

## **Quarterly Imperfections Cost Report**

1st October 2015 - 31st December 2015



Costs <sup>[1]</sup>	2015/2016	2014/2015	2015/2016	2014/2015
Costs.	YTD Outturn (€m)	YTD Outturn (€m)	Q1 Outturn (€m)	Q1 Outturn (€m)
Dispatch Balancing Costs (DBC)	37.5	41.4	37.5	41.4
Make Whole Payments	0.7	1.8	0.7	1.8
Energy Imbalance	-1.2	-0.6	-1.2	-0.6
Other System Charges (OSC) [2]	-2.1	-1.9	-2.1	-1.9
Imperfections Costs Outturn	34.9	40.7	34.9	40.7
Imperfections Costs Forecast	40.3	40.7	40.3	40.7
Variance: Forecast Vs. Outturn	5.4	0.0	5.4	0.0
Variance % [3]	13.4%	0.0%	13.4%	0.0%

## **Key Points**

- The Imperfections Costs Forecast are profiled based on the submitted model which assumed zero payments for both OSC and Energy Imbalances.
- The Imperfections Costs Outturn are subject to fluctuation dependent upon power system conditions and will vary significantly within the year relative to the forecast. The differing power system conditions and external conditions (for example system demand) need to be taken into account when comparing quarterly periods and year to date figures.

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Key Factors Affecting Imperfections Costs	Forecast Assumptions for TY1516 [5]	Actual TY1516	Impact <sup>[11]</sup>
Reserve Policy and TCGs <sup>[6]</sup>	Primary & Secondary Operating Reserve 75% LSI <sup>[7]</sup> TCG data as forecast per submission	The refinement of the Dublin generation load based Transmission Constraint Group (TCG) and the non-synchronous generation limit helped to reduce DBC during the quarter. However, the temporary must-run of a generator in the north west generation constraint for part of the quarter offset this impact somewhat.	
Reserve Provision	Data as per forecast submission	The provision of reserve from Short Term Active Response (STAR) was higher than that forecast for most of the quarter, which helped to reduce DBC.	<b>!</b>
Regulatory Policy Changes	Data as per forecast submission	No change from forecast in this quarter.	$\Rightarrow$
System Demand	Data as per forecast submission	System demand was in line with that forecast and did not have a significant impact on DBC over the quarter.	$\Rightarrow$
Forced Generation Outages	Data as per forecast submission	Average actual rate for this quarter: 9.29 <sup>[8]</sup>	$\Rightarrow$
Scheduled Generation Outages	Data as per forecast submission	There were no significant scheduled generator outages during this period.	$\Rightarrow$
Forced Transmission Outages	No outages forecast	The forced outage of a windfarm connection resulted in wind being constrained thus increasing DBC. The delay in the south west stations resulted in wind constraints at times, thus increasing DBC.	•
Scheduled Transmission Outages	Data as per forecast submission	Transmission outages in the South region for part of this quarter restricted generation from the Cork harbour area, which increased DBC.	Ŷ
Commercial Offer data - Fuel Costs & Carbon <sup>[9]</sup>	Data as per forecast submission	All fuel prices were lower than forecast for this quarter; Gas c. 25% lower, Coal c. 15% lower, Distillate c. 27% lower and Oil c. 30% lower. Therefore the cost of constraining on generation (i.e. Gas units) was lower than forecast, thus reducing DBC. The cost of carbon was 30% higher than forecast.	•
Wind Variability	Data as per forecast submission	Installed Capacity at period end: 2990 MW <sup>[10]</sup> Capacity Factor: 38% <sup>[10]</sup> The wind capacity factor was higher than forecast during the quarter, which increased DBC.	•
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## Mitigation Measures

The following are a list of mitigation measures undergoing review to seek to increase downward pressure on Imperfection Cost

- 1. Daily review of Non-Compliances / Performance Monitoring events e.g. Trips;
- 2. Weekly review of Imperfections costs and drivers;
- Ongoing review of Reserve Policy and TCGs <sup>[6]</sup>;
- 4. Flexibility services as required;
- 5. Grid Code review and modifications; and
- 6. System Operator counter trading on the Interconnectors.

## Note

- [1] Costs are actual initial settlement figures. There may be variations in the final figures as a result of resettlement or regulator approved derogations.
- [2] Other System Charges amounts as published at www.eirgridgroup.com.
- [3] Positive value indicates under forecast, Negative value indicates over forecast.
- [4] Imperfections Cost Forecast includes forecast for Make Whole Payments. Make Whole Payments are not subject to the incentive process.
- [5] Forecast is over an annual time horizon. Information and figures are for this period unless otherwise stated. Forecast assumptions are published at: http://www.semcommittee.eu
- [6] TCGs mean Transmission Constraint Group or Operational Constraints as published at www.eirgridgroup.com.
- [7] LSI means the Largest Single Infeed which is used in the calculation of the system reserve requirement.
- [8] Percentage availability is an average of the Ireland October to December figures.
- [9] Fuel and Carbon Costs forecast and actual performance based on data taken from Thomson Reuters.
- [10] Percentage capacity factor is estimated as the October, November and December figures are currently not available. Figures to be published in All-Island Wind and Fuel Mix Summary Report.
- [11] Increase from Forecast
  Decrease from Forecast
  No Change from Forecast

