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**TSOs' Response to Industry Comment  
on the  
Imperfections Charge Consultation  
October 2015 - September 2016 and  
Incentive Outturn October 2013 -  
September 2014**

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## Foreword

The TSOs have been requested to provide feedback to the comment made by a respondent relating to the Consultation Paper on the Imperfections Charge October 2015 – September 2016 and Incentive Outturn October 2013 – September 2014 (SEM-15-041).

### Power NI Energy (PPB) Response

*“We are surprised at the negative figure for the High Impact Low Probability events as intuitively one would expect these events to increase constraint costs unless there had been a forecast in HILP events”.*

### TSOs' Response

The TSOs welcome the opportunity to clarify the impact of the High Impact Low Probability (HILP) events in the Incentive Outturn for 2013-2014. A number of HILP events that impacted on Dispatch Balancing Costs (DBC), including generator forced outages, generator scheduled outage overruns, unforeseen generator issues and forced transmission outages, were analysed as part of the ex-post adjusted model process. Specific transmission line outages were grouped into different HILP events, as outlined in the TSOs' Imperfections incentive submission (Appendix 2 of SEM-15-041). For example a group of transmission line outages that affected generation in the North-West region were categorized as a HILP event. Due to the fact that these HILP events are not possible to predict they were not included in the forecast model. In summary, the majority of these transmission HILP events did increase DBC.

The impact on DBC of generator forced outages, scheduled generator outage overruns and a specific generator issue were also analysed as HILP events. These had the effect of reducing DBC. The combination of all the HILP events (transmission and generation), identified as having an impact on DBC, were analysed using the PLEXOS model and had the effect of reducing DBC by €13.6m (> 5% change) and therefore warranted inclusion in the final ex-post adjusted DBC baseline.

The main driving factor behind this reduction in DBC was the forced outages of in-merit generators that occurred during tariff year 2013-14. The timing of forced generator outages are, by their own nature, not known in advance and therefore cannot be predicted. An estimate for forced generator outages is included in the forecast model by including forced outage probabilities for generators based on historical forced outage rates. However, the actual forced outages for some in-merit generation varied from the forced outage probabilities used in the forecast model.

When the actual forced outages of these in-merit generators were used in the ex-post adjusted model more expensive generation was brought into merit in the unconstrained model. A number of these more expensive generators, which were brought into merit, were also required to run in the constrained model for system security reasons. This decreased the disparity between the unconstrained and constrained model generation schedules and thus had the effect of reducing the ex-post adjusted DBC.

So while transmission HILP events generally did increase DBC individually, the combination of generation and transmission HILP events needed to be assessed simultaneously in PLEXOS to understand the full impact on the ex-post adjusted DBC baseline. The overall effect of which was driven by the in-merit generator forced outages and reduced DBC.