appendix F: Default Commercial Offer Data Used

The table below lists for each unit the number of times in operations during February 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	28			28
PT_400090	DSU_401270	28			28
PT_400101	DSU_401300	28			28
PT_400054	GU_400620		1		1
PT_400066	GU_401370		18		18
PT_400066	GU_401410		18		18
PT_400066	GU_401420		18		18
PT_400123	GU_401470		9		9
PT_400024	GU_400120	28			28
PT_400024	GU_400121	28			28
PT_400026	GU_400140	28			28
PT_400030	GU_400180	35			35
PT_400030	GU_400181	35			35
PT_400030	GU_400182	35			35
PT_400030	GU_400183	35			35
PT_400030	GU_400200	35			35
PT_400030	GU_400201	35			35
PT_400030	GU_400202	34			34
PT_400030	GU_400203	35			35
PT_400030	GU_400210	34			34
PT_400030	GU_400211	35			35
PT_400030	GU_400220	35			35
PT_400030	GU_400221	35			35
PT_400030	GU_400240	35			35
PT_400030	GU_400250	34			34
PT_400030	GU_400251	34			34
PT_400030	GU_400252	35			35
PT_400030	GU_400260	35			35
PT_400030	GU_400270	40			40
PT_400030	GU_400271	33			33
PT_400030	GU_400272	41			41
PT_400030	GU_400280	35			35
PT_400030	GU_400281	35			35
PT_400030	GU_400290	35			35
PT_400030	GU_400300	35			35
PT_400030	GU_400311	35			35
PT_400030	GU_400323	35			35
PT_400030	GU_400360	34			34
PT_400030	GU_400361	35			35
PT_400030	GU_400362	34			34
PT_400030	GU_400363	35			35
PT_400030	GU_400370	34			34
PT_400030	GU_400850	36			36
PT_400032	GU_400380	28			28
PT_400032	GU_400430	28			28

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PT_400034	GU_400940	28			28
PT_400034	GU_401090	28			28
PT_400034	GU_401440	28			28
PT_400035	GU_400480	51			51
PT_400037	GU_400500	28			28
PT_400041	GU_400530	49			49
PT_400044	GU_400540	51			51
PT_400054	GU_400620	25			25
PT_400055	GU_400630	28			28
PT_400064	GU_400750	28			28
PT_400064	GU_400751	28			28
PT_400064	GU_400752	28			28
PT_400064	GU_400753	28			28
PT_400064	GU_400754	28			28
PT_400064	GU_400760	28			28
PT_400064	GU_400761	28			28
PT_400064	GU_400770	28			28
PT_400064	GU_400771	28			28
PT_400064	GU_400780	28			28
PT_400064	GU_400781	28			28
PT_400075	GU_400930	75			75
PT_400077	GU_400950	28			28
PT_400078	GU_401010	28			28
PT_400078	GU_401011	28			28
PT_400087	GU_401230	12			12
PT_500024	GU_500040	32			32
PT_500024	GU_500041	28			28
PT_500027	GU_500130	79			79
PT_500027	GU_500131	79			79
PT_500027	GU_500140	79			79
PT_500040	GU_500280	28			28
PT_500040	GU_500281	28			28
PT_500040	GU_500282	28			28
PT_500040	GU_500283	28			28
PT_500040	GU_500284	28			28
PT_500045	GU_500820	28			28
PT_500045	GU_500821	28			28
PT_500045	GU_500822	28			28
PT_500045	GU_500823	28			28
PT_500045	GU_500824	28			28
PT_500045	GU_500825	28			28
PT_500048	GU_500901	48			48
PT_500048	GU_500902	48			48
PT_500048	GU_500903	48			48
PT_500050	GU_501150	28			28
PT_500050	GU_501190	28			28
PT_500053	GU_501130	28			28
PT_500066	GU_501210	28			28
PT_400021	GU_400021			28	28
PT_400021	GU_400050			28	28
PT_400021	GU_400060			28	28
PT_400021	GU_400070			28	28

Market Operator Monthly Report

PT_400021	GU_400080			28	28
PT_400021	GU_400591			28	28
PT_400021	GU_400600			28	28
PT_400021	GU_400910			28	28
PT_400021	GU_400920			28	28
PT_400021	GU_401080			28	28
PT_400025	GU_400130			28	28
PT_400030	GU_400271			1	1
PT_400030	GU_400310			28	28
PT_400032	GU_400380			1	1
PT_400032	GU_400430			1	1
PT_400034	GU_400940			1	1
PT_400034	GU_401090			1	1
PT_400034	GU_401440			1	1
PT_400038	GU_400550			28	28
PT_400050	GU_400650			28	28
PT_400050	GU_400660			28	28
PT_400050	GU_401000			28	28
PT_400050	GU_401060			28	28
PT_400050	GU_401150			28	28
PT_400050	GU_401240			28	28
PT_400050	GU_401250			28	28
PT_400055	GU_400630			1	1
PT_400062	GU_400730			28	28
PT_400062	GU_400731			28	28
PT_400062	GU_400840			28	28
PT_400066	GU_401320			28	28
PT_400066	GU_401430			28	28
PT_400077	GU_400950			1	1
PT_400082	GU_401100			28	28
PT_400087	GU_401230			16	16
PT_400123	GU_401470			20	20
PT_500021	GU_500010			28	28
PT_500021	GU_500740			28	28
PT_500021	GU_501160			28	28
PT_500032	GU_500211			28	28
PT_500032	GU_501120			28	28
PT_500039	GU_500270			28	28
PT_500044	GU_500720			28	28
PT_500047	GU_500790			28	28
PT_500050	GU_501150			1	1
PT_500050	GU_501190			1	1
PT_500061	GU_501170			28	28
PT_500062	GU_501180			28	28
PT_500066	GU_501210			1	1
PT_400021	I_ROIEWIC	28			28
PT_500024	I_NIMOYLE	28			28
PT_500021	I_NIMOYLE	28			28
PT_500069	I_NIMOYLE	28			28
PT_500031	I_NIMOYLE	28			28
PT_500058	I_NIMOYLE	28			28
PT_400096	I_ROIEWIC	76			76

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PT_500037	I_NIMOYLE	28			28
PT_400113	I_ROIEWIC	28			28
PT_400115	I_ROIEWIC	28			28
PT_500070	I_NIMOYLE	31			31
PT_400108	I_ROIEWIC	37			37
PT_400030	I_ROIEWIC	28			28
PT_400099	I_ROIEWIC	28			28
	Total	3425	64	1055	4544
	Percentage	75.37%	1.41%	23.22%	100%

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
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	£24,603,693.43	£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	£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	£422,869.99	£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

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
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	€9,205.75	€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
Feb-14	ROI	€78,679,881.12	€26,819,095.36	€304,687.52	€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

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.

15.1 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

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.

15.2 Capacity Market

Invoice Month	SEM Balancing Costs	VAT Balancing Costs
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

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
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	-
February 2014	26/02/2014	-	-	-	-

Table 34 - MIP Algorithms

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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
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
26/02/2014	27/02/2014	EA1	€567.34	€172.40	MIP

Table 35 - MIP Vs LR Peak Price Comparison