

# Impact Assessment Responses

## P350 'Introduction of a seasonal Zonal Transmission Losses scheme'

This Impact Assessment was issued on 19 September 2016, with responses invited by 7 October 2016.



### Phase

Initial Written Assessment

Definition Procedure

Assessment Procedure

Report Phase

Implementation

### Consultation Respondents

Respondent	No. of Parties/Non-Parties Represented	Role(s) Represented
SmartestEnergy	1 / 0	Supplier
Centrica	10 / 0	Generator, Supplier
Electricity North West Limited	1 / 0	Distributor
ScottishPower Energy Management Ltd	6 / 0	Generator, Distributor, Interconnector User, Non Physical Trader, ECVNA, MVRNA
Drax	1 / 0	Generator
EDF Energy	6 / 0	Generator, Supplier, Non Physical Trader
npower	1 / 0	Supplier
Falck Renewables	2 / 4	Generator, Other (not specified)
Uniper UK	2 / 0	Generator, Interconnector User, Non Physical Trader
National Grid Electricity Transmission plc	1 / 0	Transmission Company
E.ON	1 / 0	Supplier

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## Question 1: Will P350 impact your organisation?

### Responses

Respondent	Response
SmartestEnergy	The greatest system change we will need to implement is one for pricing. For this we need timely access to the Network Mapping Statement.
Centrica	<p>We would be impacted in terms some changes to our systems and processes. In several areas our systems are already configured to accept non-zero Transmission Loss Factors.</p> <p>P350 will have a financial impact on our electricity generation and supply businesses. We require the updated modelling of TFL values to assess this.</p>
Electricity North West Limited	We are one of the LDSOs who have affected generation attached to our network. We will therefore be one of the networks who will need to report on an annual basis.
ScottishPower Energy Management Ltd	<i>Confidential response provided.</i>
Drax	<p>The signal that P350 creates seeks to incentivise a shift in generation from north to south, i.e. closer to the centre of demand. This negatively impacts generation located in the north.</p> <p>Whilst not in scope for this modification, we encourage National Grid and Ofgem to consider investment signals for flexible generation situated in the northern half of the system. As the signals currently stand, there is little incentive to site flexible generation in the north and P350 will further discourage investment.</p> <p>A holistic review of incentives is required in order to ensure the correct investment signals are created to enable reliable flexible generation to locate where the System Operator (SO) requires it. Efficient siting of flexible generation that can provide ancillary services, as required to meet the needs of the SO, will result in more efficient management of the system at a lower overall cost to consumers.</p>
EDF Energy	<p>Changes to generation costing and forecasting systems, processes for pricing balancing services, and imbalance management, across our fleet of coal, gas, nuclear and renewable power stations.</p> <p>Changes to wholesale demand forecasting processes and associated imbalance management.</p> <p>Changes to trading and risk management systems.</p> <p>Changes to Settlement monitoring, validation and reporting systems, and activities which use Settlement TLM data.</p>

Respondent	Response
	<p>Changes to industry data storage databases.</p> <p>Review of and potential change to contractual arrangements regarding offtake of power from Power Stations.</p> <p>Changes to forecasting of non-energy costs, and future pricing of customer contracts and tariffs.</p>
npower	<p>Yes this will impact our organisation as it will require system / process changes to support the implementation of zonal t-losses. Changes will relate to forecasting / pricing / billing. Future transmission losses will be less predictable and more volatile due to the introduction of zones. This is driven by transmission losses being made up of 2 components (t-loss factor and t-loss adjustment); 1st of which is arbitrary and unknown more than 15 months ahead. This would need to be managed to mitigate any risk to suppliers and end consumers through a risk adjusted view.</p> <p>The proposed change of zones adds considerable development changes. We would prefer if zones were an extension to existing GSP groupings; rather than a separate grouping definition. This would ensure only directly connected sites are able to switched between zones in the future. If this approach were adopted it would reduce the magnitude of development required across systems and processes.</p>
Falck Renewables	Not known at this time
Uniper UK	<p>We would see a financial impact from P350 but need further information in order to model the potential impact on us. To implement the change, we will need to make alterations to our systems, documents and processes while preparing to reflect the changing cost of losses in our prices. The 9 month lead-time suggested by the 12 month implementation timescale would provide ample time for this.</p> <p>As part of the enduring solution, the ability to use a centrally-provided tool to model TLF scenarios would be useful. Therefore we would support the Workgroup's potential Alternative Modification.</p>
National Grid Electricity Transmission plc	<p>P350 impacts NGET directly due to the role the Transmission Company takes on in relation to the provision of Network Data (and any support required under the Network Mapping Statement process). It will be necessary to incorporate these tasks into existing NGET business procedures to ensure that the required data is provided according to the timescales in the Legal Text. No NGET system changes have been identified and, at first glance, there do not appear to be any differences associated with the potential alternative modification.</p> <p>There is also an important indirect impact as a result of the obligations on NGET that will be set out in the CMA's "Locational Pricing Order" as part of their Energy Market Investigation – as well as corresponding requirements in the Electricity Transmission</p>

Respondent	Response
	Licence. This is because, in addition to raising P350, NGET will be required to ensure that the principles of locational transmission losses as set out in the CMA Final (EMI) Report are in place from 1 April 2018. As a result, NGET requires step-in rights to be included in P350 to ensure that it is able to meet its obligations under the Order and Licence which means that NGET may have to take on additional roles in the P350 process.
E.ON	Yes, P350 will have an impact on E.ON. The changes in transmission loss values according to GSP will require changes to the tariff-setting models used in some of our departments. <i>Additional confidential information provided.</i> In addition to that, some minor adjustments to monthly routines will include changes to invoice statements and internal reporting.

## Question 2: Will your organisation incur any costs in implementing P350?

### Responses

Respondent	Response
SmartestEnergy	There will be some costs associated with customer positions, IT development and admin. This will be a six figure sum but is not out of the ordinary for a change on this nature.
Centrica	<p>We have answered YES, because changes will be required to some internal systems – for example for pricing systems. Making an accurate assessment of the associated costs and lead times would require an internal impact assessment which has its own lead time and costs.</p> <p>For some systems provided by third parties, this change and its impact will need to be verified with the vendors.</p> <p>As the SAA-I014 flow would not be change, for several of our proprietary systems there will not be any adverse impact. Several of these are already configured to accept nonzero TLFs. For these, it would not make a significant difference if P350 is implemented outside of a normal BSC Systems Release.</p>
Electricity North West Limited	<p>There will be both set up costs and ongoing costs associated with the compliance with P350. The costs will depend on the final legal drafting for P350.</p> <p>The company will need to establish internal processes and working practices to capture and collate the required information to comply with the new obligations. This is likely to cost approximately £5000 per connection point.</p> <p>We will then need to collate any information on an annual basis to provide the required information to the BSC. This is likely to cost in the region of £3000 per connection point per annum.</p>
ScottishPower Energy Management Ltd	<i>Confidential response provided.</i>
Drax	At present we believe the costs incurred will be minimal.
EDF Energy	<p>Initial estimate of cost of change is c. £1mn in one-off costs, and minimal ongoing operational costs. 80% of these costs arise from the need to modify and redevelop internal systems to cope with the changes proposed. 20% of these costs arise from changing externally supported systems.</p> <p>Release outside of a normal BSC Systems Release would have little to no impact on these costs.</p> <p><i>Additional confidential information provided.</i></p>

Respondent	Response
npower	Yes high system development costs would be incurred as a one off in addition to on-going costs for the maintenance of zone definitions as per the Network Mapping Statement. This would impact forecasting / pricing / billing functions.
Falck Renewables	We anticipate that there will be costs involved in implementing P350. We have not assessed the costs at this stage. Clearly our main concern is that the introduction of seasonal Zonal Transmission Losses will have a substantial financial impact on our wind projects in North Scotland.
Uniper UK	Making changes to our systems and processes prior to 01 April 2018 would incur some costs as would the ongoing work to incorporate the changes to variable losses in our power prices. However while we have not yet costed the details, we do not expect the costs to be unduly high; approximately €15,000 for the IT changes.
National Grid Electricity Transmission plc	<p>The initial P229 estimate associated with the provision of network data was approximately 5 man days a year. Experience of developing the network data to feed into the Load Flow model used in the P350 Assessment Procedure suggests that a figure of around 10 man days a year is more appropriate for this activity (i.e. annual provision of information including data validation). Naturally there may also be changes required throughout the year as well and we would repeat the preference expressed in the P229 response to introduce a structured process (perhaps a quarterly review) rather than relying on ad hoc updates. Provided that the NGET requirements are clearly set out in the Legal Text, they can be incorporated into existing business procedures.</p> <p>This resource figure is likely to increase in the event that the P350 step-in powers are required as additional roles may have to be taken on by NGET. There is no difference in these costs in terms of whether or not P350 is implemented as part of or outside of a normal BSC Systems Release.</p>
E.ON	Yes. <i>Additional confidential information provided.</i>

Question 3: How long (from the point of Authority approval) would you need to implement P350?

Responses

Respondent	Response
SmartestEnergy	<p><b>12 months</b></p> <p>The consultation document seems to assume that the greater impact on Suppliers' systems will be for billing purposes. If this were true then one year would probably be sufficient to make system changes. However, we price contracts many years in advance. The mapping statement and indicative loss factors must be released at least 15 months before the go-live in central systems.</p>
Centrica	<p><b>12 months</b></p> <p>When we considered implementation of P229, we expected to be able to update internal systems that required change with a 12 month lead time. We see no reason for this estimate to change.</p>
Electricity North West Limited	<p><b>6 months</b></p> <p>We will require 6 months notice to be in a position to comply with P350. This is driven by the timescales associated with the process design and assurance activities which are required to put the reporting systems in place. This will not be affected if the implementation is aligned by the normal release dates.</p>
ScottishPower Energy Management Ltd	<p><i>Confidential response provided.</i></p>
Drax	<p><b>Minimum of one full charging year</b></p> <p>We support the precedent set under CMP213 (Project Transmit) that one full charging year should be granted in order for industry participants to make required IT changes and to adjust their wholesale/retail prices accordingly. That being said, there may be an impact for suppliers with longer term contracts who cannot adjust tariffs in this timescale.</p>
EDF Energy	<p><b>12 months</b></p> <p>The volume of currently approved industry change, along with the design, build, test and deployment of the changes referred to in question 1 are the primary drivers behind the timescale of these changes. The timescale is independent of whether the release takes place as part of a normal BSC Systems Release.</p>
npower	<p><b>3 years</b></p> <p>Whilst we recognise the outcome of the CMA report we require 3 years notice from the point of an Ofgem decision to enable contracts, systems and processes to be fully updated accordingly. We are comfortable with P350 implementation forming part of a</p>

Respondent	Response
	normal BSC release (Feb / June / Nov).
Falck Renewables	Not known at this time.
Uniper UK	<p><b>3 months</b></p> <p>The timescales suggested for P350 should allow ample time for us to implement the necessary changes; necessary IT work should not take much longer than one month.</p>
National Grid Electricity Transmission plc	<p><b>3 months</b></p> <p>NGET is unlikely to be on the critical path for this work – especially as there are no system changes required and the data requirements can be incorporated into existing business procedures. A conservative estimate of 3 months (i.e. ahead of when the Network Data is required) could be assumed to ensure that these business procedures can be updated and approved in addition to the time required to capture the data, carry out any quality assurance and resolve any queries. However, this type of preparation can be carried out ahead of formal Authority approval in any case.</p>
E.ON	<p><b>9 months</b></p> <p>Although an accurate timeline cannot be established, it is expected that the 9 month lead time up to the publication of the first year's values provided by P350 will be sufficient to implement the aforementioned changes.</p> <p>The activity listed in response to Q1 that will take the most time is updating our systems to incorporate GSP-specific transmission loss values. <i>Additional confidential information provided.</i> The latter would likely require the full lead time provided by P350.</p> <p>It does not seem necessary to implement P350 outside of a normal BSC Systems Release.</p>



Question 4: Do you believe there are any other possible alternative solutions to P350 that the Workgroup should consider?

Responses

Respondent	Response
SmartestEnergy	-
Centrica	We believe that P350 provides the right framework, but that further improvements should be considered over P229 to make it a more optimal solution. Please refer to the response below to Question 5.
Electricity North West Limited	We have no comment on this question.
ScottishPower Energy Management Ltd	-
Drax	There are alternative solutions, such as the P229 Alternative solution that would create a "polluter pays" signal with less detriment to northern based flexible ancillary service providers. Unfortunately the wording of the CMA Order prevents further consideration of this option.
EDF Energy	None given the constraints of the CMA decision and expected order.
npower	The proposed change of zones adds considerable development changes. We would prefer if zones were an extension to existing GSP groupings; rather than a separate grouping definition. This would ensure only directly connected sites are able to switched between zones in the future. If this approach were adopted it would reduce the magnitude of development required across systems and processes.
Falck Renewables	Our view is that the introduction of seasonal Zonal Transmission Losses should not be made without consideration of other changes currently being considered to a number of related areas including transmission charges, the small generator discount on transmission charges for 132kV connected generators and embedded benefits. The proposed changes to the application of transmission losses are damaging to investor confidence and are counter to the grandfathering principle which one would hope would be applied to existing operational generators. The financial impact of the proposed change will largely impact projects in the north of Scotland and it seems unreasonable that this region has been specifically targeted.
Uniper UK	-
National Grid Electricity Transmission plc	-
E.ON	-

## Question 5: Would you like to make any further comments on P350?

### Responses

Respondent	Comments
SmartestEnergy	-
Centrica	<p>Improvements could be made to P350, to make it a more optimal solution to the AEC found by the CMA and better meet the BSC Objectives relating to economic efficiency. In particular, we remain concerned that under the P229 design, high offshore transmission losses will 'pollute' the loss allocation to onshore generation in the same transmission zone as the offshore cable landing point. To improve cost-reflectivity, we believe that offshore generators should bear the full transmission losses attributable to them. The CMA agreed with this principle in Appendix 6.2 (paragraph 64) of its Final Report and the initial consultation on the Energy Market (Transmission Losses) Order suggested there was further scope for the P350 Workgroup to make improvements on P229. With the significant expansion of offshore networks, the impact will be greater than when last considered in the P229 Impact Assessment in February and March 2009. We believe an option which includes this principle should be considered by the P350 Workgroup as an Alternative.</p> <p>It is difficult to make an accurate assessment of the wider impact of implementing P350 on our business until the load flow modelling results, including the TFL values and mapping of generation plant to zones has been provided.</p> <p>We would like to ensure that there is transparency regarding the choice of assumptions for TLF modelling, as these could have a significant impact on the outcome. We consider it important there is transparency regarding these assumptions, with stakeholders able to offer feedback and challenge where appropriate. It is not clear if this exists in the Requirements listed in Section 4.</p>
Electricity North West Limited	<p>We need clarity on the information required by Elexon to comply with this obligation. For example, if Elexon uses the proposed legal text from P229, it is important that the methodology for calculating the percentage of net energy received by each corresponding Node, of the total energy flowing from the Offshore Transmission Connection Point Node, as an estimated average value for each Reference Year, is carefully defined to ensure that it is consistent across the different networks.</p>
ScottishPower Energy Management Ltd	-
Drax	Not at this time.

Respondent	Comments
EDF Energy	We provide separately a copy of the draft Impact Assessment document, containing various comments which may be useful in subsequent assessment of the proposal.
npower	<p>1) How will directly connected sites be managed as part of P350?</p> <p>2) Why did the CMA change from their original intention of applying zonal t-losses only to generation since we do not believe demand customers can be incentivised in any way with this signal?</p> <p>3) Since the final losses are to apportioned according to the constant factor alpha would the TLF effectively be split TLF+ and TLF- to simulate the effect of this term? In the same way that the TLMO will be split in terms of TLMO+ and TLMO-. A worked example of the proposed zonal t-losses may help.</p>
Falck Renewables	-
Uniper UK	-
National Grid Electricity Transmission plc	-
E.ON	-