



Market Operator Monthly Report

May 2015

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1 Executive Summary

This Single Electricity Market Operator's (SEMO) report covers the month of operation of May 2015 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 May 2015, Settlements had no late publications as per the Trading and Settlement code. Settlements republished statements for billing week 21, ending 30/05/2015 due to an issue identified for the 28/05/15.

156 general queries were received in May 2015. During the same period 161 general queries were resolved.

There were seven defaults by Participants during May 2015. The largest of these was an Energy Initial £41,826.78 invoice which was remedied on the same day.

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

2 Monthly Statistics

Code Breaches

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

Code Breaches			
Area		Major	Minor
Data Providers		-	4
Market Participants	Pricing & Scheduling	-	-
	Settlement	-	-
	Funds Transfer	7	-
	Credit Risk Management	1	-
SEMO	Pricing & Scheduling	-	-
	Settlement	-	-
	Funds Transfer	1	-
	Credit Risk Management	1	1
	Other	-	-
Total		10	5

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 no financial implication to Participants. This includes late posting of pricing and settlement runs.

Joining and Terminating Parties and Units

There were no new Parties joining the Market in May 2015.

There were no terminating parties in May 2015.

There were no new units effective in the Market in May 2015.

Three units de-registered from the Market in May 2015.

- PT_400064_SSE Generation Ireland Limited (Gen) TS_400094 GU_400754
- PT_400064_SSE Generation Ireland Limited (Gen) TS_400094 GU_400760
- PT_400064_SSE Generation Ireland Limited (Gen) TS_400094 GU_400761

Suspension of Participants

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

3 Financial Statistics

Total Charges for Each Currency

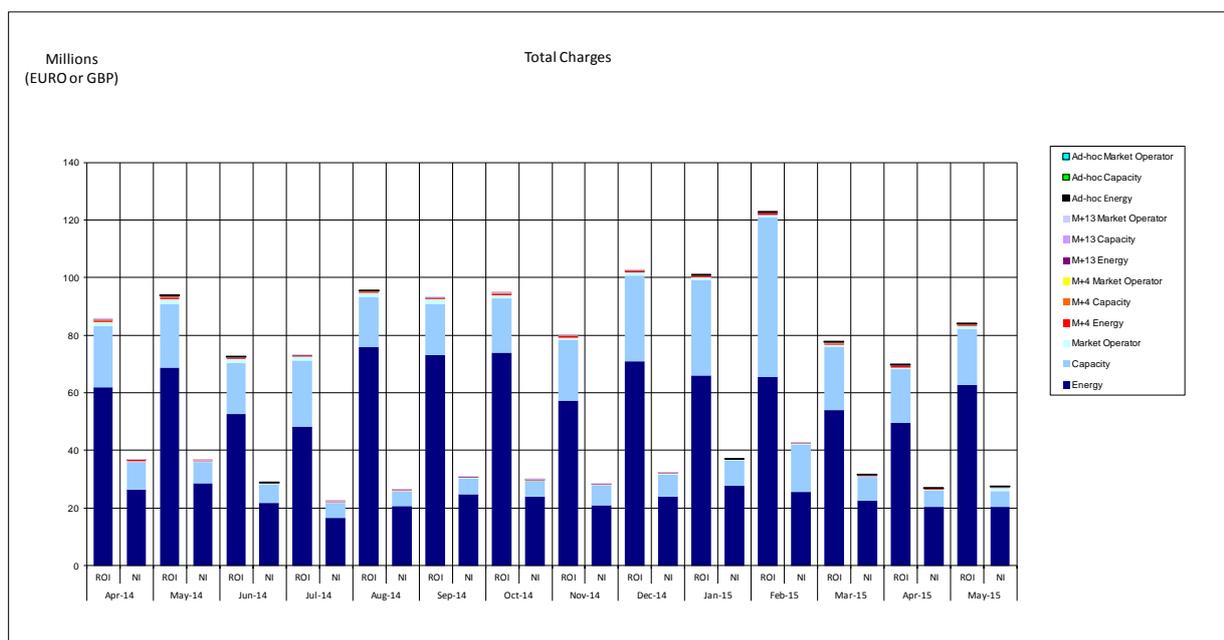


Figure 1 - Total Charges for Each Currency

Market	May 2015	
	ROI	NI
Energy	€62,682,235	£20,656,049
Capacity	€19,502,809	£5,471,708
Market Operator	€978,930	£941,979
M+4 Energy	€496,789	£284,714
M+4 Capacity	€113,310	£81,721
M+4 Market Operator	€2,668	£1,530
M+13 Energy	€257,692	£28,297
M+13 Capacity	€37,914	£5,741
M+13 Market Operator	€948	£255
Ad-hoc Energy	€105,628	£458
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€84,178,922	£27,472,453

Table 2 - Total Charges for Each Currency

Notes relating to Table 2 and 3:

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

Total Payments for Each Currency

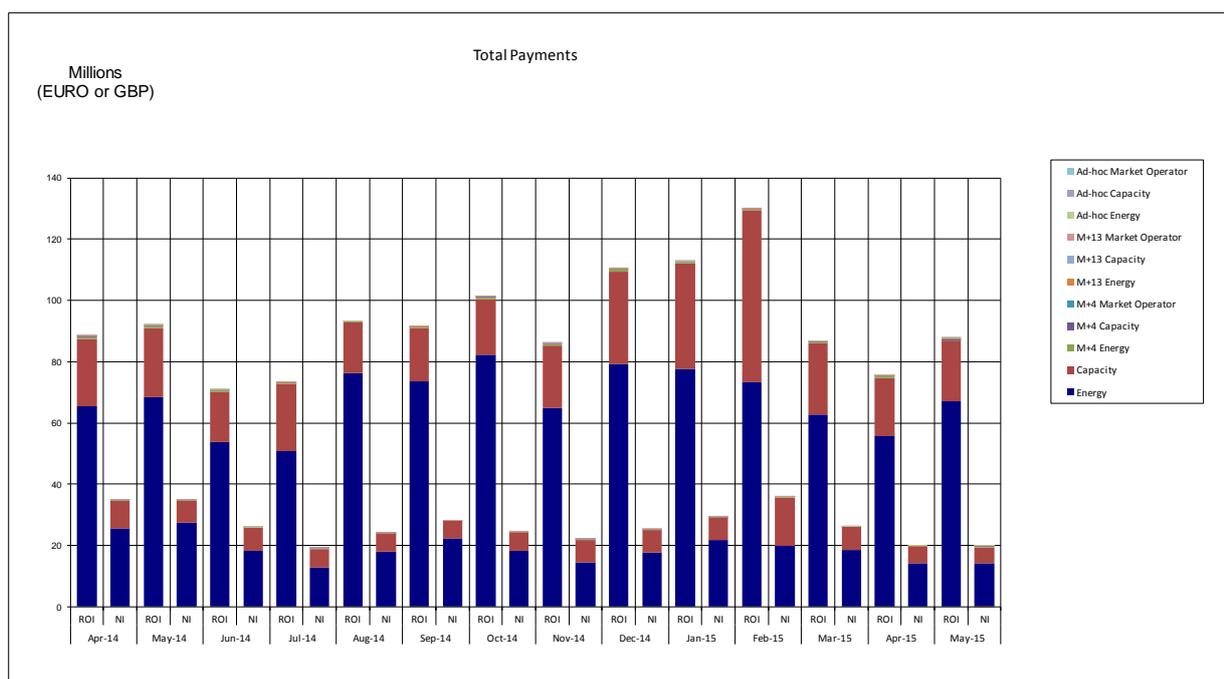


Figure 2 - Total Payments for Each Currency

Market	May 2015	
	ROI	NI
Energy	€67,111,651	£14,205,269
Capacity	€19,797,772	£5,300,855
M+4 Energy	€51,326	£14,375
M+4 Capacity	€496,344	£284,573
M+4 Market Operator	€113,479	£81,498
M+13 Energy	€2,635	-£1,531
M+13 Capacity	€257,692	£28,297
M+13 Market Operator	€32,518	£9,512
Ad-hoc Energy	€947	£255
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€87,864,364	€19,923,102

Table 3 - Total Payments for Each Currency

Total Balancing Costs

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

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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:

May 2015	
Imbalance (Energy Only)	-€10,765,879.64

Table 4 - Balancing Costs for Energy Settlement

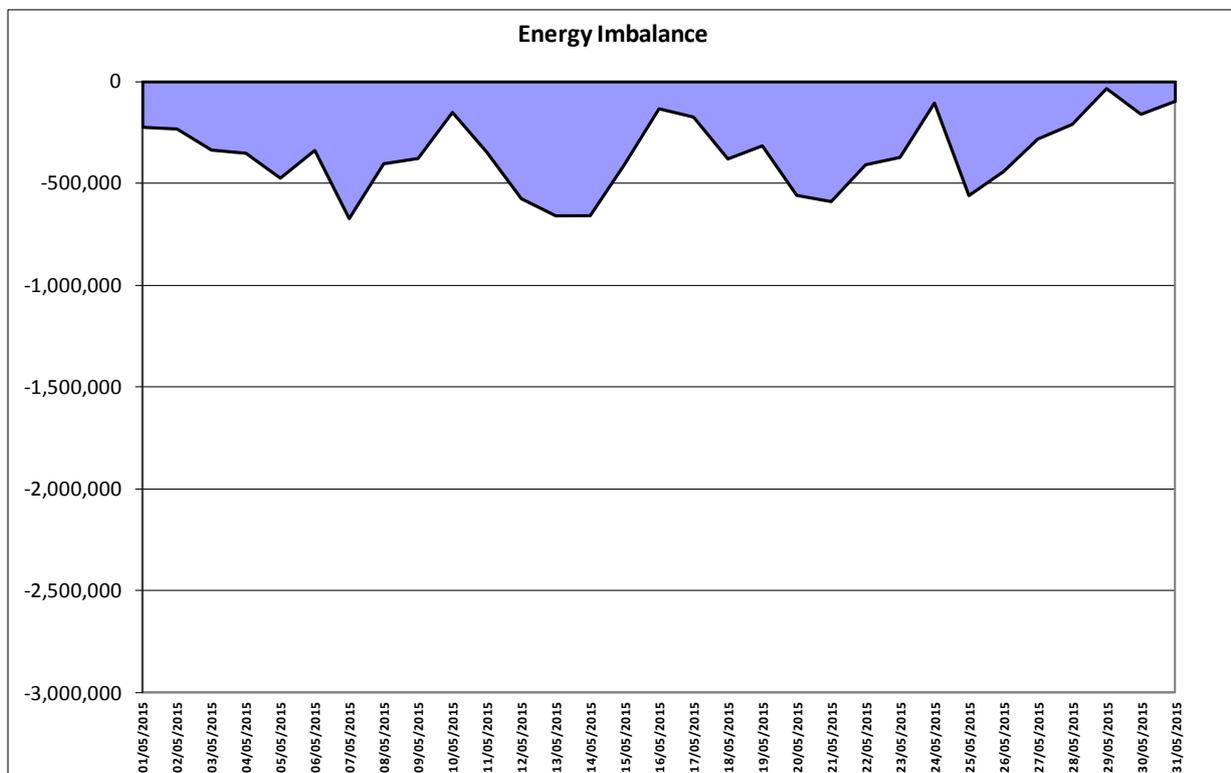


Figure 3 – Energy Imbalances

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](#).

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.

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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
01/05/2015	16	-€299,738.05	€144,199.78
08/05/2015	17	-€100,756.77	€94,697.22
15/05/2015	18	€127,012.27	€143,672.76
22/05/2015	19	-€726,994.34	€24,101.25
29/05/2015	20	-€581,933.86	€139,338.43

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:

May 2015	
Capacity Charges	-€40061779.39
Capacity Payments	€40061487.49
Balancing Costs	-€291.90
VAT	€801.20

Table 6 - Balancing Costs for Capacity Settlement

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

Total Currency Costs

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

- 1) Invoice Currency Costs: - in respect of the difference between the Trading Day Exchange Rate (and Annual Capacity Exchange Rate in respect of Capacity Settlement)

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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
25/04/2015	01/05/2015	16	-£1,987.94	£4,486.73	-£7,501.20
02/05/2015	08/05/2015	17	-£7,740.75	-£34,858.22	-£42,598.97
09/05/2015	15/05/2015	18	£41,484.29	£17,020.78	£58,505.07
16/05/2015	22/05/2015	19	-£25,013.38	£14,361.26	-£10,652.12
23/05/2015	29/05/2015	20	£5,874.97	£26,397.17	£32,272.14

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 £58,505.07 and a cost of £42,598.97. 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
10/06/2015	May 2015	£55,135.68

Table 8 - Total Currency Costs for Capacity Payments and Charges

Cumulative Imperfections Costs Vs Budget

The value of Cumulative Imperfections Costs Vs Budget is calculated as the sum of Total Constraint Payments, Total Uninstructed Imbalance Payments, Total Testing Charges and

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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 2014. 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
€129,284,826.98	-€1,979,835.73	€3,942,744.49	-€126,510,710.39

Table 9 – Cumulative Imperfections Costs Vs Budget

Note: The Total Constraints Payment figure above has been updated to contain Interconnector Unit Gate variables.

This is demonstrated in the figure below.

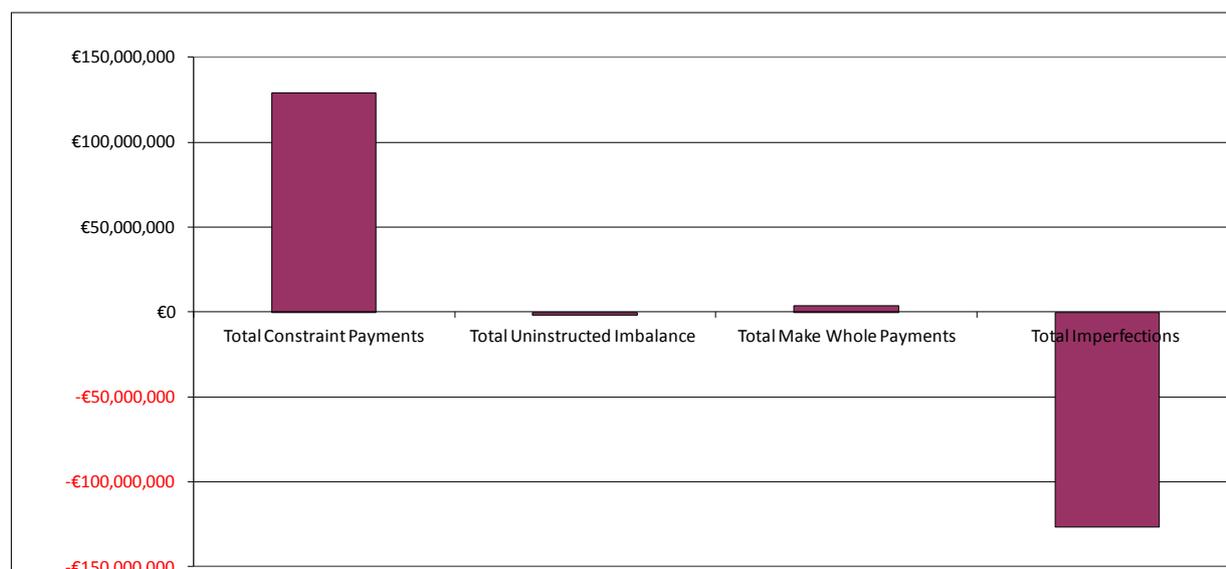


Figure 4 - Cumulative Imperfections Costs Vs Budget

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

Financial Changes between Initial Settlement and Subsequent Reruns

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

3.1.1 Energy Market

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

- Positive amounts indicate net additional payments by Participants (Charges).

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- Negative amounts indicate net additional payment to be made to Participants (Payments).

The reverse is true for Figure 7 & 10

M+4 Resettlement

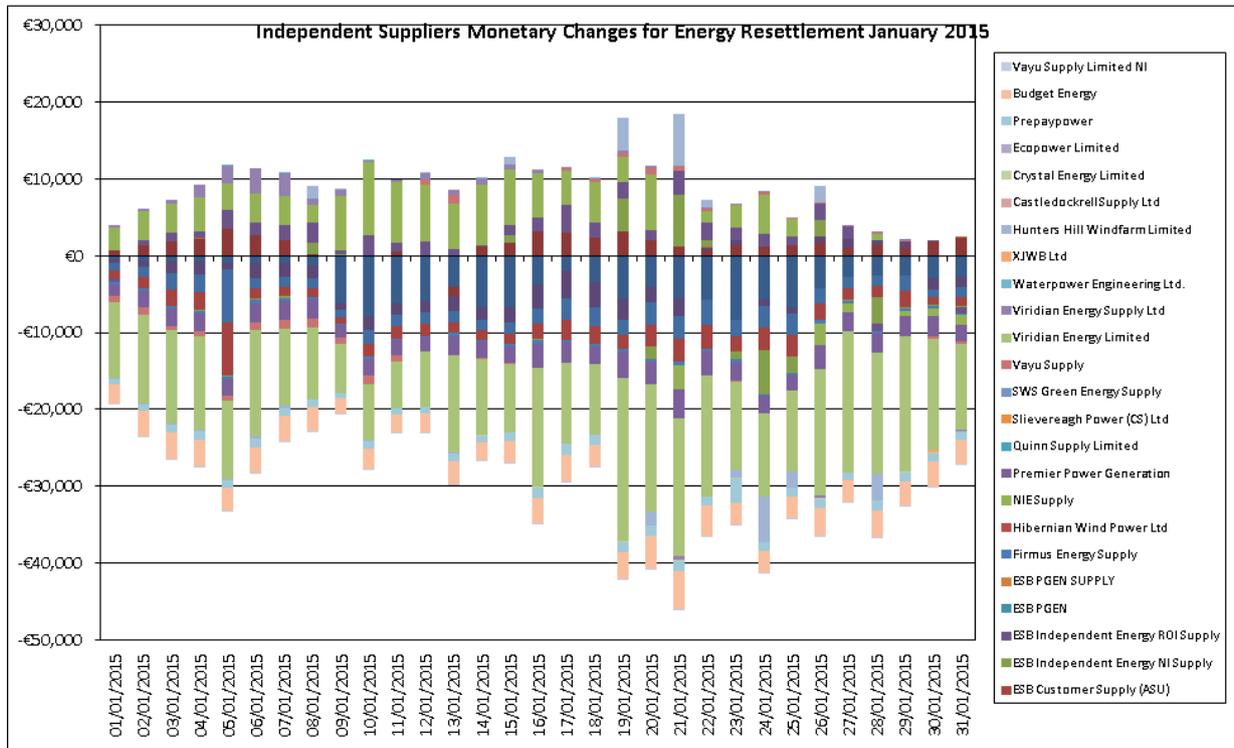


Figure 5 – Independent Suppliers Monetary Changes for Energy Resettlement – January 2015

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

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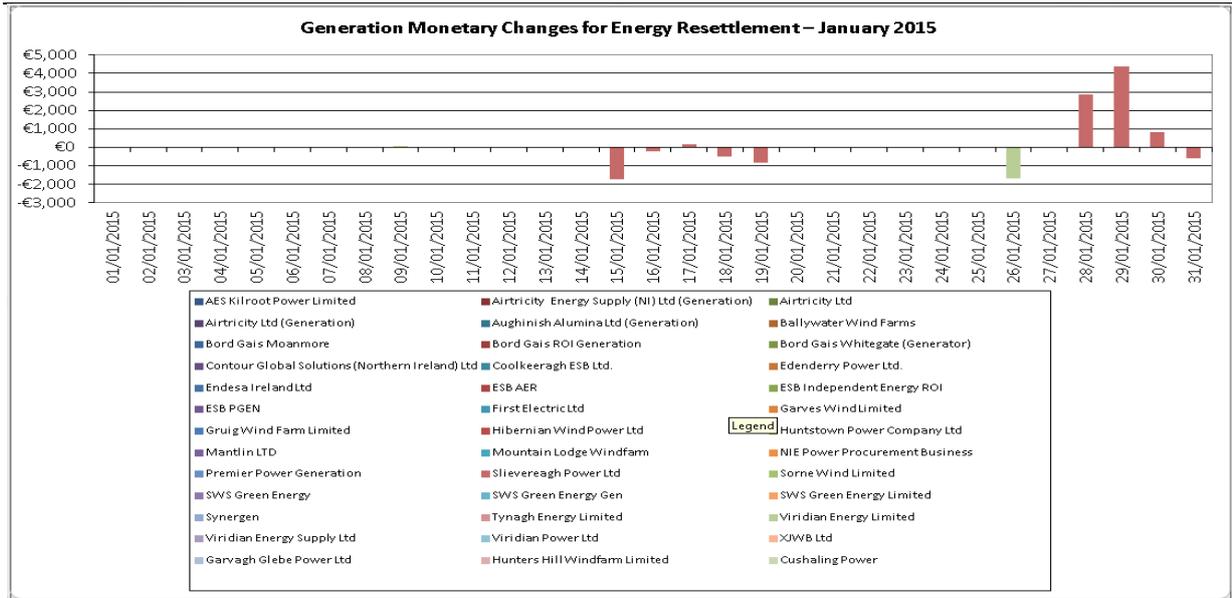


Figure 6 – Generation Monetary Changes for Energy Resettlement – January 2015

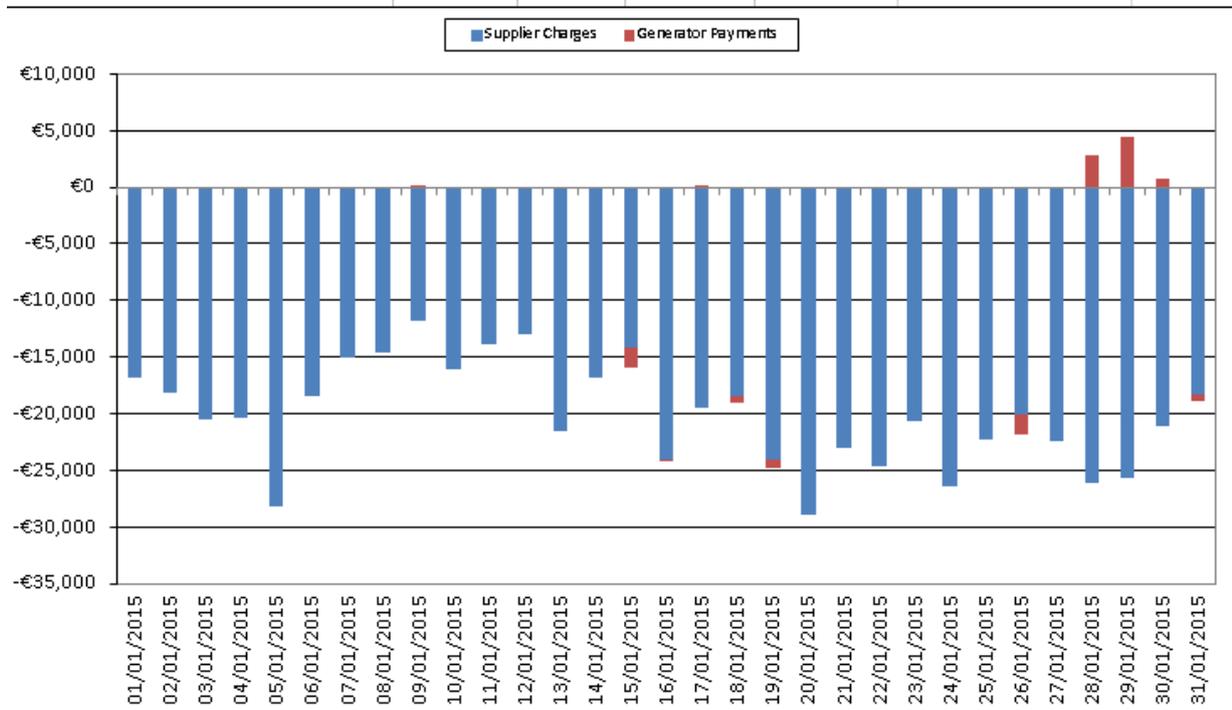


Figure 7 – Total Monetary Changes for Energy Resettlement – January 2015

M+13 Resettlement

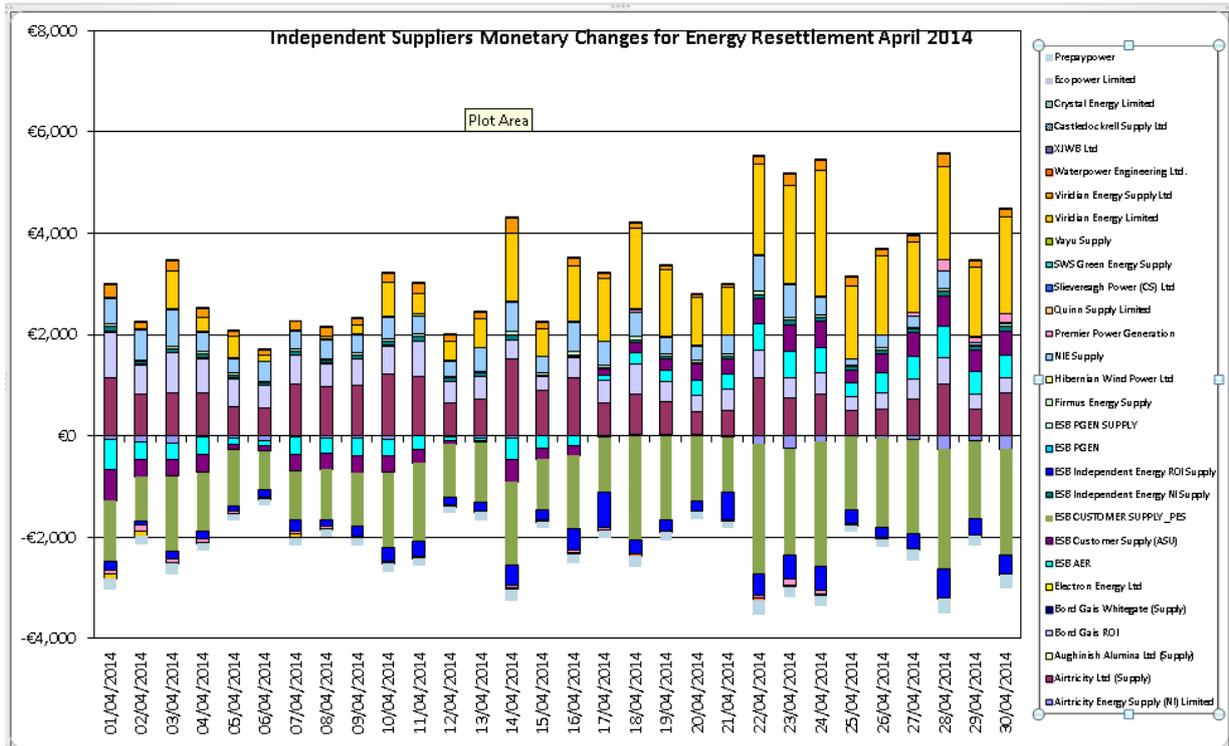


Figure 8 - Independent Suppliers Monetary Changes for Energy Resettlement - April 2014

The above variances relates purely to rounding for Participants between M+4 and M+13 Resettlement.

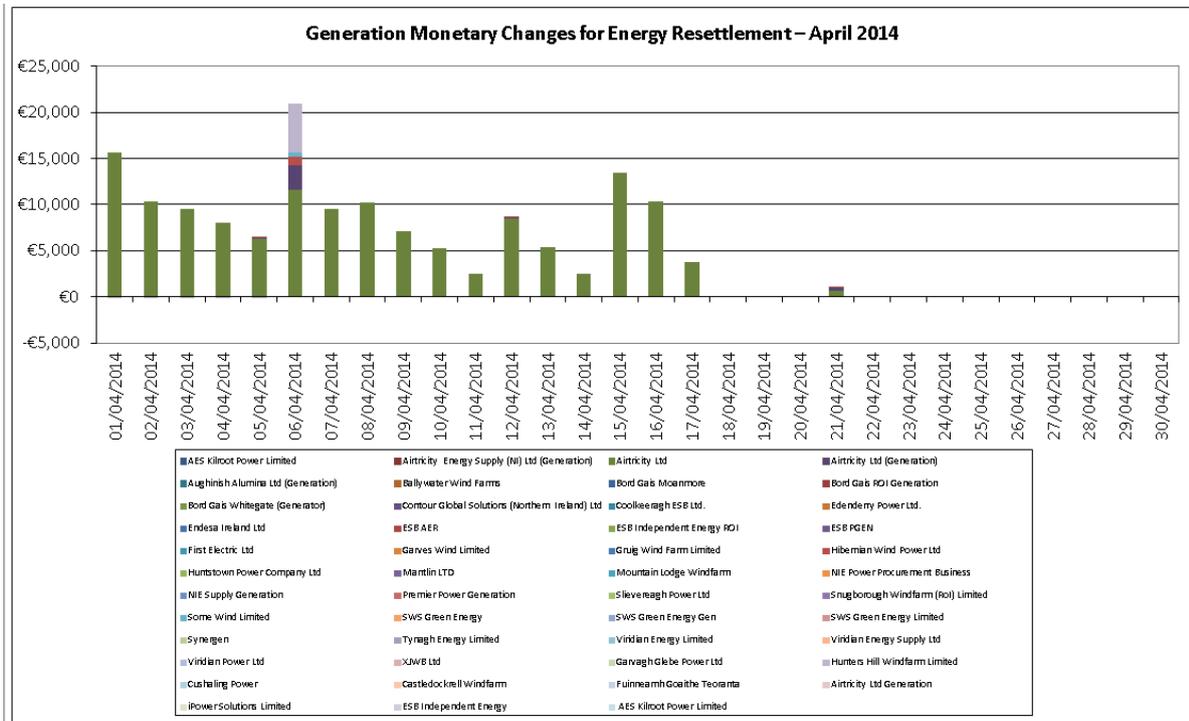


Figure 9 - Generation Monetary Changes for Energy Resettlement - April 2014

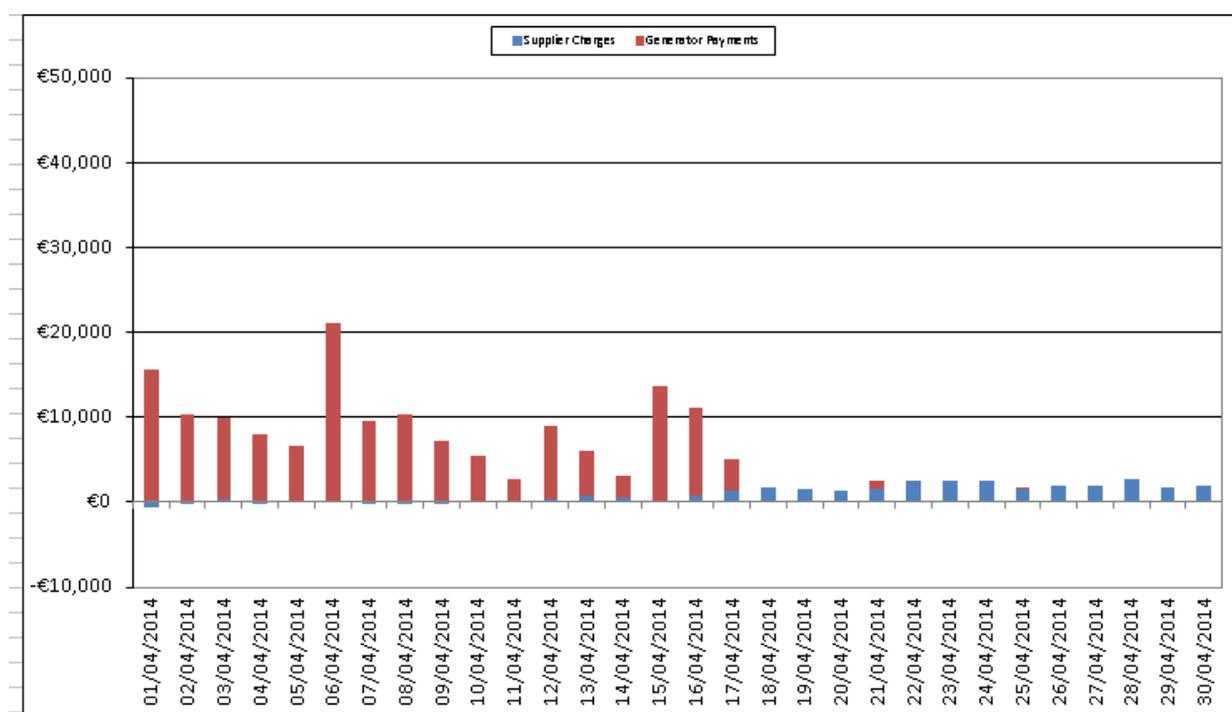


Figure 10 - Total Monetary Changes for Energy Resettlement – April 2014

3.1.2 Capacity Market

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

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

The reverse is true for Figure 14 & 22.

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

M+4 Resettlement

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

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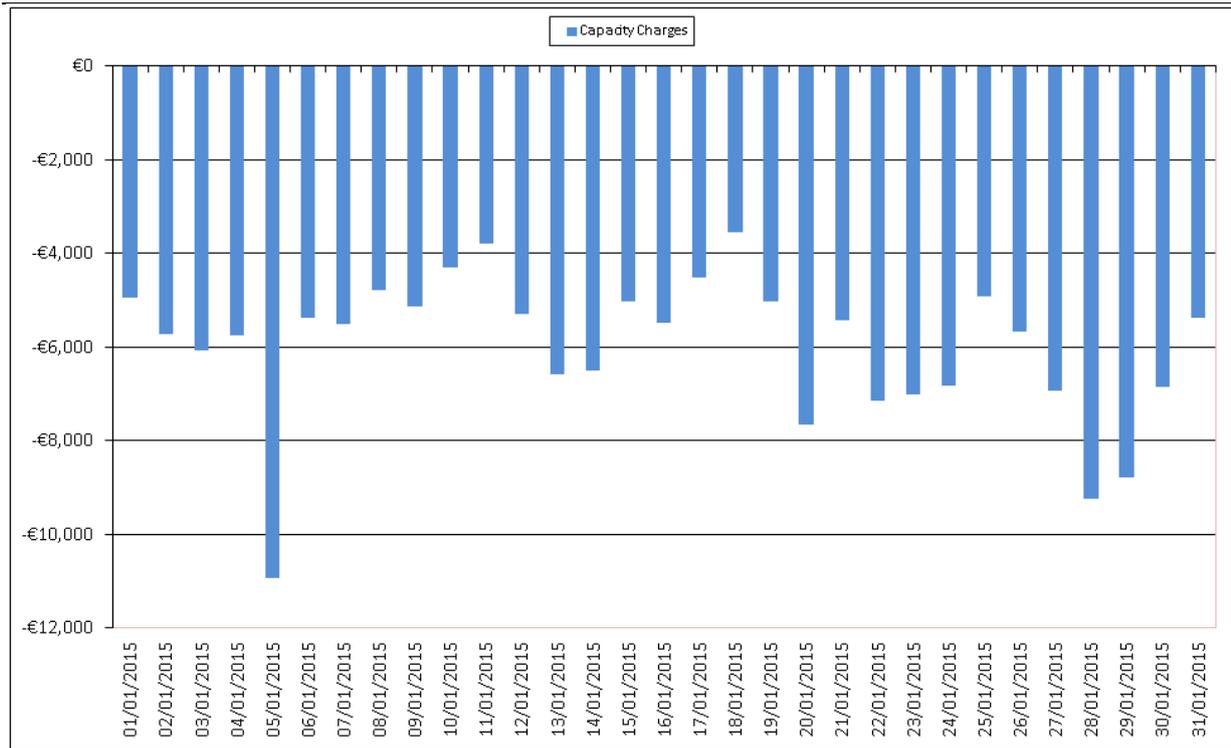


Figure 11 - Independent Suppliers Monetary Changes for Capacity Resettlement – January 2015

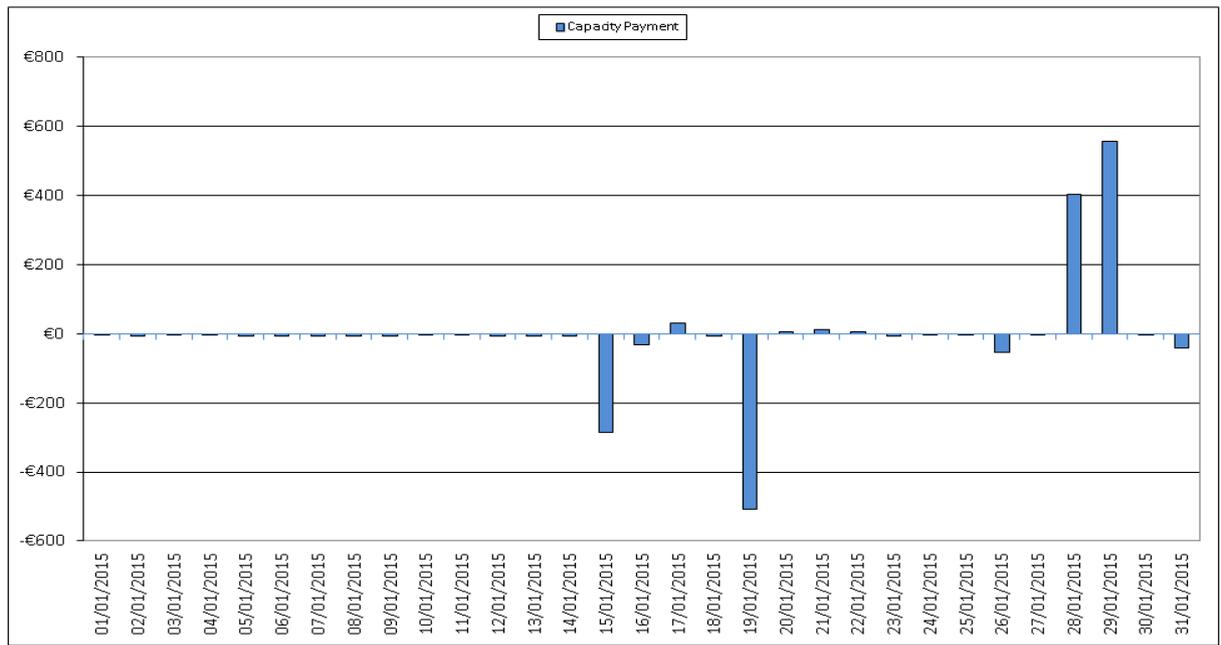


Figure 12 - All Generation Monetary Change for Capacity Resettlement – January 2015

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

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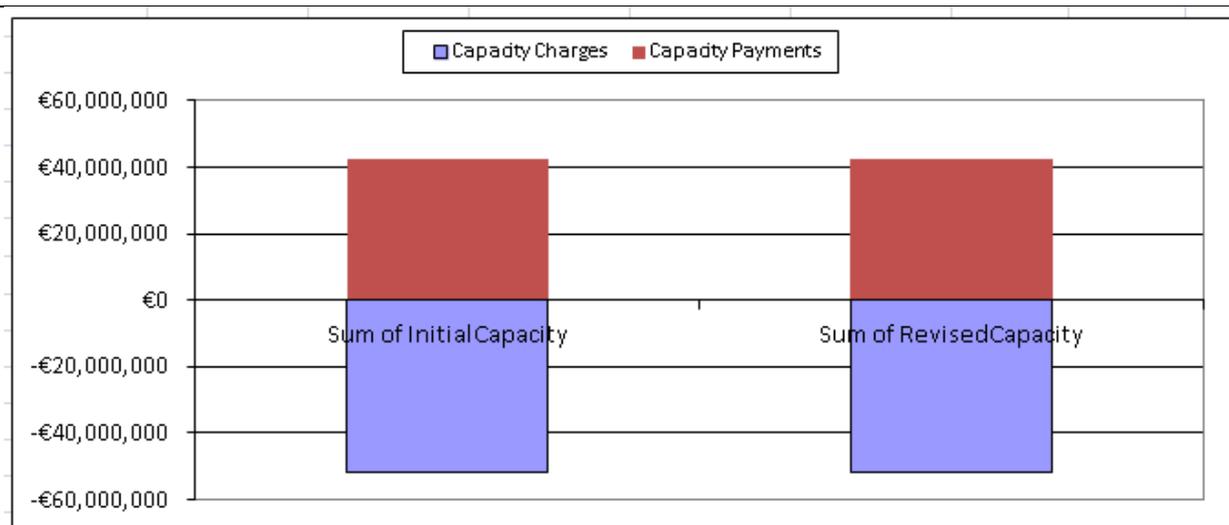


Figure 13 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement January 2015

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

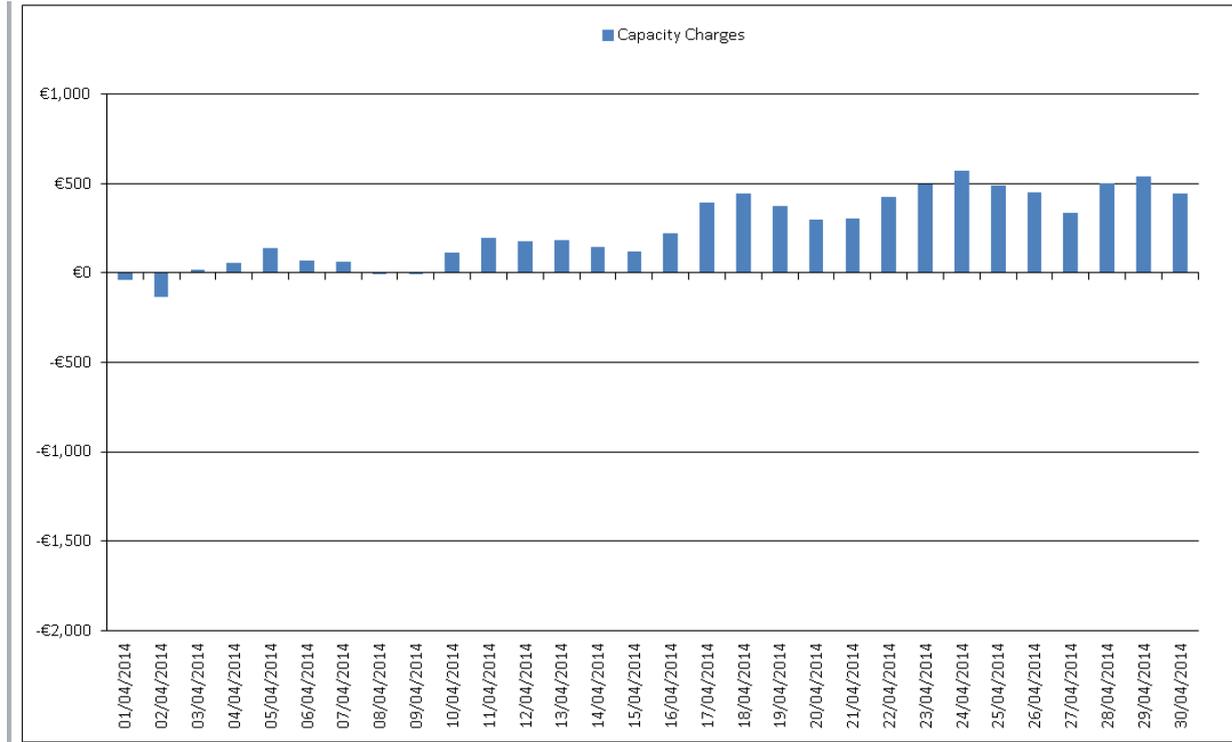


Figure 14 - Independent Suppliers Monetary Changes for Capacity Resettlement – April 2014

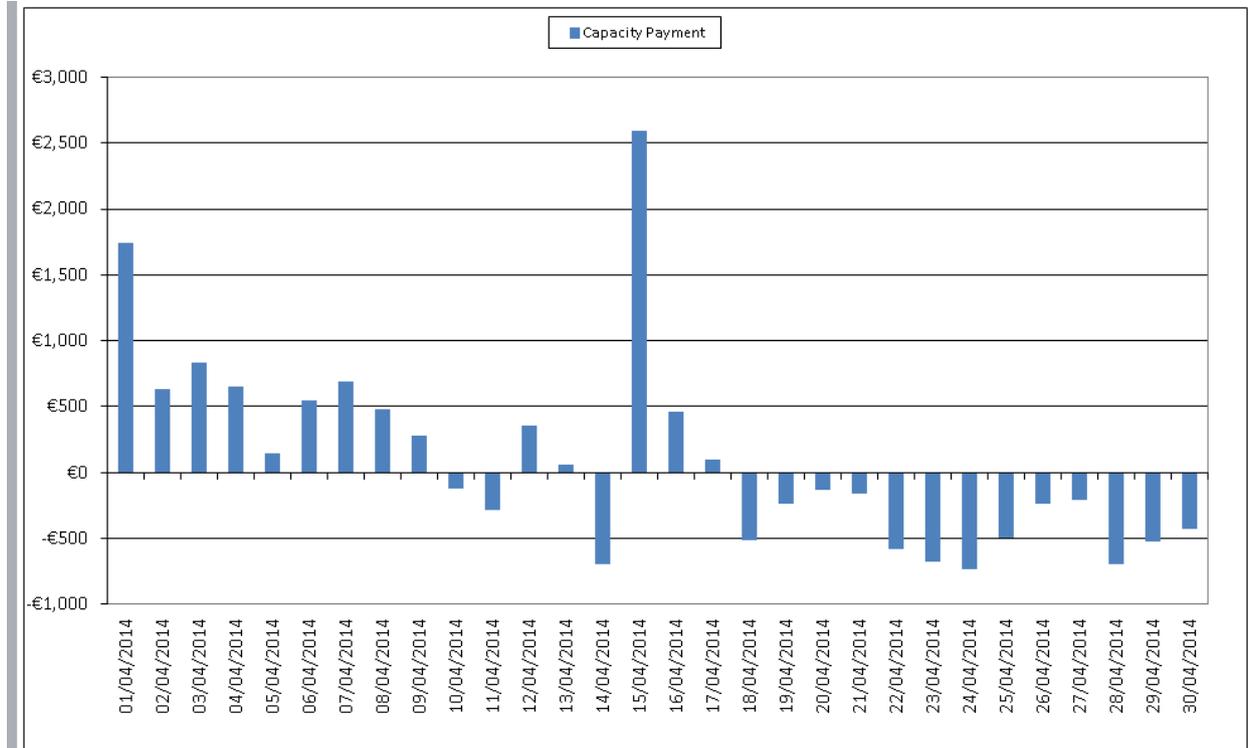


Figure 15 – All Generation Monetary Change for Capacity Resettlement – April 2014

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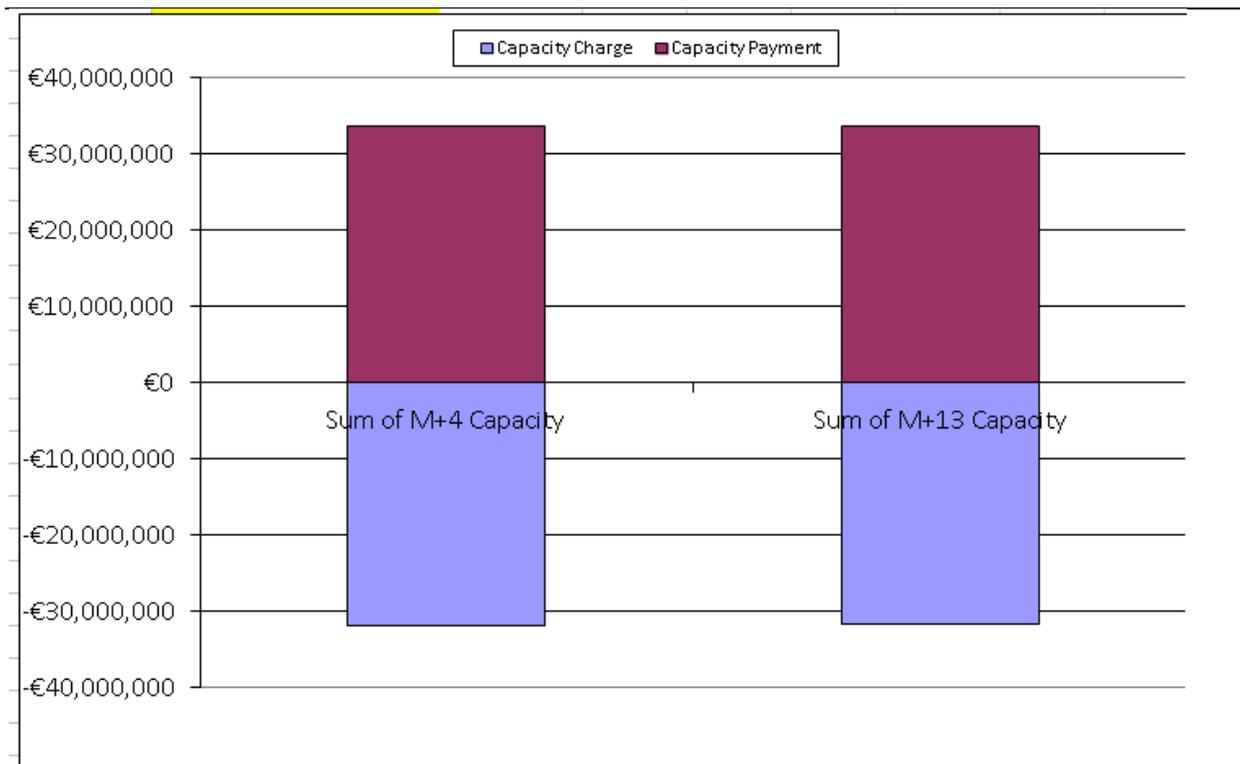


Figure 16 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – April 2014

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 May 2015.

Market Helpdesk Report: 01/05/15 to 31/05/15

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	151	135	16	155	1.28	150
Important	3	3	0	3	1.47	2
Urgent	2	2	0	2	0.48	2
Settlement	7	4	3	5	5.11	5
Credit	0	0	0	0	0.00	0
Dispute	2	0	2	0	0.00	0
Data	4	4	0	4	5.56	4
Total/Average	169	148	21	169	2.78	163

Table 10 – Helpdesk Statistics

Definitions:

- *Resolved within the Period* refers to queries raised and resolved within the calendar month of May 2015.
- *Resolved in the Period* refers to queries resolved within May 2015, 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 May 2015.
- *Not Resolved* refers to queries raised but not resolved within May 2015.
- *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 0.69 working days in May 2015 to 1.28 from 1.97 working days in April 2015. 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 May 2015 that took over 20 working days to resolve.

Data and Settlement Queries generally continue to be responded to within the timelines required by the Code, i.e. one calendar month. No Formal Query timeline extensions were required during May 2015 with regard to formal Settlement Queries.

5. Disputes and Queries

5.1.1 Disputes

There were two Disputes raised during the month of May 2015 with one Dispute outstanding and yet to be resolved.

Topic	Number Of Disputes
Actual Availability	1
Firm Access Quantity	1

Upheld Disputes by topic

5.1.2 Data

Queries

There were five formal Data Query raised during the month of May 2015. Of the five, four have been resolved and one was withdrawn.

Topic	Number Of Queries
Availability	2
Dispatch Instructions	2
Commercial Offer Data	1

Upheld Data Queries by topic

5.1.3 Settlement Queries

There were seven formal settlement Queries raised in May 2015. Of the seven, four were upheld and have since been resolved.

Topic	Number Of Queries
Dispatch Instructions	3
Eligible Availability	1

Upheld Settlement Queries by topic

- Three queries relating to a Dispatch Instructions was raised, these was deemed to be of low Materiality and will be corrected in M+4 Re-settlement
- One query relating to Eligible Availability was raised. This is in relation to a defect around the calculation of Eligible Availability between November & December 2014. Both months have been deemed low materiality and will be corrected in M+13 Re-settlement.

Unresolved Queries

There are no unresolved data queries and four unresolved settlement queries as at the 12th June 2015.

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, 69.14% of data used was submitted by Participants through the normal Bid-Offer process. 30.86% of the data used was based on Standing Commercial Offer Data. 0.0% 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 two Re-Price runs carried out in May 2015.

There were nine Resettlement runs carried out in May 2015.

6.3.2 System Errors

There were three defects found in May 2015. One in the Market Application (MA) and two in POMAX.

1. SET-SEMO138
2. SET-SEMO139
3. ABB2015-139670

Details are provided in 10 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 May 2015.

6.4.1 MSP Postings May 2015

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 13 - 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 14 - Operational Timings (% on time)

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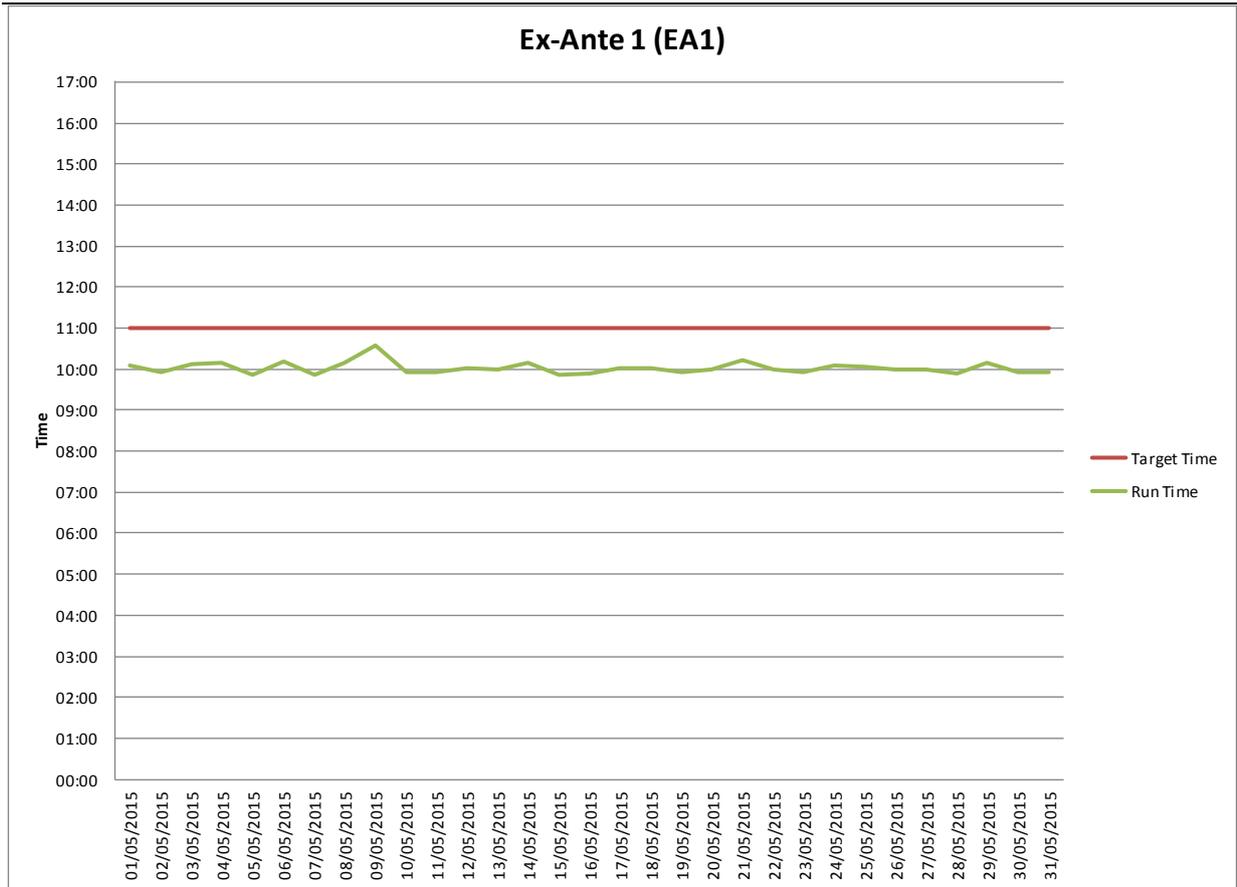


Figure 17 – Ex-Ante 1

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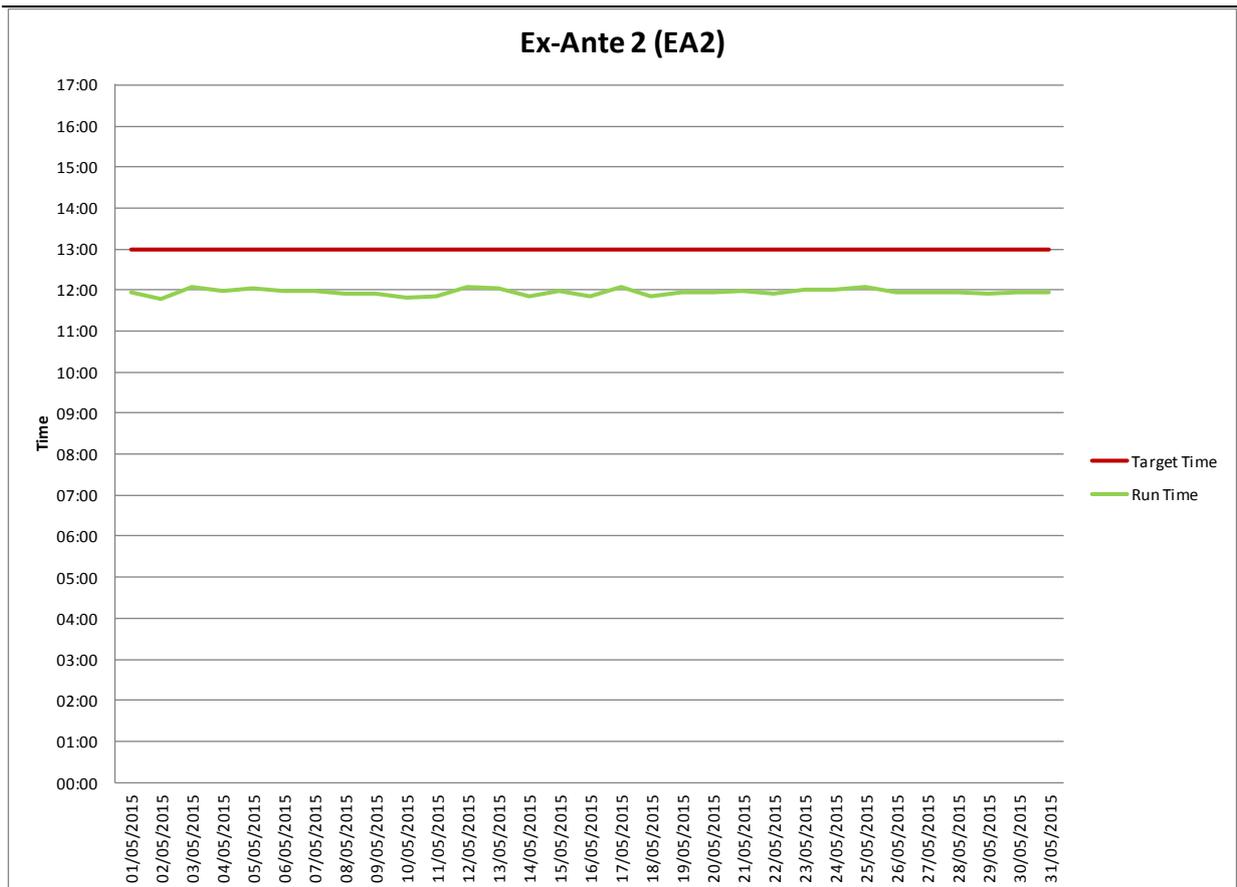


Figure 18 – Ex-Ante 2

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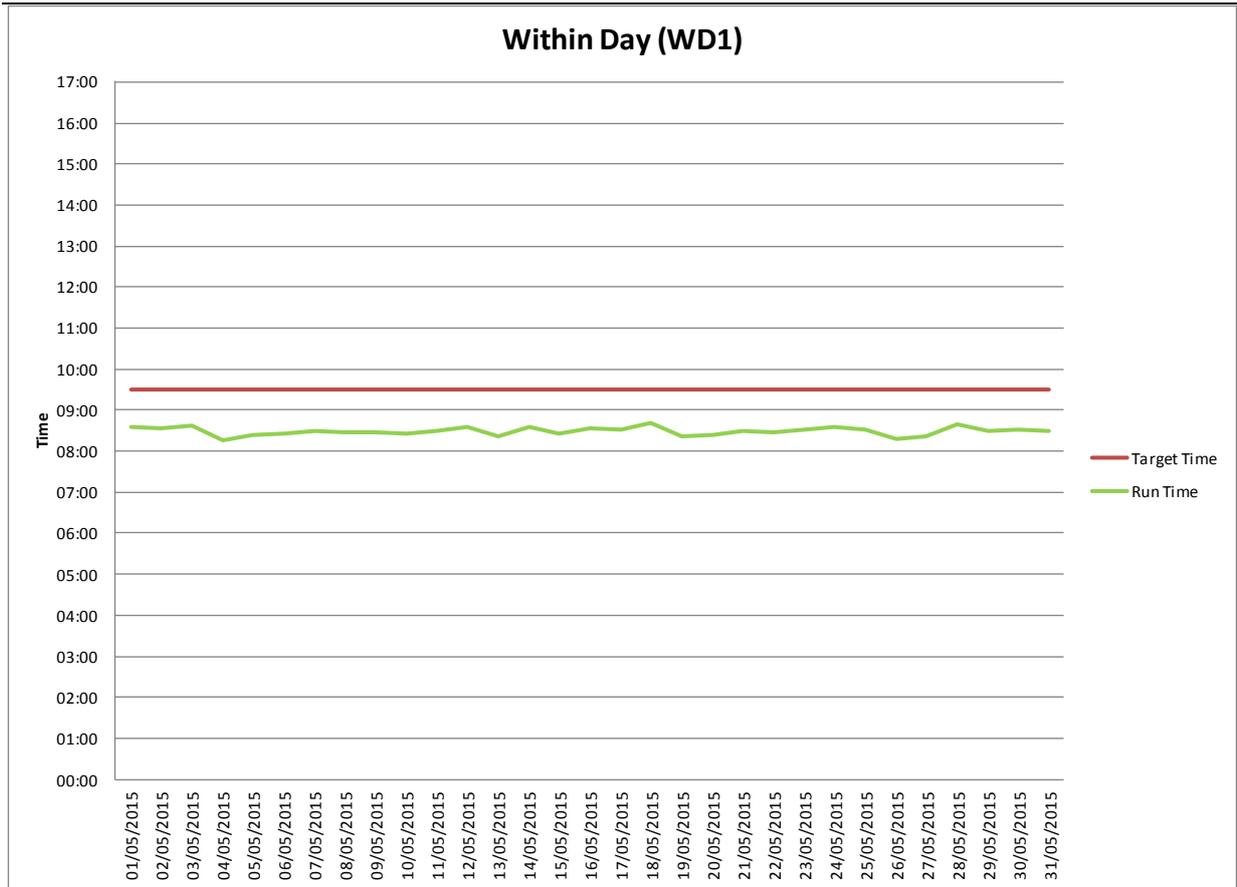


Figure 19 – Within Day 1

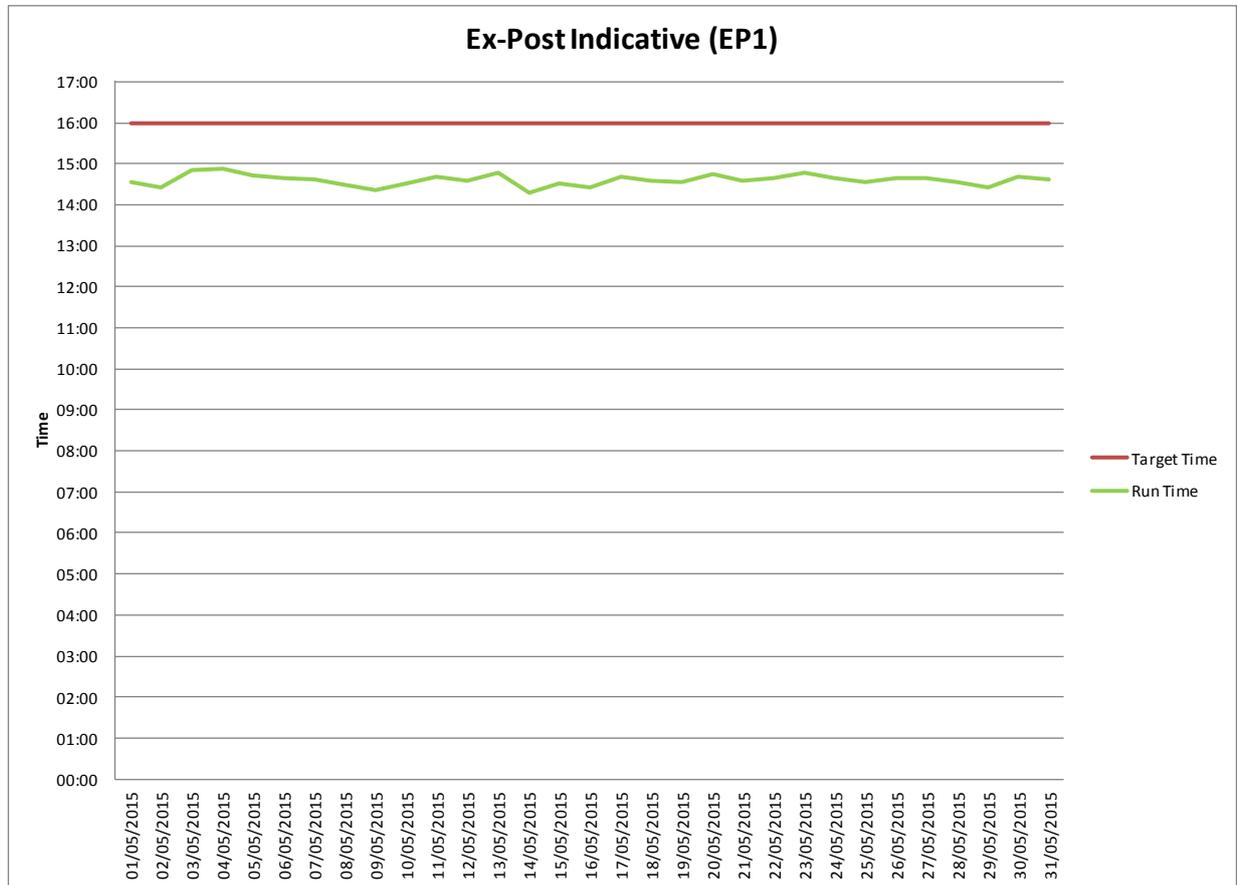


Figure 20 - Ex-Post Indicative

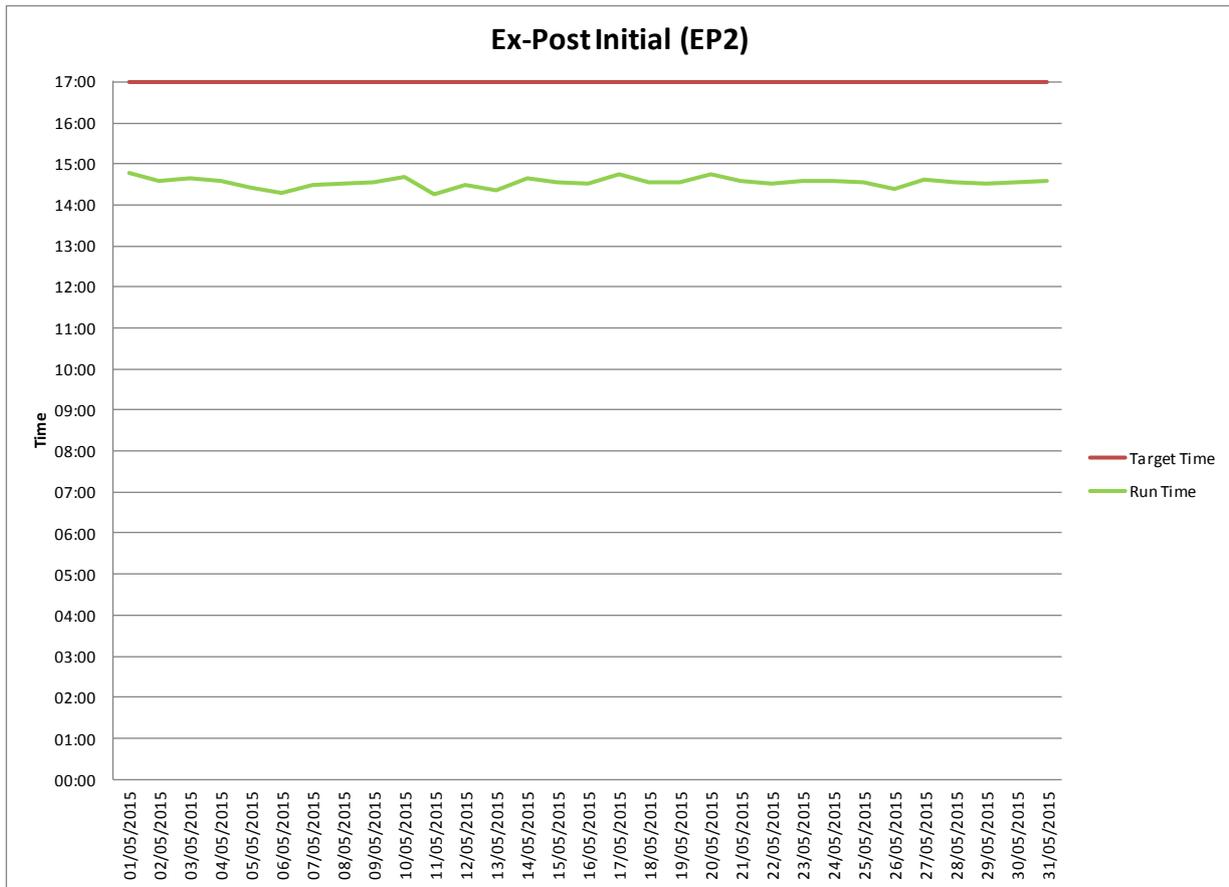


Figure 21 - Ex-Post Initial

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 May 2015, there were two instances of publishing with the MIP solver.

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

6.4.3 Settlement Postings May 2015

The publication timings for Settlement runs are provided below.

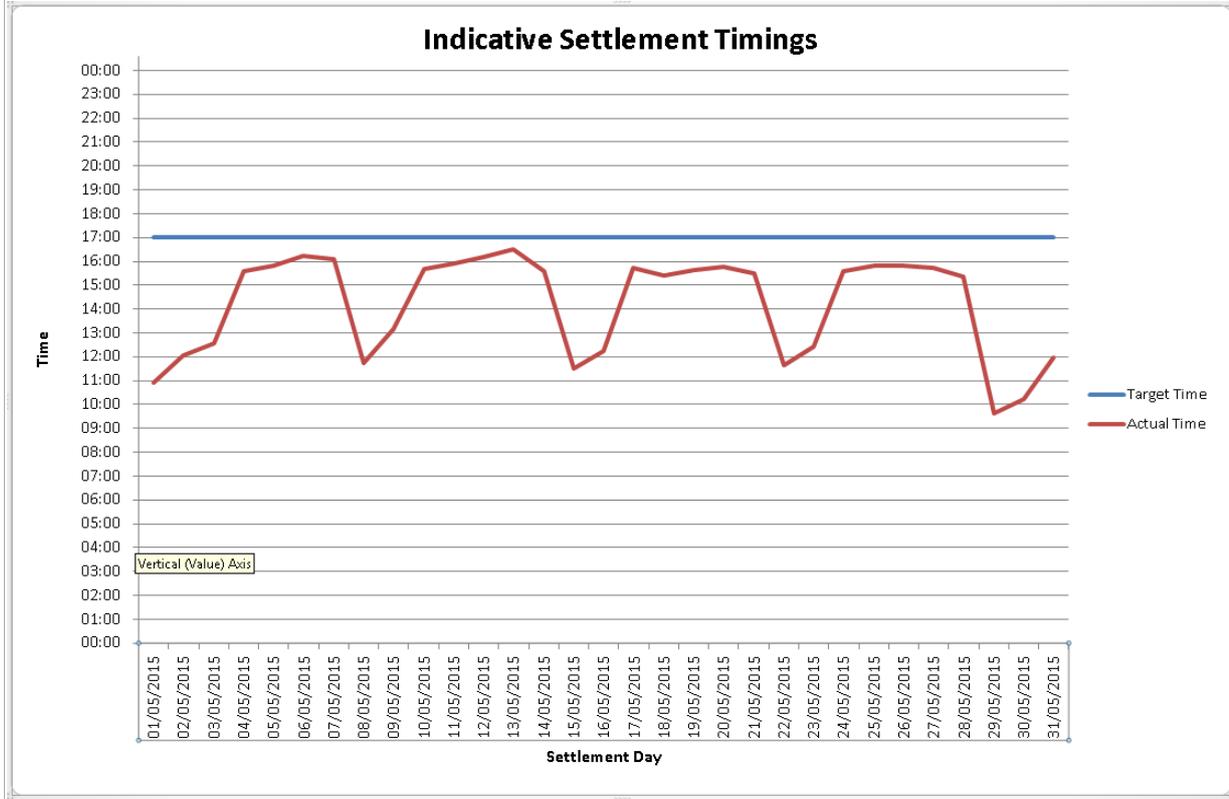


Figure 22 - Indicative Settlement Postings

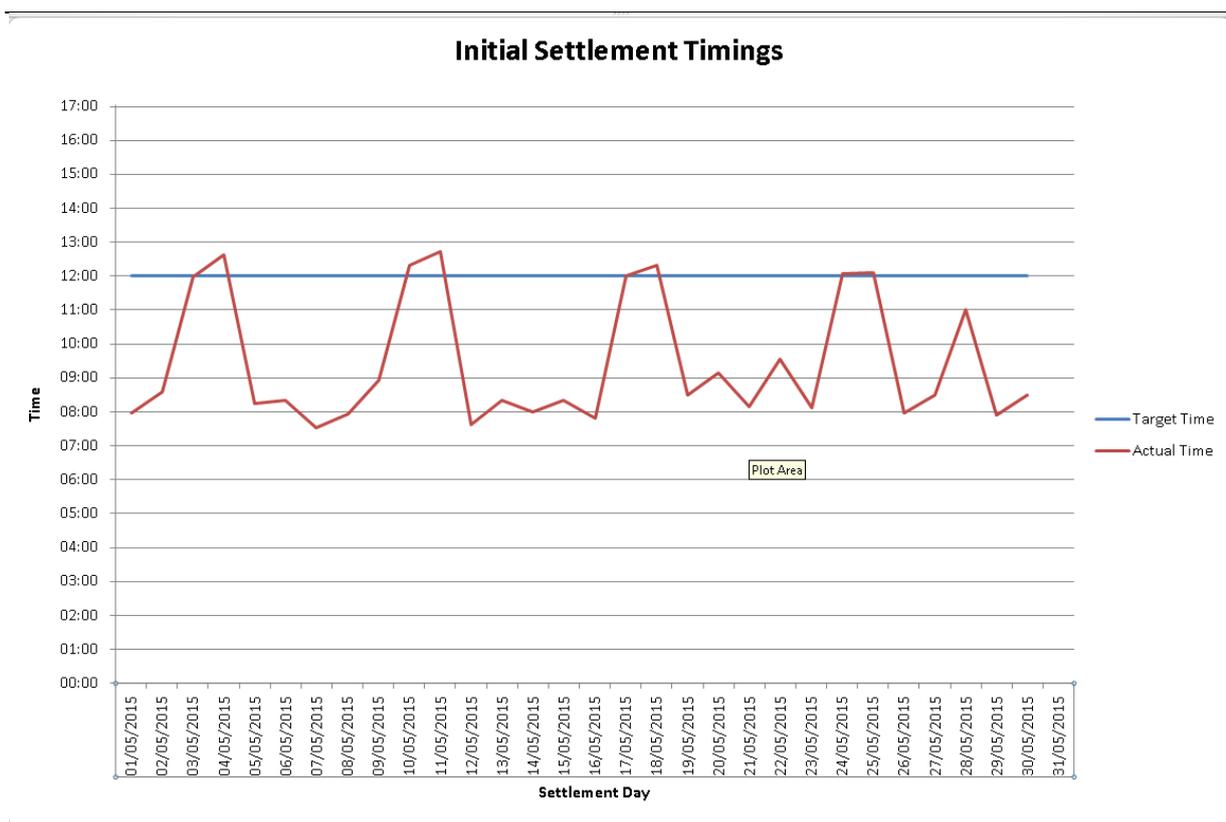


Figure 23 - Initial Settlement Postings

Further details of any delays noted above are provided in [Appendix A](#)

6.5 Market System Releases

6.5.1 Release SEM R2.6.0 (Proposed Deployment: May 15th 2015)

SEM R2.6.0 went live on Friday May 15th with no issues

6.5.2 Release SEM R2.7.0 (Proposed Deployment: October 2015)

The release cut-off date for the SEM R2.7.0 release to the Central Market Systems was Friday, March 6th, 2015. There were no approved Modification Proposals or new SDS sourced Change Requests as at the release cut-off date and, as a result, a Change Control Forum (CCF) meeting was not required.

However, SEMO will submit a proposed scope to the Regulatory Authorities for approval in early May. In summary the proposal will plan to deliver in the SEM R2.7.0 release:

- Data collection and reporting under REMIT, the EU Regulation on wholesale energy market integrity and transparency;
- Mod_09_14 (Amendment to Make Whole Payments for Interconnector Units) which was approved at Extraordinary Mods Meeting 60; and

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- A number of technical changes to ensure the Central Market Systems remain aligned with supported third-party products.

On receipt of Regulatory approval SEMO will publish the approved scope to the industry.

7 Occasional Components

7.1 Disaster Recovery/Business Continuity Tests

There were no scheduled Business Continuity tests performed during May 2015, but a CMS release happened on 15/05/2015, which included as part of the release a production environment switch.

7.3 Communications or Systems Failures

There were 5 System issues during May 2015;

On May 11th, an issue was identified within the Settlements system, whereby an incorrect configuration was being used. The configuration was backed up, and replaced with the correct configuration by Market Systems IS, and confirmed working again via Market Operations.

On May 15th, an error was reported by Market Operations from the MA EP1 for 16/05/2015 run which stated “No Initial Condition”. A call was logged with the 3rd party vendor, and a solution provided, which was tested and installed on May 16th.

On May 18th, 2 screens from the Settlements system were reported as functioning slowly – Import File screen & Import Control report. These issues were logged with the 3rd party vendor, and a fix has been supplied, and is due for release Tuesday 16/06/2015.

On May 18th, it was noted by Market Operations that the events “GET_ALL_MP_REPORT” and “MF_TO_DS” failed intermittently in the MOI , but eventually passes if re-run subsequently. The issue was determined to be a issue with the LDAP configuration on a specific node in the CMS setup. This node has temporarily been removed from the configurations, and the issue has been logged with the 3rd party vendor for investigation. The system and all events are fully functional in its temporary state.

On May 30th, it was observed by Market Operations that the VDI’s were slow to login and when they eventually loaded, the SEMO drive mappings were not available. This issue was determined to be an issue with authentication on a domain controller, and was resolved by Market Systems IT when identified, tested, and is fully working again.

There was also 1 TSO impacting issue reported during May 2015;

On the morning of May 4th, Market Operations in Belfast reported that connectivity to the SEM systems had been lost. Upon investigation, The SONI network in CHCC 'new building' went down at approximately 11.30am. SONI IT were alerted and the call was logged with Vodafone. Connectivity was restored 14.40pm. The root cause was an issue with a SONI IT switch providing connectivity to the PC’s in the ‘new building’. During this issue, the Central Market Systems remained fully available at all times. Market Systems are working with

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Vodafone and the Networks team in the commissioning of additional SEMO network switches to provide resilience for the Market in the event of a loss of the Eirgrid Corporate LAN.

7.4 Denial of Service Attacks

There was no Denial of Service Attacks during May 2015.

7.5 Submission of Parameters to RAs for Approval

No parameters were submitted to the Regulatory Authorities during May 2015.

8 Appendix A: Detail of Code Breaches

Market Participant

✓	Ops Date Identified	Run Type	Quality or Timing	Party ▼	Issue Type	Description	Cause	Resolution	T and SC Breach
	05/05/2015	Money In	Timing	Participant	Payment Default	Airtricity Ltd Supply (PT_400022) defaulted on a Week 15 2015 Initial VMOC invoice	Participant error	A default letter was issued	Major
	05/05/2015	Money In	Timing	Participant	Payment Default	SSE Generation Ltd (PT_400065) defaulted on a Week 15 2015 Initial VMOC invoice	Participant error	A default letter was issued	Major
	05/05/2015	Money In	Timing	Participant	Payment Default	Aughrim Power Supply Limited (PT_400119) defaulted on a Week 15 2015 Initial VMOC invoice	Participant error	A default letter was issued	Major
	05/05/2015	Money In	Timing	Participant	Payment Default	Firmus Energy (PT_500046) defaulted on a Week 15 2015 Initial VMOC Invoice	Participant error	A default letter was issued	Major
	13/05/2015	CRM	Timing	Participant	Credit	LCC Power Ltd PT_400137 defaulted on a CCIN issued on 11.05.2015.	Participant error.	A default notice was issued.	Major
	15/05/2015	Money In	Timing	Participant	Payment Default	Cloghboola Windfarm (PT_400162) defaulted on an April 2015 FMOC invoice.	Participant error.	A default letter was issued.	Major
	15/05/2015	Money In	Timing	Participant	Payment Default	Electricity Exchange Ltd (PT_400116 and PT_400117) defaulted on April 2015 FMOC invoices.	Participant error.	A default letter was issued.	Major
	15/05/2015	Money In	Timing	Participant	Payment Default	Aughrim Power Supply Ltd (PT_400119)	Participant error.	A default letter was issued.	Major

Table 15 - Code Breaches – Market Participants

Market Operator Monthly Report

Data Provider

✓	Ops Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach ▼
	01/05/2015	EA1	Timing	EirGrid TSO	File Submission	The Eirgrid Wind and Load Forecast for Trade Date 02/05/2015 were not recieved at their regular times of 07:04am and 07:55am	The Eirgrid Wind And Load Forecast were not received due to an ongoing internal Eirgrid TSO system error.	Contingency data was used and uploaded successfully at 09:20 on 01/05/2015.	Minor
	01/05/2015	EA1	Timing	EirGrid TSO	Operational	The Eirgrid Wind and Load Forecast for Trade Date 02/05/2015 were not recieved at their regular times of 07:04am and 07:55am.	The Eirgrid Wind And Load Forecast were not received due to an ongoing internal Eirgrid TSO system error.	Contingency data was used and uploaded successfully at 09:20 on 01/05/2015.	Minor

Market Operator Monthly Report

07/05/2015	EA1	Timing	SONI TSO	File Submission	The SONI Wind and Load Forecast for Trade Date 08/05/2015 were not recieved at their regular times of 07:06am and 06:25am	The SONI Wind and Load Forecast were not received due to internal issues with the SONI system.	System issues were resolved by SONI IT and the Wind and Load Forecast were resent. Wind and Load files were received successfully in the SEM systems at 09:32 and 09:39, respectively.	Minor
01/05/2015	EA1	Timing	EirGrid TSO	File Submission	The Loss of Load Probability data feed was not received for Trade Date 01/05/2015. This caused the data feed to fail on subsequent days.	The data feeds were not received due to errors within the file.	The file issues were resolved by Eirgrid IT and data feeds for all missing dates were received successfully.	Minor

Table 16 - Code Breaches – Data Providers

SEMO - Pricing and Scheduling

There were no issues to report in May 2015

Ops Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach
There are no items to show in this view of the "Issues Log" list. To create a new item, click "New" above.								

Table 17 - Code Breaches – Pricing and Scheduling

SEMO – Settlements

There were no issues to report in May 2015

There are no items to show in this view of the "Issues Log" list. To create a new item, click "New" above.

Table 18 - Code Breaches – Settlements

SEMO - Funds Transfer

There was one issue to report in May 2015

18/05/2015	Money Out	Timing	SEMO	Payment Default	SEMO defaulted on an April 2015 IRCU self billing invoice to SONI.	Operational error.	The self billing invoice was paid to SONI on 19.05.2015.	Major
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Table 19 - Code Breaches – Funds Transfer

SEMO - Credit Management

There was one issue to report in May 2015

✓	Ops Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach ▼
	18/05/2015	CRM	Timing	SEMO	System	The Daily Credit Report was not published by the 14:30 deadline.	Technical issues caused by the latest release.	When the technical issues were resolved, the report was published at 15:53.	Minor

Table 20 - Code Breaches – Credit Risk Management

Market Operator Monthly Report

SEMO – Other

There were no issues to report in May 2015

Ops Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach
There are no items to show in this view of the "Issues Log" list. To create a new item, click "New" above.								

Table 21 - Code Breaches – Other

9 Appendix B: List of Queries by Type

Data Queries

Summary Title	Description	ID	Logged On	Date sent to MP	Type
Availability	Incorrect Availability Declarations were sent to the SEM for GU_400362 (Turlough Hill Unit 3) on the 01/05/2015.	GU_400360	2015-05-05	2015-05-18	DATA
Dispatch Instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400362 (Turlough Hill Unit 3) on the 01/05/2015.	GU_400362	2015-05-05	2015-05-18	Data
Dispatch Instructions	This query has been raised due to the missing Dispatch Instructions for some wind generating units on trade date 7.5.15. Please note that the submission of this missing data will not cause any resettlement. The query has been raised to ensure the market system contains the correct DI data for completeness purposes.	SONI	2015-05-12	2015-06-01	Data
Availability	Incorrect Actual Availabilities issued for Ballylumford B32 (GU_500131) at D+3 stages for T.D.08/05/2015. Please see supporting document attached. This unit is a Price Effecting Generator and will have affected the EP2 pricing run for trade date 08/05/2015.	SONI	2015-05-13	2015-05-18	Data
Commercial Offer Data	Incorrect Actual Availabilities issued for Ballylumford B32 (GU_500131) at D+3 stages for T.D.08/05/2015. Please see supporting document attached. This unit is a Price Effecting Generator and will have affected the EP2 pricing run for trade date 08/05/2015.	Moyle	2015-05-15	2015-05-18	DATA
Payment Calculation	Affecting PT_500074 on the 14th April. This unit has EA>0 for 10 priods but it is not receiving any capacity income for these periods.	PT_500074	2015-05-19	2015-06-04	DATA
Eligible Availability	We understand there is a defect effecting Trade Dates 11th Nov - 12th Dec 2014 that has caused an issue around the below units Eligible Availability. We believe that the defect is such that MSQ will exceed Availability Profile in some Trading periods and that where this is in effect no Eligible Availability or subsequent Capacity Payment is calculated. Could you please investigate the Capacity settlement for the effected Trade Dates & units. Effected Units GU_400210, GU_400211 GU_400220, GU_400221 GU_400250, GU_400252 GU_400260, GU_400280 GU_400281, GU_400290	PT_400030	2015-05-08	2015-05-19	DATA

Table 22 - Data Queries

Market Operator Monthly Report

SETTLEMENT QUERIES

Summary Title	Description	ID	Logged On	Date sent to MP	Type
Dispatch Instructions	Uninstructed imbalance charges on 31.3.15	PT_400148	2015-05-08	2015-05-13	SETTLEMENT
Dispatch instructions	Unit ID - GU_501280 under PT_500032 has an issue with the capacity income calculated on 28th and 29th March 2015. For 4 periods in total this unit received no capacity income, even though it had an EA>0	Viridian Energy Ltd	2015-05-12	2015-06-08	Settlement
Dispatch Instructions	This query has been raised due to the missing Dispatch Instructions for some wind generating units on trade date 7.5.15. The query has been raised to ensure the market systems contain the correct DI data for completeness purposes.	SONI	2015-05-12	2015-06-01	Settlement
Payment Calculation	There is an issue with the April's capacity calculation for one of the units under this PT. GU_501280 (Dunbeg) have an EA > 0 for 10 periods on the 14th April but they are not receiving capacity income for these periods. (63304)	GU_501280	2015-05-19	2015-06-04	SETTLEMENT
start cost	Unit GU_400850 (AD2). Difference in constraint payments for 12th May 2015. This difference is due to Sync payments. It appears the unit was off for 6 hours and therefore should receive a Hot sync payment. Market Operator paid a warm start payment. Please advise.	PT_400030	2015-05-21	2015-05-27	SETTLEMENT

Table 23 - 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 month's 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
SET-SEMO138	Control reports screen issue	-	-	N	N	-
SET-SEMO139	Import File Screen issue	-	-	N	N	-
ABB2015-139670	MA - EXPOST MIUN Allocation omitted	-	-	N	N	-

Table 24 - List of System Errors and Failures

11 Appendix D: Details of Operational Timings

Market Schedule and Price Runs

Operational Day	EA1 Postings		EA2 Postings		WD1 Postings		EP1 Postings		EP2 Postings	
	Target	Actual								
01/05/2015	11:00	10:05	13:00	11:56	09:30	08:36	16:00	14:33	17:00	14:47
02/05/2015	11:00	09:55	13:00	11:47	09:30	08:34	16:00	14:25	17:00	14:35
03/05/2015	11:00	10:07	13:00	12:04	09:30	08:38	16:00	14:51	17:00	14:38
04/05/2015	11:00	10:10	13:00	11:59	09:30	08:15	16:00	14:52	17:00	14:35
05/05/2015	11:00	09:51	13:00	12:03	09:30	08:24	16:00	14:43	17:00	14:25
06/05/2015	11:00	10:11	13:00	11:58	09:30	08:26	16:00	14:38	17:00	14:18
07/05/2015	11:00	09:51	13:00	11:58	09:30	08:29	16:00	14:37	17:00	14:30
08/05/2015	11:00	10:09	13:00	11:55	09:30	08:28	16:00	14:29	17:00	14:32
09/05/2015	11:00	10:35	13:00	11:54	09:30	08:27	16:00	14:22	17:00	14:34
10/05/2015	11:00	09:56	13:00	11:49	09:30	08:26	16:00	14:32	17:00	14:41
11/05/2015	11:00	09:55	13:00	11:51	09:30	08:29	16:00	14:41	17:00	14:15
12/05/2015	11:00	10:02	13:00	12:04	09:30	08:36	16:00	14:36	17:00	14:30
13/05/2015	11:00	10:00	13:00	12:03	09:30	08:22	16:00	14:47	17:00	14:22
14/05/2015	11:00	10:09	13:00	11:50	09:30	08:35	16:00	14:18	17:00	14:39
15/05/2015	11:00	09:52	13:00	11:58	09:30	08:26	16:00	14:32	17:00	14:34
16/05/2015	11:00	09:54	13:00	11:51	09:30	08:33	16:00	14:26	17:00	14:32
17/05/2015	11:00	10:01	13:00	12:04	09:30	08:31	16:00	14:41	17:00	14:44
18/05/2015	11:00	10:01	13:00	11:51	09:30	08:41	16:00	14:36	17:00	14:33
19/05/2015	11:00	09:56	13:00	11:57	09:30	08:21	16:00	14:34	17:00	14:34
20/05/2015	11:00	10:00	13:00	11:57	09:30	08:24	16:00	14:45	17:00	14:44
21/05/2015	11:00	10:14	13:00	11:59	09:30	08:29	16:00	14:35	17:00	14:36
22/05/2015	11:00	09:59	13:00	11:55	09:30	08:28	16:00	14:38	17:00	14:31
23/05/2015	11:00	09:55	13:00	12:01	09:30	08:32	16:00	14:47	17:00	14:36
24/05/2015	11:00	10:05	13:00	12:00	09:30	08:36	16:00	14:38	17:00	14:35
25/05/2015	11:00	10:03	13:00	12:04	09:30	08:32	16:00	14:33	17:00	14:33
26/05/2015	11:00	10:00	13:00	11:56	09:30	08:17	16:00	14:38	17:00	14:23
27/05/2015	11:00	09:59	13:00	11:57	09:30	08:22	16:00	14:38	17:00	14:37
28/05/2015	11:00	09:54	13:00	11:57	09:30	08:39	16:00	14:34	17:00	14:33
29/05/2015	11:00	10:10	13:00	11:55	09:30	08:29	16:00	14:25	17:00	14:31
30/05/2015	11:00	09:56	13:00	11:57	09:30	08:32	16:00	14:40	17:00	14:34
31/05/2015	11:00	09:56	13:00	11:57	09:30	08:30	16:00	14:37	17:00	14:36

Table 25 – MSP Runs

Market Operator Monthly Report

Settlement Runs

Trading Day	INDICATIVE				INITIAL			
	Target Date	Actual Date	Target Time	Actual Time	Trading Day	Actual Date	Target Time	Actual Time
01/05/2015	02/05/2015	02/05/2015	17:00	10:54	01/05/2015	06/05/2015	12:00	11:42
02/05/2015	03/05/2015	03/05/2015	17:00	12:03	02/05/2015	07/05/2015	12:00	12:12
03/05/2015	04/05/2015	04/05/2015	17:00	12:33	03/05/2015	08/05/2015	12:00	09:11
04/05/2015	05/05/2015	05/05/2015	17:00	15:34	04/05/2015	09/05/2015	12:00	08:36
05/05/2015	06/05/2015	06/05/2015	17:00	15:48	05/05/2015	10/05/2015	12:00	09:21
06/05/2015	07/05/2015	07/05/2015	17:00	16:14	06/05/2015	11/05/2015	12:00	09:20
07/05/2015	08/05/2015	08/05/2015	17:00	16:05	07/05/2015	12/05/2015	12:00	08:22
08/05/2015	09/05/2015	09/05/2015	17:00	11:44	08/05/2015	13/05/2015	12:00	12:02
09/05/2015	10/05/2015	10/05/2015	17:00	13:10	09/05/2015	14/05/2015	12:00	08:08
10/05/2015	11/05/2015	11/05/2015	17:00	15:41	10/05/2015	15/05/2015	12:00	09:30
11/05/2015	12/05/2015	12/05/2015	17:00	15:55	11/05/2015	16/05/2015	12:00	09:10
12/05/2015	13/05/2015	13/05/2015	17:00	16:12	12/05/2015	17/05/2015	12:00	11:45
13/05/2015	14/05/2015	14/05/2015	17:00	16:29	13/05/2015	18/05/2015	12:00	11:50
14/05/2015	15/05/2015	15/05/2015	17:00	15:35	14/05/2015	19/05/2015	12:00	08:04
15/05/2015	16/05/2015	16/05/2015	17:00	11:31	15/05/2015	20/05/2015	12:00	10:51
16/05/2015	17/05/2015	17/05/2015	17:00	12:15	16/05/2015	21/05/2015	12:00	10:54
17/05/2015	18/05/2015	18/05/2015	17:00	15:43	17/05/2015	22/05/2015	12:00	08:12
18/05/2015	19/05/2015	19/05/2015	17:00	15:24	18/05/2015	23/05/2015	12:00	08:34
19/05/2015	20/05/2015	20/05/2015	17:00	15:39	19/05/2015	24/05/2015	12:00	08:10
20/05/2015	21/05/2015	21/05/2015	17:00	15:46	20/05/2015	25/05/2015	12:00	07:37
21/05/2015	22/05/2015	22/05/2015	17:00	15:30	21/05/2015	26/05/2015	12:00	08:11
22/05/2015	23/05/2015	23/05/2015	17:00	11:40	22/05/2015	27/05/2015	12:00	12:39
23/05/2015	24/05/2015	24/05/2015	17:00	12:26	23/05/2015	28/05/2015	12:00	13:41
24/05/2015	25/05/2015	25/05/2015	17:00	15:36	24/05/2015	29/05/2015	12:00	08:09
25/05/2015	26/05/2015	26/05/2015	17:00	15:50	25/05/2015	30/05/2015	12:00	09:00
26/05/2015	27/05/2015	27/05/2015	17:00	15:48	26/05/2015	31/05/2015	12:00	08:02
27/05/2015	28/05/2015	28/05/2015	17:00	15:44	27/05/2015	01/06/2015	12:00	08:38
28/05/2015	29/05/2015	29/05/2015	17:00	15:22	28/05/2015	02/06/2015	12:00	11:17
29/05/2015	30/05/2015	30/05/2015	17:00	09:38	29/05/2015	03/06/2015	12:00	11:32
30/05/2015	31/05/2015	31/05/2015	17:00	10:14	30/05/2015	04/06/2015	12:00	11:41
31/05/2015	01/06/2015	01/06/2015	17:00	11:59	31/05/2015	05/06/2015	12:00	13:21

Table 26 - 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	Constraint Payments	Uninstructed Imbalance Payments	Imperfections Charges
01/10/2014	€227,003.16	€4,663.19	-€497,010.43
02/10/2014	€735,796.33	-€19,882.49	-€485,485.43
03/10/2014	€614,655.29	€10,871.94	-€504,078.89
04/10/2014	€431,006.78	-€7,434.77	-€448,528.17
05/10/2014	€824,385.72	€10,977.87	-€414,125.03
06/10/2014	€656,891.36	-€20,536.24	-€496,825.27
07/10/2014	€271,569.15	€7,652.10	-€515,909.62
08/10/2014	€317,802.51	-€36,024.01	-€520,694.36
09/10/2014	€271,129.06	-€14,582.31	-€525,428.89
10/10/2014	€442,983.70	-€26,317.26	-€517,313.97
11/10/2014	€311,801.03	€11,849.83	-€473,083.86
12/10/2014	€401,470.02	-€7,407.00	-€451,034.95
13/10/2014	€353,395.99	-€24,498.55	-€513,674.01
14/10/2014	€358,013.74	-€19,066.88	-€523,546.32
15/10/2014	€428,117.82	-€853.11	-€511,064.60
16/10/2014	€310,763.65	-€12,618.38	-€513,456.78
17/10/2014	€483,353.64	-€5,253.97	-€495,989.17
18/10/2014	€1,079,153.36	€23,841.90	-€428,037.24
19/10/2014	€506,373.44	-€2,840.01	-€416,208.56
20/10/2014	€565,796.01	-€13,121.95	-€490,614.73
21/10/2014	€722,480.43	€17,262.53	-€491,996.93
22/10/2014	€622,659.96	-€35,249.53	-€515,127.40
23/10/2014	€299,585.53	€2,462.07	-€513,013.48
24/10/2014	€505,499.46	-€8,503.06	-€505,991.61
25/10/2014	€899,840.05	€24,936.45	-€439,804.29
26/10/2014	€867,189.29	-€8,010.50	-€428,234.85
27/10/2014	€739,332.30	€6,690.55	-€444,796.70
28/10/2014	€553,302.80	-€61,012.80	-€519,037.78
29/10/2014	€754,919.24	-€6,314.82	-€530,046.54
30/10/2014	€636,202.61	-€3,395.44	-€513,730.14
31/10/2014	€508,522.20	-€17,778.71	-€506,014.82
01/11/2014	€546,540.25	-€6,912.86	-€457,086.94
02/11/2014	€318,890.98	-€12,990.39	-€443,511.55
03/11/2014	€569,073.38	-€4,244.85	-€532,442.41
04/11/2014	€669,098.98	-€16,550.06	-€528,960.67
05/11/2014	€546,197.90	-€18,613.60	-€550,138.29
06/11/2014	€637,275.88	-€14,424.86	-€537,063.83
07/11/2014	€382,071.17	-€11,250.48	-€531,305.30
08/11/2014	€416,600.72	-€18,592.20	-€500,732.00
09/11/2014	€324,554.00	-€6,024.57	-€481,392.83
10/11/2014	€506,959.62	-€12,756.86	-€540,675.17
11/11/2014	€305,371.45	-€44,629.39	-€565,550.06

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12/11/2014	€532,498.02	-€28,281.20	-€554,600.49
13/11/2014	€345,990.75	-€17,901.27	-€553,923.16
14/11/2014	€343,466.61	-€1,320.38	-€534,716.18
15/11/2014	€494,457.91	€3,019.64	-€499,765.88
16/11/2014	€360,376.17	€7,373.68	-€482,898.42
17/11/2014	€553,003.49	-€24,556.35	-€545,895.52
18/11/2014	€415,247.34	€4,362.82	-€543,481.42
19/11/2014	€534,047.47	-€12,653.01	-€548,548.06
20/11/2014	€548,216.05	-€26,506.42	-€571,397.50
21/11/2014	€351,743.55	-€34,277.81	-€542,644.18
22/11/2014	€402,367.39	-€15,880.02	-€504,134.67
23/11/2014	€543,674.52	-€9,757.73	-€492,515.83
24/11/2014	€436,153.86	-€3,275.68	-€568,242.69
25/11/2014	€252,433.54	-€17,224.01	-€582,837.38
26/11/2014	€268,639.50	-€6,672.97	-€590,843.52
27/11/2014	€477,133.30	-€17,221.50	-€571,833.74
28/11/2014	€514,059.40	-€24,958.57	-€548,216.58
29/11/2014	€466,095.46	-€17,684.09	-€518,324.65
30/11/2014	€426,493.00	€228.22	-€497,681.99
01/12/2014	€425,729.84	-€17,667.29	-€564,559.17
02/12/2014	€608,884.75	-€9,337.96	-€580,266.39
03/12/2014	€506,617.59	-€48,599.53	-€604,794.55
04/12/2014	€524,348.76	-€26,701.42	-€598,118.36
05/12/2014	€461,085.09	-€25,561.67	-€572,477.87
06/12/2014	€568,753.24	-€12,613.70	-€516,202.71
07/12/2014	€484,127.53	€2,302.13	-€486,982.31
08/12/2014	€885,938.85	-€37,551.38	-€584,787.94
09/12/2014	€718,257.00	-€19,795.27	-€567,508.60
10/12/2014	€694,745.69	-€28,671.71	-€573,652.69
11/12/2014	€523,434.14	-€5,545.19	-€588,404.70
12/12/2014	€674,997.85	-€30,954.05	-€590,328.30
13/12/2014	€574,892.66	-€14,185.39	-€545,225.54
14/12/2014	€628,744.88	-€7,460.18	-€494,683.75
15/12/2014	€586,494.13	-€52,410.95	-€589,165.45
16/12/2014	€596,239.45	-€17,823.19	-€593,950.92
17/12/2014	€709,290.15	-€19,551.47	-€567,440.23
18/12/2014	€896,816.00	€2,905.28	-€554,081.45
19/12/2014	€995,932.96	€4,662.09	-€543,943.87
20/12/2014	€505,276.32	€4,952.12	-€510,278.41
21/12/2014	€1,032,186.15	€3,856.82	-€470,790.42
22/12/2014	€783,718.05	€19,779.93	-€528,728.17
23/12/2014	€580,782.79	€13,315.83	-€531,858.69
24/12/2014	€522,323.53	-€1,231.24	-€497,446.95
25/12/2014	€365,691.72	€1,963.64	-€464,366.17
26/12/2014	€540,788.12	-€8,172.04	-€457,472.59
27/12/2014	€646,748.39	€14,909.59	-€472,798.28
28/12/2014	€607,407.31	€7,022.19	-€497,727.79
29/12/2014	€555,367.66	€7,365.97	-€524,246.05
30/12/2014	€640,363.39	€14,384.93	-€505,239.86
31/12/2014	€603,204.62	€25,349.47	-€482,895.60
01/01/2015	€1,183,313.74	€22,302.55	-€432,637.80
02/01/2015	€719,060.46	€7,180.94	-€488,863.06
03/01/2015	€347,426.55	€22,383.30	-€509,883.65
04/01/2015	€368,525.85	€17,445.50	-€492,762.63

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05/01/2015	€858,552.99	-€57,810.06	-€547,249.34
06/01/2015	€846,901.18	€24,062.40	-€565,026.70
07/01/2015	€754,789.55	€18,197.44	-€553,124.60
08/01/2015	€738,052.46	€5,912.21	-€560,161.59
09/01/2015	€799,401.56	€25,467.67	-€544,123.83
10/01/2015	€471,870.80	€23,541.24	-€489,886.95
11/01/2015	€804,037.00	€7,957.03	-€475,707.54
12/01/2015	€532,334.91	-€28,660.44	-€547,621.88
13/01/2015	€657,677.89	€13,214.17	-€585,068.72
14/01/2015	€769,303.38	-€3,725.21	-€591,675.05
15/01/2015	€571,780.65	€11,193.51	-€586,646.16
16/01/2015	€716,352.94	-€13,748.94	-€590,495.78
17/01/2015	€377,678.95	€8,181.35	-€550,070.38
18/01/2015	€166,250.30	-€3,020.40	-€514,226.93
19/01/2015	€698,080.04	-€37,908.42	-€609,509.53
20/01/2015	€437,319.37	-€40,386.17	-€614,164.65
21/01/2015	€667,403.57	-€48,191.01	-€614,449.45
22/01/2015	€542,321.93	-€24,334.20	-€614,473.92
23/01/2015	€461,543.80	-€1,291.99	-€571,701.09
24/01/2015	€375,088.02	€3,285.01	-€529,114.19
25/01/2015	€370,985.65	-€4,188.67	-€488,904.88
26/01/2015	€761,148.58	-€5,809.04	-€566,069.74
27/01/2015	€496,305.71	€3,197.27	-€578,227.32
28/01/2015	€679,942.31	-€5,819.24	-€567,278.15
29/01/2015	€842,221.29	-€19,380.22	-€582,068.03
30/01/2015	€498,670.69	-€9,939.77	-€568,791.17
31/01/2015	€621,711.25	€5,481.92	-€512,025.64
01/02/2015	€465,811.18	-€7,159.85	-€522,488.66
02/02/2015	€600,896.72	-€25,058.44	-€612,427.31
03/02/2015	€622,108.61	-€646.83	-€612,448.65
04/02/2015	€680,810.77	€3,948.07	-€619,315.92
05/02/2015	€524,358.46	-€557.07	-€614,409.37
06/02/2015	€507,125.10	-€3,973.79	-€600,953.78
07/02/2015	€552,603.96	-€3,844.92	-€533,253.15
08/02/2015	€513,181.80	-€8,706.01	-€526,790.04
09/02/2015	€721,677.70	-€75,869.33	-€603,738.54
10/02/2015	€612,792.69	-€54,689.56	-€615,533.69
11/02/2015	€397,523.20	-€49,206.80	-€612,372.90
12/02/2015	€584,234.54	-€9,961.83	-€589,104.96
13/02/2015	€581,694.45	-€18,426.02	-€571,753.77
14/02/2015	€519,304.93	-€11,018.35	-€524,311.37
15/02/2015	€402,543.48	€350.55	-€482,429.93
16/02/2015	€539,037.68	-€34,021.35	-€564,140.28
17/02/2015	€542,064.44	-€575.68	-€567,853.68
18/02/2015	€602,625.88	-€7,288.26	-€546,880.62
19/02/2015	€512,519.51	€18,470.83	-€556,672.04
20/02/2015	€592,720.94	-€10,749.31	-€567,934.87
21/02/2015	€632,840.91	€17,014.71	-€511,712.83
22/02/2015	€870,894.49	€1,282.86	-€484,230.97
23/02/2015	€674,860.17	-€5,480.97	-€557,984.41
24/02/2015	€512,106.06	-€7,870.22	-€569,013.81
25/02/2015	€642,952.47	-€31,481.05	-€567,195.52
26/02/2015	€488,203.62	-€68,355.71	-€541,080.48
27/02/2015	€702,055.03	-€278,358.30	-€551,568.91

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28/02/2015	€763,470.11	-€156,795.83	-€490,683.19
01/03/2015	€521,607.45	-€1,843.99	-€477,581.24
02/03/2015	€574,380.29	€2,997.71	-€557,667.72
03/03/2015	€465,527.51	-€2,048.31	-€573,855.61
04/03/2015	€672,189.01	€6,050.68	-€574,853.34
05/03/2015	€652,850.86	€16,461.89	-€552,313.54
06/03/2015	€1,016,583.70	€12,741.03	-€526,556.29
07/03/2015	€1,025,731.02	€13,689.73	-€474,408.71
08/03/2015	€522,444.74	-€3,358.29	-€467,929.55
09/03/2015	€788,584.21	€13,340.73	-€530,097.21
10/03/2015	€719,928.31	€40,709.75	-€553,987.99
11/03/2015	€585,235.02	€5,483.05	-€544,302.02
12/03/2015	€621,873.73	-€7,818.95	-€556,429.84
13/03/2015	€658,937.97	-€12,692.12	-€565,741.37
14/03/2015	€513,997.92	€7,537.57	-€517,626.10
15/03/2015	€311,076.74	-€262.33	-€488,699.49
16/03/2015	€490,729.57	€17,637.03	-€560,146.36
17/03/2015	€550,876.37	€8,938.80	-€511,875.67
18/03/2015	€692,759.79	-€4,300.73	-€570,055.70
19/03/2015	€453,060.58	-€5,904.10	-€570,613.33
20/03/2015	€462,873.92	-€11,030.72	-€552,391.25
21/03/2015	€365,859.05	-€10,426.20	-€500,588.32
22/03/2015	€495,861.85	-€3,545.94	-€464,195.55
23/03/2015	€294,666.60	€24,633.51	-€526,351.50
24/03/2015	€532,310.91	€7,538.93	-€541,752.72
25/03/2015	€608,060.75	-€12,063.88	-€555,691.03
26/03/2015	€683,010.24	€2,898.03	-€534,954.70
27/03/2015	€516,305.02	€9,377.91	-€548,088.10
28/03/2015	€907,722.70	€14,362.92	-€460,979.15
29/03/2015	€899,801.32	€13,302.90	-€428,717.12
30/03/2015	€640,827.85	-€22,435.70	-€531,755.11
31/03/2015	€859,838.48	-€27,058.43	-€528,117.64
01/04/2015	€353,637.82	-€12,755.18	-€547,054.68
02/04/2015	€192,564.04	€26,214.78	-€557,637.09
03/04/2015	€553,060.03	€10,436.03	-€500,000.76
04/04/2015	€188,464.90	-€5,482.97	-€488,079.61
05/04/2015	€376,683.46	€379.94	-€449,913.28
06/04/2015	€202,881.78	€2,293.71	-€448,845.81
07/04/2015	€308,271.01	€18,476.58	-€502,814.72
08/04/2015	€302,925.86	€13,910.21	-€508,761.17
09/04/2015	€388,531.87	-€28,047.02	-€507,515.49
10/04/2015	€335,602.84	€3,276.78	-€492,195.74
11/04/2015	€409,832.29	€5,238.81	-€442,683.63
12/04/2015	€190,518.56	-€12,820.94	-€448,514.54
13/04/2015	€447,662.36	-€23,674.74	-€508,077.79
14/04/2015	€251,250.57	-€10,941.74	-€507,702.32
15/04/2015	€474,602.23	-€25,636.21	-€530,083.82
16/04/2015	€403,876.45	-€24,892.87	-€525,533.02
17/04/2015	€374,249.83	-€13,527.90	-€511,462.70
18/04/2015	€597,380.44	€9,054.50	-€444,810.59
19/04/2015	€387,461.71	€17,416.77	-€440,742.77
20/04/2015	€442,459.81	-€12,755.47	-€508,182.03
21/04/2015	€493,310.34	-€5,008.63	-€510,643.59
22/04/2015	€557,304.39	€2,298.79	-€506,655.91

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23/04/2015	€409,459.95	-€8,601.93	-€509,587.22
24/04/2015	€506,069.75	-€1,035.74	-€507,855.55
25/04/2015	€334,715.22	€13,997.02	-€453,162.94
26/04/2015	€479,230.14	€5,427.75	-€444,641.14
27/04/2015	€405,033.18	-€2,812.88	-€504,278.12
28/04/2015	€384,277.88	€2,065.56	-€518,165.93
29/04/2015	€604,102.38	-€3,220.00	-€519,247.75
30/04/2015	€556,531.80	-€9,801.76	-€524,181.83
01/05/2015	€481,056.45	€14,256.54	-€506,269.58
02/05/2015	€459,045.41	€969.91	-€460,134.78
03/05/2015	€385,827.96	€3,504.75	-€437,509.01
04/05/2015	€328,172.19	€1,749.49	-€433,467.59
05/05/2015	€490,272.15	-€14,555.23	-€507,273.77
06/05/2015	€298,647.42	€4,735.81	-€506,162.49
07/05/2015	€261,995.15	€12,217.90	-€529,138.93
08/05/2015	€519,824.39	-€46,342.80	-€529,331.82
09/05/2015	€398,072.55	€2,899.03	-€470,310.55
10/05/2015	€712,118.71	-€1,357.23	-€416,297.12
11/05/2015	€846,733.77	€4,545.48	-€465,910.40
12/05/2015	€210,609.57	-€3,956.63	-€491,547.73
13/05/2015	€457,670.09	-€1,496.75	-€510,924.30
14/05/2015	€232,238.95	-€8,374.10	-€500,940.75
15/05/2015	€446,672.92	-€38,149.99	-€500,906.52
16/05/2015	€584,364.58	€3,138.79	-€431,219.09
17/05/2015	€509,347.00	€8,657.31	-€422,799.73
18/05/2015	€510,890.21	-€3,158.96	-€483,590.87
19/05/2015	€438,287.72	-€12,950.64	-€487,900.79
20/05/2015	€320,302.80	-€48,000.36	-€509,103.25
21/05/2015	€368,276.73	€8,879.24	-€513,657.93
22/05/2015	€228,566.54	-€15,259.46	-€502,528.10
23/05/2015	€354,957.10	-€19,310.70	-€456,898.21
24/05/2015	€552,078.42	€8,110.94	-€419,257.50
25/05/2015	€180,744.22	-€33,577.18	-€490,878.14
26/05/2015	€284,412.73	-€3,046.42	-€499,993.65
27/05/2015	€365,880.58	-€23,900.75	-€499,128.31
28/05/2015	€311,952.87	€7,341.90	-€488,790.58
29/05/2015	€528,545.53	€6,357.53	-€482,950.81
30/05/2015	€563,213.22	-€2,268.16	-€446,780.31
31/05/2015	€498,594.49	€1,093.74	-€399,769.50

Table 27 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

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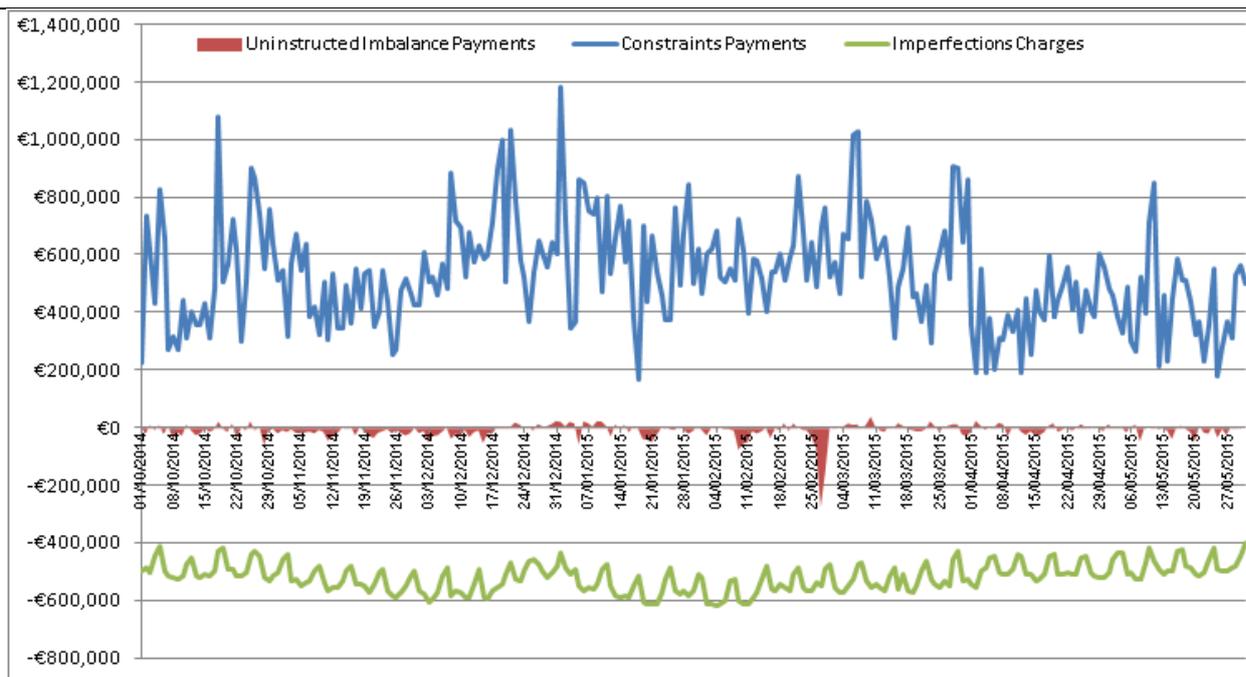


Figure 24 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Week No	Make Whole Payments
38	€202,188.33
39	€225,015.64
40	€280,671.13
41	€186,568.53
42	€159,900.73
43	€172,804.93
44	€117,287.97
45	€69,322.58
46	€151,346.18
47	€116,593.30
48	€89,395.20
49	€75,360.41
50	€169,324.41
51	€121,591.48
52	€55,670.15
1	€80,155.98
2	€72,635.72
3	€117,670.85
4	€162,664.95
5	€78,694.34
6	€58,735.16
7	€160,187.55
8	€132,758.27
9	€44,275.22
10	€38,818.26
11	€92,533.35
12	€117,780.87
13	€92,533.35

14	€117,780.87
15	€148,719.02
16	€83,282.89
17	126855.95
18	38218.98
19	15114.03
20	172476.22

Table 28 - Make Whole Payments

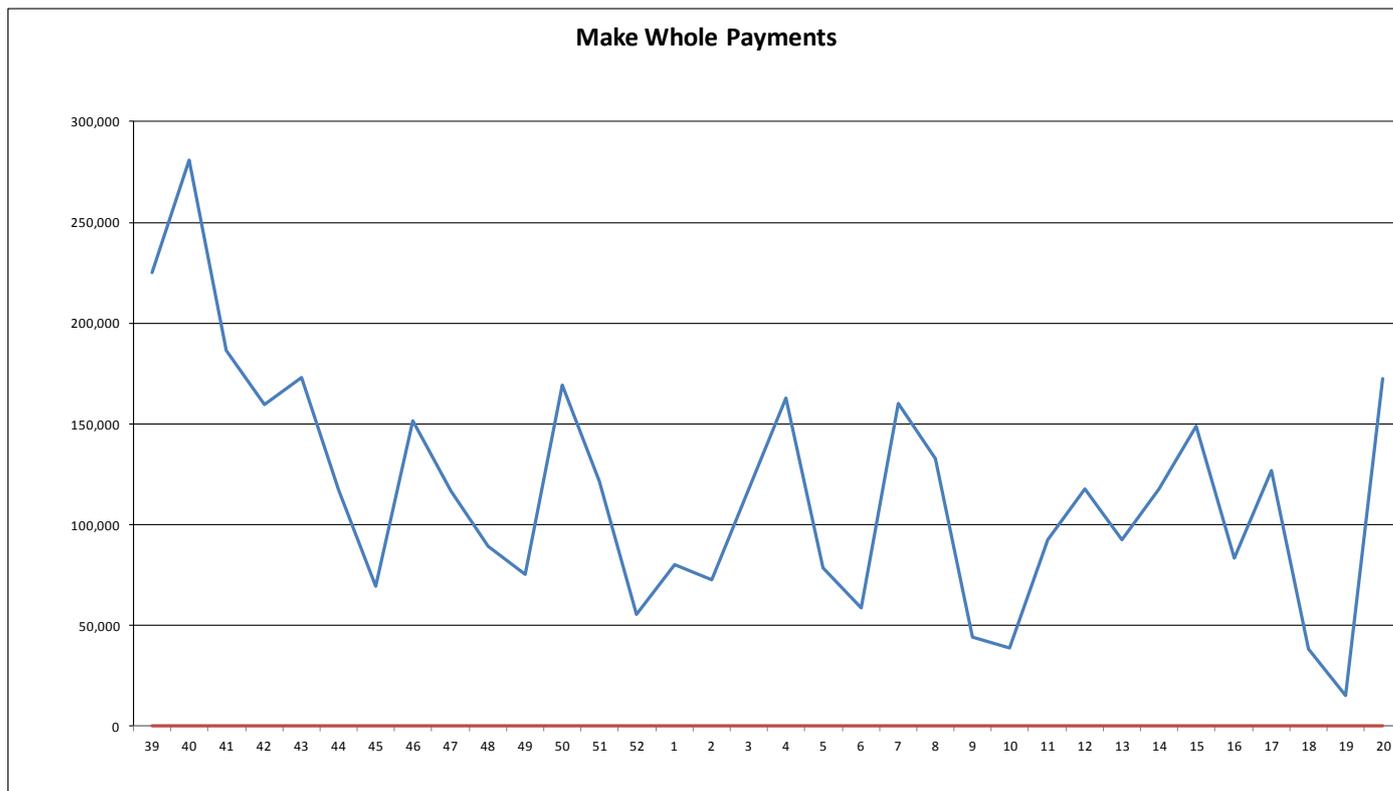


Figure 25 - Make Whole Payments

Week No	Testing Charges
39	-€64,349.25
40	-€23,212.88
41	-€8,173.18
42	-€106,220.13
43	-€106,488.24
44	-€74,217.72
45	-€13,149.01
46	€31,147.27
47	-€34,993.39
48	-€8,926.09
49	-€31,711.41
50	-€91,587.25
51	-€43,797.04
52	€0.00
1	-€69,863.70
2	€0
3	€0
4	€0

5	-€116,570.26
6	-€15,192.63
7	-€9,394.34
8	-€56,342.39
9	-€76,534.54
10	-€86,286.41
11	-€75,941.02
12	€0.00
13	-€75,941.02
14	€0.00
15	€0.00
16	€0.00
17	€0.00
18	€0.00
19	€0.00
20	€0.00

Table 29 - Testing Charges

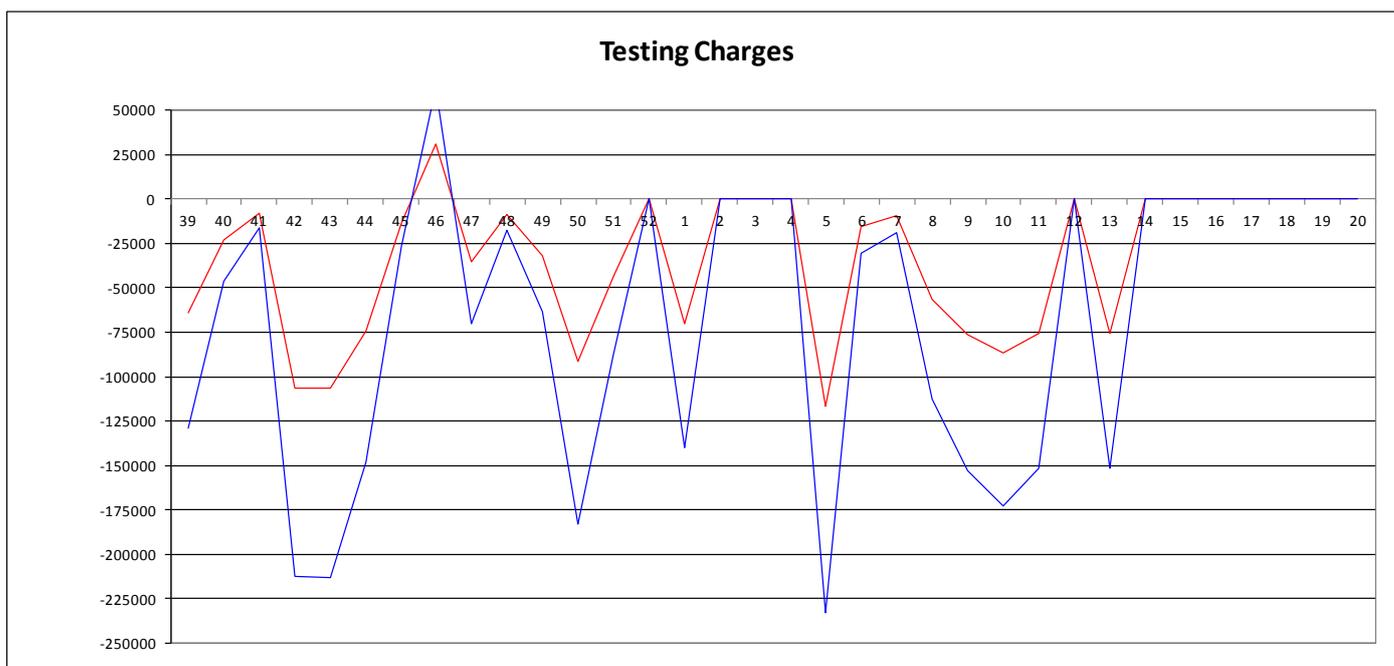


Figure 26 - Testing Charges

13 Appendix F: Default Commercial Offer Data Used

The table below lists for each unit the number of times in operations during May 2015 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_400090	DSU_401620			31	31
PT_400090	DSU_401610	21			21
PT_400138	DSU_401590	31			31
PT_400116	DSU_401400	31			31
PT_400090	DSU_401610			11	11
PT_400111	DSU_401390			2	2
PT_400090	DSU_401270	31			31
PT_400111	DSU_401390	29			29
PT_400106	DSU_401330	39			39
PT_400133	DSU_401530	25			25
PT_400133	DSU_401530			6	6
PT_400124	DSU_401490	31			31
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	37			37
PT_400030	GU_400183	40			40
PT_400030	GU_400200	36			36
PT_400030	GU_400201	38			38
PT_400030	GU_400202	36			36
PT_400030	GU_400203	40			40
PT_400030	GU_400210	35			35
PT_400030	GU_400211	36			36
PT_400030	GU_400220	35			35
PT_400030	GU_400221	35			35
PT_400030	GU_400240	35			35
PT_400030	GU_400250	35			35
PT_400030	GU_400251	35			35
PT_400030	GU_400252	35			35
PT_400030	GU_400260	35			35
PT_400030	GU_400270	35			35
PT_400030	GU_400271	36			36
PT_400030	GU_400272	36			36
PT_400030	GU_400280	35			35
PT_400030	GU_400281	35			35
PT_400030	GU_400290	35			35
PT_400030	GU_400300	38			38
PT_400030	GU_400311	38			38
PT_400030	GU_400323	38			38
PT_400030	GU_400360	36			36
PT_400030	GU_400361	35			35
PT_400030	GU_400362	35			35
PT_400030	GU_400363	35			35
PT_400030	GU_400370	35			35

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PT_400030	GU_400850	38			38
PT_400032	GU_400430	31			31
PT_400034	GU_400940	31			31
PT_400034	GU_401090	31			31
PT_400034	GU_401440	31			31
PT_400035	GU_400480	50			50
PT_400037	GU_400500	31			31
PT_400041	GU_400530	47			47
PT_400044	GU_400540	50			50
PT_400050	GU_401280	9			9
PT_400054	GU_400620	31			31
PT_400055	GU_400630	31			31
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_400762	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	78			78
PT_400077	GU_400950	31			31
PT_400078	GU_401010	31			31
PT_400078	GU_401011	31			31
PT_400087	GU_401230	15			15
PT_400151	GU_401780	24			24
PT_500024	GU_500040	38			38
PT_500024	GU_500041	31			31
PT_500027	GU_500130	86			86
PT_500027	GU_500131	86			86
PT_500027	GU_500140	86			86
PT_500040	GU_500280	31			31
PT_500040	GU_500281	31			31
PT_500040	GU_500282	31			31
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_500904	51			51
PT_500050	GU_501040	31			31
PT_500050	GU_501050	31			31
PT_500050	GU_501150	31			31
PT_500050	GU_501190	31			31
PT_500053	GU_501130	31			31
PT_500066	GU_501210	31			31
PT_400021	GU_400021			31	31
PT_400021	GU_400050			31	31
PT_400021	GU_400060			31	31
PT_400021	GU_400070			31	31

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PT_400021	GU_400080			31	31
PT_400021	GU_400591			31	31
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_400021	GU_401380			31	31
PT_400021	GU_401600			31	31
PT_400021	GU_401640			31	31
PT_400025	GU_400130			31	31
PT_400030	GU_400310			31	31
PT_400038	GU_400550			31	31
PT_400050	GU_400650			31	31
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_400050	GU_401280			23	23
PT_400050	GU_401290			31	31
PT_400050	GU_401360			31	31
PT_400062	GU_400730			31	31
PT_400062	GU_400731			31	31
PT_400062	GU_400840			31	31
PT_400064	GU_400754			28	28
PT_400064	GU_400760			28	28
PT_400064	GU_400761			28	28
PT_400082	GU_401100			31	31
PT_400087	GU_401230			16	16
PT_400148	GU_401690			31	31
PT_400150	GU_401700			31	31
PT_400151	GU_401770			31	31
PT_400151	GU_401780			8	8
PT_400152	GU_401710			31	31
PT_400152	GU_401720			31	31
PT_400152	GU_401730			31	31
PT_400152	GU_401740			31	31
PT_400152	GU_401750			31	31
PT_400152	GU_401760			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_500032	GU_501280			31	31
PT_500032	GU_501290			31	31
PT_500039	GU_500270			31	31
PT_500044	GU_500720			31	31
PT_500047	GU_500790			31	31
PT_500061	GU_501170			31	31
PT_500062	GU_501180			31	31
PT_500073	GU_501230			31	31

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PT_500074	GU_501250			31	31
PT_400021	I_ROIEWIC	31			31
PT_500021	I_NIMOYLE	31			31
PT_500075	I_NIMOYLE	58			58
PT_400114	I_ROIEWIC	31			31
PT_500024	I_NIMOYLE	31			31
PT_500031	I_NIMOYLE	31			31
PT_500069	I_NIMOYLE	92			92
PT_500058	I_NIMOYLE	31			31
PT_500037	I_NIMOYLE	31			31
PT_400096	I_ROIEWIC	85			85
PT_400113	I_ROIEWIC	31			31
PT_400115	I_ROIEWIC	31			31
PT_400136	I_ROIEWIC	47			47
PT_500070	I_NIMOYLE	71			71
PT_400108	I_ROIEWIC	66			66
PT_400099	I_ROIEWIC	31			31
PT_400030	I_ROIEWIC	31			31

Table 30 – 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
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
Mar-14	ROI	£70,041,213.49	£26,285,336.21	£1,449,159.95	£261,906.17	£61,216.38	£2,226.19	£92,283.95	£30,407.22	£960.16	£0.00	£0.00	£0.00	98,224,709.72
	NI	£30,175,818.70	£9,293,564.48	£406,620.40	£46,940.79	£7,639.04	£408.77	£52,408.32	£11,933.67	£470.83	£0.00	£0.00	£0.00	39,995,805.00
Apr-14	ROI	£62,098,778.40	£21,155,742.39	£1,388,175.41	£528,104.58	£142,466.39	£4,901.73	£242,053.48	£38,030.86	£1,783.00	£0.00	£0.00	£0.00	85,600,036.24
	NI	£26,448,426.91	£9,644,850.74	£386,840.18	£307,948.88	£77,962.26	£2,649.15	£53,805.05	£9,613.13	£381.03	£0.00	£0.00	£0.00	36,932,477.33
May-14	ROI	£68,945,192.38	£22,029,381.87	£1,615,436.17	£629,905.18	£213,410.99	£7,659.07	£192,421.65	£21,030.53	£1,110.05	£429,407.30	£0.00	£0.00	94,084,955.19
	NI	£28,649,957.73	£7,313,397.03	£439,831.96	£149,812.37	£34,908.87	£997.82	£58,386.93	£9,959.93	£468.77	£0.03	£0.00	£0.00	36,657,721.44
Jun-14	ROI	£52,841,750.77	£17,596,854.80	£1,312,068.35	£423,771.26	£115,750.72	£4,162.65	£89,169.46	£18,685.28	£1,014.73	£28,526.30	£0.00	£0.00	72,431,754.32
	NI	£21,944,762.06	£6,361,219.34	£345,120.63	£120,971.43	£44,784.33	£1,003.03	£41,125.48	£9,461.42	£415.67	£2,532.18	£0.00	£0.00	28,871,395.57
Jul-14	ROI	£48,255,770.91	£22,988,780.17	£1,292,701.68	£332,606.61	£88,357.34	£2,943.28	£85,242.72	£17,526.18	£1,047.39	£0.00	£0.00	£0.00	73,064,976.28
	NI	£16,832,807.07	£5,122,118.14	£325,108.62	£91,338.63	£25,719.39	£870.76	£34,166.04	£7,520.83	£436.14	£0.00	£0.00	£0.00	22,440,085.62
Aug-14	ROI	£75,858,678.54	£17,424,467.63	£1,576,396.05	£255,748.90	£41,217.98	£1,835.23	£112,980.92	£0.00	£1,327.55	£123,147.19	£0.00	£0.00	73,064,976.28
	NI	£20,792,697.59	£5,164,101.59	£404,571.34	£73,223.02	£16,729.14	£695.03	£40,446.87	£0.00	£491.99	£10.52	£0.00	£0.00	22,440,085.62
Sep-14	ROI	£73,166,499.86	£17,774,079.00	£1,638,145.68	£285,506.09	£62,431.70	£3,367.28	£92,320.83	£30,020.38	£728.19	£0.00	£0.00	£0.00	93,053,099.01
	NI	£24,828,028.32	£5,414,449.74	£421,681.34	£62,719.19	£15,276.27	£566.66	£41,391.12	£13,194.54	£660.78	£0.00	£0.00	£0.00	30,797,967.96
Oct-14	ROI	£24,219,443.57	£5,293,829.01	£290,759.61	£125,095.27	£15,188.14	£796.75	£32,076.91	£6,465.54	£355.27	£0.00	£0.00	£0.00	29,984,010.07
	NI	£73,931,567.89	£18,999,271.36	£1,111,306.76	£521,095.61	£105,483.15	£5,765.50	£89,815.40	£9,518.03	£802.55	£0.00	£0.00	£0.00	94,774,626.25
Nov-14	ROI	£57,386,075.03	£21,066,561.05	£829,482.91	£519,431.32	£147,151.65	£6,123.28	£79,434.93	£23,622.83	£721.00	£0.00	£0.00	£0.00	80,058,604.00
	NI	£21,159,632.98	£6,853,966.46	£220,983.06	£50,691.24	£27,250.12	£653.21	£26,795.35	£6,589.23	£253.47	£0.00	£0.00	£0.00	28,346,815.12
Dec-14	ROI	£70,930,088.87	£29,867,271.70	£888,221.25	£635,976.36	£143,088.63	£7,086.94	£116,364.21	£26,279.71	£995.87	£0.00	£0.00	£0.00	102,615,373.54
	NI	£24,123,259.48	£7,725,422.06	£238,369.94	£58,794.95	£14,543.55	£696.33	£34,690.50	£7,234.36	£296.35	£0.00	£0.00	£0.00	32,203,307.52
Jan-15	ROI	£66,217,285.22	£32,948,586.09	£1,048,029.61	£438,657.65	£106,047.92	£3,853.63	£150,902.14	£27,588.16	£819.15	£0.00	£2,703.81	£0.00	100,944,473.38
	NI	£27,989,159.87	£8,572,662.67	£280,425.53	£42,989.83	£9,581.57	£365.00	£37,526.70	£7,104.61	£229.56	£0.00	£1,338.36	£0.00	36,941,383.70
Feb-15	ROI	£65,650,453.03	£55,349,682.44	£856,456.83	£281,934.15	£56,929.88	£1,558.86	£451,006.63	£29,817.73	£839.90	£68,857.79	£0.00	£0.00	122,747,537.24
	NI	£25,773,047.64	£16,395,217.13	£213,118.58	£112,874.22	£37,025.56	£783.98	£25,242.43	£5,150.11	£140.40	£0.00	£0.00	£0.00	42,562,600.05
Mar-15	ROI	£53,956,274.88	£21,836,040.18	£861,676.05	£453,661.43	£115,779.65	£2,416.32	£355,096.34	£39,172.70	£877.23	£111,462.50	£0.00	£0.00	77,732,457.28
	NI	£22,615,725.41	£8,408,410.93	£207,225.41	£147,466.81	£46,471.14	£825.82	£39,513.02	£6,098.32	£183.02	£282.78	£0.00	£0.00	£31,472,202.66
Apr-15	ROI	£49,671,449.35	£18,463,469.38	£767,415.15	£442,875.61	£132,859.46	£2,617.91	£174,481.42	£24,018.61	£806.67	£34,066.85	£0.00	£0.00	69,714,060.41
	NI	£20,444,248.38	£5,917,010.08	£191,002.36	£178,167.11	£60,451.34	£1,059.11	£38,565.73	£8,077.48	£245.07	£24,964.25	£0.00	£0.00	26,863,790.91
May-15	ROI	£62,682,234.81	£19,502,808.85	£978,929.74	£496,789.41	£113,309.65	£2,668.35	£257,691.56	£37,913.64	£947.65	£105,628.08	£0.00	£0.00	84,178,921.74
	NI	£20,656,049.28	£5,471,708.22	£941,978.73	£284,714.17	£81,721.34	£1,530.01	£28,297.30	£5,740.95	£255.12	£458.23	£0.00	£0.00	27,472,453.35

Table 31 - 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
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
Mar-14	ROI	€75,149,006.14	€26,180,620.54	€259,644.98	€60,397.08	€2,170.67	€127,303.70	€28,200.28	€960.40	€0.00	€0.00	€0.00	€101,808,303.79
	NI	€29,749,446.42	€9,292,032.85	€46,950.40	€8,326.93	€408.65	€52,017.29	€13,760.80	€471.08	€0.00	€0.00	€0.00	€39,163,414.42
Apr-14	ROI	€65,482,679.64	€21,981,963.17	€549,302.08	€147,627.43	€4,399.40	€259,726.57	€38,566.49	€1,783.33	€0.00	€0.00	€0.00	€88,466,048.11
	NI	€25,517,456.45	€8,979,409.88	€303,950.50	€73,719.22	€2,138.60	€56,294.66	€9,188.57	€381.08	€0.00	€0.00	€0.00	€34,942,538.96
May-14	ROI	€68,502,489.93	€22,405,052.21	€652,683.44	€210,307.65	€7,807.32	€249,029.58	€16,425.79	€1,110.17	€9,581.32	€0.00	€0.00	€92,054,487.41
	NI	€27,515,054.00	€7,036,489.15	€150,145.26	€37,452.65	€999.79	€81,713.52	€13,718.04	€468.77	€3.89	€0.00	€0.00	€34,836,045.07
Jun-14	ROI	€53,863,542.49	€16,268,861.66	€424,333.36	€121,415.36	€4,245.54	€106,227.35	€17,318.53	€1,014.63	€10,805.33	€0.00	€0.00	€70,817,764.25
	NI	€18,301,490.12	€7,464,864.99	€121,134.45	€40,186.30	€1,005.32	€50,770.87	€10,564.39	€415.66	€29.76	€0.00	€0.00	€25,990,461.86
Jul-14	ROI	€50,929,138.15	€21,772,067.06	€326,631.36	€82,858.43	€2,938.18	€123,130.56	€17,118.42	€1,016.51	€0.00	€0.00	€0.00	€73,254,898.67
	NI	€12,936,147.70	€6,035,816.09	€91,479.13	€29,875.87	€813.16	€67,310.27	€7,807.37	€427.29	€0.00	€0.00	€0.00	€19,169,676.88
Aug-14	ROI	€76,295,371.52	€16,503,906.00	€283,973.76	€42,797.07	€2,738.01	€125,676.42	€0.00	€1,327.83	€29.36	€0.00	€0.00	€93,255,819.97
	NI	€17,954,420.41	€5,911,052.65	€74,371.07	€15,553.63	€863.74	€54,424.97	€0.00	€488.54	€7.43	€0.00	€0.00	€24,011,182.44
Sep-14	ROI	€73,630,247.02	€17,405,067.16	€261,367.00	€62,924.88	€3,377.33	€73,033.72	€11,845.94	€728.13	€0.00	€0.00	€0.00	€91,448,591.18
	NI	€22,272,153.08	€5,742,482.51	€49,069.86	€14,962.35	€717.66	€41,404.59	€13,672.05	€509.28	€0.00	€0.00	€0.00	€28,134,971.38
Oct-14	ROI	€82,250,495.91	€18,220,219.93	€584,729.92	€104,687.01	€6,507.05	€125,335.38	€9,519.24	€1,313.25	€0.00	€0.00	€0.00	€101,302,807.69
	NI	€18,391,944.98	€5,868,972.09	€82,257.95	€15,709.16	€1,031.70	€42,677.16	€6,422.11	€498.29	€0.00	€0.00	€0.00	€24,409,513.44
Nov-14	ROI	€64,818,088.97	€20,480,936.98	€530,386.99	€157,754.12	€6,116.91	€78,674.36	€23,606.67	€1,289.81	€0.00	€0.00	€0.00	€86,096,854.81
	NI	€14,616,605.70	€7,312,194.38	€50,960.79	€18,897.71	€653.20	€37,498.77	€6,592.72	€254.29	€0.00	€0.00	€0.00	€22,043,657.56
Dec-14	ROI	€79,262,340.64	€30,252,803.13	€636,211.01	€143,171.30	€7,087.15	€116,495.94	€25,330.11	€995.97	€0.00	€0.00	€0.00	€110,444,435.25
	NI	€17,625,339.05	€7,511,303.13	€58,743.90	€14,475.87	€679.17	€34,724.44	€7,982.34	€296.61	€0.00	€0.00	€0.00	€25,253,544.51
Jan-15	ROI	€77,706,417.44	€34,394,754.66	€438,764.21	€107,475.98	€4,105.28	€98,914.59	€27,079.30	€830.89	€14,240.78	€3,537.75	€0.00	€112,796,120.88
	NI	€21,735,748.95	€7,476,289.80	€38,275.71	€8,505.48	€324.11	€25,331.16	€7,456.18	€248.46	€0.00	€691.42	€0.00	€29,292,871.27
Feb-15	ROI	€73,470,092.53	€55,924,536.86	€296,450.78	€68,641.91	€1,587.00	€108,844.27	€30,840.66	€843.06	€0.00	€0.00	€0.00	€129,901,837.07
	NI	€19,828,437.97	€15,954,828.70	€108,022.71	€28,545.69	€367.07	€16,957.65	€4,432.19	€141.23	€0.00	€0.00	€0.00	€35,941,733.21
Mar-15	ROI	€62,833,350.60	€23,162,278.12	€454,954.34	€115,622.74	€2,409.00	€95,140.99	€35,705.38	€876.34	€33.87	€0.00	€0.00	€86,700,371.38
	NI	€18,497,389.79	€7,572,263.19	€147,525.82	€46,556.55	€825.97	€19,215.14	€8,635.89	€182.86	€726.16	€0.00	€0.00	€26,293,321.37
Apr-15	ROI	€55,596,682.04	€19,228,984.53	€447,913.03	€132,018.11	€2,588.47	€93,342.92	€23,125.23	€794.27	€27,655.34	€0.00	€0.00	€75,553,103.94
	NI	€14,229,748.35	€5,312,669.68	€178,040.01	€60,667.89	€1,059.24	€28,971.47	€8,624.89	€241.56	€20,785.23	€0.00	€0.00	€19,840,808.32
May-15	ROI	€67,111,651.41	€19,797,771.76	€51,325.57	€496,344.48	€113,479.16	€2,634.87	€257,691.56	€32,517.87	€947.37	€0.00	€0.00	€87,864,364.05
	NI	€14,205,268.80	€5,300,854.82	€14,374.56	€284,573.32	€81,498.12	€1,531.15	€28,297.30	€9,511.56	€255.00	€0.00	€0.00	€19,923,102.33

Table 32 - Total Payments by Month

15 Appendix H: Full Balancing Costs

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

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

Trading Market

Date Of Invoice	Week No	SEM Balancing Costs	VAT Balancing Costs
03/10/2014	38	-€115,563.34	-€ 12,716.83
10/10/2014	39	€103,327.94	€49,084.94
17/10/2014	40	-€315,014.02	-€ 48,688.42
24/10/2014	41	€234,738.53	€13,856.57
31/10/2014	42	€833,278.35	-€228,026.23
07/11/2014	43	€1,209,277.49	€172,019.41
14/11/2014	44	-€89,236.37	-€18,016.46
21/11/2014	45	-€726,843.59	-€105,801.85
28/11/2014	46	-€504,700.82	-€60,211.13
05/12/2014	47	-€783,945.26	-€105,665.85
12/12/2014	48	-€481,481.35	-€72,270.22
19/12/2014	49	€485,102.80	€53,433.64
31/12/2014	50	€980,523.50	€ 148,117.94
06/01/2015	51	€1,093,199.99	-€115,434.63
09/01/2015	52	€1,320,639.28	-€ 84,567.47
16/01/2015	1	€1,142,575.16	-€178,714.26
23/01/2015	2	€496,291.68	-€87,488.46
30/01/2015	3	-€871,479.91	€86,389.82
06/02/2015	4	€371,162.79	-€86,251.15
13/02/2015	5	-€198,874.86	€21,560.90
20/02/2015	6	-€341,073.88	€60,600.73
27/02/2015	7	€9,930.09	-€86,398.49
03/03/2015	8	€345,725.42	-€150,752.30
10/03/2015	9	€1,239,682.13	-€129,512.35
17/03/2015	10	€718,089.57	-€101,950.03
24/03/2015	11	-€432,482.35	€14,085.31
31/03/2015	12	€449,126.81	-€64,651.98
7/04/2015	13	€89,053.88	-€38,664.98
14/04/2015	14	-€1,012,471.70	€128,936.18
21/04/2015	15	-€839,084.24	€128,786.90
01/05/2015	16	-€299,738.05	€144,199.78
08/05/2015	17	-€100,756.77	€94,697.22
15/05/2015	18	€127,012.27	€143,672.76
22/05/2015	19	-€726,994.34	€24,101.25
29/05/2015	20	-€581,933.86	€139,338.43

Table 33 – Full Balancing Costs for Trading Charges and Payments

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

Capacity Market

Invoice Month	SEM Balancing Costs	VAT Balancing Costs
October 2014	-€361.28	-€ 968.24
November 2014	-€348.12	-€0.03
December 2014	-€393.11	€0.00
January 2015	-€416.65	€0.04
February 2015	-€364.18	€0.02
March 2015	-€382.43	-€0.03
April 2015	-€265.40	-€0.08
May 2015	-€291.90	€801.20

Table 34 - 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
<u>October 2014</u>	<u>10/10/2014</u>	<u>03/10/2014</u> <u>15/10/2014</u> <u>28/10/2014</u>	<u>06/10/2014</u> <u>13/10/2014</u> <u>29/10/2014</u>	<u>06/10/2014</u> <u>13/10/2014</u> <u>27/10/2014</u>	<u>19/10/2014</u>
<u>November 2014</u>	-	<u>02/11/2014</u> <u>11/11/2014</u> <u>15/11/2014</u> <u>25/11/2014</u>	<u>20/11/2014</u> <u>24/11/2014</u> <u>26/11/2014</u>	<u>12/11/2014</u> <u>20/11/2014</u> <u>26/11/2014</u>	-
<u>December 2014</u>	<u>14/12/2014</u>	<u>04/12/2014</u> <u>14/12/2014</u> <u>25/12/2014</u>	<u>01/12/2014</u>	<u>04/12/2014</u>	-
<u>January 2015</u>	<u>06/01/2015</u>	<u>12/01/2015</u> <u>15/01/2015</u> <u>21/01/2015</u> <u>23/01/2015</u>	<u>03/01/2015</u>	<u>28/01/2015</u>	<u>16/01/2015</u>
<u>February 2015</u>	-	<u>06/02/2015</u> <u>07/02/2015</u> <u>09/02/2015</u> <u>13/02/2015</u> <u>18/02/2015</u> <u>23/02/2015</u>	<u>24/02/2015</u>	<u>28/02/2015</u>	<u>05/02/2015</u> <u>10/02/2015</u>
<u>March 2015</u>	-	-	-	<u>15/03/2015</u>	<u>24/03/2015</u>
<u>April 2015</u>	-	-	<u>20/04/2015</u>	<u>20/04/2015</u>	<u>25/04/2015</u>

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Month	Ex-Ante	Ex-Ante 2	Ex-Post Indicative	Ex-Post Initial	Within Day
<u>May 2015</u>	-	<u>13/05/2015</u>	<u>03/05/2015</u>	-	-

Table 35 - MIP Algorithms

Operational Date	Trade Date	Run Type	LR Peak SMP	MIP Peak SMP	Published
02/10/2014	03/10/2014	EA2	€1000	€298.79	MIP
07/10/2014	06/10/2014	EP1	€1000	€287.16	MIP
10/10/2014	06/10/2014	EP2	€1000	€288.65	MIP
09/10/2014	10/10/2014	EA1	€1000	€338.11	MIP
14/10/2014	13/10/2014	EP1	€1000	€141.67	MIP
17/10/2014	13/10/2014	EP2	€1,000	€269.41	MIP
14/10/2014	15/10/2014	EA2	€1,000	€219.27	MIP
19/10/2014	19/10/2014	WD1	€1,000	€117.07	MIP
31/10/2014	27/10/2014	EP2	€567.43	€452.53	MIP
27/10/2014	28/10/2014	EA2	€1000	€255.85	MIP
30/10/2014	29/10/2014	EP1	€1000	€436.71	MIP
01/11/2014	02/11/2014	EA2	€1000	€215.23	MIP
10/11/2014	11/11/2014	EA2	€1000	€229.26	MIP
14/11/2014	15/11/2014	EA2	€1000	€369.02	MIP
24/11/2014	25/11/2014	EA2	€572.13	€424.16	MIP
21/11/2014	20/11/2014	EP1	€1000	€228.86	MIP
27/11/2014	26/11/2014	EP1	€1000	€380.87	MIP
25/11/2014	24/11/2014	EP1	€630.52	€560.63	MIP
16/11/2014	12/11/2014	EP2	€1000	€357.67	MIP
24/11/2014	20/11/2014	EP2	€1000	€228.14	MIP
30/11/2014	26/11/2014	EP2	€1,000	€455.21	MIP
01/12/2014	30/11/2014	EP1	€554.66	€841.81	MIP
04/12/2014	05/12/2014	EA2	€1000	€271.08	MIP
04/12/2014	30/11/2014	EP2	€554.65	€439.23	MIP
14/12/2014	15/12/2014	EA1	€585.68	€241.97	MIP
14/12/2014	15/12/2014	EA2	€585.68	€242.87	MIP
25/12/2014	26/12/2014	EA2	€584.33	€71.42	MIP
03/01/2015	02/01/2015	EP1	€560.46	€244.25	MIP
06/01/2015	07/01/2015	EA1	€550.32	€230.74	MIP
12/01/2015	13/01/2015	EA2	€1000	€162.06	MIP
15/01/2015	16/01/2015	EA2	€1000	€210.05	MIP
16/01/2015	16/01/2015	WD1	€557.82	€176.01	MIP
21/01/2015	22/01/2015	EA2	€554.69	€183.59	MIP
23/01/2015	24/01/2015	EA2	€1000	€361.30	MIP
28/01/2015	24/01/2015	EP2	€1000	€358.00	MIP
05/02/2015	05/02/2015	WD1	€583.65	€461.14	MIP
06/02/2015	07/02/2015	EA2	€1000	€201.17	MIP
07/02/2015	08/02/2015	EA2	€1000	€238.69	MIP

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09/02/2015	10/02/2015	EA2	€1000	€211.44	MIP
10/02/2015	10/02/2015	WD1	€1000	€206.00	MIP
13/02/2015	14/02/2015	EA2	€1000	€920.77	MIP
18/02/2015	19/02/2015	EA2	€1000	€475.15	MIP
23/02/2015	24/02/2015	EA2	€1000	€239.26	MIP
24/02/2015	23/02/2015	EP1	€1000	€206.00	MIP
28/02/2015	24/02/2015	EP2	€1000	€418.22	MIP
15/03/2015	11/03/2015	EP2	€1000	€740.26	MIP
24/03/2015	24/03/2015	WD1	€586.24	€195.68	MIP
21/04/2015	20/04/2015	EP1	€589.68	€79.45	MIP
25/04/2015	24/04/2015	WD1	€1,000	€162.18	MIP
24/04/2015	20/04/2015	EP2	€589.68	€80.11	MIP
12/05/2015	13/05/2015	EA2	€590.61	€221.99	MIP
04/05/2015	03/05/2015	EP1	€574.30	€313.07	MIP

Table 36 - MIP Vs LR Peak Price Comparison