Quarterly Imperfections Cost Report

1st July 2017 - 30th September 2017

	2016/2017 YTD Outturn (€m)	2015/2016 YTD Outturn (€m)	2016/2017 Q4 Outturn (€m)	2015/2016 Q4 Outturn (€m)
Dispatch Balancing Costs (DBC)	138.2	121.2	30.9	22.0
Make Whole Payments	3.6	3.5	1.2	1.2
Energy Imbalance	-2.6	-4.3	-0.4	-0.8
Other System Charges (OSC) [2]	-8.9	-7.5	-2.4	-1.7
Imperfections Costs Outturn	**130.3**	**112.9**	**29.3**	**20.7**
Imperfections Costs Forecast	**146.7**	**170.6**	**33.5**	**39.5**
Variance: Forecast Vs. Outturn	-16.4	-57.7	-4.2	-18.8
Variance % [3]	-11.2%	-33.8%	-12.5%	-47.6%

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.

Key Factors Affecting Imperfections	*Forecast Assumptions for TY1617* [5]	*Actual TY1617*	*Impact* [11]
Reserve Policy and TCGs[6]	Primary & Secondary Operating Reserve 75% LSI[7] TCG data as forecast per submission	The trial to remove operational export limit on EWIC for all system conditions is ongoing.	⇩
		Operating Reserve Requirements: Minimum operating reserve in Ireland increased from 110 MW to 130 MW from 07:00 to 00:00 and from 75 MW to 95 MW from 00:00 to 07:00 due to ongoing outage of Turlough Hill station in Q4.	⇧
Reserve Provision	Data as per forecast submission	Moyle now provides up to 50MW of dynamic reserve. EWIC provides up to 100 MW of static reserve.	⇨
Regulatory Policy Changes	Data as per forecast submission	No change from forecast in this quarter.	⇨
System Demand	Data as per forecast submission	In Q4 the demand has been above forecast by 2.28% contributing to a decrease in DBC. Annual demand was 0.49% above forecast.	⇩
Forced Generation Outages	Data as per forecast submission	Average actual rate for this quarter: 11.41%[8]. Units of note contributing to this: Turlough Hill, combined cycle PBA and steam turbine of PBB, AA1 & AA4.	⇧
Scheduled Generation Outages	Data as per forecast submission	There were a small number of additional scheduled outages compared to those used in the forecast. This increased DBC.	⇧
Forced Transmission Outages	No outages forecast	Moyle was operating on one pole due to an incident that occurred in February. This caused the import and export limits on the interconnector to reduce to 247 MW and 254 MW respectively. This has increased DBC. The fault has now been repaired and Moyle is backed to full commercial operations, (from 27th September 2017).	⇧
Scheduled Transmission Outages	Data as per forecast submission	There were a number of changes in the actual scheduled outages against those used in the forecast. The full impact will be identified as part of the incentive process.	⇨
Commercial Offer data - Fuel Costs & Carbon[9]	Data as per forecast submission	Wholesale fuel prices for the quarter were as follows; Gas: 19% higher than forecast, Coal 94% higher than forecast, Distillate 1% lower than forecast, Oil 2% lower than forecast and carbon was 48% higher than forecast. Therefore the cost of constraining on generation (Gas and Coal units) was higher than forecast and has increased DBC over the quarter.	⇧
Wind Variability	Data as per forecast submission	Installed Capacity at period end: 3954 MW[10] Estimated wind capacity factor for Q4 was 23%, The wind capacity factor was lower than the forecast value of 28%. which decreased DBC as more price making generators were in merit.	⇩

Mitigation Measures

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

1. Daily review of Non-Compliances / Performance Monitoring events e.g. Trips;
2. Weekly review of Imperfections costs and drivers;
3. Ongoing review of Reserve Policy and TCGs [b];
4. Flexibility services as required;
5. Grid Code review and modifications;
6. System Operator counter trading on the Interconnectors; and
7. EWIC export plan to reduce LSI.

Notes

[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. OSC figures for September are draft.

[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 July - September 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 actual quarterly value is currently not available.

[11] Increase from Forecast
Decrease from Forecast
No Change from Forecast