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Dear Dora

SMART BENEFITS

At the meeting of the working group on Tuesday this week we expressed concerns about the apparent approach of Ofgem on two related issues regarding smart benefits, as follows:

Smart reinforcement benefits at EHV and 132kV

Our first concern is that the analysis proposed by Ofgem suggested a broad-brush approach in each of these categories and was not going to assess EHV and 132kV schemes on their specific merits.

We pointed out that we could not identify smart benefits in our 132kV reinforcement and went on to clarify that this observation referred to the one scheme that we are undertaking at 132kV: this is a Yorkshire scheme that will address a number of P2/6 issues across three 132/33kV substations involving two distinct 132kV networks fed from different points on the NGET system.

For the avoidance of doubt, we do not believe that there will be no smart benefits at 132kV, but rather that, given the low number of schemes over the relatively short length of time in the RII0-ED1 period, it is perfectly possible that the investments that are required do not lend themselves to smart solutions. It is equally possible that the schemes that might be expected could lend themselves to smart solutions, in which case a disproportionately high benefit could be expected.

This is the case for us at EHV in Yorkshire where Audby Lane (the only new-start EHV scheme in Yorkshire in the 2015-23 period) will deliver a smart saving of £2.57m on a conventional cost of £2.71m. Jaratt Street, a HV smart scheme in lieu of an EHV conventional scheme, will deliver a saving of £2.37m on a conventional cost of £2.42m. This is a saving of over 95% on conventional EHV investment due to smart solutions.

At these voltage levels, smart savings will be beholden to the particular schemes that arise, as the variation between 0% at 132kV and 95% at EHV in Yorkshire shows.

We noted that Chris Watts indicated that Ofgem does not do scheme-by-scheme analysis. However, it is clear to me that the approach that Ofgem has in mind to avoid the need for a

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scheme-by-scheme approach is not going to work for smart benefits at EHV and 132kV. Unless Ofgem can find another way to do this, the unavoidable conclusion is that the particular schemes proposed must be considered at these voltages.

Appropriate reinforcement budget from which smart savings might be found

Our second concern is that much of our reinforcement expenditure in the 2015-23 period relates to the completion of schemes started in the 2010-15 period and that we do not believe it is appropriate to expect smart savings from projects that have already entered the build stage. Clearly we would feel that this only applied to EHV and 132kV investments: the project lifecycle is too short at HV and LV for this to be an issue.

For absolute clarity, our business plan submission contains two EHV load-related reinforcement schemes and one 132kV load-related reinforcement scheme. These are:

- Haxby Road 33/11kV, 33kV, Northeast, £1.08m
- Audby Lane 33/11kV, 33kV, Yorkshire, £0.12m
- Thornhill area, 132kV, Yorkshire, £12.51m

There are also a number of EHV and 132kV fault-level reinforcement schemes, including the Blyth reinforcement scheme that we were asked by Ofgem to transfer from the connections budget, where investment is being made but should not be counted within the reinforcement budget from which smart savings might be found.

In preparing our plans for the 2015-23 period, we assessed 650 EHV and 132kV substation sites for fault-level capability and 41 require some action: in the main this action is an operational restriction. We have six switchboards (including Blyth) on our network where operational restrictions will not be appropriate long-term solutions and we have deemed that investment for fault-level-related reasons is necessary, namely:

- Blucher 132/33kV, 33kV switchboard, Northeast
- Darlington 132/11/6kV, 6kV switchboard, Northeast
- Blyth 66kV, 66kV switchboard, Northeast
- Drax 132kV, 132kV circuit breakers, Yorkshire
- Commonside Lane 33/11kV, 11kV switchboard, Yorkshire
- Brighouse 132/33kV, 132/33kV transformers, Yorkshire

These are discussed at length in annex 1.29 ('Additional justification for our reinforcement forecast for 2015-23') of our plan submission and in each case we have pursued the least-cost solution. In simple terms none of the required outcomes here can currently be delivered by a smart solution at a lower cost than the conventional solution, either because no smart solution is available (Blucher, Blyth, Drax, Brighouse) or because conventional solutions are cheaper (Darlington, Commonside Lane).

We believe, therefore, that Ofgem must either exclude fault-level reinforcement in its entirety for all DNOs, or alternatively confirm on a scheme-by-scheme basis that we are following the least-cost option.

The total EHV and 132kV reinforcement budgets for consideration should therefore be:

		Investment	Smart savings / Avoided investment	Total budget from which smart savings might be found
Northeast	EHV	1.08	0.0	1.08
	132kV	0.0	0.0	0.0
Yorkshire	EHV	0.12	4.94	5.06*
	132kV	12.51	0.0	12.51

* Excludes Jaratt Street costs as this is an HV scheme of £45k but generates EHV savings

I should be more than happy to discuss these issues with you further if you would find that helpful.

Yours sincerely



John France
Regulation Director