

Market Operator Monthly Report

February 2018

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Executive Summary

This Single Electricity Market Operator's (SEMO) report covers the month of operation of February 2018 and is published in accordance with the Single Electricity Market (SEM) Committee decision and Clause 2.144 of the Trading and Settlement Code.

During the month of February 2018, there were no late Settlement publications as per the Trading and Settlement Code.

During the month of February 2018, there was no late Credit Report publication as per the Trading and Settlement Code timelines.

There were 7 defaults by Participants during February 2018. The largest of these was an Capacity January 2018 Initial invoice for €397,640.09 which was remedied on the same day.

There was 1 Credit Cover Increase Notice default during February 2018 as per the Trading and Settlement Code timelines.

155 general queries were received in February 2018. During the same period 143 general queries were resolved.

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

Monthly Statistics

Trading and Settlement Code Breaches

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

Trading and Settlement Code Breaches					
	Area	Major	Minor		
Data Providers		-	1		
Market Participants	Pricing & Scheduling	-	-		
	Settlement		-		
	Funds Transfer				
	Credit Risk Management				
SEMO	Pricing & Scheduling	-	-		
	Settlement	-	-		
	Funds Transfer	-	-		
	Credit Risk Management		-		
	Other	_	_		
Total	Total				

Table 1 – Trading and Settlement Code Breaches

Further details of each of the Trading and Settlement code breaches noted above are set out in <u>Appendix A</u>

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

One new Party joined the Market in February 2018

• PY_000194 Ronaver Energy Limited

There were no terminating parties in February 2018.

No units went effective in the Market in February 2018.

No units de-registered from the Market in February 2018.

Suspension of Participants

No Suspension Orders were issued by the Market Operator in February 2018.

Financial Statistics

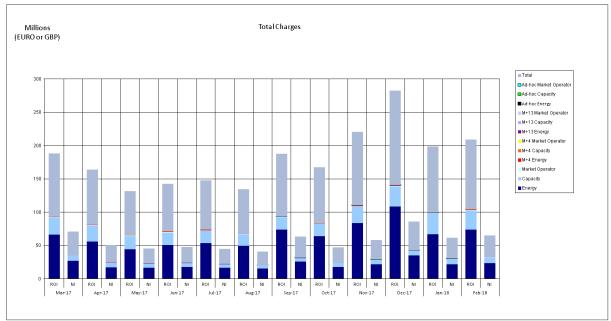


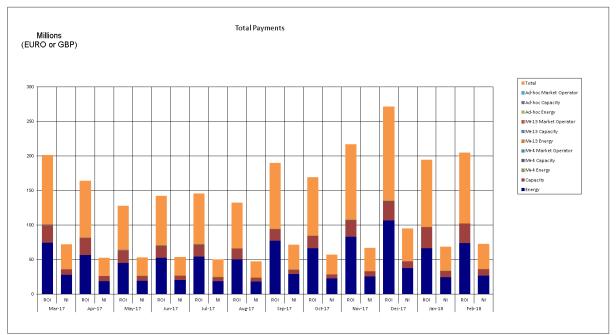
Figure 1 - Total Charges for Each Currency

Market	Feb 2018		
	ROI	NI	
Energy	€73,894,145	£23,559,300	
Capacity	€29,049,214	£8,534,268	
Market Operator	€821,611	£214,367	
M+4 Energy	€239,609	£214,152	
M+4 Capacity	€442,119	£80,930	
M+4 Market Operator	€1,728	£1,369	
M+13 Energy	€34,764	£27,935	
M+13 Capacity	€73,084	£69,822	
M+13 Market Operator	€226	£160	
Ad-hoc Energy	€0	£0	
Ad-hoc Capacity	€0	£0	
Ad-hoc Market Operator	€0	£0	
Total	€104,556,499	£32,702,304	

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 <u>Appendix G</u>.



Total Payments for Each Currency

Figure 2 - Total Payments for Each Currency

Market	Feb 2018		
	ROI	NI	
Energy	€73,649,373	£26,522,259	
Capacity	€28,234,770	£9,276,145	
M+4 Energy	€241,673	£211,340	
M+4 Capacity	€232,622	£267,052	
M+4 Market Operator	€1,496	£1,369	
M+13 Energy	€33,904	£28,772	
M+13 Capacity	€90,770	£54,123	
M+13 Market Operator	€220	£165	
Ad-hoc Energy	€0	£0	
Ad-hoc Capacity	€0	£0	
Ad-hoc Market Operator	€0	£0	
Total	€102,484,829	£36,361,225	

Table 3 - Total Payments for Each Currency

Total Balancing Costs

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

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

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

February 2018		
Imbalance (Energy Only)	-€10,543,565.51	

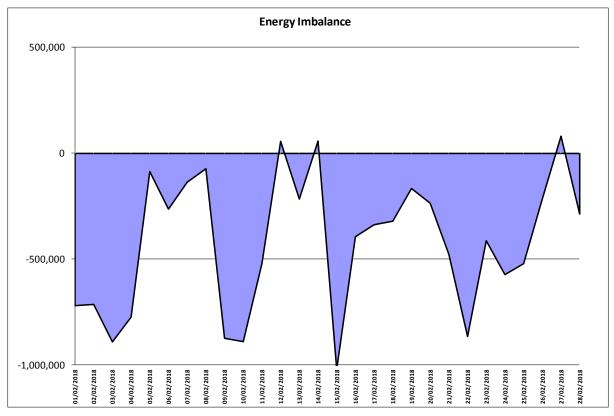


Table 4 - Balancing Costs for Energy Settlement

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.

In tables 5 and 6 below:

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

		SEM Balancing	
Date Of Invoice	Week No	Costs	VAT Balancing Costs
02/02/2018	3	€1,107,021.02	€0
09/02/2018	4	€1,493,834.12	€0
16/02/2018	5	€1,362,758.37	€0
23/02/2018	6	€1,362,251.43	€0

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 Trading and Settlement Code.

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

February 2018			
Capacity Charges	€-55,355,618.80		
Capacity Payments	€ 55,355,310.41		
Balancing Costs	€-308.39		
VAT	€0		

Table 6 - Balancing Costs for Capacity Settlement

Historical figures, the current financial year full Balancing Costs for both Trading and Capacity are provided in <u>Appendix H</u>. VAT Balancing costs exclude Currency Cost related VAT.

Total Currency Costs

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

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

2) Payment Period Currency Costs: - in respect of the difference between the Exchange Rates between the Date of Invoice and the Date of Payment.

Although the Trading and Settlement 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 CostsCurrency CostFor EnergyAdjustment forSettlementInter-jurisdictional(Invoice andSRAs		Total Currency Cost
27/01/2018	02/03/2018	3	-£33,344.79	£-	-£33,344.79
03/02/2018	09/03/2018	4	-£940.60	£-	-£940.60
10/02/2018	16/03/2018	5	£53,904.75	£-	£53,904.75
17/02/2018	23/03/2018	6	£15,079.39	£-	£15,079.39

 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 Interjurisdictional SRA Currency Costs.

Over the period of this report Currency Costs for each week represented a benefit to Participants of up to £53,904.75 and a loss of up to £33,344.79. 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 (£).

		Currency Costs For
Date Of	Capacity	Capacity
Invoice	Month	Settlement
09/02/2018	Jan 2018	£16,341.44

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 2017. 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	Total Uninstructed	Total Make Whole	Total
Payments	Imbalance	Payments	Imperfections
€109,050,463.67	-€1,823,980.20	€2,673,244.68	-€74,763,552.12

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.

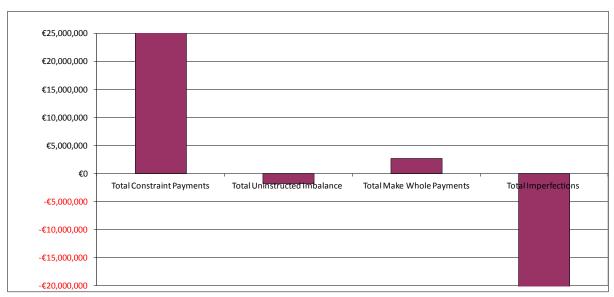


Figure 4 - Cumulative Imperfections Costs Vs Budget

The daily and weekly data that comprised these values is shown in <u>Appendix E</u>.

Financial Changes between Initial Settlement and Subsequent Reruns

The following graphs provide a breakdown of resettlement amounts for the M+4 resettlement period of October 2017 and M+13 resettlement period of January 2017 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

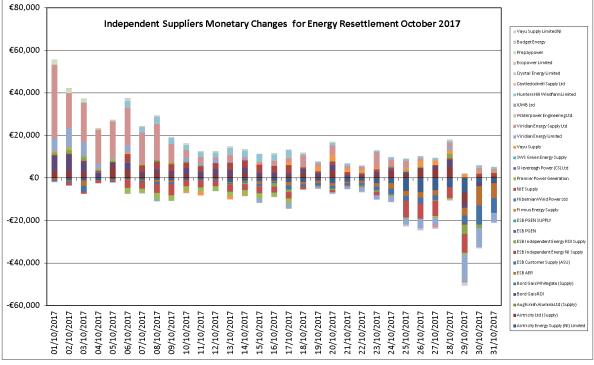


Figure 5 – Independent Suppliers Monetary Changes for Energy Resettlement - October 2017

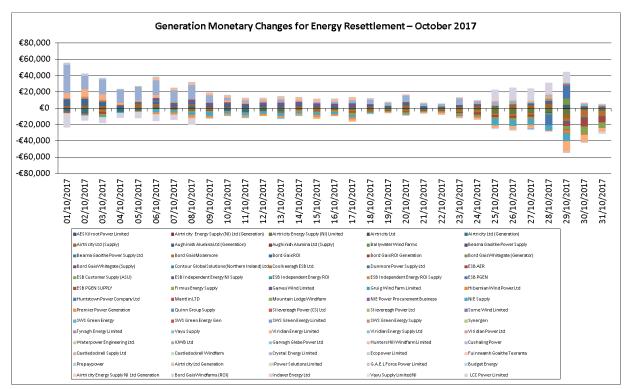


Figure 6 – Generation Monetary Changes for Energy Resettlement – October 2017

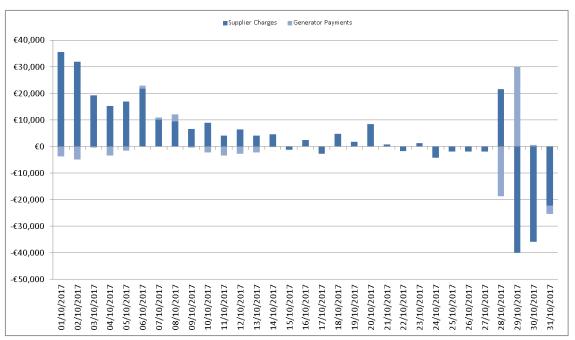
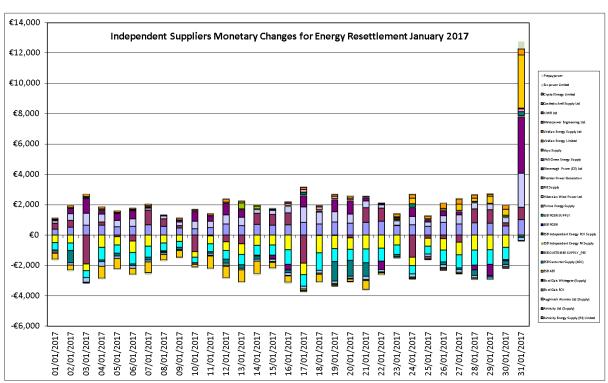


Figure 7 – Total Monetary Changes for Energy Resettlement – October 2017



Market Operator Monthly Report

Figure 8 - Independent Suppliers Monetary Changes for Energy Resettlement – January 2017

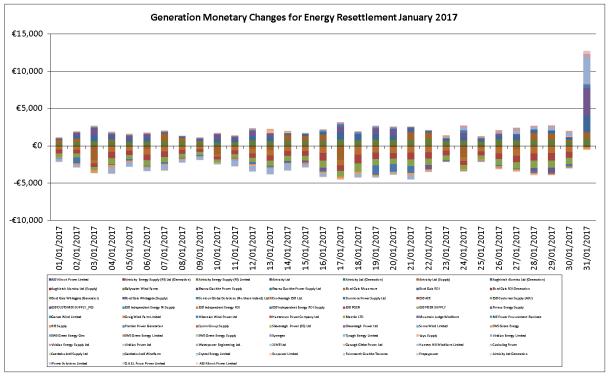


Figure 9 - Generation Monetary Changes for Energy Resettlement – January 2017

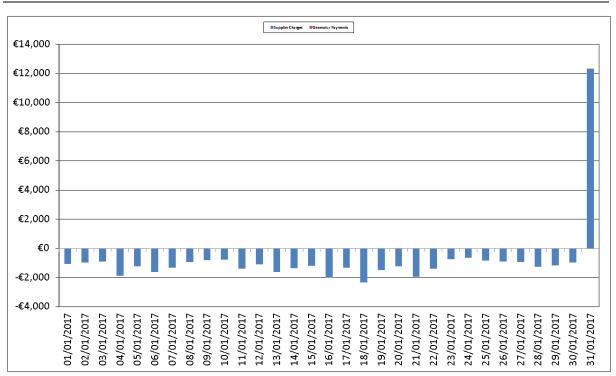


Figure 10 - Total Monetary Changes for Energy Resettlement - January 2017

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

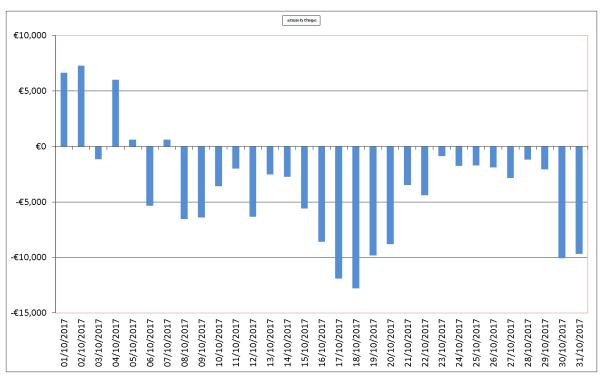


Figure 11 - Independent Suppliers Monetary Changes for Capacity Resettlement – October 2017

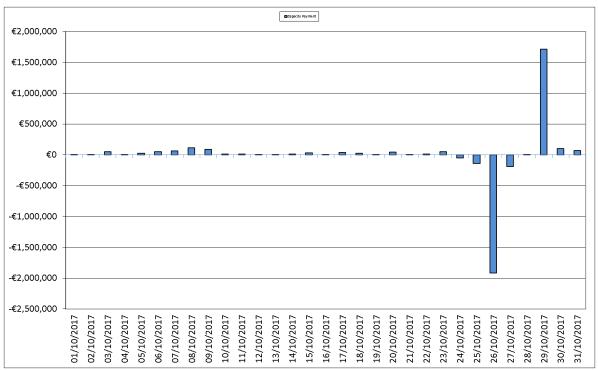


Figure 12 - All Generation Monetary Change for Capacity Resettlement – October 2017

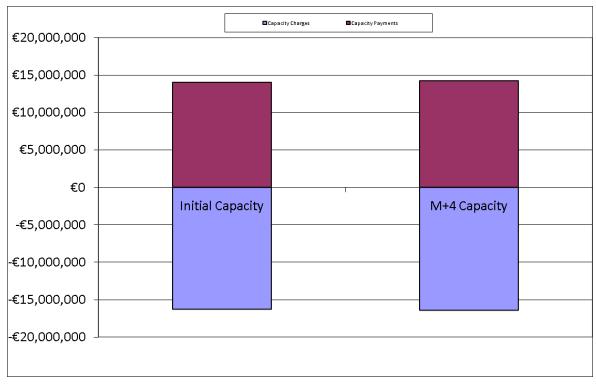


Figure 13 - Comparison of Distribution of Monetary Amounts between Capacity Initial and Resettlement October 2017.

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

M+13 Resettlement

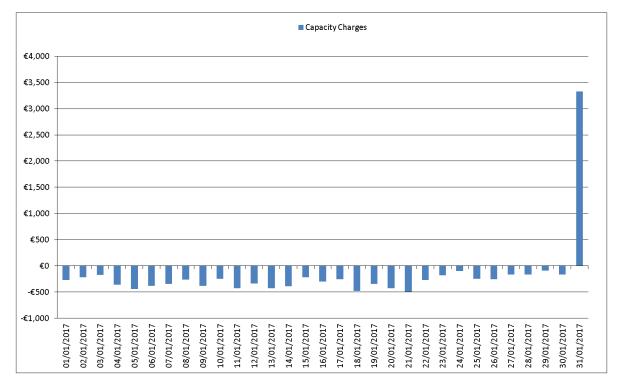


Figure 14 - Independent Suppliers Monetary Changes for Capacity Resettlement – January 2017

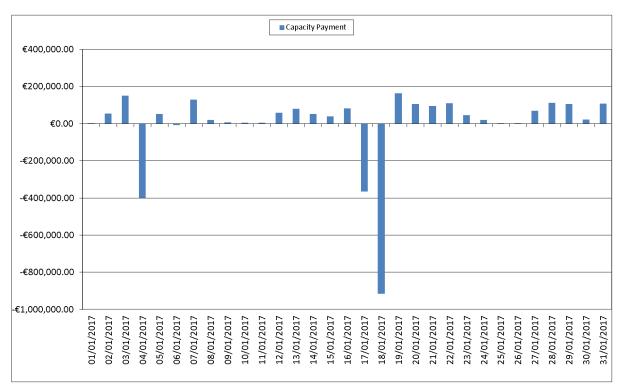


Figure 15 – All Generation Monetary Change for Capacity Resettlement – January 2017

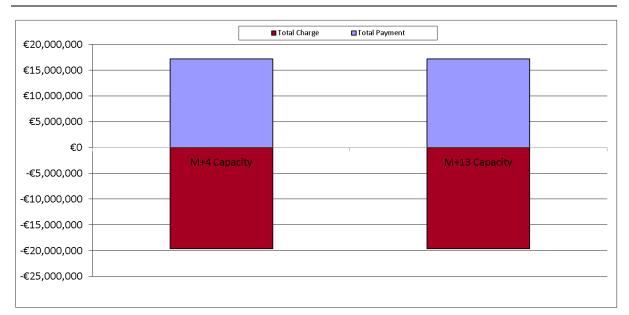


Figure 16 - Comparison of Distribution of Monetary Amounts between M+4 Capacity Resettlement and M+13 Capacity Resettlement – January 2017.

Helpdesk Call Statistics

The statistics presented in Table 10 - Helpdesk Call Statistics covers the month of February 2018.

Market Helpdesk Report: 01/02/18 to 28/02/18

	Received	Resolved within the period	Not Resolved	Resolved in the period	Resolution Time (Working Days)	Resolved On Time
Normal	152	129	23	140	0.85	138
Important	0	0	0	0	0.00	0
Urgent	3	3	0	3	1.31	2
Settlement	7	7	0	8	5.97	8
Credit	0	0	0	0	0.00	0
Dispute	0	0	0	0	0.00	0
Data	1	1	0	1	3.16	1
Total/Average	163	140	23	152	2.26	149

Table 10 – Helpdesk Statistics

Definitions:

- Resolved within the Period refers to queries raised and resolved within the calendar month of February 2018.
- Resolved in the Period refers to queries resolved within February 2018, and includes queries raised before this time.
- Resolution Time (Working Days) refers to average time to resolve, in working days, for this category of query. It is calculated based on all queries for the category, not just February 2018.
- Not Resolved refers to queries raised but not resolved within February 2018.
- 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 a mandated service level under the Trading and 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 0.71 working days from 1.57 in January 2018 to 0.86 in February 2018. SEMO has a metric to resolve General Queries within 20 Working Days. These include queries received over the phone and e-mail.

Data and Settlement Queries generally continue to be responded to within the timelines required by the Trading and Settlement Code, i.e. one calendar month. No Formal Query timeline extensions were required during February 2018 with regard to formal Settlement Queries.

Disputes and Queries

5.1.1 Disputes

No Disputes were raised during the month of February 2018.

Торіс	Number Of Queries

Table 11– Upheld Dispute Queries by Topic

5.1.2 Data Queries

One formal data query was received during the month of February 2018.

Торіс	Number Of Queries
Actual Availabilities	1

Table 12– Upheld Data Queries by Topic

5.1.3 Settlement Queries

There were seven formal Settlement queries raised in February 2018. Three queries were upheld and have since been resolved. Four queries were not upheld.

Торіс	Number Of Queries
System Operator Trades	1
Actual Availabilities	1
Meter Demand	1

Table 13 – Upheld Settlement Queries by Topic

- One query relating to SO-SO Trades was raised. This is to be corrected within M+4 resettlement. The query was deemed to be of Low Materiality.
- One query relating to Actual Availabilities was raised. This is to be corrected within M+4 resettlement. The query was deemed to be of Low Materiality.
- One query relating to Meter Demand was raised. This is to be corrected within Ad-Hoc resettlement. The query was deemed to be of High Materiality.

Unresolved Queries

There are two unresolved settlement queries as of the 14th of March 2018.

A full list of all the Data and Settlement queries raised is contained in Appendix B.

Central Systems

6.1 Proportion of Default Data Used

On review of the Commercial Offer Data used in the MSP runs, 62.52% of data used was submitted by Participants through the normal Bid-Offer process. 37.48% 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 <u>Appendix F</u>.

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

Details are provided in <u>Appendix C</u>: List of All Systems Errors and Failures

6.3.1 Re-Pricing / Resettlement Runs /MIUN Delays

There was 1 Re-Price carried out in February 2018 for Trade Date 28/10/2017.

There were no Ad hoc Re-Settlement runs carried out in February 2018.

There was a delay to MIUNs for WD1 Trade Date 05/02/2018.

6.3.2 System Errors

There were no Market Application defects found in February 2018.

Details are provided in <u>Appendix C</u>: List of All Systems 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 February 2018.

1.4.1 MSP Postings February 2018

Process	On Time	< 1 hr late	> 1 hr late	Not done
Gate Close	28-28	0	0	0
Post EA1	27-28	0	1	0
Post EA2	27-28	0	0	1
Post WD1	28-28	0	0	0
Post EP1	28-28	0	0	0
Post EP2	28-28	0	0	0

Table 14 - Operational Timings

Process	On Time	< 1 hr late	> 1 hr late	Not done
Gate Close	100%	0%	0%	0%
Post EA1	96%	0%	3%	0%
Post EA2	96%	0%	0%	3%
Post WD1	100%	0%	0%	0%
Post EP1	100%	0%	0%	0%
Post EP2	100%	0%	0%	0%

Table 15 - Operational Timings (% on time)

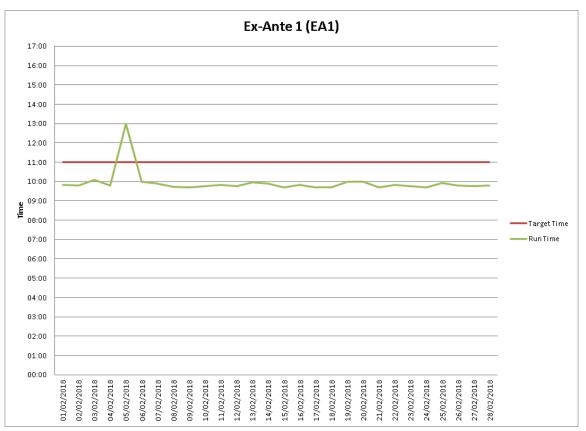


Figure 17 – Ex-Ante 1

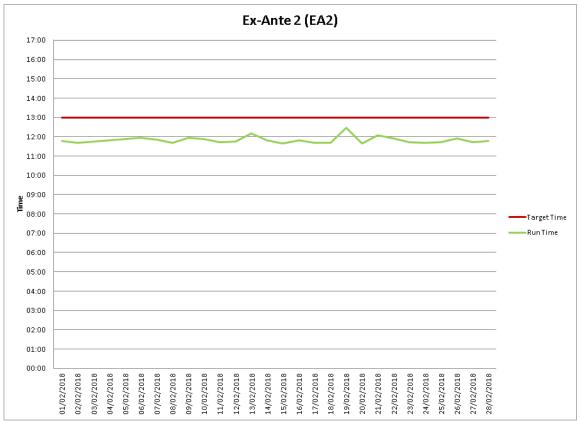


Figure 18 – Ex-Ante 2

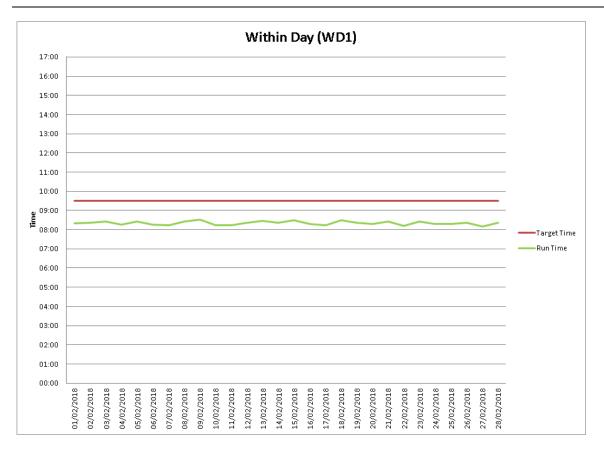


Figure 19 – Within Day 1

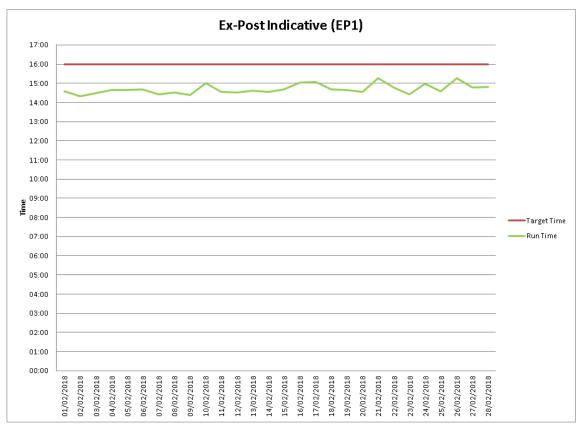


Figure 20 - Ex-Post Indicative

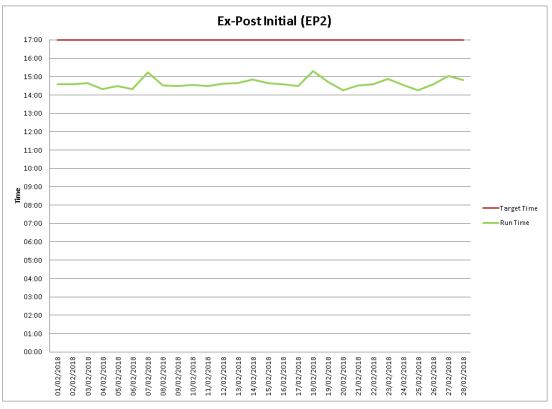


Figure 21 - Ex-Post Initial

Details of the operational timings of the Market System and Price (MSP) runs and Gate Closure are provided in <u>Appendix D</u>.

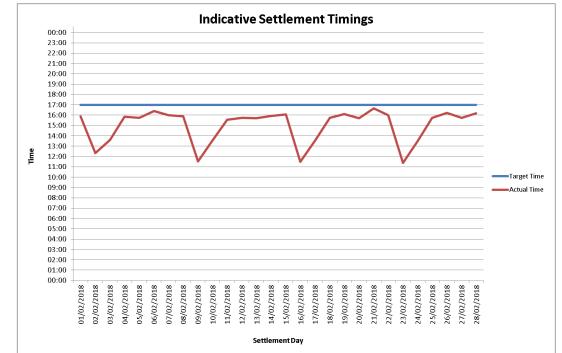
6.4.2 MSP Algorithms

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 maybe selected for publishing. An updated policy document on the use of MIP has been published and is available on the SEMO website <u>here</u>.

In February 2018, there were 10 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 <u>Appendix I</u>.

1.4.1 Settlement Postings February 2018



The publication timings for Settlement runs are provided below.

Figure 22 - Indicative Settlement Postings

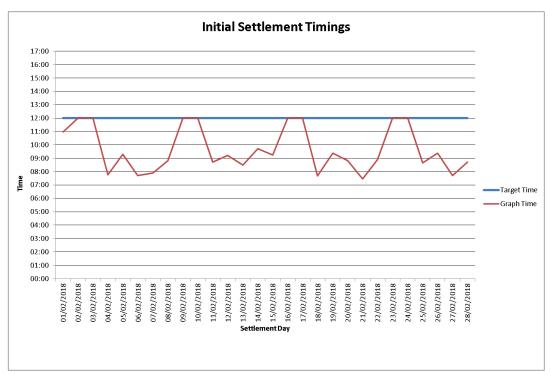


Figure 23 - Initial Settlement Postings

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

6.5. – No update for February 2018

Occasional Components

7.1 Disaster Recovery/Business Continuity Tests

There were no scheduled Business Continuity tests performed during February 2018.

7.2 Communications or Systems Failures

There were on communication failures during February 2018.

7.3 Denial of Service Attacks

There was no Denial of Service Attacks during February 2018.

7.4 Submission of Parameters to RAs for Approval

Work on initial ISEM parameters for the Residual Error and Market Operator Tariffs was ongoing during February 2018.

Appendix A: Detail of Trading and Settlement Code Breaches Data Provider

Ops Date Identified	Run Type	Quality or Timing	Party	Issue Type	Description	Cause	Resolution	T and SC Breach
20/02/2018		Timing			EirGrid TSO failed to submit the System Operator Dispatch Instructions (SO_DISPATCH_INSTRUCTIONS) files by 14:00 on 20/02/2018 for the Ex-Post Initial (EP2) Pricing & Scheduling (P&S) run for 16/10/2017.	This was caused due to the Regular Gate being closed at 14:00 for Trading Day 20/02/2018 and no communication being received.	Gate was re-opened to allow for file submission	Minor



Market Participant

Ops Date Identified	Run Type	Quality or Timing -	Party	Issue Type	Description		Cause	Resolution	T and SC Breach
02/02/2018	Money In	Timing	Participant	Payment Default Just Energy (Ireland) Limited (PT_400211) defaulted on a VMOC Week 39 2017 M+4 Invoice. P				A default letter was issued to the Participant.	Major
07/02/2018	Money In	Timing	Participant	Payment Default	Electricity Exchange Limited (PT_400116) defaulted on a Ene	ergy Week 40 2017 M+4 Invoice.	Participant Error.	A default letter was issued to the Participant.	Major
14/02/2018	Money In	Timing	Participant	Payment Default	Panda Power Limited (PT_400161) defaulted on a January 2	018 Initial Capacity Invoice.	Participant error.	A default letter was issued to the Participant.	Major
21/02/2018	Money In	Timing	Participant	Payment Default	Flogas Natural Gas Ltd (PT_400180) defaulted on a Energy Week 05 2018 Initial Invoice.			A default letter was issued to the Participant.	Major
28/02/2018	Money In	Timing	Participant	Payment Default	Crystal Energy (PT_400081) defaulted on an Energy Week 06 Initial Invoice.			A default letter was issued to the Participant.	Major
28/02/2018	Money In	Timing	Participant	Payment Default	Rathmacan Trading Limited (PT_400212) defaulted on a Ca	pacity October 2017 M+4 Invoice.	Participant Error	A default letter was issued to the Participant.	Major
28/02/2018	Money In	Timing	Participant	Payment Default	Gruig Wind Farm Limited (PT_400211) defaulted on Capaci	ty January 2017 M+13 & October 2017 M+4 Invoices.	Participant error	A default letter was issued to the Participant.	Major
Ops Date Identified	d Run Ty	pe Quality or Ti	ming Party	/ Issue Typ	e Description	Cause		Resolution	
06/02/2018	CRM	Timing	Part	icipant Credit	Panda Power (CP_400161) defaulted on a CCIN issued on 01/02/2018	CCIN was not resolved within the T&SC timefra		Panda Power (CP_400161) paid outstandin 06/02/2018 which closed the CCIN.	g invoices on



SEMO - Pricing and Scheduling

There were no breaches to report in February 2018.

SEMO – Settlements

There were no breaches to report in February 2018.

SEMO - Funds Transfer

There were no breaches to report in February 2018.

SEMO - Credit Management

There were no breaches to report in February 2018.

SEMO – Other

There were no breaches to report in February 2018.

Appendix B: List of Queries by Type

Summary Title	Description	ID	Logged On	Date sent to MP	Type
Actual Availabilities	Poolbeg Unit A, GU_400324, had incorrect ACTAs submitted for trade data 03/02/2018. This occorred as the unit was indicated to be under market test for the data and changes were made to the ACTAs accordingly during the checks process. It has subsequently transpired that the test had been cancelled Supporting data attached	F0076893	2018-02-06	2018-02-12	Data
Meter Generation	Following receipt of SSE Airticity Limited Energy invoices and Participang Infromation Reports for 05/01/2018 to 05/02/2018 it reported the data for unit GU_402210 are different from expected. The site was registered on the 12/12/2017 and commenced exporting on the 05/01/2018. From 05/01/2018 to date, the values for MGL MSQ, EA have so far bern all zero. We have confirmation connections are set up, generating and is exporting. The Market has provided zero payment to date and indicative data show no payment is due to us for non-invoiced periods. We wish for this to be corrected in time to minimige the affect of future Energy and Capacity payments as well as put in to	F0076917	2018-02-07	2018-02-12	Setlement
Meter Generation	GU_401020 (Arklow Bank Vindfarm) 1st Sept 2017 to 7th Sept 2017 Differences in MG, DQ and MSQ between Initial and M+4 resettlement. GU_401020 (Arklow Bank Vindfarm) 1st Sept 2017 to 7th Sept 2017 There are differences in MG, DQ, MSQ and Energy between M+4 and Initial resettlement, Energy difference ?33,324. There are no queries submitted for this period. Can SEM-0 please explain the reason for these differences.	F0076920	2018-02-07	2018-02-15	Setlement
Meter Demand	SU_400155 has notices a significant increase in demand in Jan 2018. When investigated further we can see that this increase mainly lifes within loadprofile4 group of customers - and the main jump in demand is on the 30th + 31th January. This increase looks very unusual and can be seen further in the spreadsheet attached.	F0076335	2018-02-08	2018-02-22	Setlement
Actual Availabilities	Unit GU_500284 didn't get paid its full capacity from 26th yo 28th Jan 2018 despite the unit being fully available. There was a fault on NIE's isolator MID33 causing gen trips but as this is not the fault of AES we should have received full capacity payments. When the gen trip happened it was declared down in EDIL under instruction from SONI. Once it was realised the fault was due to NIE isolator issue it was to late to retrospectively change in EDIL. Please see attached correspondence for further information.	F0077018	2018-02-13	2018-01-11	Setlement
Capacity	GU_400280 (LE3) Capacity payment query 28th October 2017. GU_400280 (LE3) Capacity payment query on 28th October 2017. This unit was available for the whole day at 8mws. However, following half hour periods have not been paid: 01:00-05:30 and 22:00-23:30.	F0077039	2018-02-14	2018-02-22	Setlement

Capacity	GU_400280 (LE1) - Capacity Query 29th October 2017. GU_400281 (LE2): Capacity Query 29th October 2017 GU_400290 (LE3): Capacity Query 29th October 2017 GU_400280 (LE1): Capacity Query 29th October 2017. Vas available for the whole day at 15mw. Only paid for 18:00 and 18:30 correctly, GU_400281 (LE2): Capacity Query 29th October 2017. Vas available for whole day except from 21:00. Capacity was not paid for period midnight to 15:30. GU_400280 (LE3): Capacity Query 29th October 2017. Unit was available for whole day but not paid capacity from midnight to 15:00.		2018-02-14	2018-02-22	Setlement
SO-SO Trades	System Operator Trade. Trade initiated by SONI control room Staff to National Grid Control room. No costs or volumes entered for System Security Trade with National Grid on 30.01.18 As per attached spreadsheet (D+3 File) please see the costs and volumes for the relevant periods to be entered	F0077049	2018-02-14	2018-02-19	Setlement

Table 18- Formal Queries

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.

There were no Market Application defects found in February 2018.

Issue No.	Description	Effect	Fixed from	Re-Pricing	Resettlement	Status
-	-	-	-	-	-	-

Table 19 - List of System Errors and Failures

Appendix D: Details of Operational Timings

Market Schedule and Price Runs

Tee die e Deu	EA1 Postings		EA2 Postings		WD1 Postings		EP1 Postings		EP2 Postings	
Trading Day	Target	Actual								
01/02/2018	11:00	09:50	13:00	11:47	09:30	08:19	16:00	14:36	17:00	14:35
02/02/2018	11:00	09:48	13:00	11:42	09:30	08:21	16:00	14:19	17:00	14:36
03/02/2018	11:00	10:06	13:00	11:45	09:30	08:26	16:00	14:30	17:00	14:38
04/02/2018	11:00	09:48	13:00	11:49	09:30	08:15	16:00	14:38	17:00	14:20
05/02/2018	11:00	13:00	13:00	#N/A	09:30	08:25	16:00	14:38	17:00	14:29
06/02/2018	11:00	09:59	13:00	11:57	09:30	08:16	16:00	14:40	17:00	14:19
07/02/2018	11:00	09:54	13:00	11:51	09:30	08:13	16:00	14:25	17:00	15:15
08/02/2018	11:00	09:44	13:00	11:42	09:30	08:25	16:00	14:31	17:00	14:31
09/02/2018	11:00	09:42	13:00	11:56	09:30	08:32	16:00	14:24	17:00	14:29
10/02/2018	11:00	09:46	13:00	11:53	09:30	08:13	16:00	15:00	17:00	14:34
11/02/2018	11:00	09:50	13:00	11:43	09:30	08:13	16:00	14:33	17:00	14:30
12/02/2018	11:00	09:46	13:00	11:45	09:30	08:22	16:00	14:32	17:00	14:37
13/02/2018	11:00	09:58	13:00	12:11	09:30	08:27	16:00	14:37	17:00	14:38
14/02/2018	11:00	09:54	13:00	11:48	09:30	08:21	16:00	14:33	17:00	14:50
15/02/2018	11:00	09:42	13:00	11:39	09:30	08:29	16:00	14:40	17:00	14:38
16/02/2018	11:00	09:50	13:00	11:49	09:30	08:18	16:00	15:02	17:00	14:36
17/02/2018	11:00	09:41	13:00	11:41	09:30	08:14	16:00	15:04	17:00	14:30
18/02/2018	11:00	09:42	13:00	11:41	09:30	08:29	16:00	14:40	17:00	15:18
19/02/2018	11:00	09:59	13:00	12:28	09:30	08:21	16:00	14:39	17:00	14:42
20/02/2018	11:00	10:00	13:00	11:39	09:30	08:17	16:00	14:33	17:00	14:16
21/02/2018	11:00	09:41	13:00	12:04	09:30	08:25	16:00	15:16	17:00	14:31
22/02/2018	11:00	09:50	13:00	11:55	09:30	08:12	16:00	14:47	17:00	14:35
23/02/2018	11:00	09:46	13:00	11:44	09:30	08:26	16:00	14:25	17:00	14:53
24/02/2018	11:00	09:42	13:00	11:42	09:30	08:17	16:00	14:58	17:00	14:34
25/02/2018	11:00	09:55	13:00	11:44	09:30	08:18	16:00	14:36	17:00	14:16
26/02/2018	11:00	09:48	13:00	11:54	09:30	08:21	16:00	15:17	17:00	14:35
27/02/2018	11:00	09:45	13:00	11:43	09:30	08:10	16:00	14:47	17:00	15:02
28/02/2018	11:00	09:48	13:00	11:47	09:30	08:22	16:00	14:48	17:00	14:48

Table 20 – MSP Runs

Settlement Runs

	Indicat	ive		Initial				
Trading	Actual	Target	Actual	Trading	Actual	Target	Actual	
Day	Date	Time	Time	Day	Date	Time	Time	
01/02/2018	02/02/2018	17:00	15:53	01/02/2018	08/02/2018	12:00	10:58	
02/02/2018	05/02/2018	17:00	12:20	02/02/2018	09/02/2018	12:00	12:00	
03/02/2018	05/02/2018	17:00	13:36	03/02/2018	09/02/2018	12:00	12:00	
04/02/2018	05/02/2018	17:00	15:50	04/02/2018	09/02/2018	12:00	07:45	
05/02/2018	06/02/2018	17:00	15:44	05/02/2018	12/02/2018	12:00	09:18	
06/02/2018	07/02/2018	17:00	16:25	06/02/2018	13/02/2018	12:00	07:43	
07/02/2018	08/02/2018	17:00	16:00	07/02/2018	14/02/2018	12:00	07:54	
08/02/2018	09/02/2018	17:00	15:53	08/02/2018	15/02/2018	12:00	08:50	
09/02/2018	12/02/2018	17:00	11:32	09/02/2018	16/02/2018	12:00	12:00	
10/02/2018	12/02/2018	17:00	13:32	10/02/2018	16/02/2018	12:00	12:00	
11/02/2018	12/02/2018	17:00	15:34	11/02/2018	16/02/2018	12:00	08:43	
12/02/2018	13/02/2018	17:00	15:45	12/02/2018	19/02/2018	12:00	09:13	
13/02/2018	14/02/2018	17:00	15:43	13/02/2018	20/02/2018	12:00	08:30	
14/02/2018	15/02/2018	17:00	15:55	14/02/2018	21/02/2018	12:00	09:43	
15/02/2018	16/02/2018	17:00	16:05	15/02/2018	22/02/2018	12:00	09:14	
16/02/2018	19/02/2018	17:00	11:29	16/02/2018	23/02/2018	12:00	12:00	
17/02/2018	19/02/2018	17:00	13:33	17/02/2018	23/02/2018	12:00	12:00	
18/02/2018	19/02/2018	17:00	15:44	18/02/2018	23/02/2018	12:00	07:41	
19/02/2018	20/02/2018	17:00	16:06	19/02/2018	26/02/2018	12:00	09:23	
20/02/2018	21/02/2018	17:00	15:43	20/02/2018	27/02/2018	12:00	08:49	
21/02/2018	22/02/2018	17:00	16:40	21/02/2018	28/02/2018	12:00	07:27	
22/02/2018	23/02/2018	17:00	15:59	22/02/2018	01/03/2018	12:00	08:54	
23/02/2018	26/02/2018	17:00	11:23	23/02/2018	02/03/2018	12:00	12:00	
24/02/2018	26/02/2018	17:00	13:30	24/02/2018	02/03/2018	12:00	12:00	
25/02/2018	26/02/2018	17:00	15:44	25/02/2018	02/03/2018	12:00	08:40	
26/02/2018	27/02/2018	17:00	16:12	26/02/2018	05/03/2018	12:00	09:23	
27/02/2018	28/02/2018	18:00	15:44	27/02/2018	06/03/2018	12:00	07:43	
28/02/2018	01/03/2018	19:00	16:11	28/02/2018	07/03/2018	12:00	08:43	

Table 21 – Settlement Runs

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
01/10/2017	€1,128,237.48	€1,576.89	-€378,357.91
02/10/2017	€753,728.56	-€6,605.15	-€425,189.34
03/10/2017	€675,919.11	-€28,147.68	-€459,383.40
04/10/2017	€790,094.79	-€12,276.51	-€454,836.20
05/10/2017	€598,243.60	€562.44	-€459,293.23
06/10/2017	€978,560.07	-€29,473.35	-€470,365.91
07/10/2017	€685,778.92	€16,406.92	-€422,341.15
08/10/2017	€606,589.61	-€1,693.38	-€428,179.56
09/10/2017	€628,023.58	-€25,009.27	-€472,072.33
10/10/2017	€661,294.91	-€12,088.17	-€459,471.05
11/10/2017	€856,913.05	€4,366.95	-€454,481.54
12/10/2017	€554,696.70	-€4,132.36	-€460,499.75
13/10/2017	€509,204.72	€8,000.04	-€455,413.62
14/10/2017	€589,155.41	€19,834.27	-€422,296.60
15/10/2017	€532,349.25	-€2,895.36	-€408,090.08
16/10/2017	€1,576,989.30	€5,893.68	-€398,171.53
17/10/2017	€321,452.97	-€16,920.37	-€449,831.94
18/10/2017	€534,843.18	-€15,961.49	-€477,249.12
19/10/2017	€697,291.71	-€10,288.42	-€473,258.23
20/10/2017	€604,918.01	-€16,853.47	-€470,091.71

21/10/2017	€910,633.73	-€6,523.05	-€420,863.08
22/10/2017	€746,292.37	-€6,931.78	-€410,457.17
23/10/2017	€583,009.53	€33,581.90	-€477,473.82
24/10/2017	€609,201.47	-€5,455.37	-€486,607.12
25/10/2017	€747,119.39	€5,407.90	-€487,567.97
26/10/2017	€724,380.32	-€9,639.67	-€513,633.27
27/10/2017	€741,948.87	-€21,049.38	-€501,594.81
28/10/2017	€638,373.17	€16,917.71	-€429,220.57
29/10/2017	€504,486.15	€11,661.56	-€430,541.95
30/10/2017	€560,302.03	€18,097.04	-€450,579.60
31/10/2017	€774,526.45	-€7,313.17	-€475,411.26
01/11/2017	€522,537.15	-€54,408.10	-€502,971.73
02/11/2017	€667,226.11	-€1,203.71	-€515,643.12
03/11/2017	€726,570.51	-€25,267.52	-€502,673.40
04/11/2017	€769,822.68	-€9,968.68	-€440,739.94
05/11/2017	€815,933.21	€3,136.73	-€433,513.98
06/11/2017	€869,216.20	-€31,404.29	-€480,267.16
07/11/2017	€968,443.23	-€52,023.59	-€514,093.72
08/11/2017	€1,063,769.89	-€34,250.52	-€523,176.99
09/11/2017	€748,505.97	-€5,215.86	-€501,360.57
10/11/2017	€881,798.99	-€12,788.24	-€493,615.16
11/11/2017	€637,400.22	-€4,835.74	-€472,590.85
12/11/2017	€771,718.43	€63.67	-€431,160.80
13/11/2017	€1,081,045.42	-€42,751.20	-€523,259.42
14/11/2017	€663,735.71	-€22,404.48	-€531,518.99
15/11/2017	€997,262.39	-€1,454.74	-€522,872.63
16/11/2017	€619,867.11	-€12,376.26	-€514,328.91
17/11/2017	€717,301.60	-€19,322.09	-€527,547.76
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18/11/2017	€641,678.53	-€12,312.51	-€483,698.00
19/11/2017	€681,550.58	-€210.80	-€457,825.35
20/11/2017	€690,457.41	-€9,436.02	-€502,410.50
21/11/2017	€881,388.63	-€14,900.47	-€505,386.09
22/11/2017	€814,158.91	€21,134.19	-€530,166.05
23/11/2017	€765,003.37	€1,455.10	-€522,381.63
24/11/2017	€746,628.87	-€23,375.05	-€540,392.09
25/11/2017	€727,927.70	-€32,238.40	-€482,715.14
26/11/2017	€1,026,529.88	-€52,461.86	-€463,393.98
27/11/2017	€668,953.92	€8,690.26	-€514,024.06
28/11/2017	€668,857.78	-€23,316.60	-€530,834.78
29/11/2017	€672,507.63	€17,955.74	-€545,922.34
30/11/2017	€873,915.32	-€22,024.34	-€545,436.84
01/12/2017	€490,061.93	-€37,529.60	-€558,052.50
02/12/2017	€735,776.23	-€43,949.95	-€495,965.05
03/12/2017	€863,967.41	-€3,763.51	-€466,912.21
04/12/2017	€540,667.50	-€30,111.37	-€542,729.15
05/12/2017	€570,663.31	-€8,695.06	-€533,471.16
06/12/2017	€1,056,861.68	-€2,868.66	-€505,987.39
07/12/2017	€791,442.49	€35,812.48	-€511,088.42
08/12/2017	€658,684.84	-€22,832.55	-€535,597.53
09/12/2017	€633,297.68	-€10,548.00	-€524,370.77
10/12/2017	€974,343.61	€12,449.52	-€493,040.09
11/12/2017	€858,812.76	-€23,430.21	-€557,015.20
12/12/2017	€661,568.64	-€33,525.06	-€572,922.46
13/12/2017	€969,727.15	-€32,067.79	-€547,643.48
14/12/2017	€826,830.20	-€40,511.63	-€547,119.02
15/12/2017	€492,430.48	-€17,215.00	-€534,149.99

16/12/2017	€593,022.52	-€23,860.19	-€512,250.90
17/12/2017	€510,323.80	-€11,485.40	-€475,824.38
18/12/2017	€381,066.43	-€25,323.29	-€554,350.08
19/12/2017	€408,521.30	-€26,218.06	-€530,127.96
20/12/2017	€589,087.85	-€24,212.41	-€541,635.65
21/12/2017	€395,008.92	-€15,727.05	-€528,633.55
22/12/2017	€704,163.60	-€29,023.77	-€502,975.18
23/12/2017	€605,894.69	-€2,097.68	-€446,615.17
24/12/2017	€745,480.37	-€2,837.73	-€417,920.96
25/12/2017	€505,582.39	€28,749.08	-€428,742.86
26/12/2017	€494,665.97	-€4,325.18	-€419,663.54
27/12/2017	€511,537.54	-€16,064.34	-€451,850.34
28/12/2017	€467,815.85	-€33,753.24	-€501,168.94
29/12/2017	€482,934.53	-€17,451.57	-€469,482.14
30/12/2017	€658,719.76	-€12,195.60	-€451,320.89
31/12/2017	€904,660.41	-€40,768.23	-€425,145.60
01/01/2018	€775,208.86	-€10,640.96	-€419,530.35
02/01/2018	€922,626.05	-€44,248.00	-€485,871.83
03/01/2018	€904,404.93	-€18,470.33	-€505,911.62
04/01/2018	€725,077.05	-€15,779.87	-€531,010.75
05/01/2018	€640,798.97	€7,789.61	-€537,058.78
06/01/2018	€610,789.68	€4,051.32	-€477,798.09
07/01/2018	€688,000.68	-€22,364.69	-€479,227.00
08/01/2018	€589,926.31	-€170.49	-€534,857.69
09/01/2018	€694,966.79	-€1,675.99	-€535,114.79
10/01/2018	€402,382.71	-€31,199.83	-€569,704.58
11/01/2018	€632,040.94	-€44,137.51	-€566,701.32
12/01/2018	€759,337.10	-€17,732.30	-€506,319.53
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13/01/2018	€572,312.20	-€15,711.00	-€479,697.73
14/01/2018	€791,290.51	-€3,023.32	-€448,796.82
15/01/2018	€871,334.50	-€1,991.16	-€500,288.14
16/01/2018	€755,258.89	-€9,948.20	-€529,605.64
17/01/2018	€809,885.00	-€4,644.94	-€541,765.49
18/01/2018	€651,083.41	-€15,048.94	-€543,035.16
19/01/2018	€980,820.52	-€35,475.47	-€542,052.53
20/01/2018	€781,591.50	-€6,285.19	-€512,776.02
21/01/2018	€608,994.29	€7,307.58	-€463,736.30
22/01/2018	€575,618.47	-€6,551.94	-€517,831.32
23/01/2018	€896,302.79	-€7,389.49	-€496,860.62
24/01/2018	€629,768.31	-€1,477.38	-€501,551.23
25/01/2018	€596,738.71	-€8,426.56	-€521,626.72
26/01/2018	€480,919.87	-€9,989.15	-€534,089.78
27/01/2018	€841,553.07	-€6,094.47	-€454,557.11
28/01/2018	€1,374,400.45	€1,518.44	-€427,481.55
29/01/2018	€535,764.79	€59.43	-€511,888.74
30/01/2018	€546,337.65	€35,971.05	-€529,861.07
31/01/2018	€638,281.84	€28,651.29	-€514,816.59
01/02/2018	€605,783.83	€76,252.88	-€517,155.65
02/02/2018	€526,771.26	-€59,486.01	-€539,412.92
03/02/2018	€697,093.47	-€3,403.10	-€469,546.66
04/02/2018	€600,190.56	-€34,664.36	-€477,079.17
05/02/2018	€480,292.36	-€48,622.76	-€556,317.44
06/02/2018	€807,121.00	-€12,158.88	-€541,407.79
07/02/2018	€841,989.92	-€11,272.45	-€564,695.15
08/02/2018	€819,667.40	-€13,240.74	-€542,786.00
09/02/2018	€632,655.24	-€23,398.89	-€527,514.20

€1,023,520.82	-€23,874.68	-€465,646.42
€953,601.69	€1,163.67	-€459,202.69
€940,888.52	-€14,590.82	-€525,142.82
€762,441.45	-€30,460.93	-€532,396.16
€799,781.94	-€37,681.25	-€512,397.62
€662,385.10	-€20,326.90	-€516,927.30
€408,767.59	€2,876.95	-€523,234.43
€596,799.99	-€98,483.02	-€495,611.52
€1,029,823.75	-€26,929.77	-€467,318.77
€1,097,784.00	-€14,594.86	-€520,192.93
€524,687.91	-€7,647.53	-€532,938.13
€735,100.27	€2,533.38	-€548,515.62
€434,068.15	€1,799.08	-€529,638.08
€1,010,678.65	€1,983.96	-€500,439.34
€1,024,739.76	-€5,556.54	-€473,301.48
€970,771.64	-€7,767.53	-€446,538.82
€572,758.45	€15,746.25	-€536,825.84
€1,063,391.46	-€9,774.48	-€558,132.57
€853,196.97	-€89,425.88	-€539,292.29
	 €953,601.69 €940,888.52 €762,441.45 €799,781.94 €662,385.10 €408,767.59 €1,029,823.75 €1,097,784.00 €524,687.91 €735,100.27 €434,068.15 €1,010,678.65 €1,024,739.76 €970,771.64 €572,758.45 €1,063,391.46 	€953,601.69 $€1,163.67$ $€940,888.52$ $-€14,590.82$ $€762,441.45$ $-€30,460.93$ $€799,781.94$ $-€37,681.25$ $€662,385.10$ $-€20,326.90$ $€408,767.59$ $€2,876.95$ $€596,799.99$ $-€98,483.02$ $€1,029,823.75$ $-€26,929.77$ $€1,097,784.00$ $-€14,594.86$ $€524,687.91$ $-€7,647.53$ $€735,100.27$ $€2,533.38$ $€434,068.15$ $€1,799.08$ $€1,010,678.65$ $€1,983.96$ $€1,024,739.76$ $-€5,556.54$ $€970,771.64$ $-€7,767.53$ $€572,758.45$ $£15,746.25$ $€1,063,391.46$ $-€9,774.48$

Table 22 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

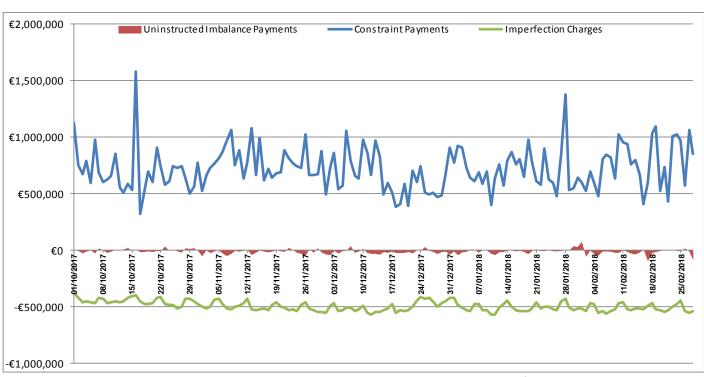


Figure 24 - Constraint Payments, Uninstructed Imbalance Payments, and Imperfections Charges

Week No	Make Whole Payments
40	€250,374.71
41	€83,919.38
42	€25,546.52
43	€167,868.48
44	€30,640.51
45	€178,465.56
46	€145,307.99
47	€77,955.85
48 €115,343.57	
49	€128,242.43
50	€41,192.83
51	€94,676.92
52	€172,216.83
53	€1,173.60
1	€107,082.71
2	€30,512.12
3	€224,880.02
4	€106,178.86
5	€123,059.19
6	€167,143.45

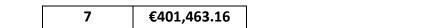


Table 23 - Make Whole Payments

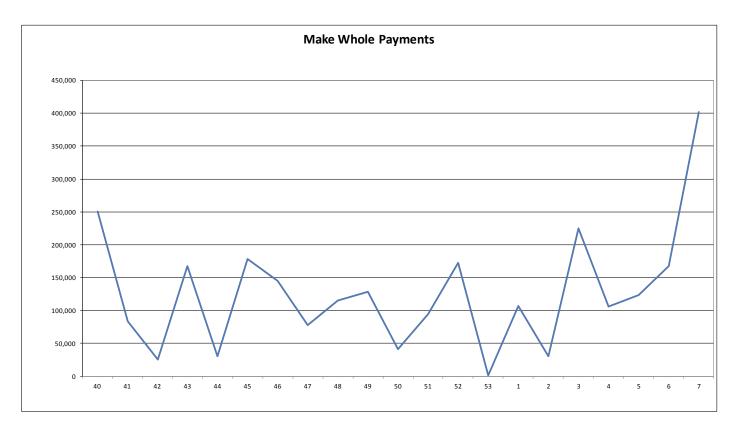


Figure 25 - Make Whole Payments

Week No	Testing
	Charges
40	-€47,420.09
41	-€31,943.73
42	-€37,408.75
43	-€44,370.66
44	-€31,520.74
45	-€1,129.07
46	€0.00
47	-€31,615.34
48	-€37,036.09
49	-€22,408.67
50	€0.00
51	€0.00
52	€0.00
53 -€14,644.7	
1	€0.00

€0.00
€0.00
-€13,810.58
€0.00
€0.00
€0.00

Table 24 - Testing Charges

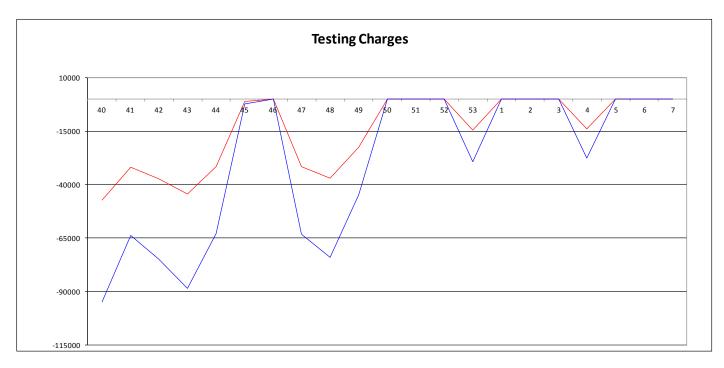


Figure 26 - Testing Charges

Appendix F: Default Commercial Offer Data Used

The table below lists for each unit the number of times in operations during February 2018 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_500099	DSU_501460	12			12
PT_400090	DSU_401610	23			23
PT_400138	DSU_401590	28			28
PT_400116	DSU_401400	27			27
PT_400116	DSU_401870	27			27
PT_400116	DSU_402120	23			23
PT_400138	DSU_402040	28			28
PT_400106	DSU_401330	31			31
PT_400090	DSU_401270	20			20
PT_400133	DSU_401530	28			28
PT_400024	GU_400120	28			28
PT_400024	GU_400121	28			28
PT_400030	GU_400180	39			39
PT_400030	GU_400181	39			39
PT_400030	GU_400182	39			39
PT_400030	GU_400183	39			39
PT_400030	GU_400200	33			33
PT_400030	GU_400201	33			33
PT_400030	GU_400202	33			33
PT_400030	GU_400203	33			33
PT_400030	GU_400210	33			33
PT_400030	GU_400211	33			33
PT_400030	GU_400220	33			33
PT_400030	GU_400221	33			33
PT_400030	GU_400240	33			33
PT_400030	GU_400250	33			33
PT_400030	GU_400251	33			33
PT_400030	GU_400252	33			33
PT_400030	GU_400260	33			33
PT_400030	GU_400270	35			35
PT_400030	GU_400271	36			36
PT_400030	GU_400272	35			35
PT_400030	GU_400280	33			33
PT_400030	GU_400281	34			34
PT_400030	GU_400290	33			33
PT_400030	GU_400300	39			39
PT_400030	GU_400311	39			39
PT_400030	GU_400324	39			39
PT_400030	GU_400325	39			39
PT_400030	GU_400360	33			33
PT_400030	GU_400361	33			33
PT_400030	GU_400362	33			33

1		1	1 1
PT_400030	GU_400363	33	33
PT_400030	GU_400370	33	33
PT_400030	GU_400850	39	39
PT_400030	GU_402080	26	26
PT_400032	GU_400430	26	26
PT_400034	GU_400940	26	 26
PT_400034	GU_401090	26	 26
PT_400034	GU_401440	26	 26
PT_400034	GU_401680	26	 26
PT_400035	GU_400480	49	 49
PT_400037	GU_400500	30	 30
PT_400041	GU_400530	56	 56
PT_400044	GU_400540	49	49
PT_400054	GU_400620	26	26
PT_400055	GU_400630	26	26
PT_400064	GU_400750	28	28
PT_400064	GU_400751	28	28
PT_400064	GU_400752	28	28
PT_400064	GU_400753	28	28
PT_400064	GU_400762	28	28
PT_400064	GU_400770	28	28
PT 400064	GU 400771	28	28
PT 400064	GU 400780	28	28
PT_400064	GU_400781	28	28
PT 400075	GU 400930	4	4
PT 400077	GU 400950	26	26
PT 400078	GU 401010	28	28
PT 400078	GU 401011	28	28
PT 400165	GU 401840	28	28
PT 400172	GU 401860	28	28
PT 400198	GU 402030	16	16
PT 500024	GU 500040	36	36
PT 500024	GU 500041	28	28
PT_500027	GU 500130	80	80
PT 500027	GU 500131	80	80
PT_500027	GU_500140	80	80
PT_500034	GU 501350	32	 32
PT_500040	GU_500281	56	 56
PT_500040	GU_500282	56	56
PT 500040	GU 500283	28	28
PT 500040	GU_500284	28	28
PT_500045	GU_500820	28	28
PT_500045	GU_500820	28	28
PT 500045	GU 500821	28	28
PT_500045 PT_500045	GU_500822 GU_500823	28	28
	GU_500823 GU_500824		
PT_500045	_	28	28
PT_500045	GU_500825	28	28
PT_500048	GU_500904	43	43
PT_500050	GU_501040	26	 26
PT_500050	GU_501050	26	 26
PT_500050	GU_501150	26	 26
PT_500050	GU_501190	26	 26
PT_500050	GU_501430	26	26

l			1	1
PT_500050	GU_501440	26		26
PT_500053	GU_501130	29		29
PT_500066	GU_501210	26		26
PT_500103	GU_501480	23		23
PT_500083	I_NIMOYLE	81		81
PT_400201	I_ROIEWIC	48		48
PT_500075	I_NIMOYLE	83		83
PT_500024	I_NIMOYLE	28		28
PT_400163	I_ROIEWIC	84		84
PT_500069	I_NIMOYLE	82		82
PT_400157	I_ROIEWIC	58		58
PT_500031	I_NIMOYLE	28		28
PT_500037	I_NIMOYLE	28		28
PT_400096	I_ROIEWIC	83		83
PT_400168	I_ROIEWIC	82		82
PT_400136	I_ROIEWIC	83		83
PT_400115	I_ROIEWIC	28		28
PT_500081	I_NIMOYLE	59		59
PT_500107	I_NIMOYLE	4		4
PT_400188	I_ROIEWIC	4		4
PT_400164	I_ROIEWIC	28		28
PT_400171	I_ROIEWIC	62		62
PT_500070	I_NIMOYLE	52		52
PT_500120	I_NIMOYLE	40		40
PT_400108	I_ROIEWIC	56		56
PT_500092	I_NIMOYLE	63		63
PT_400099	I_ROIEWIC	28		28
PT_500085	I_NIMOYLE	40		40
PT_400144	DSU_401660		28	28
PT_400090	DSU_401620		28	28
PT_400124	DSU_401490		28	28
PT_400116	DSU_402120		6	6
PT_400116	DSU_401400		2	2
PT_500078	DSU_501330		28	28
PT_400090	DSU_401800		28	28
PT_400090	DSU_401850		28	28
PT_500064	DSU_501200		28	28
PT_500099	DSU_501460		16	16
PT_500105	DSU_501510		28	28
PT_400090	DSU_401270		8	8
PT_400090	DSU_401610		5	5
PT_400111	DSU_401390		28	28
PT_500067	DSU_501380		28	28
PT_400116	DSU_402100		28	28
PT_400133	DSU_401910		28	28
PT_500098	DSU_501450		28	28
PT_500108	DSU_501560		28	28
PT_400124	DSU_401880		28	28
PT_400116	DSU_401870		2	2
 PT_400116	DSU_402090		28	28
 PT_400021			28	28
PT_400021	GU_400050		28	28
	GU_400060	i	28	28

I	1	1	I	1 1
PT_400021	GU_400070		28	28
PT_400021	GU_400080		28	28
PT_400021	GU_400591		28	28
PT_400021	GU_400600		28	28
PT_400021	GU_400910		28	28
PT_400021	GU_400920		28	28
PT_400021	GU_401080		28	28
PT_400021	GU_401380		28	28
PT_400021	GU_401640		28	28
PT_400021	GU_401960		28	28
PT_400021	GU_401990		28	28
PT_400025	GU_400130		28	28
PT_400030	GU_402080		2	2
PT_400032	GU_400430		2	2
PT_400034	GU_400940		2	2
PT_400034	GU_401090		2	2
PT_400034	GU_401440		2	2
PT_400034	GU_401680		2	2
PT_400038	GU_400550		28	28
PT_400050	GU_400650		28	28
PT_400050	GU_400660		28	28
PT 400050	GU 401000		28	28
PT_400050	GU_401060		28	28
PT_400050	GU_401150		28	28
PT 400050	GU 401240		28	28
PT 400050	GU 401250		28	28
PT 400050	GU 401280		28	28
PT 400050	GU 401290		28	28
PT_400050	GU_401360		28	28
PT 400050	GU 401790		28	28
PT 400050	GU 401920		28	28
PT 400050	GU_401930		28	28
PT 400050	GU 402010		28	28
PT 400054	GU_400620		2	2
PT_400055	GU_400630		2	2
PT_400062	GU_400730		28	28
PT_400062	GU_400731		28	28
PT_400062	GU_400840		28	28
PT_400066	GU 401540		28	28
PT_400066	GU_401820		28	28
PT_400075	GU_400930		24	24
PT 400077	GU_400950		2	2
PT 400082	GU 401100		28	28
PT 400087	GU 401230		28	28
PT 400148	GU 401690		28	28
PT 400150	GU_401700		28	28
PT_400150	GU_401770		28	28
PT 400151	GU_401780		28	28
PT 400151	GU 401710		28	28
PT_400152	GU 401710		28	28
PT_400152	GU 401720		28	28
PT_400152 PT_400152	GU 401730		28	28
PT_400152 PT_400152	GU_401740 GU_401750		28	28
11_400152	00_401700		20	20

	Percentage	62.52%	0.00%	37.48%	100.00%
	Total	4437	0	2660	7097
PT_500110	GU_501580			28	28
PT_500089	GU_501360			28	28
PT_500074	GU_501250			28	28
PT_500073	GU_501230			28	28
PT_500066	GU_501210			2	2
PT_500062	GU_501180			28	28
PT_500061	GU_501170			28	28
PT_500050	GU_501440			2	2
PT_500050	GU_501430			2	2
PT_500050	GU_501190			2	2
PT_500050	GU_501150			2	2
PT_500050	GU_501050			2	2
PT_500050	GU_501040			2	2
PT_500048	GU_500904			2	2
PT_500047	GU_500790			28	28
PT_500044	GU_500720			28	28
PT_500039	GU_500270			28	28
PT_500032	GU_501570			28	28
PT_500032	GU_501540			28	28
PT_500032	GU_501530			28	28
PT_500032	GU_501400			28	28
PT_500032	GU_501300			28	28
PT_500032	GU_501290			28	28
PT_500032	GU_501280			28	28
PT_500032	GU_501120			28	28
PT_500032	GU_500211			28	28
PT_500021	GU_501630			28	28
PT_500021	GU_501620			28	28
PT_500021	GU_501520			28	28
PT_500021	GU_501500			28	28
PT_500021	GU_501160			28	28
PT_500021	GU_500740			28	28
PT_500021	GU_500010			28	28
PT_400198	GU_402030			15	15
PT_400197	GU_402020			28	28
PT_400178	GU_401900			28	28
PT_400162	GU_401830			28	28
PT_400152	GU_401760	_		28	28

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
	ROI	£53,990,805.17	£17,305,691.08	£1,082,679.75	£206,642.80	£45,575.08	£1,900.74	£45,391.41	£12,311.23	£322.89	£0.00	£0.00	£0.00	72,691,320.15
Aug-16	NI	£13,463,141.18	£3,676,029.87	£272,060.88	£22,683.94	£6,912.45	£294.54	£2,906.60	£2,273.87	£18.25	£0.00	£0.00	£0.00	17,446,321.58
	ROI	£60,365,808.65	£17,305,691.08	£1,381,850.46	£313,754.10	£83,238.29	£3,816.76	£47,911.41	£8,968.97	£354.53	£0.00	£2,861.23	£0.00	79,514,255.48
Sep-16	NI	£17,693,943.87	£3,676,029.87	£349,566.95	£32,666.66	£7,720.07	£412.92	£4,847.16	£1,188.42	£33.50	£0.00	£532.20	£0.00	21,766,941.62
	ROI	£64,937,764.02	£20,215,673.79	£813,429.31	£334,853.66	£96,213.40	£3,776.71	£47,334.32	£14,216.75	£359.61	£0.00	£0.00	£0.00	86,463,621.57
Oct-16	NI	£25,730,620.36	£4,935,559.58	£220,252.61	£81,663.62	£17,690.00	£978.05	£11,878.35	£2,104.44	£85.45	£0.00	£0.00	£0.00	31,000,832.46
	ROI	£79,083,041.86	£26,426,844.27	£746,953.39	£256,783.77	£97,150.99	£3,451.80	£77,643.02	£35,169.15	£618.36	£325,964.05	£0.00	£0.00	107,053,620.66
Nov-16	NI	£30,128,694.39	£6,448,578.49	£206,907.51	£173,676.38	£60,271.90	£2,148.44	£42,708.63	£23,836.40	£422.17	£834.57	£0.00	£0.00	37,088,078.88
	ROI	£91,892,862.67	£27,754,182.60	£986,254.46	£431,619.50	£110,272.39	£6,055.55	£98,070.16	£32,223.23	£1,076.34	£505,299.63	£0.00	£0.00	121,817,916.53
Dec-16	NI	£33,787,693.11	£6,963,652.60	£260,893.62	£238,761.61	£53, 464. 74	£2,658.52	£27,575.46	£12,836.78	£304.21	£775.23	£0.00	£0.00	41,348,615.88
	ROI	£71,678,885.81	£27,768,345.87	£756,389.76	£157,498.92	£96,027.36	£2,212.62	£63,104.42	£38,920.56	£719.17	£0.00	£0.00	£0.00	100,562,104.49
Jan-17	NI	£24,623,245.15	£6,418,062.31	£203,136.05	£105,611.21	£32,330.86	£1,272.30	£50,004.40	£12,723.31	£166.24	£0.00	£0.00	£0.00	31,446,551.83
	ROI	£68, 417, 749. 71	£27,553,403.45	£786,234.64	£143,736.91	£161,777.77	£822.69	£56,371.33	£22,936.28	£671.74	£0.00	£0.00	£0.00	97,143,704.52
Feb-17	NI	£26,623,159.66	£8,331,870.29	£208,457.12	£84,873.05	£12,863.18	£479.73	£65,781.22	£10,545.70	£290.27	£0.00	£0.00	£0.00	35,338,320.22
	ROI	£66,590,904.20	£25,999,739.73	£896,638.56	£530,904.65	£113,905.95	£3,188.17	£40,679.29	£13,853.63	£638.11	£0.00	£0.00	£0.00	94,190,452.29
Mar-17	NI	£27,088,752.15	£8,001,218.02	£232,052.21	£72,287.75	£14,630.37	£409.39	£46,677.74	£14,276.96	£577.22	£0.00	£0.00	£0.00	35,470,881.81
	ROI	£56,165,195.56	£24,426,665.10	£727,000.54	£536,698.08	£142,324.28	£3,531.15	£45,125.24	£18,620.07	£596.12	£0.00	£0.00	£0.00	82,065,756.14
Apr-17	NI	£17,358,282.80	£7,584,088.13	£179,414.93	£127,102.29	£27,651.79	£859.38	£60,044.36	£25,589.38	£801.90	£0.00	£0.00	£0.00	25,363,834.96
	ROI	£44,648,195.71	£19,781,317.86	£700,841.87	£489,950.65	£142,425.65	£2,974.84	£51,455.64	£17,883.26	£699.50	£0.00	£0.00	£0.00	65,835,744.98
May-17	NI	£16,964,613.24	£5,548,133.24	£169,862.58	£108,402.43	£29,733.84	£622.87	£88,001.70	£33,781.45	£1,179.59	£0.00	£0.00	£0.00	22,944,330.94
	ROI	£50,996,714.24	£18,508,982.13	£841,895.70	£869, 713.90	£198,750.84	£4,934.88	£65,063.85	£16,276.93	£866.44	£0.00	£0.00	£0.00	71,503,198.91
Jun-17	NI	£18,134,740.54	£5,385,407.39	£213,872.53	£138,837.43	£30,982.10	£823.10	£148,093.71	£42,384.03	£1,836.46	£0.00	£0.00	£0.00	24,096,977.29
	ROI	£53,839,556.76	£18,469,543.17	£689,850.17	£859,675.25	£105,231.46	£1,843.13	£47,200.17	£31,615.25	£600.31	£0.00	£0.00	£0.00	74,045,115.67
Jul-17	NI	£16,871,524.38	£4,970,215.26	£169,319.17	£206,699.63	£26,416.99	£609.40	£122,939.50	£47,342.00	£1,369.62	£0.00	£0.00	£0.00	22,416,435.95
	ROI	£49,715,868.99	£16,597,661.81	£670,887.89	£189,567.77	£49,405.94	£1,189.91	£131,434.13	£36,135.62	£1,706.37	£1.41	£0.00	£0.00	67,393,859.84
Aug-17	NI	£15,604,259.43	£4,539,253.85	£174,636.65	£71,879.64	£24,102.39	£515.19	£11,674.35	£2,799.04	£123.94	£52.50	£0.00	£0.00	20,429,296.98
	ROI	£74,262,007.43	£18,246,287.18	£871,978.12	£297,529.91	£58,164.04	£2,322.12	£47,978.01	£13,495.87	£504.35	£163,227.43	£0.00	£0.00	93,963,494.46
Sep-17	NI	£26,213,019.19	£5,128,326.58	£230,350.58	£81,360.23	£23,139.40	£499.97	£13,331.20	£6,511.87	£297.83	£140,679.45	£0.00	£0.00	31,837,516.30
	ROI	£64,383,218.39	£18,184,490.56	£721,054.00	£289,078.01	£109,973.68	£2,586.90	£32,785.64	£11,166.82	£447.56	£0.00	£0.00	£0.00	83,734,801.56
Oct-17	NI	£18,177,387.18	£5,365,068.45	£188,849.52	£78,539.81	£23,503.63	£650.99	£10,931.60	£2,877.72	£134.29	£0.00	£0.00	£0.00	23,847,943.19
	ROI	£73,894,145.46	£29,049,213.63	£821,611.24	£239,608.70	£442,118.67	£1,727.82	£34,763.85	£73,083.63	£225.56	£0.00	£0.00	£0.00	104,556,498.56
Nov-17	NI	£23,559,299.88	£8,534,268.31	£214,366.57	£214,152.33	£80,930.26	£1,369.32	£27,935.49	£69,821.89	£160.29	£0.00	£0.00	£0.00	32,702,304.34
	ROI	£108,724,596.96	£30,213,314.37	£1,032,089.87	£386,043.20	£61,761.35	£2,747.14	£91,579.26	£20,859.90	£558.92	£354,184.96	£196,828.99	£196,828.99	141,281,393.91
Dec-17	NI	£35,009,530.01	£7,435,318.60	£270,080.16	£180,156.15	£72,189.79	£1,323.93	£45,368.58	£11,660.54	£288.42	£58,353.41	£11,091.72	£11,091.72	43,106,453.03
	ROI	£66,824,387.64	£31,236,649.01	£796,356.35	£272,646.34	£136,640.90	£1,965.48	£56,253.29	£18,996.49	£347.05	£320.44	£2,955.28	£2,955.28	99,350,473.55
Jan-18	NI	£21,801,403.00	£8,153,351.60	£211,139.18	£105, 764. 72	£76,139.37	£734.71	£22,938.26	£7,983.39	£150.76	£275,137.08	£85,908.52	£85,908.52	30,826,559.11
	ROI	£73,894,145.46	£29,049,213.63	£821,611.24	£239,608.70	£442,118.67	£1,727.82	£34,763.85	£73,083.63	£225.56	£0.00	£0.00	£0.00	104,556,498.56
Feb-18	NI	£23,559,299.88	£8,534,268.31	£214,366.57	£214,152.33	£80,930.26	£1,369.32	£27,935.49	£69,821.89	£160.29	£0.00	£0.00	£0.00	32,702,304.34

Table 26 – Total Charges by Month

Mark	æt	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
	ROI	€47,925,137.80	€17,191,335.52	€205,102.11	€45,376.26	€1,900.83	€46,132.09	€12,064.34	€323.00	€0.00	€0.00	€0.00	€65,427,371.95
Aug-16	NI	€13,904,887.07	€3,784,287.20	€26,983.41	€6,959.89	€294.55	€2,874.89	€2,261.38	€18.45	€0.00	€0.00	€0.00	€17,728,566.84
	ROI	€57,725,046.88	€17,191,335.52	€316,785.33	€82,962.59	€4,207.29	€47,913.59	€8,957.12	€354.44	€0.00	€295.52	€0.00	€75,377,858.28
Sep-16	NI	€15,918,157.70	€3,784,287.20	€32,790.23	€7,927.66	€416.78	€4,847.59	€1,185.01	€33.38	€0.00	€2,875.40	€0.00	€19,752,520.95
	ROI	€69,972,953.07	€20,863,182.68	€338,586.57	€95,502.31	€4,333.45	€87,892.25	€14,736.13	€359.59	€0.00	€0.00	€0.00	€91,377,546.05
Oct-16	NI	€25,586,214.40	€4,376,394.83	€77,787.35	€18,365.43	€977.30	€11,874.98	€1,647.25	€85.65	€0.00	€0.00	€0.00	€30,073,347.19
	ROI	€83,487,123.38	€26,395,539.72	€257,668.44	€80,165.18	€3,418.32	€94,355.82	€39,305.46	€618.26	€301,690.28	€0.00	€72.04	€110,659,956.90
Nov-16	NI	€31,306,401.54	€6,468,679.78	€173,737.66	€74,786.08	€2,148.38	€43,017.39	€20,271.13	€422.26	€832.79	€0.00	€0.00	€38,090,297.01
	ROI	€95,266,581.65	€27,572,460.28	€447,482.30	€114,736.82	€6,025.28	€97,017.33	€32,733.66	€1,076.70	€496,715.14	€0.00	€1,512.38	€124,036,341.54
Dec-16	NI	€35,841,749.90	€6,989,191.13	€197,537.73	€49,301.94	€2,219.49	€25,889.47	€12,309.63	€304.11	€87.68	€0.00	€0.00	€43,118,591.08
	ROI	€75,626,838.95	€26,766,502.24	€158,454.05	€90,014.92	€2,220.87	€57,510.67	€43,928.85	€718.84	€0.00	€0.00	€0.00	€102,746,189.39
Jan-17	NI	€25,518,177.37	€7,218,837.74	€105,159.01	€37,420.47	€1,201.46	€13,624.71	€8, 406.28	€166.14	€0.00	€0.00	€0.00	€32,902,993.18
	ROI	€72,035,479.90	€27,979,553.27	€155,130.29	€146,308.11	€822.54	€52,898.05	€23,287.43	€672.03	€0.00	€0.00	€0.00	€100,394,151.62
Feb-17	NI	€27,677,996.42	€8,012,556.21	€84,963.22	€26,404.97	€479.76	€26,710.73	€10,373.95	€304.45	€0.00	€0.00	€0.00	€35,839,789.71
	ROI	€74,265,958.01	€25,788,084.66	€532,016.14	€116,104.70	€3,141.82	€39,271.10	€13,708.08	€638.20	€0.00	€0.00	€0.00	€100,758,922.71
Mar-17	NI	€27,816,469.38	€8,149,368.84	€76,024.05	€12,908.20	€406.88	€32,923.50	€14,410.91	€582.61	€0.00	€0.00	€0.00	€36,103,094.37
	ROI	€56,718,380.85	€24,463,279.10	€537,285.75	€147,053.40	€3,530.38	€45,104.86	€18,331.73	€596.32	€0.00	€0.00	€0.00	€81,933,562.39
Apr-17	NI	€18,526,297.40	€7,555,445.88	€125,968.13	€23,710.00	€645.79	€59,866.13	€25,832.73	€810.81	€0.00	€0.00	€0.00	€26,318,576.87
	ROI	€45,161,376.39	€18,086,733.29	€488,856.77	€139,195.42	€2,589.27	€62,916.83	€17,794.83	€699.70	€0.00	€0.00	€0.00	€63,960,162.50
May-17	NI	€19,510,303.26	€6,964,363.87	€107,751.82	€32,525.65	€619.02	€88,078.61	€33,838.58	€1,182.28	€0.00	€0.00	€0.00	€26,738,663.09
	ROI	£52, 758, 496. 23	£17,355,294.13	£882,852.53	£191,441.91	£3,661.42	£65,347.10	£16,420.10	£869.48	£0.00	£0.00	£0.00	€71,274,382.90
Jun-17	NI	£20,252,622.96	£6,380,475.07	£138,076.17	£37,695.41	£816.77	£148,166.13	£42,425.33	£1,836.50	£0.00	£0.00	£0.00	€27,002,114.34
	ROI	£54,277,998.32	£17,477,373.72	£846,835.48	£102,146.67	£1,651.30	£47,723.87	£34,509.09	£601.00	£0.00	£0.00	£0.00	€72,788,839.45
Jul-17	NI	£18,773,354.99	£5,850,870.07	£230,926.67	£29,088.46	£609.37	£122,267.41	£44,738.41	£1,404.46	£0.00	£0.00	£0.00	€25,053,259.84
	ROI	£50,562,528.38	£15,345,661.50	£190,289.53	£50,188.86	£1,330.67	£130,457.46	£35, 704.06	£1,694.02	£2.00	£0.00	£0.00	€66,317,856.48
Aug-17	NI	£18,103,577.29	£5,650,171.54	£71,815.23	£23,380.11	£512.28	£11,510.00	£3,159.55	£146.77	£45.51	£0.00	£0.00	€23,864,318.28
	ROI	£77,198,039.75	£16,935,824.39	£297,316.08	£58,064.10	£2,315.75	£36,227.08	£14,579.25	£480.13	£329,748.86	£0.00	£736.80	€94,873,332.19
Sep-17	NI	£29,090,989.44	£6,342,522.98	£81,307.50	£23,116.39	£615.25	£24,625.76	£5,539.12	£177.97	£254,051.02	£0.00	£4.28	€35,822,949.71
	ROI	£66,627,076.69	£17,573,435.30	£379,168.29	£109,325.13	£2,586.81	£31,769.76	£11,103.25	£435.24	£0.00	£0.00	£0.00	€84,734,900.47
Oct-17	NI	£22,549,009.87	£5,897,549.80	£79,103.03	£24,197.26	£648.45	£10,935.82	£2,957.83	£134.12	£0.00	£0.00	£0.00	€28,564,536.18
	ROI	£73,649,373.32	£28,234,770.33	£241,672.56	£232,622.38	£1,496.49	£33,903.63	£90, 769.95	£220.04	£0.00	£0.00	£0.00	€102,484,828.70
Nov-17	NI	£26,522,258.99	£9,276,145.07	£211,340.35	£267,052.17	£1,368.55	£28,772.37	£54,122.68	£164.70	£0.00	£0.00	£0.00	€36,361,224.88
	ROI	£106,835,064.33	£27,957,453.42	£397,100.73	£98,040.58	£2,984.78	£91,151.49	£20,818.71	£556.31	£336,745.88	£173,793.95	£644.35	€135,914,354.53
Dec-17	NI	£37, 790, 994. 99	£9,466,911.04	£181,354.27	£40,293.46	£1,305.84	£45,734.51	£11,769.44	£290.16	£57,624.89	£31,404.66	£288.16	€47,627,971.42
	ROI	£66,556,846.79	£30,184,516.90	£264,692.47	£140,421.82	£600.74	£56,245.08	£18,749.58	£346.74	£37.23	£16,333.45	£0.00	€97,238,790.80
Jan-18	NI	£24,598,645.75	£9,075,819.96	£105,487.86	£72,782.55	£685.44	£22,940.69	£8,209.56	£150.74	£270,100.11	£74,414.80	£1,311.93	€34,230,549.39
	ROI	£73,649,373.32	£28,234,770.33	£241,672.56	£232,622.38	£1,496.49	£33,903.63	£90,769.95	£220.04	£0.00	£0.00	£0.00	€102,484,828.70
Feb-18	NI	£26,522,258.99	£9,276,145.07	£211,340.35	£267,052.17	£1,368.55	£28,772.37	£54,122.68	£164.70	£0.00	£0.00	£0.00	€36,361,224.88

Table 27 - Total Payments by Month

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
06/10/2017	39	€4,277,088.98	€0
13/10/2017	40	€2,482,838.95	€0
20/10/2017	41	€1,242,741.61	€0
27/10/2017	42	€2,017,373.96	€0
03/11/2017	43	€1,496,601.70	€0
10/11/2017	44	€1,138,507.50	€0
17/11/2017	45	€2,429,067.77	€0
24/11/2017	46	€1,847,665.06	€0
01/12/2017	48	€1,330,336.80	€0
08/12/2017	49	€1,452,421.60	€0
15/12/2017	50	€1,454,433.85	€0
22/12/2017	51	-€120,183.03	€0
05/01/2018	52	€668,708.17	€0
12/01/2018	53	€1,983,172.46	€0
19/01/2018	1	€534,352.28	€0
26/01/2018	2	€1,946,527.32	€0
02/02/2018	3	€1,107,021.02	€0
09/02/2018	4	€1,493,834.12	€0
16/02/2018	5	€1,362,758.37	€0
23/02/2018	6	€1,362,251.43	€0

Table 28 – 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	SEM Balancing	VAT Balancing
Month	Costs	Costs
Jan 2018	€-308.39	€0

 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.

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 <u>here</u>.

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>Jan 2017</u>	<u>29/01/2017</u> <u>31/01/2017</u>	03/01/2017 26/01/2017 29/01/2017	-	01/01/2017 23/01/2017 28/01/2017	<u>12/01/2017</u> <u>31/01/2017</u>
		<u>31/01/2017</u>		<u>30/01/2017</u>	
<u>Feb 2017</u>	-	<u>06/02/2017</u> <u>13/02/2017</u> <u>19/02/2017</u>	04/02/2017 08/02/2017 17/02/2017 28/02/2071	01/02/2017 05/02/2017 08/02/2017 11/02/2017	04/02/2017 07/02/2017 20/02/2017 25/02/2017
<u>Mar 2017</u>	-	<u>09/03/2017</u>	<u>19/03/2017</u> 24/03/2017	08/03/2017 18/03/2017 24/03/2017	<u>20/03/2017</u> 21/03/2017
<u>Apr 2017</u>	-	-	<u>17/04/2017</u> <u>28/04/2017</u>	03/04/2017 06/04/2017 26/04/2017	<u>04/04/2017</u>

Month	Ex-Ante	Ex-Ante 2	Ex-Post Indicative	Ex-Post Initial	Within Day
<u>May 2017</u>	<u>15/05/2017</u>	-	-	-	<u>05/05/2017</u> <u>14/05/2017</u>
Jun 2017	-	02/06/2017 29/06/2017	-	-	<u>11/06/2017</u>
<u>July 2017</u>	<u>19/07/217</u>	01/08/2017	-	-	-
August 2017		17/08/2017	<u>30/08/2017</u>	18/08/2017	<u>01/08/2017</u>
September 2017	<u>26/09/2017</u>	-	<u>04/09/2017</u> <u>18/09/2017</u> <u>20/09/2017</u>	<u>18/09/2017</u>	-
October 2017	<u>15/10/2017</u>	03/10/2017 24/10/2017 26/10/2017	<u>04/10/2017</u> <u>06/10/2017</u> <u>26/10/2017</u>	20/10/2017 24/10/2017 26/10/2017	<u>10/10/2017</u> <u>16/10/2017</u>
November 2017	_	01/11/2017 02/11/2017 17/11/2017 22/11/2017 28/11/2017 29/11/2017	02/11/2017 07/11/2017 22/11/2017 29/11/2017	<u>02/11/2017</u> 07/11/2017	-
December 2017	-	01/12/2017 20/12/2017 22/12/2017 28/12/2017	07/12/2017 09/12/2017 20/12/2017 21/12/2017	06/12/2017 09/12/2017 14/12/2017 20/12/2017	-

Month	Ex-Ante	Ex-Ante 2	Ex-Post Indicative	Ex-Post Initial	Within Day
January 2018	<u>07/01/2018</u>	05/01/2018 10/01/2018 11/01/2018	<u>23/01/2018</u> 24/01/2018	<u>19/01/2018</u> 23/01/2018	-
February 2018	_	9/02/2018 13/02/2018 21/02/2018 22/02/2018 26/02/2018	<u>10/02/2018</u> <u>14/02/2018</u> <u>21/02/2018</u>	<u>14/02/2018</u> <u>21/02/2018</u>	-

Table 30 - MIP Algorithms

Operational Date	Trade Date	Run Type	LR Peak SMP	MIP Peak SMP	Published
02/10/2017	03/10/2017	EA2	€1,000	€217.09	MIP
05/10/2017	04/10/2017	EP1	€1,000	€90.22	MIP
07/10/2017	06/10/2017	EP1	€1,000	€281.63	MIP
10/10/2017	10/10/2017	WD1	€-1,000	€279.20	MIP
14/10/2017	15/10/2017	EA1	€800	€283.57	MIP
16/10/2017	16/10/2017	WD1	€-100	€61.23	MIP
23/10/2017	24/10/2017	EA2	€1,000	€278.95	MIP
24/10/2017	20/10/2017	EP2	€1,000	€280.03	MIP
25/10/2017	26/10/2017	EA2	€1,000	€233.58	MIP
27/10/2017	26/10/2017	EP1	€1,000	€180.39	MIP
28/10/2017	24/10/2017	EP2	€1,000	€278.95	MIP
30/10/2017	26/10/2017	EP2	€1,000	€180.41	MIP

31/10/2017	01/11/2017	EA2	€1,000	€238.84	MIP
01/11/2017	02/11/2017	EA2	€1,000	€85.41	MIP
03/11/2017	02/11/2017	EP1	€1,000	€284.58	MIP
06/11/2017	02/11/2017	EP2	€1,000	€284.58	MIP
08/11/2017	07/11/2017	EP1	€1,000	€339.71	MIP
11/11/2017	07/11/2017	EP2	€1,000	€339.91	MIP
16/11/2017	17/11/2017	EA2	€1,000	€85.36	MIP
21/11/2017	22/11/2017	EA2	€1,000	€193.71	MIP
23/11/2017	22/11/2017	EP1	€1,000	€221.35	MIP
27/11/2017	28/11/2017	EA2	€1,000	€108.33	MIP
28/11/2017	29/11/2017	EA2	€1,000	€187.20	MIP
30/11/2017	29/11/2017	EP1	€1,000	€172.52	MIP
30/11/2017	01/12/2017	EA2	€1000.00	€283.15	MIP
08/12/2017	07/12/2017	EP1	€1000.00	€253.87	MIP
10/12/2017	06/12/2017	EP2	-€100.00	€27.27	MIP
10/12/2017	09/12/2017	EP1	€1000.00	€916.29	MIP
13/12/2017	09/12/2017	EP2	€1000.00	€135.97	MIP
18/12/2017	14/12/2017	EP2	-€100.00	€283.70	MIP
19/12/2017	20/12/2017	EA2	€1000.00	€231.32	MIP
21/12/2017	22/12/2017	EA2	€1000.00	€186.70	MIP
21/12/2017	20/12/2017	EP1	€1000.00	€285.26	MIP
22/12/2017	21/12/2017	EP1	€1000.00	€400.67	MIP
24/12/2017	20/12/2017	EP2	€1000.00	€256.42	MIP
27/12/2017	28/12/2017	EA2	€1000.00	€226.38	MIP

04/01/2018	05/01/2018	EA2	€1000.00	€122.29	MIP
06/01/2018	07/01/2018	EA1	€900.00	€85.37	MIP
09/01/2018	10/01/2018	EA2	€1000.00	€235.37	MIP
10/01/2018	11/01/2018	EA2	€1000.00	€403.47	MIP
23/01/2018	19/01/2018	EP2	€1000.00	€156.69	MIP
24/01/2018	23/01/2018	EP1	€1000.00	€55.85	MIP
25/01/2018	24/01/2018	EP1	€1000.00	€106.77	MIP
27/01/2018	23/01/2018	EP2	€1000.00	€139.54	MIP
08/02/2018	09/02/2018	EA2	€1000.00	€250.13	MIP
11/02/2018	10/02/2018	EP1	-€88.79	€69.17	MIP
12/02/2018	13/02/2018	EA2	€1000.00	€219.35	MIP
15/02/2018	14/02/2018	EP1	€1000.00	€223.04	MIP
18/02/2018	14/02/2018	EP2	€1000.00	€157.40	MIP
20/02/2018	21/02/2018	EA2	€1000.00	€341.67	MIP
22/02/2018	21/02/2018	EP1	€1000.00	€178.92	MIP
25/02/2018	21/02/2018	EP2	€1000.00	€282.20	MIP
21/02/2018	22/02/2018	EA2	€1000.00	€107.21	MIP
25/02/2018	26/02/2018	EA2	€1000.00	€212.14	MIP

Table 31 - MIP Vs LR Peak Price Comparison