



Market Operator Monthly Report

July 2015

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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 July 2015, Settlements had no late publications as per the Trading and Settlement code.

165 general queries were received in July 2015. During the same period 175 general queries were resolved.

There were 12 defaults by Participants during July 2015. The largest of these was an Energy Initial invoice for €25,635.70 which was remedied the same day.

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

Monthly Statistics

Code Breaches

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

Code Breaches			
Area		Major	Minor
Data Providers		-	3
Market Participants	Pricing & Scheduling	-	-
	Settlement	-	-
	Funds Transfer	12	-
	Credit Risk Management	-	-
SEMO	Pricing & Scheduling	-	2
	Settlement	-	-
	Funds Transfer	-	-
	Credit Risk Management	-	-
	Other	-	-
Total		12	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 three new Parties joining the Market in July 2015.

- DWL Energy Supply Limited
- Shell Energy Europe Limited
- Captured Carbon Limited

There were no terminating parties in July 2015.

There was one new unit effective in the Market in July 2015.

- PT_500034 – GU_501350 Lisahally Power Station

No units de-registered from the Market in July 2015.

Suspension of Participants

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

Financial Statistics

Total Charges for Each Currency

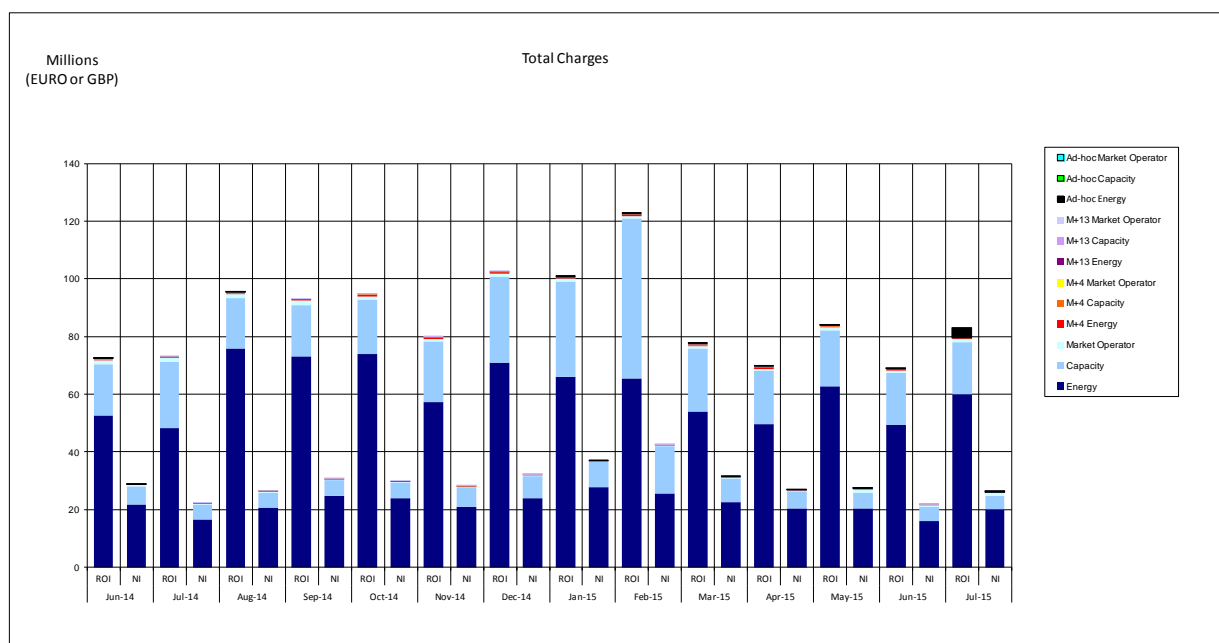


Figure 1 - Total Charges for Each Currency

Market	July 2015	
	ROI	NI
Energy	€60,081,066	£20,399,900
Capacity	€18,106,345	£4,559,620
Market Operator	€938,580	£901,179
M+4 Energy	€392,864	£122,425
M+4 Capacity	€100,251	£34,196
M+4 Market Operator	€2,281	£799
M+13 Energy	€70,409	£13,983
M+13 Capacity	€14,571	£3,042
M+13 Market Operator	€801	£171
Ad-hoc Energy	€3,383,813	£560,425
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€83,090,983	£26,595,741

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](#).

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Total Payments for Each Currency

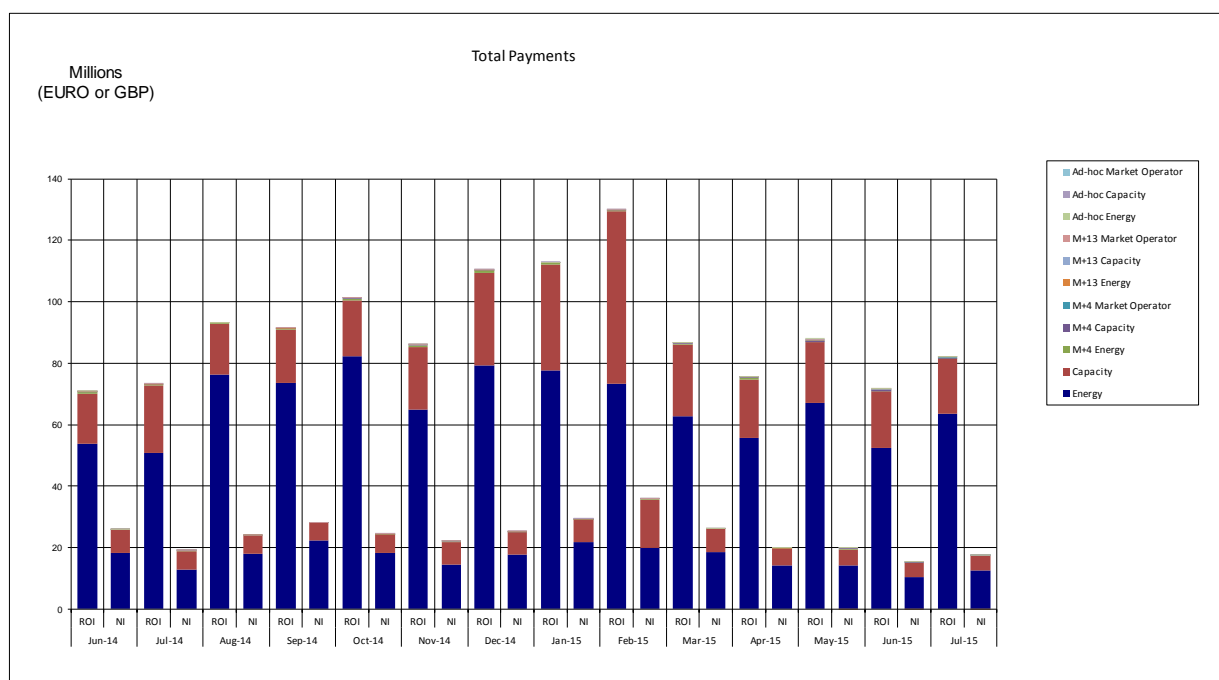


Figure 2 - Total Payments for Each Currency

Market	July 2015	
	ROI	NI
Energy	€63,619,223	£12,711,689
Capacity	€17,795,389	£4,703,937
M+4 Energy	€50,900	£13,499
M+4 Capacity	€368,805	£121,756
M+4 Market Operator	€98,198	£35,885
M+13 Energy	€2,208	-£800
M+13 Capacity	€70,409	£13,983
M+13 Market Operator	€14,587	£3,045
Ad-hoc Energy	€801	£171
Ad-hoc Capacity	€0	£0
Ad-hoc Market Operator	€0	£0
Total	€82,020,521	£17,603,166

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:

July 2015	
Imbalance (Energy Only)	-€4,996,578.33

Table 4 - Balancing Costs for Energy Settlement

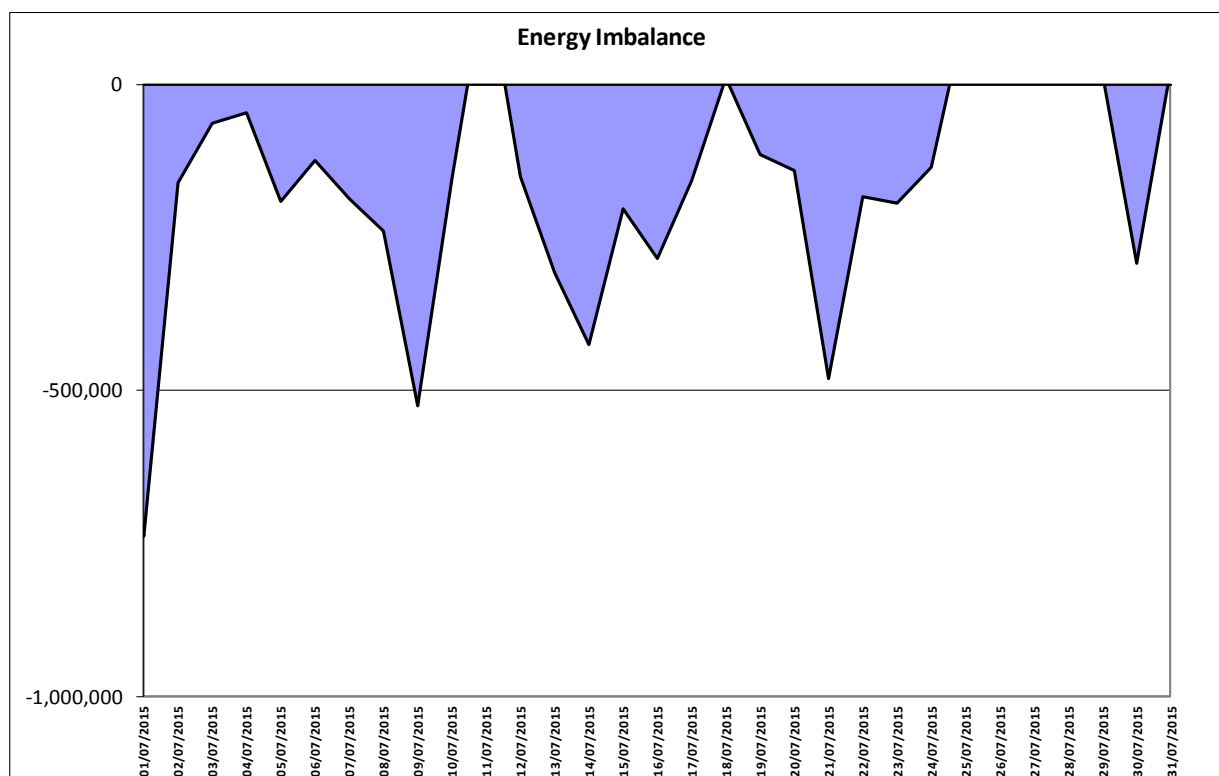


Figure 3 – Energy Imbalances

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
03/07/2015	25	€146,348.99	€155,182.53
10/07/2015	26	-€804,612.35	-€337,082.05
17/07/2015	27	-€1,160,398.93	€145,979.53
24/07/2015	28	-€624,454.00	€143,384.39
31/07/2015	29	-€1,392,308.77	€183,753.05

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:

July 2015	
Capacity Charges	-€37,504,040.48
Capacity Payments	€37,503,793.72
Balancing Costs	-€246.76
VAT	-€2,177.31

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
27/06/2015	03/07/2015	25	£ 8,410.01	£7,534.34	£15,944.35
04/07/2015	10/07/2015	26	-£8,983.09	-£8,704.20	-£17,687.29
11/07/2015	17/07/2015	27	£5,732.85	£4,012.95	£9,745.81
18/07/2015	24/07/2015	28	£9,557.38	£34,489.46	£44,046.84
25/07/2015	31/07/2015	29	-£30,617.23	-£12,029.21	-£42,646.44

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 £44,046.84 and a cost of £42,646.44. 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
12/08/2015	July 2015	-£87,280.36

Table 8 - Total Currency Costs for Capacity Payments and Charges

Cumulative Imperfections Costs Vs Budget

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

These values have been collected across the months since the start of the new financial year, 1st October 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
€150,020,159.79	-€2,102,637.10	€5,101,526.38	-€154,780,428.05

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.

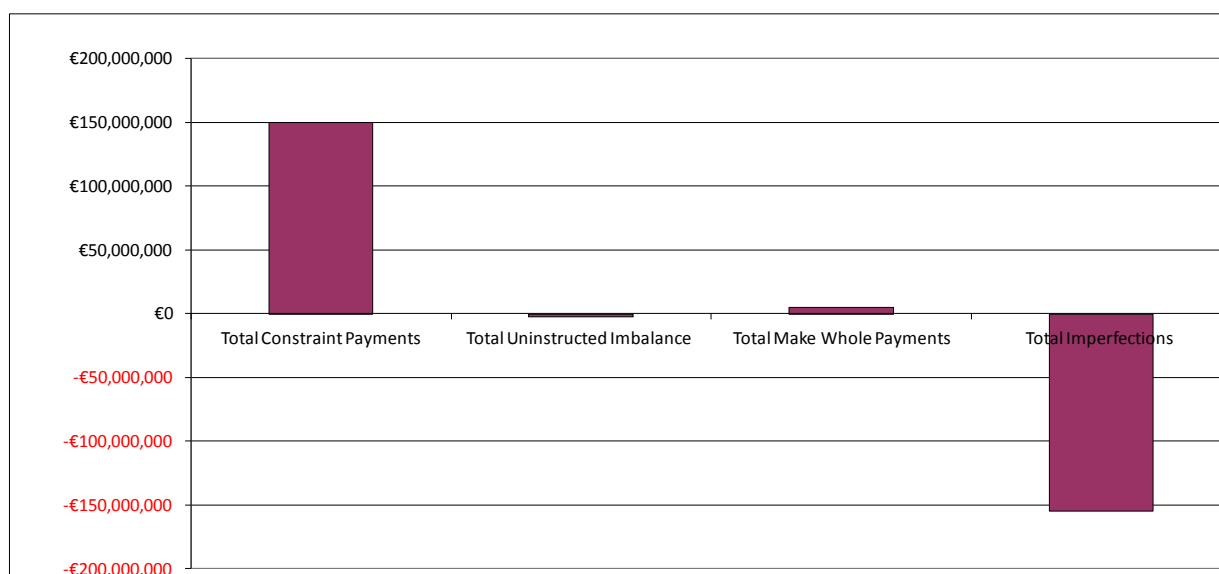


Figure 4 - Cumulative Imperfections Costs Vs Budget

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 March 2015 and M+13 resettlement period of June 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).
- Negative amounts indicate net additional payment to be made to Participants (Payments).

The reverse is true for Figure 7 & 10

M+4 Resettlement

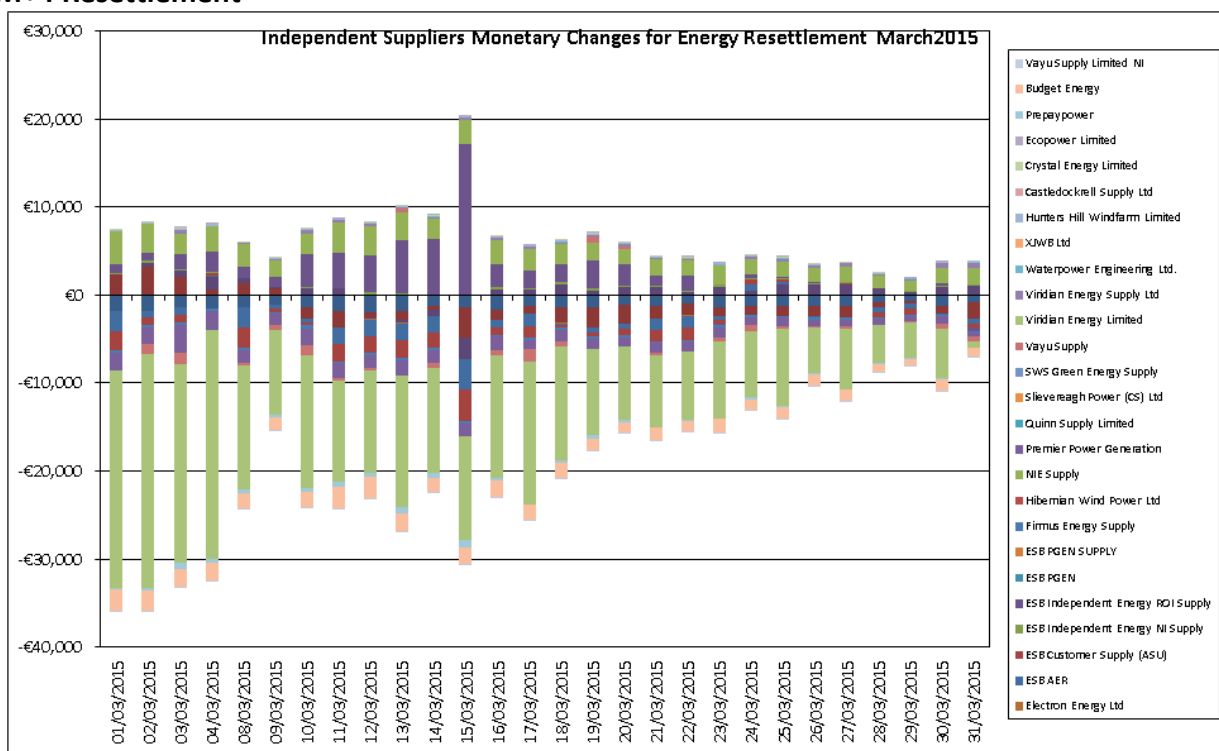


Figure 5 – Independent Suppliers Monetary Changes for Energy Resettlement – March 2015

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

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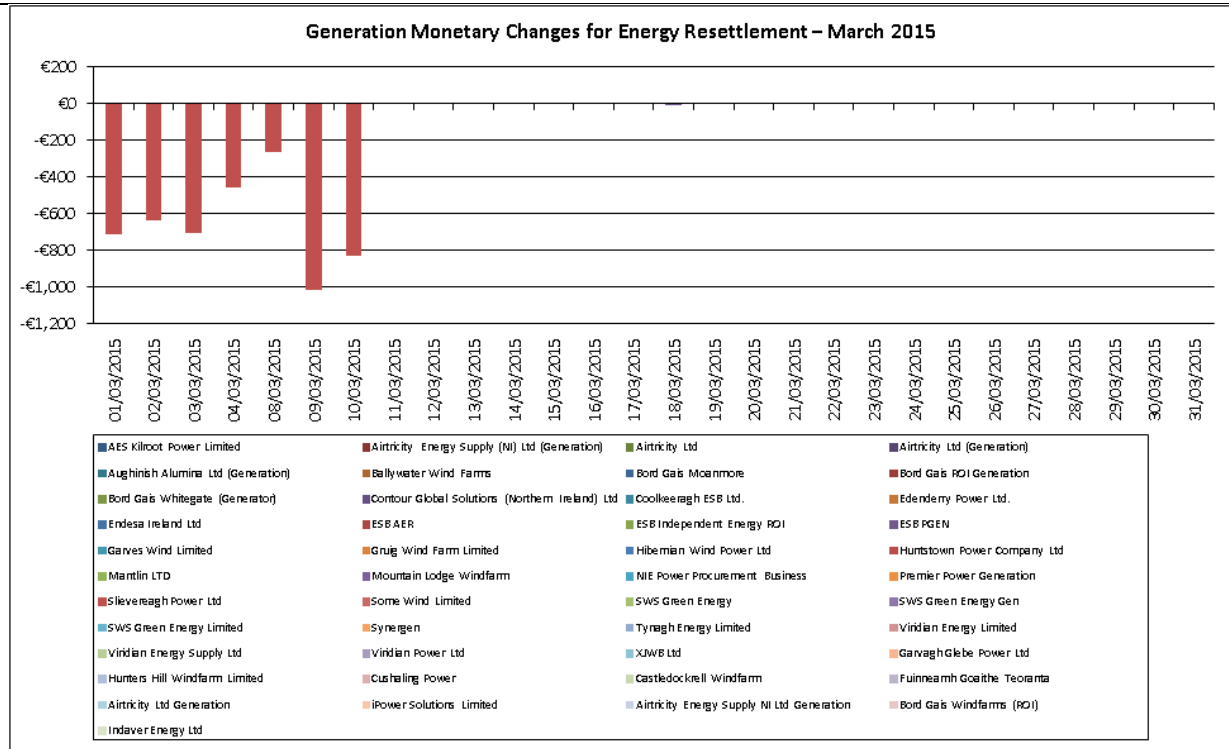


Figure 6 – Generation Monetary Changes for Energy Resettlement – March 2015

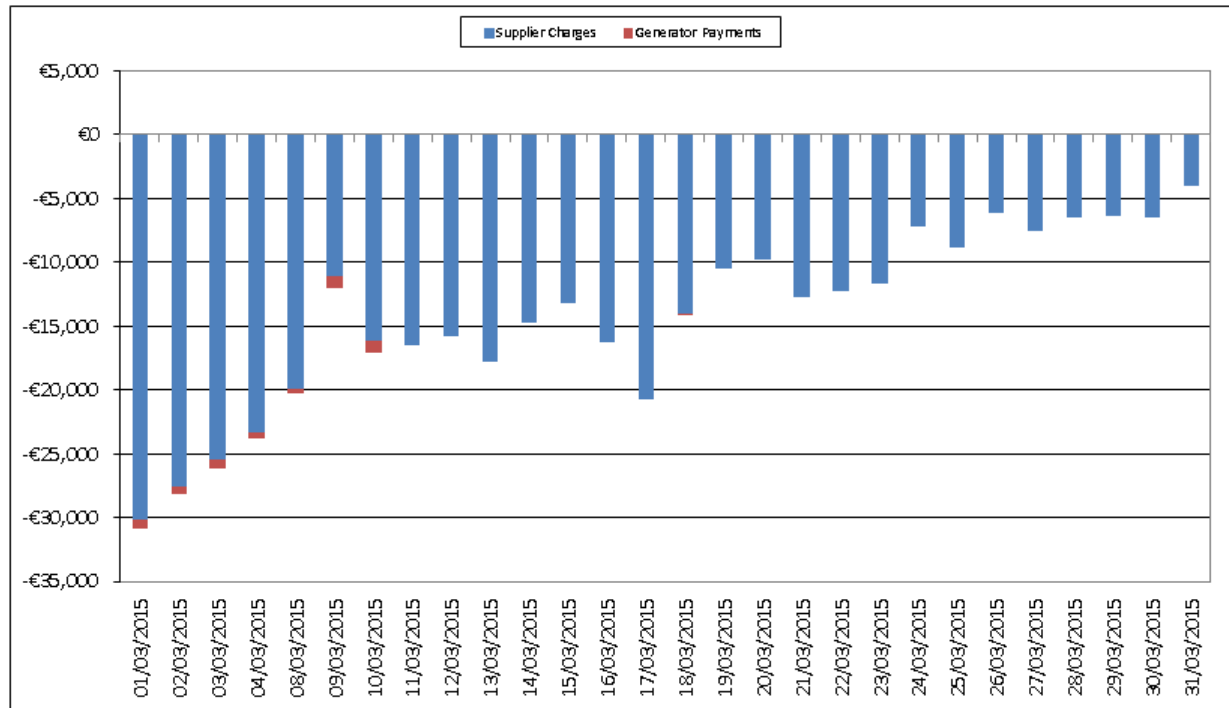


Figure 7 – Total Monetary Changes for Energy Resettlement – March 2015

M+13 Resettlement

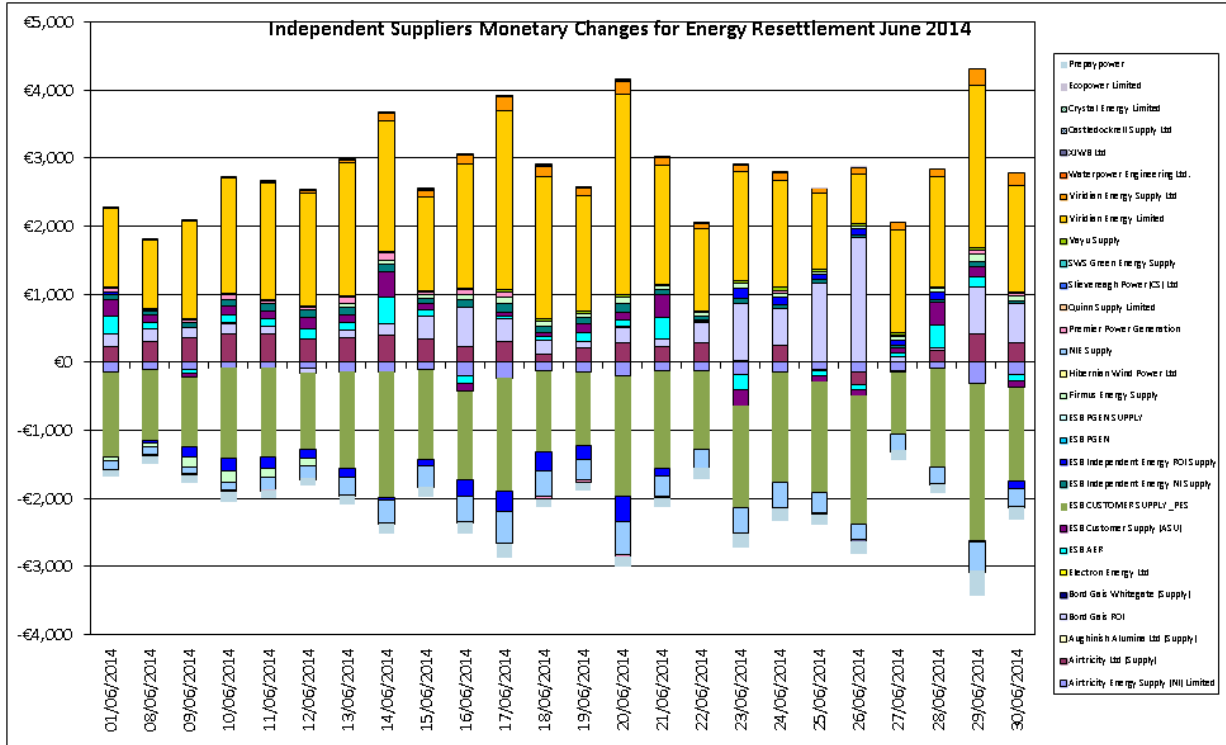


Figure 8 - Independent Suppliers Monetary Changes for Energy Resettlement – June 2014

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

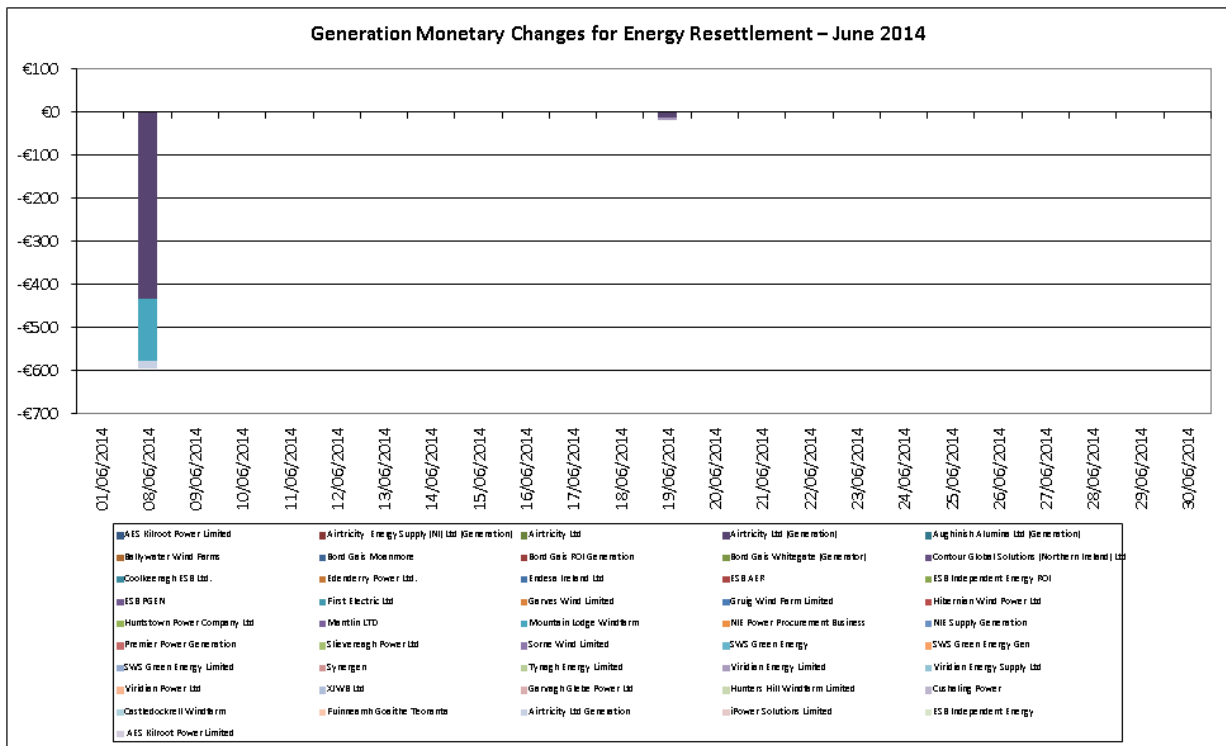


Figure 9 - Generation Monetary Changes for Energy Resettlement – June 2014

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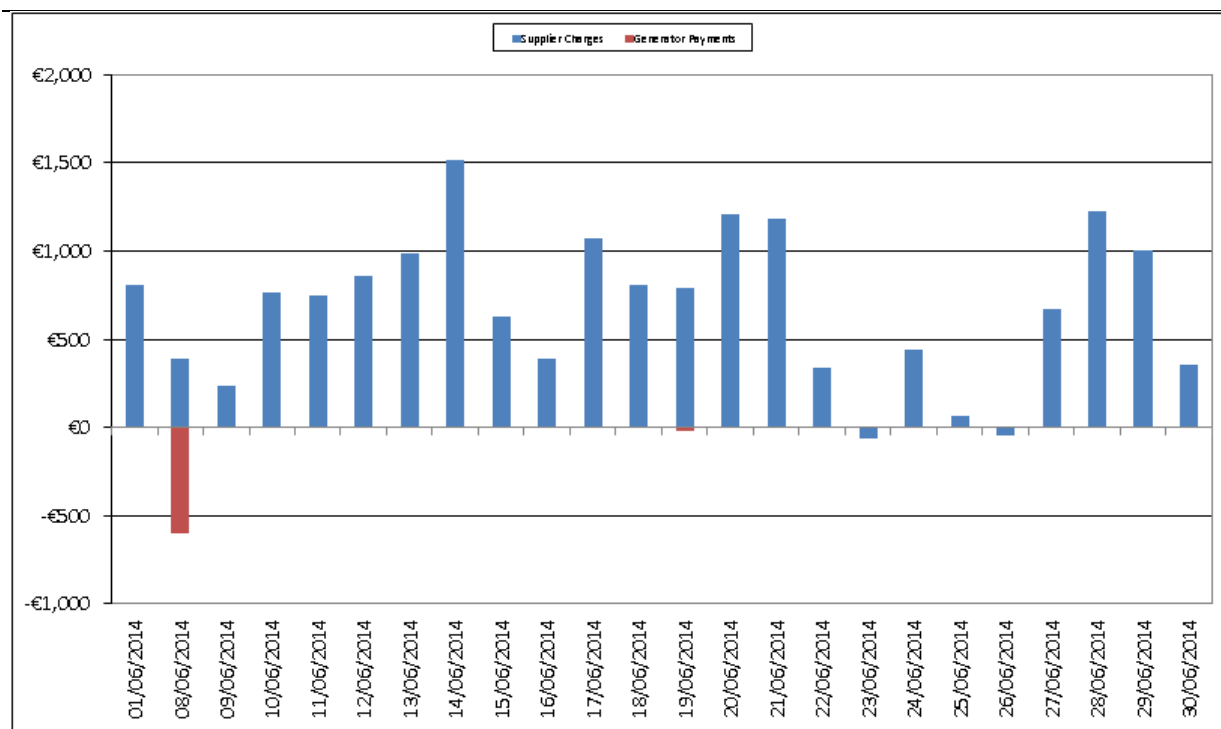


Figure 10 - Total Monetary Changes for Energy Resettlement – June 2014

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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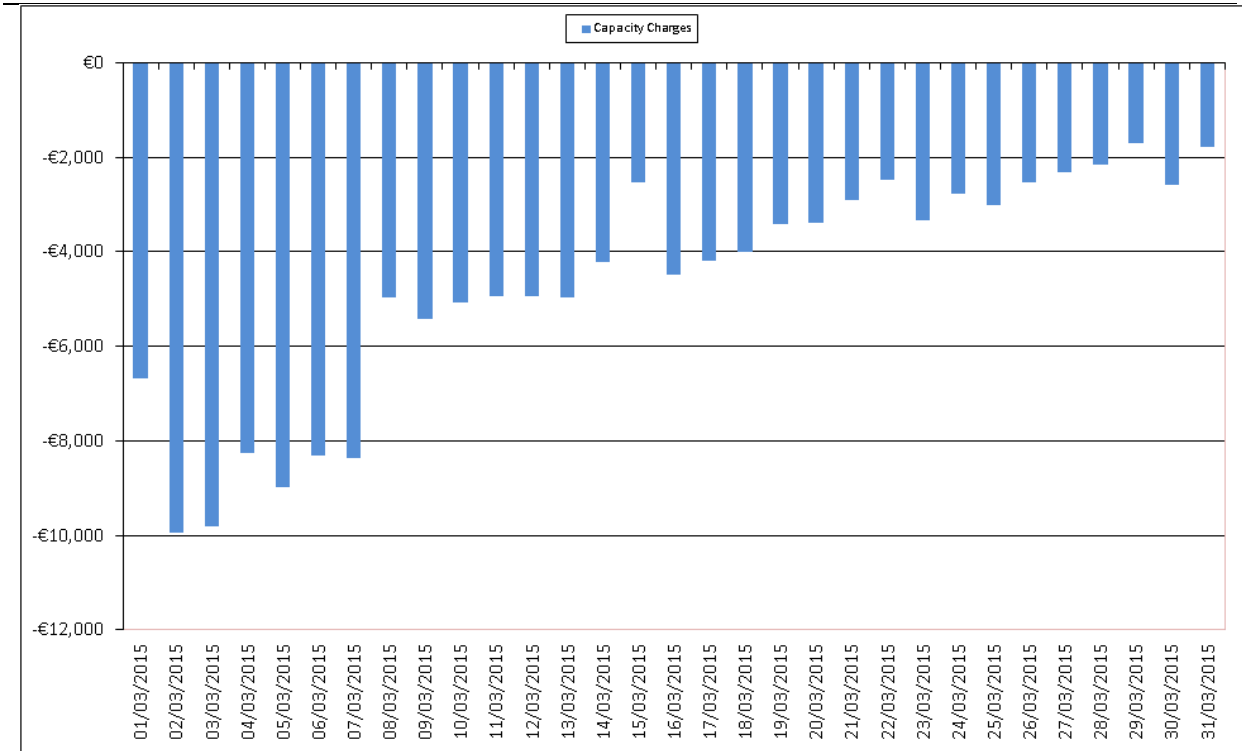


Figure 11 - Independent Suppliers Monetary Changes for Capacity Resettlement – March 2015

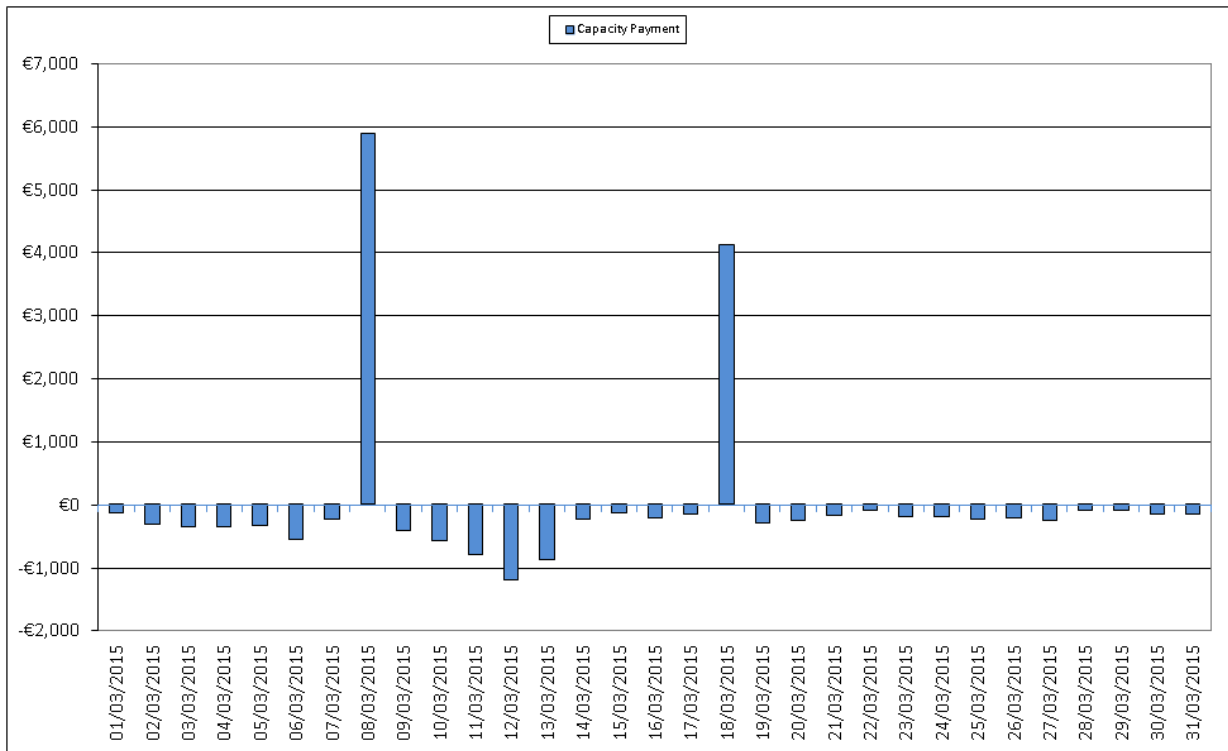


Figure 12 - All Generation Monetary Change for Capacity Resettlement – March 2015

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

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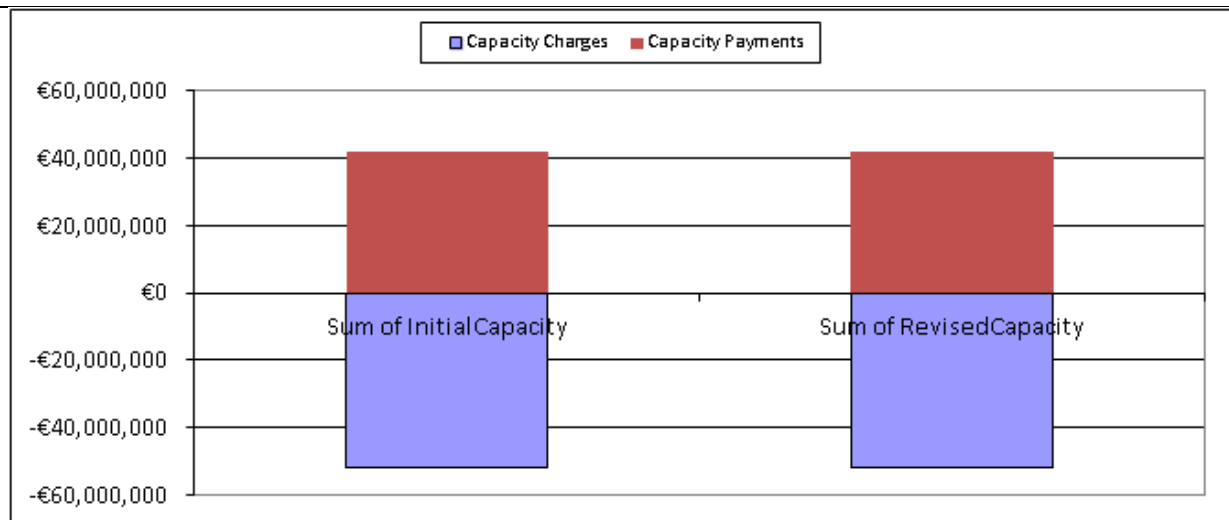


Figure 13 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement March 2015

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

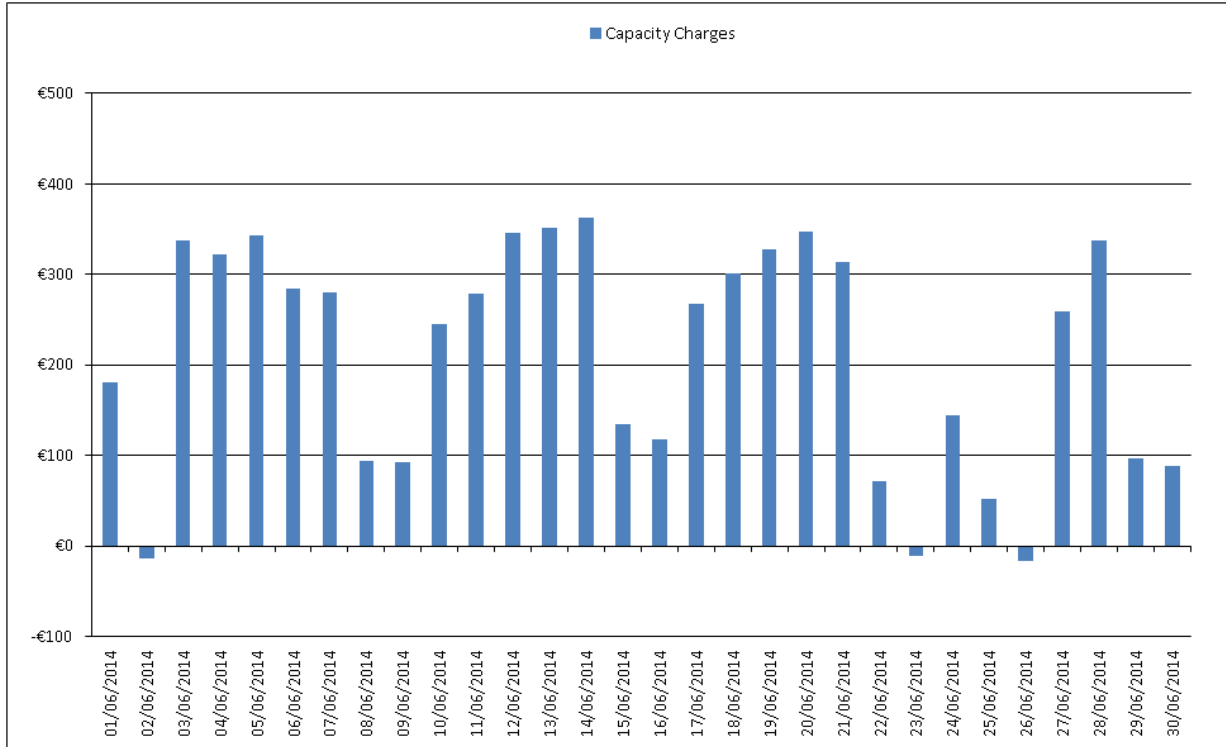


Figure 14 - Independent Suppliers Monetary Changes for Capacity Resettlement – June 2014

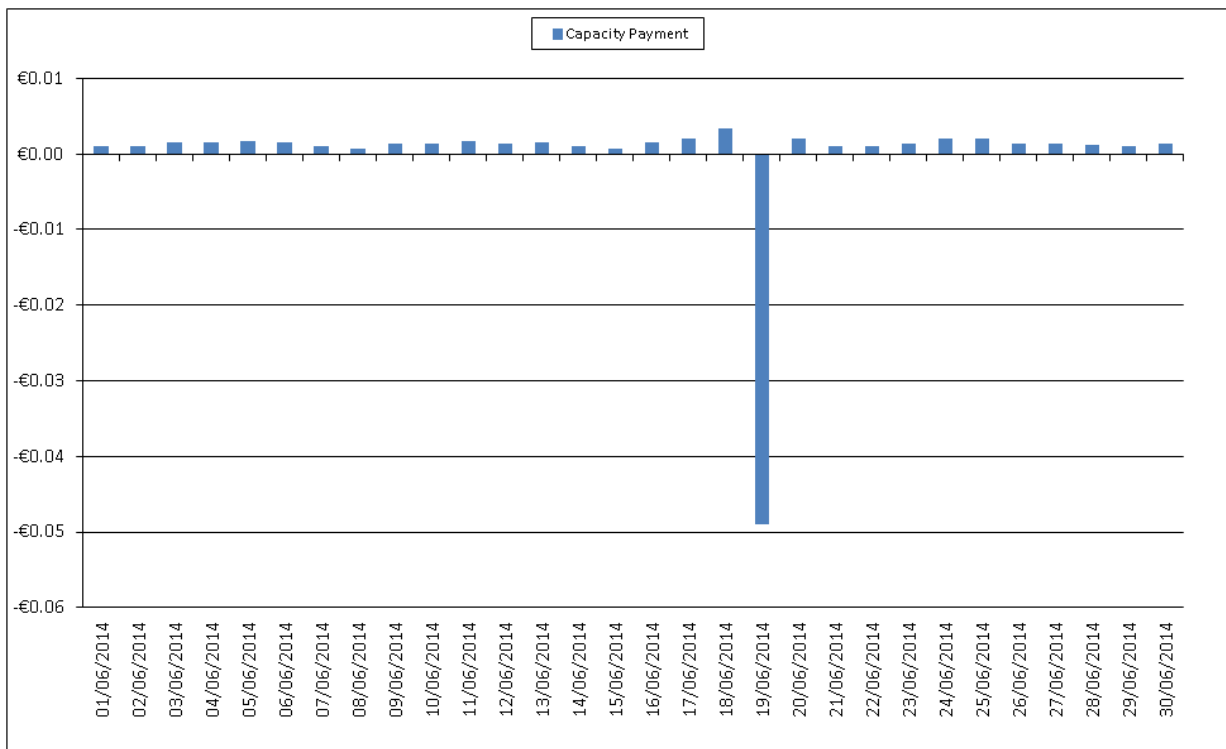


Figure 15 – All Generation Monetary Change for Capacity Resettlement – June 2014

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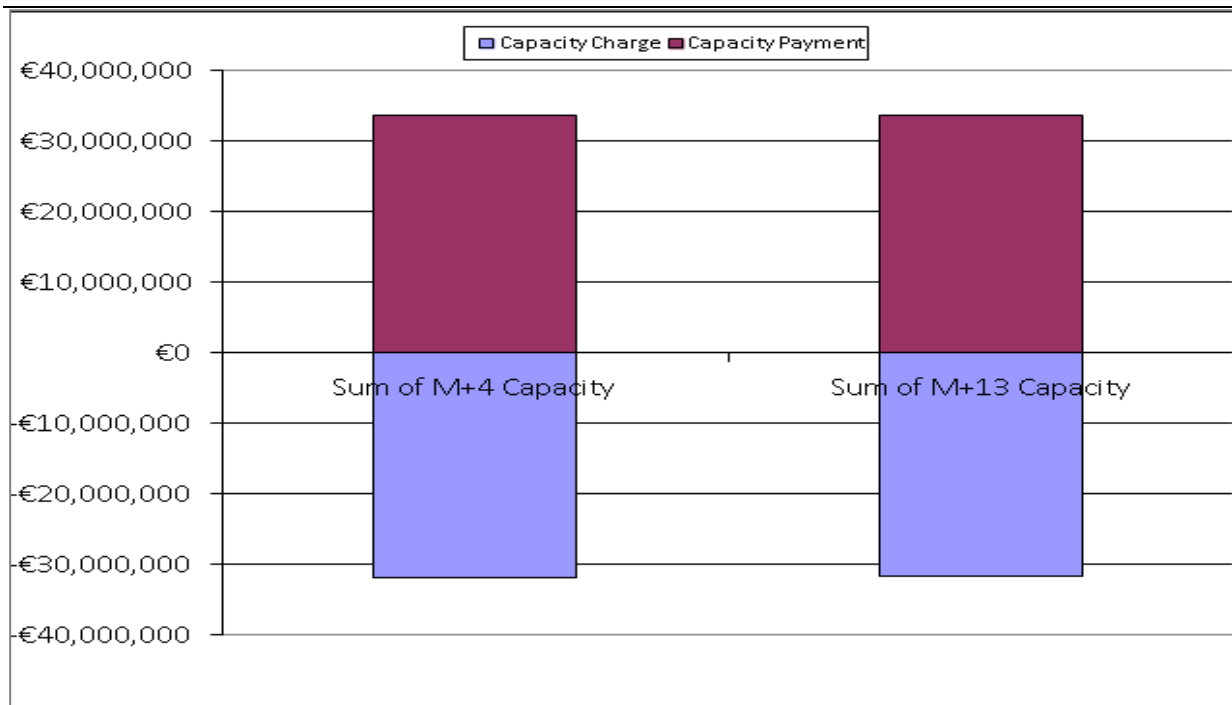


Figure 16 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – June 2014

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 July 2015.

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	162	154	8	172	0.95	172
Important	3	3	0	3	0.35	3
Urgent	0	0	0	1	1.84	0
Settlement	10	10	0	14	3.66	14
Credit	0	0	0	0	0.00	0
Dispute	0	0	0	1	31.73	0
Data	0	0	0	0	0.00	0
Total/Average	175	167	8	191	7.71	189

Table 10 – Helpdesk Statistics

Definitions:

- *Resolved within the Period* refers to queries raised and resolved within the calendar month of July 2015.
- *Resolved in the Period* refers to queries resolved within July 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 July 2015.
- *Not Resolved* refers to queries raised but not resolved within July 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 slightly by 0.38 working days in July 2015 to 0.95 from 1.33 working days in May 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 July 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 July 2015 with regard to formal Settlement Queries.

5. Disputes and Queries

5.1.1 Disputes

There were no Disputes raised during the month of July 2015.

5.1.2 Data Queries

There were no formal Data Queries raised during the month of July 2015.

5.1.3 Settlement Queries

There were nine formal Settlement Queries raised in July 2015. Of the nine, eight were upheld and have all been resolved.

Topic	Number Of Queries
Availability	1
Dispatch Instructions	2
Meter Demand	4
SO-SO Trade	1

Table 11 - Upheld Settlement Queries by topic

- One query relating to Actual Availability was raised, this were deemed to be of Low Materiality. This will be corrected within M+4 re-settlement.
- Two queries relating to Dispatch Instructions was raised, these were deemed to be of Low Materiality. One will be corrected within M+4 re-settlement and the other to be corrected within M+13 re-settlement.
- Four queries relating to Meter Demand were raised, these were deemed to be of Low Materiality and will be corrected within M+4 re-settlement.
- One query relating to SO-SO Trades was raised, this was deemed to be of Low Materiality and will be corrected within M+4 re-settlement.

Unresolved Queries

There are no unresolved data queries and no unresolved settlement queries as at the 12th August 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, 69.26% of data used was submitted by Participants through the normal Bid-Offer process. 30.74% 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 thirteen Re-Price runs carried out in July 2015.

There were fifteen Resettlement runs carried out in July 2015.

6.3.2 System Errors

There were 2 Settlement Market Application defects found in July 2015.

SET-SEMO 143 - REVLf for long hour is mapping incorrectly in RE-INTP3

SET-SEMO 147 - Cancelled PST-MAN still appearing in Energy PIR

Details are provided in 10 Appendix C: List of All System Errors and Failures

6.4 Operational Timings

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

There are five run types for MSP software,

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

The following tables and graphs provide details for the postings of the MSP for July 2015.

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6.4.1 MSP Postings July 2015

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

Table 12 - 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 13 - Operational Timings (% on time)

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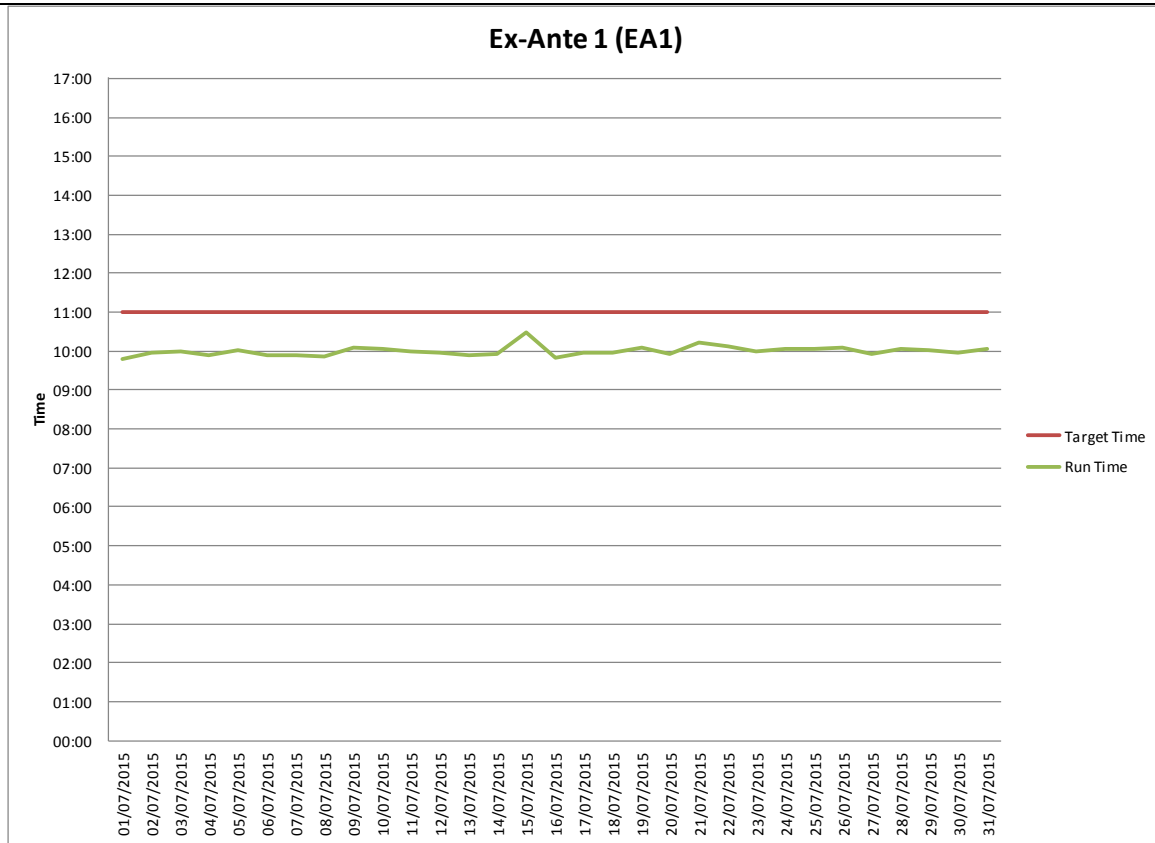


Figure 17 – Ex-Ante 1

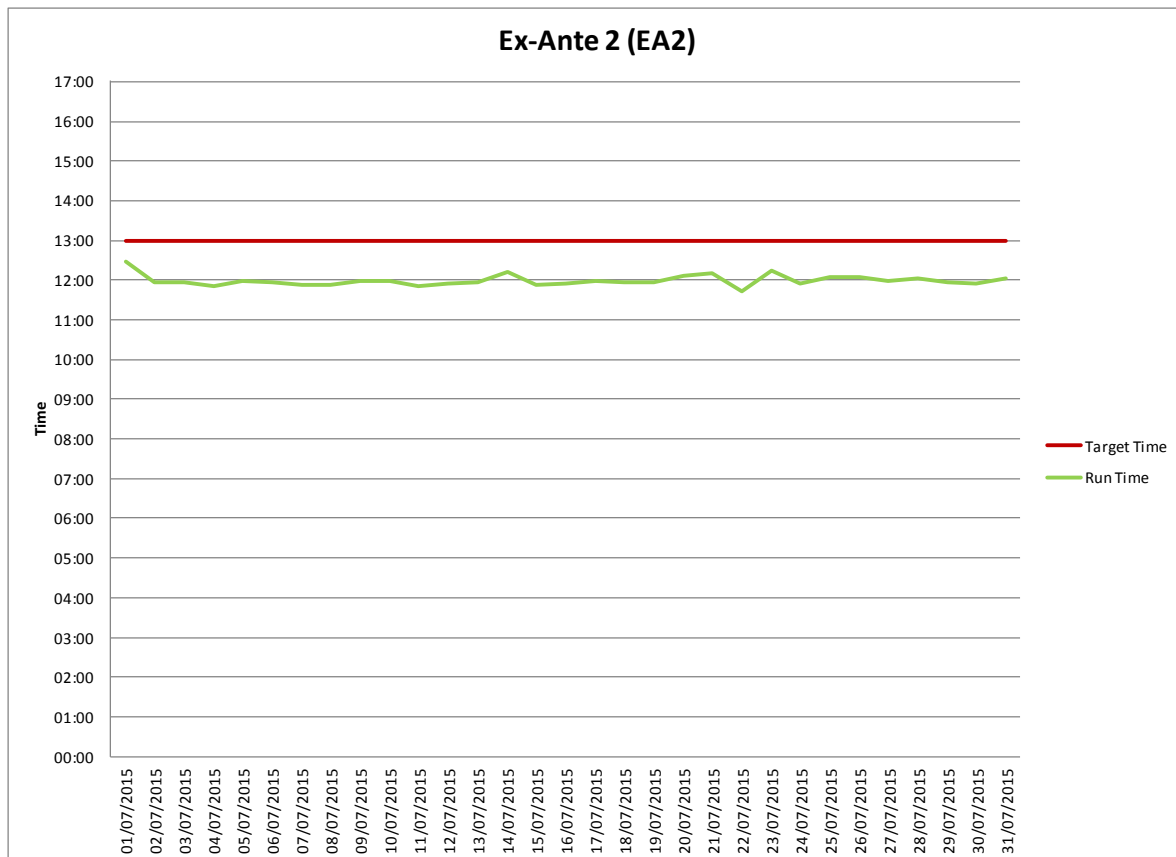


Figure 18 – Ex-Ante 2

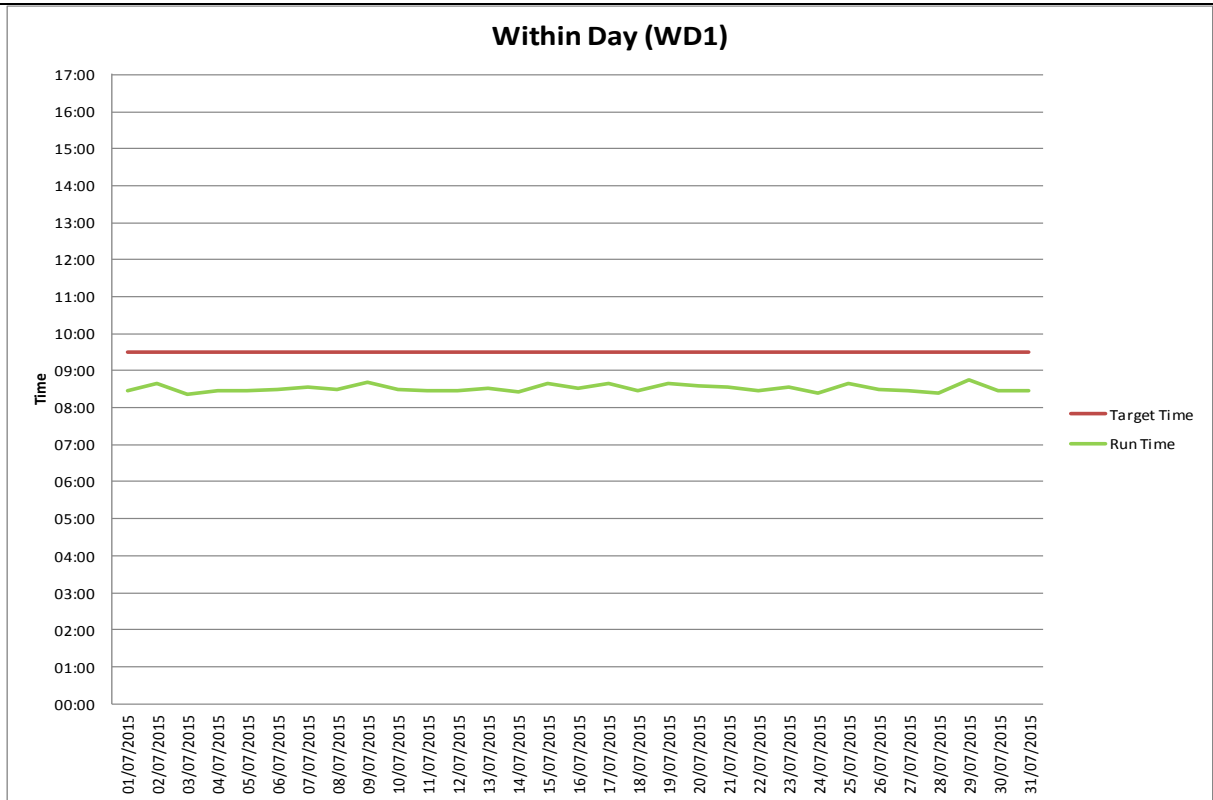


Figure 19 – Within Day 1

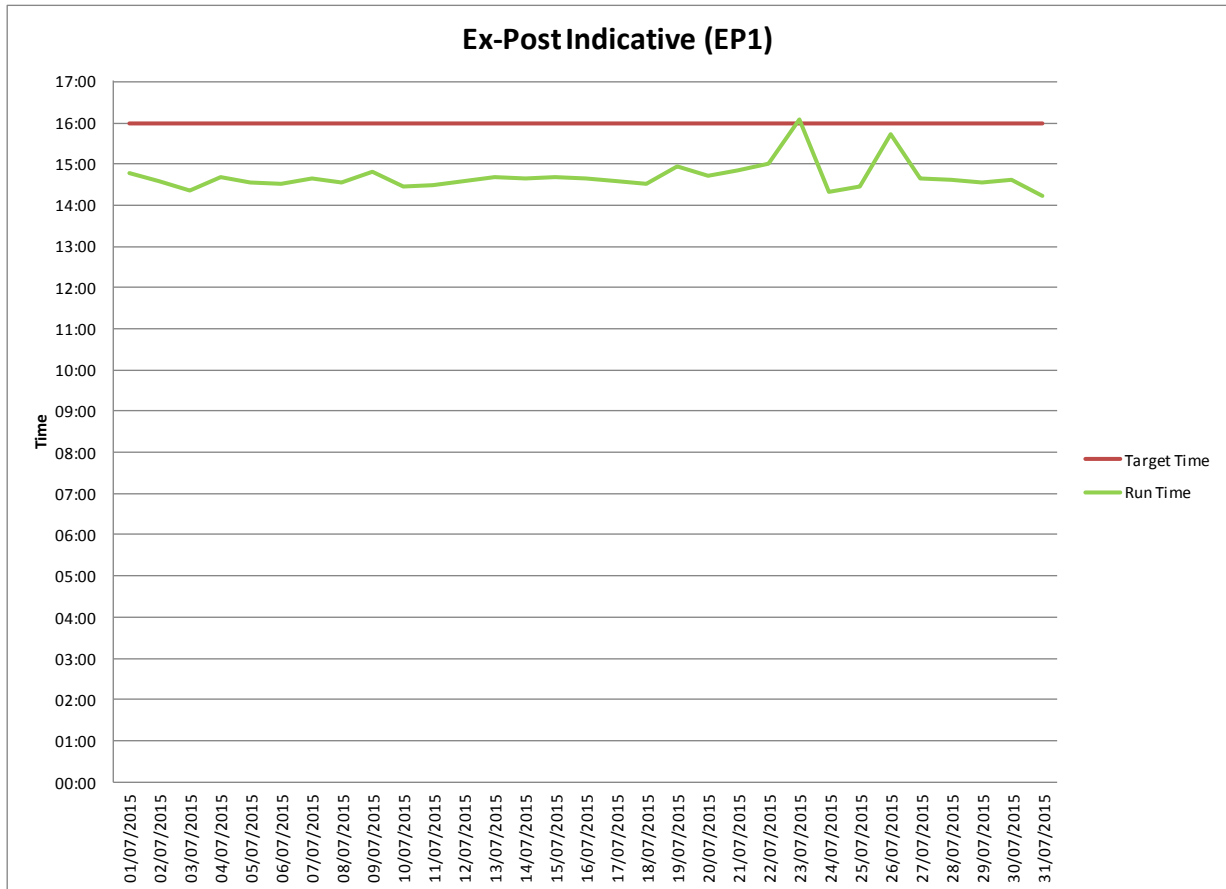


Figure 20 - Ex-Post Indicative

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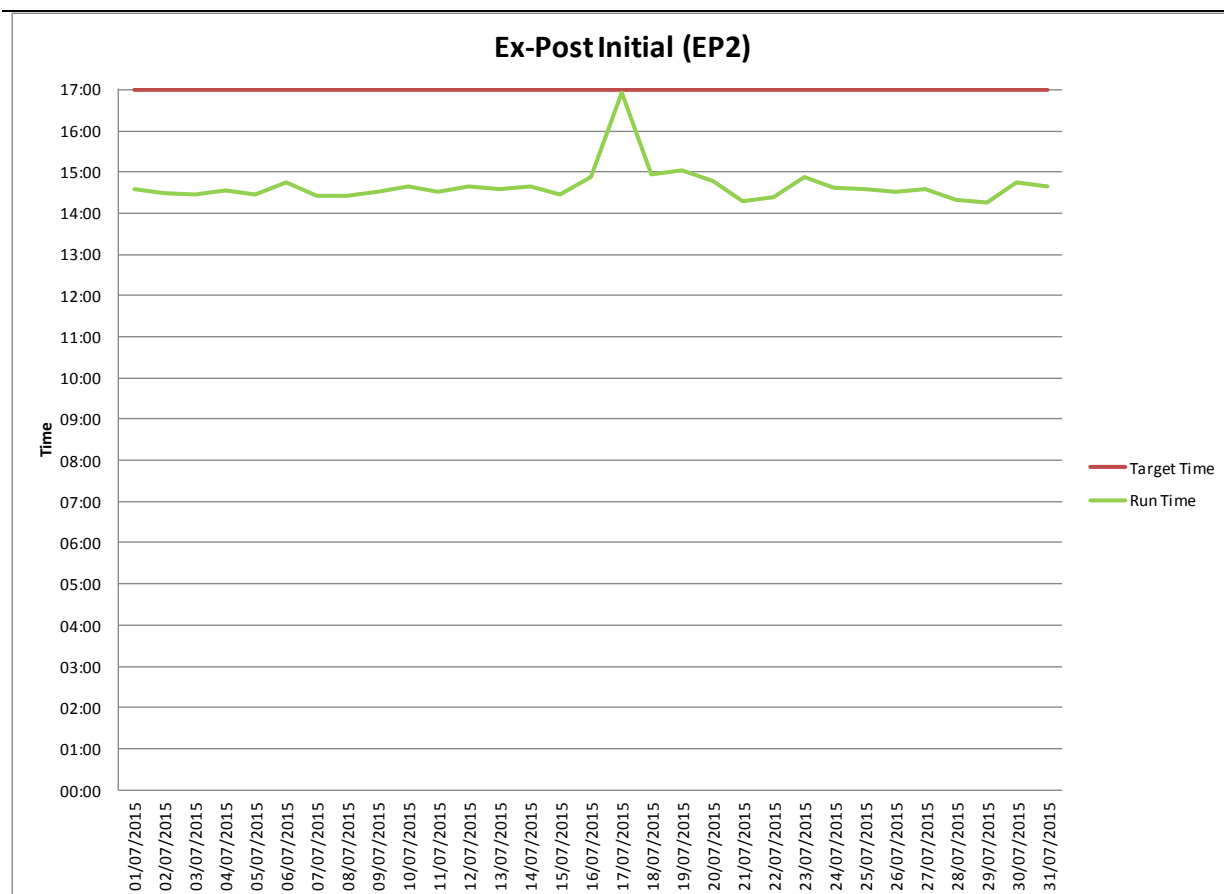


Figure 21 - Ex-Post Initial

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 July 2015, there was one instance 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](#).

Market Operator Monthly Report

6.4.3 Settlement Postings July 2015

The publication timings for Settlement runs are provided below.

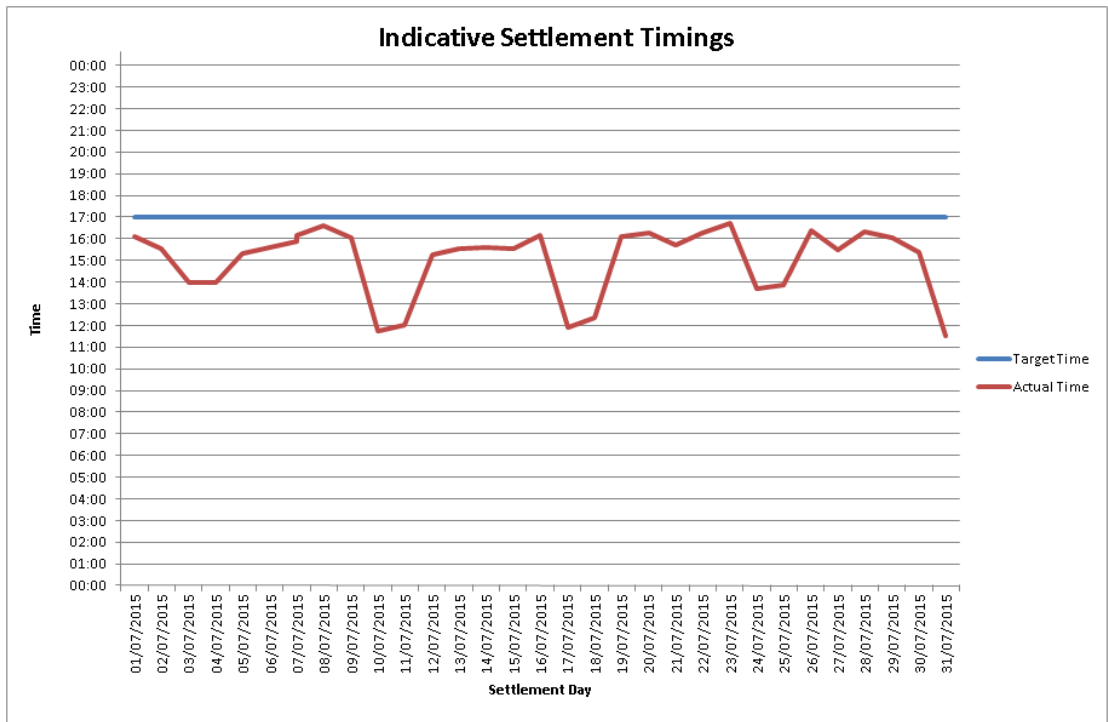


Figure 22 - Indicative Settlement Postings

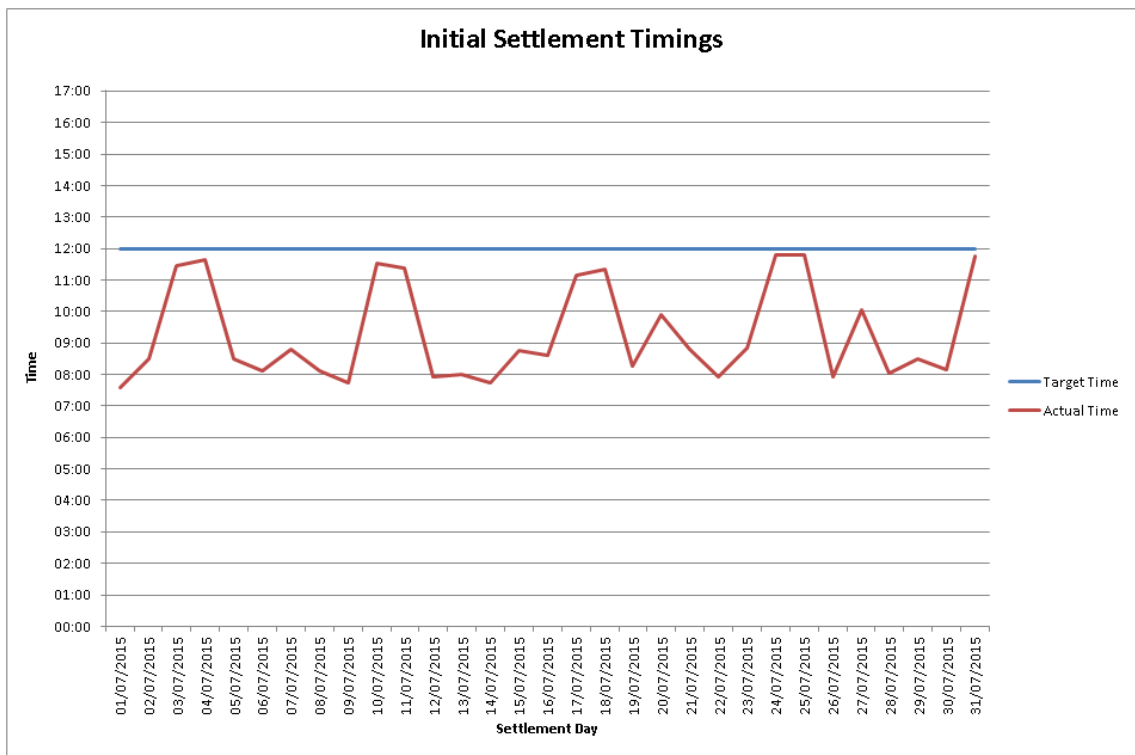


Figure 23 - Initial Settlement Postings

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
- 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 July 2015.

7.3 Communications or Systems Failures

There were 2 System issues during July 2015;

NOTE : Both issues were not system related, but rather vendor recommended configuration and operational issues.

On July 6th, an issue was encountered with the printing of invoices from Settlements where batch printing for week ending July 3rd 2015 timed out. The system vendor provided a registry fix to increase the configuration parameter relating to session timeout within WebLink from 20 minutes (default value) to 30 minutes. A greater volume of invoices on July 3rd resulted in the current 20 minute threshold being exceeded for the first time and this needed to be extended.

On July 21st, an error occurred during the EP2 run which stated “*No feasible Single Unit DP for unit DSU_401610 at 11:30 of 2015-07-18. Fatal Error. Contact UC support.*”. A call was logged with the system vendor who confirmed there was no issue with the EP2 run. The vendor offered 2 alternatives, 1. execute UUC using the MIP solver or 2. Modify the ramp rate to a higher value. Market Operations chose to publish the run as it was.

7.4 Denial of Service Attacks

There was no Denial of Service Attacks during July 2015.

7.5 Submission of Parameters to RAs for Approval

No parameters were submitted to the Regulatory Authorities during July 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
01/07/2015	Money In	Timing	Participant	Payment Default	Energy Trading Ireland (PT_400111) defaulted on a February 2015 M+4 Capacity invoice	Participant Error	A default letter was issued	Major
08/07/2015	Money In	Timing	Participant	Payment Default	Interconnector Administrator EWIC defaulted on a Week 45 2014 Ad Hoc Energy invoice	Participant error	A default letter was issued	Major
10/07/2015	Money In	Timing	Participant	Payment Default	Electricity Exchange Limited (PT_400116) defaulted on a June 2015 Initial FMOC invoice	Participant error	A default letter was issued	Major
10/07/2015	Money In	Timing	Participant	Payment Default	Electricity Exchange Limited (PT_400117) defaulted on a June 2015 Initial VMOC invoice	Participant error	A default letter was issued	Major
16/07/2015	Money In	Timing	Participant	Payment Default	There was a shortfall on a Snugborough Windfarm RoI Limited (PT_500029) Week 14 2013 Ad Hoc invoice	Participant Error.	A default letter was issued.	Major
16/07/2015	Money In	Timing	Participant	Payment Default	There was a shortfall on a Gruig Wind Farm Limited (PT_500047) week 47 2014 Ad Hoc invoice.	Participant error.	A default letter was issued.	Major
29/07/2015	Money In	Timing	Participant	Payment Default	Bearna Gaoithe Power Supply Ltd (PT_400073) defaulted on Week 49 2014 Ad Hoc Energy Invoice	Participant Error	A default letter was issued	Major
29/07/2015	Money In	Timing	Participant	Payment Default	Dunmore Power Supply Limited (PT_400071) defaulted on a Week 49 2014 Ad Hoc Energy invoice	Participant Error	A default letter was issued	Major
29/07/2015	Money In	Timing	Participant	Payment Default	Mantlin Limited (PT_500039) defaulted on a Week 49 2014 Ad Hoc Energy invoice	Participant Error	A default letter was issued	Major
29/07/2015	Money In	Timing	Participant	Payment Default	Gruig Wind Farm Limited (PT_500047) defaulted on a Week 49 2014 Ad Hoc Energy invoice	Participant Error	A default letter was issued	Major
29/07/2015	Money In	Timing	Participant	Payment Default	Contour Global Limited (PT_500048) defaulted on a Week 48 2014 Ad Hoc Energy invoice	Participant Error	A default letter was issued	Major
29/07/2015	Money In	Timing	Participant	Payment Default	Empower Generation (PT_500073) defaulted on a Week 48 2014 Ad Hoc Energy invoice	Participant Error	A default letter was issued	Major

Table 14 - 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
24/07/2015	EP1	Timing	SONI TSO	File Submission	The Actual Availability file for D+1 Trade Date 23/07/2015, was submitted after the T&SC 14:00 deadline.	A required amendment was identified by SONI TSO.	The Actual Availability file for D+1 trade date 23/07/2015 was successfully submitted to the into the market systems at 15:51 and thus did not result in a delay to the Ex-Post Indicative market schedule.	Minor
24/07/2015	EP1	Timing	SONI TSO	File Submission	The SONI TSO Dispatch Instruction D+1 file, for Trade Date 23/07/2015, had to be re-submitted to the market systems.	A required amendment was identified by the SONI TSO.	An amended SONI TSO Dispatch Instruction D+1 file, for Trade Date 23/07/2015, was submitted. The revised Dispatch Instruction file successfully submitted into the market systems at 15:34 and thus did not result in a delay to the Ex-Post Indicative market schedule.	Minor
27/07/2015	EP1	Timing	EirGrid TSO	File Submission	The EirGrid SO_REDECLARED_ENERGY_LIMIT data feed for Trade Date 26/07/2015 was not received by the Ex Post Indicative (EP1) gate window closure at 14:00.	There was an issue with the TSO systems which was subsequently resolved.	The SO_REDECLARED_ENERGY_LIMIT file was sent by EirGrid and successfully received at 15:20.	Minor

Table 15 - Code Breaches – Data Providers

SEMO - Pricing and Scheduling

Ops Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach
14/07/2015	WD1	Timing	SEMO	System	A revision was required to set Within Day (WD1) EWIC MIUNs to zero for Trade Date 14/07/2015.	The MIUN calculator produced an error and a revised file was required.	Revised EWIC MIUNs were published at 10:18.	Minor
14/07/2015	EA2	Timing	SEMO	System	A revision was required to set Ex-Ante 2 EWIC MIUNs to zero for Trade Date 15/07/2015.	The MIUN calculator produced an error and a revised file was required.	Revised EWIC MIUNs were published at 12:48.	Minor

Table 16 - Code Breaches – Pricing and Scheduling

SEMO – Settlements

There were no issues to report in July 2015

Market Operator Monthly Report

SEMO - Funds Transfer

There were no issues to report in July 2015

SEMO - Credit Management

There were no issues to report in July 2015

SEMO – Other

There were no issues to report in July 2015

9 Appendix B: List of Queries by Type

Summary Title	Description	ID	Logged On	Date sent to MP	Type
MGEU	Querying the MGEU_IA_NIMOYLE_I_NIMOYLE value in PIR for settlement date 20/06/2015 for period ending 15:30. The values in the Error report in AMP are different to the PIR for this settlement date. Can you please confirm what values are applied to generator the MG EU value for this period?	IA_NIMOYLE	2015-07-01	2015-07-03	Settlement
Dispatch instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_400323 (Poolbeg Combined) on the 19/12/2014.	EirGrid	2015-07-06	2015-07-07	Settlement
Dispatch instructions	Incorrect Dispatch Instructions were sent to the SEM for GU_401250 (Glenough Wind Farm Phase 1) on the 16/06/2015.	EirGrid	2015-07-07	2015-07-09	Settlement
Availability	Incorrect Availability Declarations were sent to the SEM for GU_401250 (Glenough Wind Farm Phase 1) on the 16/06/2015.	EirGrid	2015-07-08	2015-07-09	Settlement
SO-SO Trades	Costs for Statkraft SO Trades for Trade Date 25.06.2015 for both EWIC and Moyle have been revised by Statkraft upon receipt of their Monthly Report. The amended costs for both lcs have been included with this query. The EWIC affected trading periods begin at 23:00 to period ending 00:00 (24:1 to 24:2) on 25/06/2015. The Moyle affected trading periods begin at 06:00 to period ending 07:00 (7:1 to 7:2) as well as periods beginning at 21:00 to period ending 00:00 (22:1 to 24:2) on 25/06/2015. EWIC revised costs can be retrieved from attached file - EWIC_Statkraft_revised_costs25.06.2015.xls (summarised in 3 tabs, Original costs, corrected costs and overview). Moyle revised costs can be retrieved from attached file - Statkraft_revised_costs25.06.2015.Moyle.xls (summarised in 3 tabs, differences, submitted D+3 and Revised D+3).	EirGrid/SONI	2015-07-10	2015-07-14	Settlement
Meter Data	From investigating the Initial energy and VMO Settlement for date 01/07/2015, we can see that this has been settled using indicative NDLF values for both of your supplier units PT_500028 and PT_500036. We receive data from the Meter Data Provider (NIE) which we validate against the PIR demand. The data from NIE shows that the indicative and initial demand should not have been equal. This has affected both Energy and VMO settlement, and will also impact Capacity Settlement if not corrected.	PY_000035	2015-07-21	2015-07-24	Settlement
Meter Data	While validating the Energy and Variable Market Operator invoices for Week 26 2015, it was discovered that the initial settlement was published in error prior to the MRSO submitting the initial files for NPED and NPEG. This led to the initial for 01/07/2015 not having the most up to date metering. The reason this was done was to allow the Capacity for June to be processed and published on time to ensure that the last day of the billing month was captured. This formal query has been submitted in order to rectify this quickly (SW call ref number F0063938).	PY_000021 and PY_000022	2015-07-21	2015-07-23	Settlement
Meter Data	There is a variance for 01/07/15 between the PIR dat and the corresponding data provided by ESB and T+D. The variance affects each half hourly period on this date. The variance relates to the following participants/supplier units : PT_400043/SU_400100, PT_400103/SU_400155/ PT_500030/SU_500060	PY_000043 and PY_000042	2015-07-21	2015-07-24	Settlement
Meter Data	As per SW call reference F0064063, the initial settlement for metered demand data for 01/07/2015 was published in error prior to MRSO submitting the initial filer for NPED + NPEG and so indicative data was used rather than initial metering for 01/07/2015.	PY_000096	2015-07-22	2015-07-24	Settlement

Table 19 - 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-SEMO 143	REVLf for long hour is mapping incorrectly in RE-INTP3	-	-	N	Y	-
SET-SEMO 146	Cancelled PST-MAN still appearing in Energy PIR			N	N	

Table 20 - 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	Target	Actual	Target	Actual	Target	Actual	Target	Actual
01/07/2015	11:00	09:48	13:00	12:28	09:30	08:28	16:00	14:46	17:00	14:36
02/07/2015	11:00	09:57	13:00	11:57	09:30	08:40	16:00	14:36	17:00	14:30
03/07/2015	11:00	09:59	13:00	11:57	09:30	08:21	16:00	14:22	17:00	14:28
04/07/2015	11:00	09:54	13:00	11:51	09:30	08:28	16:00	14:41	17:00	14:34
05/07/2015	11:00	10:01	13:00	11:59	09:30	08:27	16:00	14:33	17:00	14:28
06/07/2015	11:00	09:54	13:00	11:56	09:30	08:29	16:00	14:31	17:00	14:45
07/07/2015	11:00	09:53	13:00	11:52	09:30	08:34	16:00	14:39	17:00	14:26
08/07/2015	11:00	09:52	13:00	11:52	09:30	08:29	16:00	14:34	17:00	14:26
09/07/2015	11:00	10:06	13:00	11:59	09:30	08:42	16:00	14:49	17:00	14:32
10/07/2015	11:00	10:03	13:00	11:59	09:30	08:29	16:00	14:28	17:00	14:38
11/07/2015	11:00	09:59	13:00	11:50	09:30	08:27	16:00	14:30	17:00	14:31
12/07/2015	11:00	09:57	13:00	11:54	09:30	08:28	16:00	14:35	17:00	14:38
13/07/2015	11:00	09:54	13:00	11:56	09:30	08:32	16:00	14:40	17:00	14:35
14/07/2015	11:00	09:56	13:00	12:13	09:30	08:26	16:00	14:38	17:00	14:39
15/07/2015	11:00	10:29	13:00	11:52	09:30	08:39	16:00	14:40	17:00	14:28
16/07/2015	11:00	09:50	13:00	11:55	09:30	08:31	16:00	14:39	17:00	14:53
17/07/2015	11:00	09:57	13:00	11:59	09:30	08:40	16:00	14:35	17:00	16:55
18/07/2015	11:00	09:57	13:00	11:57	09:30	08:27	16:00	14:31	17:00	14:56
19/07/2015	11:00	10:05	13:00	11:56	09:30	08:39	16:00	14:56	17:00	15:02
20/07/2015	11:00	09:56	13:00	12:06	09:30	08:36	16:00	14:43	17:00	14:47
21/07/2015	11:00	10:14	13:00	12:10	09:30	08:34	16:00	14:51	17:00	14:17
22/07/2015	11:00	10:08	13:00	11:44	09:30	08:27	16:00	15:01	17:00	14:23
23/07/2015	11:00	10:00	13:00	12:15	09:30	08:34	16:00	16:01	17:00	14:52
24/07/2015	11:00	10:03	13:00	11:54	09:30	08:23	16:00	14:19	17:00	14:37
25/07/2015	11:00	10:03	13:00	12:04	09:30	08:39	16:00	14:28	17:00	14:35
26/07/2015	11:00	10:05	13:00	12:05	09:30	08:30	16:00	15:43	17:00	14:32
27/07/2015	11:00	09:56	13:00	11:58	09:30	08:28	16:00	14:39	17:00	14:36
28/07/2015	11:00	10:03	13:00	12:03	09:30	08:24	16:00	14:37	17:00	14:19
29/07/2015	11:00	10:01	13:00	11:56	09:30	08:46	16:00	14:34	17:00	14:15
30/07/2015	11:00	09:57	13:00	11:54	09:30	08:28	16:00	14:37	17:00	14:44
31/07/2015	11:00	10:03	13:00	12:02	09:30	08:28	16:00	14:14	17:00	14:38

Table 21 – MSP Runs

Market Operator Monthly Report

Settlement Runs

Trading Day	Target Date	Actual Date	Target Time	Actual Time	Trading Day	Actual Date	Target Time	Actual Time
01/07/2015	02/07/2015	02/07/2015	17:00	16:05	01/07/2015	08/07/2015	12:00	07:34
02/07/2015	03/07/2015	03/07/2015	17:00	15:33	02/07/2015	09/07/2015	12:00	08:29
03/07/2015	06/07/2015	06/07/2015	17:00	13:57	03/07/2015	10/07/2015	12:00	11:27
04/07/2015	06/07/2015	06/07/2015	17:00	13:58	04/07/2015	10/07/2015	12:00	11:38
05/07/2015	06/07/2015	06/07/2015	17:00	15:18	05/07/2015	10/07/2015	12:00	08:29
06/07/2015	07/07/2015	07/07/2015	17:00	15:52	06/07/2015	13/07/2015	12:00	08:08
07/07/2015	08/07/2015	08/07/2015	17:00	16:11	07/07/2015	14/07/2015	12:00	08:47
08/07/2015	09/07/2015	09/07/2015	17:00	16:36	08/07/2015	15/07/2015	12:00	08:06
09/07/2015	10/07/2015	10/07/2015	17:00	16:03	09/07/2015	16/07/2015	12:00	07:45
10/07/2015	13/07/2015	13/07/2015	17:00	11:45	10/07/2015	17/07/2015	12:00	11:31
11/07/2015	13/07/2015	13/07/2015	17:00	12:02	11/07/2015	17/07/2015	12:00	11:23
12/07/2015	13/07/2015	13/07/2015	17:00	15:16	12/07/2015	17/07/2015	12:00	07:55
13/07/2015	14/07/2015	14/07/2015	17:00	15:34	13/07/2015	20/07/2015	12:00	08:00
14/07/2015	15/07/2015	15/07/2015	17:00	15:35	14/07/2015	21/07/2015	12:00	07:43
15/07/2015	16/07/2015	16/07/2015	17:00	15:33	15/07/2015	22/07/2015	12:00	08:46
16/07/2015	17/07/2015	17/07/2015	17:00	16:08	16/07/2015	23/07/2015	12:00	08:37
17/07/2015	20/07/2015	20/07/2015	17:00	11:56	17/07/2015	24/07/2015	12:00	11:08
18/07/2015	20/07/2015	20/07/2015	17:00	12:23	18/07/2015	24/07/2015	12:00	11:20
19/07/2015	20/07/2015	20/07/2015	17:00	16:06	19/07/2015	24/07/2015	12:00	08:15
20/07/2015	21/07/2015	21/07/2015	17:00	16:15	20/07/2015	27/07/2015	12:00	09:53
21/07/2015	22/07/2015	22/07/2015	17:00	15:44	21/07/2015	28/07/2015	12:00	08:49
22/07/2015	23/07/2015	23/07/2015	17:00	16:16	22/07/2015	29/07/2015	12:00	07:56
23/07/2015	24/07/2015	24/07/2015	17:00	16:54	23/07/2015	30/07/2015	12:00	08:50
24/07/2015	27/07/2015	27/07/2015	17:00	13:43	24/07/2015	31/07/2015	12:00	11:48
25/07/2015	27/07/2015	27/07/2015	17:00	13:51	25/07/2015	31/07/2015	12:00	11:58
26/07/2015	27/07/2015	27/07/2015	17:00	16:24	26/07/2015	31/07/2015	12:00	07:55
27/07/2015	28/07/2015	28/07/2015	17:00	15:30	27/07/2015	03/08/2015	12:00	10:03
28/07/2015	29/07/2015	29/07/2015	17:00	16:21	28/07/2015	04/08/2015	12:00	08:02
29/07/2015	30/07/2015	30/07/2015	17:00	16:03	29/07/2015	05/08/2015	12:00	08:29
30/07/2015	31/07/2015	31/07/2015	17:00	15:23	30/07/2015	06/08/2015	12:00	08:09
31/07/2015	02/07/2015	02/07/2015	17:00	11:30	31/07/2015	07/08/2015	12:00	11:45

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
01/06/2015	€903,037.05	-€372.60	-€430,963.73
02/06/2015	€225,558.98	-€9,102.27	-€481,644.89
03/06/2015	€163,230.43	€15,407.21	-€506,857.57
04/06/2015	€258,492.55	-€1,419.41	-€502,536.80
05/06/2015	€561,484.29	-€4,219.30	-€466,612.95
06/06/2015	€476,969.41	-€4,158.39	-€420,172.46
07/06/2015	€221,952.59	-€12,964.68	-€428,162.71
08/06/2015	€417,820.22	-€8,108.21	-€490,599.26
09/06/2015	€99,349.26	-€20,427.00	-€502,037.06
10/06/2015	€362,947.70	-€8,565.70	-€497,822.35
11/06/2015	€368,034.49	-€8,598.44	-€496,067.65
12/06/2015	€344,759.44	-€2,316.77	-€490,098.72
13/06/2015	€293,330.88	€9,421.81	-€432,822.16
14/06/2015	€243,977.92	€4,826.00	-€416,471.54
15/06/2015	€146,788.10	-€16,508.90	-€489,169.93

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16/06/2015	€355,793.59	€8,987.44	-€491,232.75
17/06/2015	€350,471.59	€819.68	-€487,101.21
18/06/2015	€526,343.78	-€5,323.88	-€477,763.32
19/06/2015	€241,052.93	€7,739.33	-€486,582.07
20/06/2015	€397,112.32	-€4,839.02	-€433,410.02
21/06/2015	€383,030.12	€10,111.36	-€401,553.37
22/06/2015	€311,691.23	-€13,245.52	-€478,363.90
23/06/2015	€201,144.41	-€4,762.89	-€498,388.85
24/06/2015	€308,129.06	€4,185.85	-€501,724.92
25/06/2015	€467,910.15	€1,370.27	-€491,764.74
26/06/2015	€611,400.32	€5,841.53	-€473,888.59
27/06/2015	€567,227.30	€4,476.00	-€425,354.30
28/06/2015	€383,903.78	€5,553.99	-€394,717.39
29/06/2015	€524,586.93	-€9,068.11	-€472,168.43
30/06/2015	€230,790.65	€20,373.51	-€481,923.33
01/07/2015	€211,388.80	-€20,146.09	-€510,326.45
02/07/2015	€339,805.38	€889.95	-€496,404.89
03/07/2015	€325,431.49	-€3,650.04	-€468,381.26
04/07/2015	€443,596.50	-€17,205.37	-€416,941.95
05/07/2015	€73,501.54	€11,552.57	-€416,906.61
06/07/2015	€352,681.32	-€2,050.12	-€471,180.34
07/07/2015	€448,168.25	-€10,962.23	-€474,938.89
08/07/2015	€379,486.52	€3,189.07	-€473,290.48
09/07/2015	€208,276.81	-€11,951.60	-€492,201.22
10/07/2015	€299,675.21	-€623.08	-€466,671.41
11/07/2015	€287,017.04	€9,741.89	-€412,913.18
12/07/2015	€320,596.70	€4,162.99	-€411,987.47
13/07/2015	€519,992.38	-€2,325.68	-€463,482.63
14/07/2015	€134,256.13	-€20,002.97	-€481,013.97
15/07/2015	€259,314.93	-€19,184.61	-€486,278.97
16/07/2015	€484,087.19	-€2,749.84	-€471,316.81
17/07/2015	€695,851.98	€6,697.92	-€438,904.75
18/07/2015	€168,216.10	-€6,493.15	-€413,889.48
19/07/2015	€207,034.48	€19,571.53	-€410,064.13
20/07/2015	€467,803.18	-€1,436.06	-€456,540.63
21/07/2015	€200,767.21	-€1,704.54	-€482,416.59
22/07/2015	€342,605.34	-€7,223.70	-€481,851.45
23/07/2015	€136,249.23	-€3,552.45	-€482,732.48
24/07/2015	€192,104.33	-€4,457.57	-€474,900.40
25/07/2015	€278,390.39	-€2,466.13	-€427,488.34
26/07/2015	€328,451.20	€5,898.94	-€396,016.62
27/07/2015	€551,809.44	€7,891.24	-€463,308.21
28/07/2015	€483,135.01	-€19,097.17	-€466,890.40
29/07/2015	€296,168.81	€2,006.11	-€466,804.69
30/07/2015	€126,495.13	-€2,156.66	-€483,664.70
31/07/2015	€224,653.33	-€77.43	-€462,031.29

Table 23 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Market Operator Monthly Report

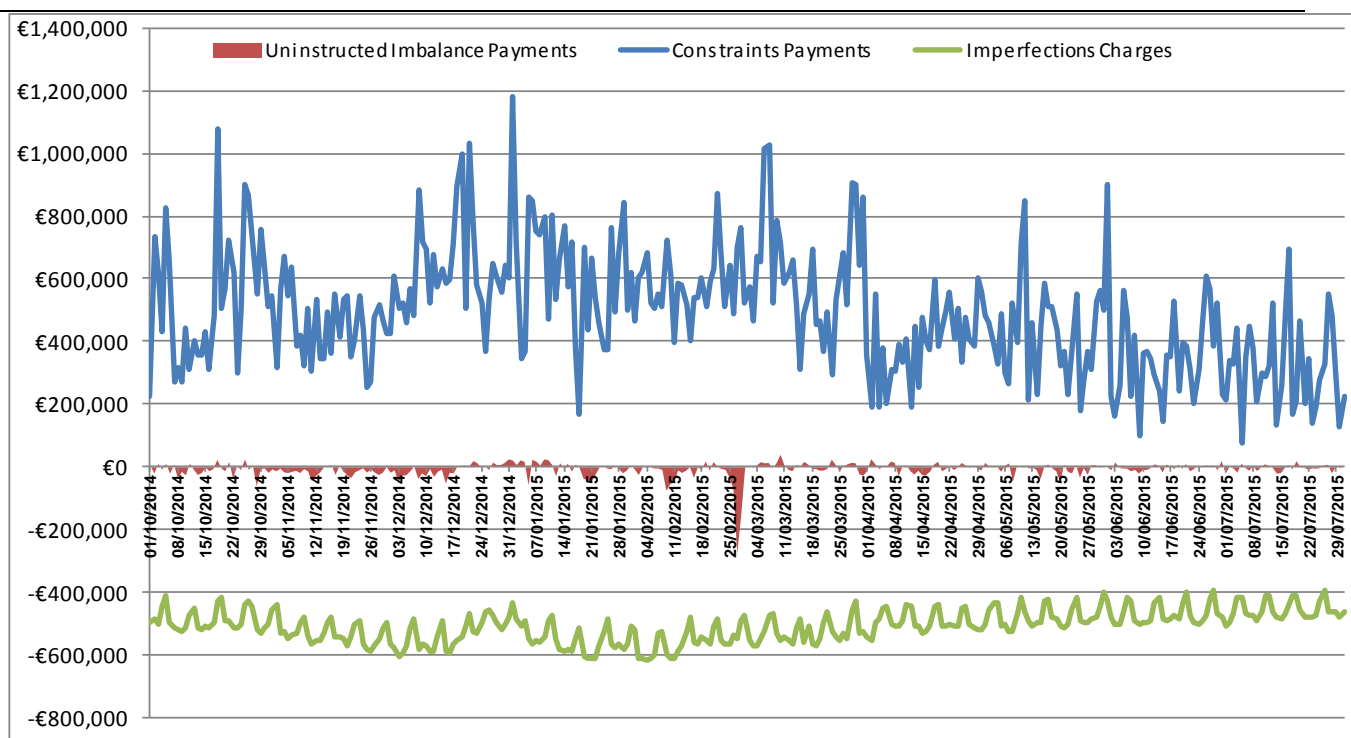


Figure 24 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Week No	Make Whole Payments
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
21	€111,559.70
22	€135,469.70
23	€236,977.70
24	€127,221.90
25	€236,977.70
26	€127,221.90
27	€25,408.91
28	€107,131.31
29	€50,813.07

Table 24 - Make Whole Payments

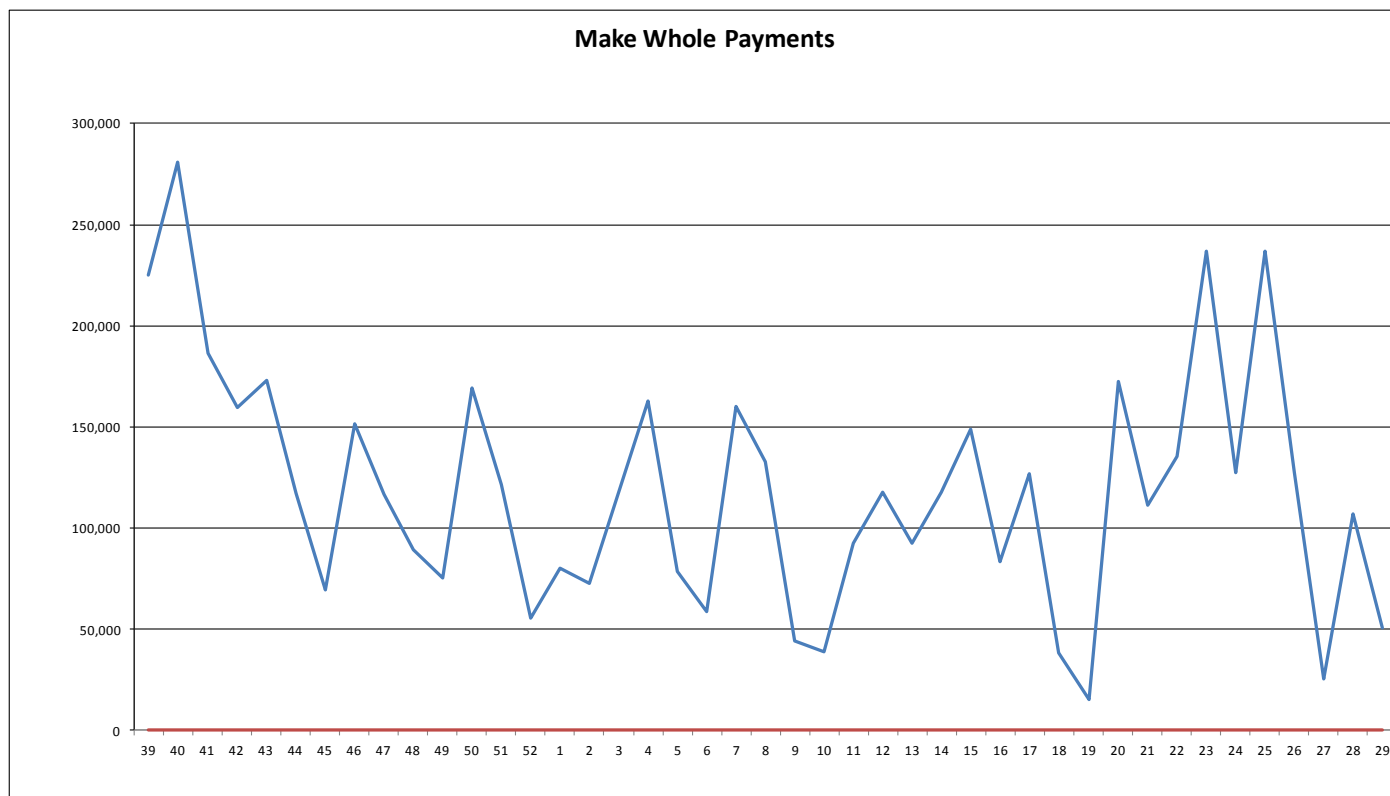


Figure 25 - Make Whole Payments

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
21	€0.00
22	€0.00
23	-€39,276.80
24	€0.00
25	€0.00
26	€0.00
27	€0.00
28	€0.00
29	-€349.99

Table 25 - Testing Charges

Testing Charges

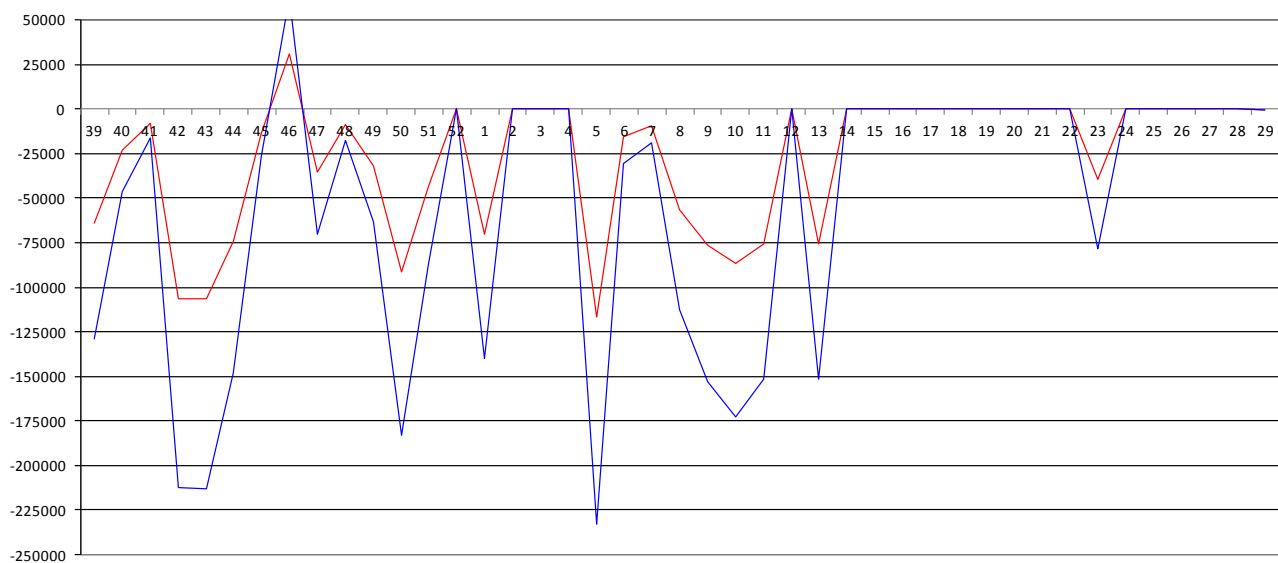


Figure 26 - Testing Charges

13 Appendix F: Default Commercial Offer Data Used

The table below lists for each unit the number of times in operations during July 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_400138	DSU_401590	31			31
PT_400116	DSU_401400	31			31
PT_400090	DSU_401270	31			31
PT_400106	DSU_401330	31			31
PT_400133	DSU_401530	31			31
PT_400144	DSU_401660	26			26
PT_400124	DSU_401490	31			31
PT_400090	DSU_401620			31	31
PT_400144	DSU_401660			6	6
PT_400090	DSU_401610			31	31
PT_400111	DSU_401390			31	31
PT_400024	GU_400120	31			31
PT_400024	GU_400121	31			31
PT_400026	GU_400140	32			32
PT_400030	GU_400180	40			40
PT_400030	GU_400181	40			40
PT_400030	GU_400182	36			36
PT_400030	GU_400183	40			40
PT_400030	GU_400200	36			36
PT_400030	GU_400201	36			36
PT_400030	GU_400202	36			36
PT_400030	GU_400203	36			36
PT_400030	GU_400210	36			36
PT_400030	GU_400211	36			36
PT_400030	GU_400220	36			36
PT_400030	GU_400221	36			36
PT_400030	GU_400240	36			36
PT_400030	GU_400250	36			36
PT_400030	GU_400251	36			36
PT_400030	GU_400252	36			36
PT_400030	GU_400260	36			36
PT_400030	GU_400270	39			39
PT_400030	GU_400271	38			38
PT_400030	GU_400272	41			41
PT_400030	GU_400280	36			36
PT_400030	GU_400281	36			36
PT_400030	GU_400290	36			36
PT_400030	GU_400300	40			40
PT_400030	GU_400311	40			40
PT_400030	GU_400323	43			43
PT_400030	GU_400360	36			36
PT_400030	GU_400361	36			36
PT_400030	GU_400362	36			36
PT_400030	GU_400363	36			36
PT_400030	GU_400370	36			36
PT_400030	GU_400850	40			40

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PT_400034	GU_400940	31		31
PT_400034	GU_401090	31		31
PT_400034	GU_401440	31		31
PT_400035	GU_400480	53		53
PT_400037	GU_400500	31		31
PT_400041	GU_400530	55		55
PT_400044	GU_400540	53		53
PT_400050	GU_401790	11		11
PT_400054	GU_400620	31		31
PT_400055	GU_400630	31		31
PT_400064	GU_400750	32		32
PT_400064	GU_400751	32		32
PT_400064	GU_400752	32		32
PT_400064	GU_400753	32		32
PT_400064	GU_400762	32		32
PT_400064	GU_400770	32		32
PT_400064	GU_400771	32		32
PT_400064	GU_400780	32		32
PT_400064	GU_400781	32		32
PT_400075	GU_400930	72		72
PT_400077	GU_400950	31		31
PT_400078	GU_401010	31		31
PT_400078	GU_401011	31		31
PT_500024	GU_500040	31		31
PT_500024	GU_500041	31		31
PT_500027	GU_500130	90		90
PT_500027	GU_500131	90		90
PT_500027	GU_500140	90		90
PT_500034	GU_501350	9		9
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	49		49
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
PT_400021	GU_400080		31	31
PT_400021	GU_400591		31	31
PT_400021	GU_400600		31	31

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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			31	31
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_400082	GU_401100			31	31
PT_400087	GU_401230			31	31
PT_400148	GU_401690			31	31
PT_400150	GU_401700			31	31
PT_400151	GU_401770			31	31
PT_400151	GU_401780			31	31
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_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
PT_500074	GU_501250			31	31
PT_400021	I_ROIEWIC	31			31
PT_500083	I_NIMOYLE	13			13
PT_500024	I_NIMOYLE	31			31
PT_500021	I_NIMOYLE	31			31
PT_500075	I_NIMOYLE	48			48
PT_400163	I_ROIEWIC	40			40

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PT_500031	I_NIMOYLE	31			31
PT_500058	I_NIMOYLE	31			31
PT_500069	I_NIMOYLE	93			93
PT_500037	I_NIMOYLE	31			31
PT_400113	I_ROIEWIC	31			31
PT_400096	I_ROIEWIC	93			93
PT_400115	I_ROIEWIC	31			31
PT_400136	I_ROIEWIC	45			45
PT_500070	I_NIMOYLE	82			82
PT_400108	I_ROIEWIC	83			83
PT_400030	I_ROIEWIC	31			31
PT_400099	I_ROIEWIC	31			31
PT_500031	I_NIMOYLE	31			31
PT_500058	I_NIMOYLE	31			31
PT_500069	I_NIMOYLE	93			93
PT_500037	I_NIMOYLE	31			31
PT_400113	I_ROIEWIC	31			31
PT_400096	I_ROIEWIC	93			93
PT_400115	I_ROIEWIC	31			31
	Total	4065	0	1804	5869
	Percentage	69.26%	0.00%	30.74%	100.00%

Table 26 – 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	£6,639.04	£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	£0.00	£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	£767,413.15	£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
Jun-15	ROI	£49,441,454.53	£18,011,748.07	£768,412.90	£525,988.89	£125,343.18	£3,068.91	£83,564.13	£14,743.93	£639.06	£24,047.90	£0.00	£0.00	68,999,011.50
	NI	£16,086,817.66	£4,881,262.27	£731,152.70	£190,327.69	£56,176.06	£1,108.32	£14,086.52	£3,263.83	£136.37	£4.82	£0.00	£0.00	21,964,336.24
Jul-15	ROI	£60,081,065.67	£18,106,345.49	£938,580.42	£392,863.94	£100,250.95	£2,281.34	£70,409.41	£14,571.40	£801.22	£3,383,812.96	£0.00	£0.00	83,090,982.80
	NI	£20,399,899.80	£4,559,620.30	£901,179.27	£122,425.31	£34,196.36	£798.99	£13,983.16	£3,041.83	£170.87	£560,424.72	£0.00	£0.00	26,595,740.61

Table 27 - Total Charges by Month

Market Operator Monthly Report

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	€6,427.16	€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
Jun-15	ROI	€52,399,988.22	€18,449,916.98	€50,329.66	€524,214.44	€125,353.28	€2,989.03	€83,564.13	€15,091.05	€633.94	€0.00	€0.00	€71,652,080.73
	NI	€10,536,540.86	€4,561,917.57	€13,069.46	€190,224.00	€56,986.34	€-1,109.52	€14,086.52	€3,197.29	€136.59	€0.00	€0.00	€15,375,049.11
Jul-15	ROI	€63,619,222.88	€17,795,388.83	€50,900.02	€368,804.77	€98,198.30	€2,207.87	€70,409.41	€14,587.16	€801.29	€0.00	€0.00	€82,020,520.53
	NI	€12,711,689.30	€4,703,936.76	€13,498.87	€121,756.24	€35,884.73	€-799.78	€13,983.16	€3,045.41	€170.96	€0.00	€0.00	€17,603,165.65

Table 28 - 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
07/04/2015	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	-€766,173.39	€143,672.76
22/05/2015	19	€127,012.27	€24,101.25
29/05/2015	20	-€726,994.34	€139,338.43
05/06/2015	21	-€581,933.86	€93,736.74
12/06/2015	22	€52,638.56	€34,490.35
19/06/2015	23	-€130,069.47	€150,507.27
26/06/2015	24	-€41,136.73	€180,820.70
03/07/2015	25	€146,348.99	€155,182.53

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Date Of Invoice	Week No	SEM Balancing Costs	VAT Balancing Costs
10/07/2015	26	-€804,612.35	-€337,082.05
17/07/2015	27	-€1,160,398.93	€145,979.53
24/07/2015	28	-€624,454.00	€143,384.39
31/07/2015	29	-€1,392,308.77	€183,753.05

Table 33 – Full Balancing Costs for Trading Charges and Payments

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

Capacity Market

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
June 2015	-€232.42	€5324.64
July 2015	-€246.76	-€2,177.31

Table 29 - 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>	-	-
<u>June 2015</u>	-	<u>01/07/2015</u>	<u>22/06/2015</u>	<u>26/06/2015</u>	<u>11/06/2015</u>
<u>July 2015</u>	-	-	<u>23/07/2015</u>	-	-

Table 30 - 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

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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
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
11/06/2015	11/06/2015	WD1	€576.50	€206.00	MIP
23/06/2015	22/06/2015	EP1	€579.41	€76.14	MIP
30/06/2015	26/06/2015	EP2	€578.16	€285.24	MIP
30/06/2015	01/07/2015	EA2	€574.22	€110.58	MIP
23/07/2015	22/07/2015	EP1	€1,000	€86.14	MIP

Table 31 - MIP Vs LR Peak Price Comparison