

**Ofgem**

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By email to
Connections@Ofgem.gov.uk

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RE: Consultation Regarding Connections on Constrained Networks

Dear James,

Thank you for the opportunity to respond. RWE Innogy UK would like to make the following key points in relation to our experience as a renewable energy developer with connecting to ever constrained DNO networks.

Network constraints reaching a tipping point

We operate in almost all the DNO regions. The DNO heat-maps are a testament to the fact that constraints are a widespread problem and that such constraints have been getting worse over time.

Of course, much of the network was built in the 1950s and 1960s and designed for a different era. The other fundamental cause for the constraints crunch we are faced with now is that there has been a long term underestimation of embedded generation deployment rates by electricity network companies. This is despite the clear signal that was set back in 2007 by the UK Government when it signed up to the EU 2020 targets and the ambition of 33-35% renewable electricity penetration on the grid.

Early on with the advent of the Renewables Obligation, DNOs did not correctly anticipate the deployment rate of onshore wind in particular. Admittedly the cliff edge created by the closure of the RO is currently causing a rush of applications and an unprecedented demand for connections. Such cliff edges are only predictable from the point in time that the support mechanism change is announced by DECC. More recently, DNOs failed to anticipate or prepare for the rise in solar connections driven by the FIT, the RO and the drastic reduction in the costs of this technology. This has led to inadequate network planning and investment in reinforcement and this has resulted in severe constraints that affect embedded generators.

For DPCR5 the DNOs collectively forecasted that around 10GW of generation will connect to their networks. By the close of the price control period 11,400MW of new distributed generation had connected.

Your DPCR5 assessment in 2015 already picked up on DG stakeholders concerns that some DNOs' networks are now nearing full capacity with insufficient investment to enable more DG to connect. We feel that the connections have been accommodated in a piecemeal manner by DNOs and that this contributes to the underinvestment in reinforcement that should have accompanied these connections.

Unfortunately, it appears that the DPCR5 regulatory signal had in part at least led

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to the current situation. There was a driver for DNOs through the DPCR5 DG incentive to connecting DG at lower than expected cost. Indeed 11,400MW of DG connected 2010-2015 and DNOs were rewarded £240m for the low cost of these connections. While in the short term this cost saving may have been in the interest of the consumer, in the long term it is not.

Smart/ Alternative connection solutions only part of the solution

DNOs generally have been embracing the option of offering alternative connection solutions. We support the view that overall the transition to a more flexible, smart grid system will be important. However, 'Smart connection solutions' should not be seen as *the* solution for the widespread constraints issues – instead they should be used in tandem with the delivery of strategic reinforcements. The smart solutions may only provide a sticking plaster – which should be replaced with enduring reinforcement solution – this needs to be evaluated early on, on a case by case basis.

DNOs should be obliged to continually monitor network constraints and to provide upfront quality information for connection applicants.

We challenge the fairness of expecting a generator to accept a completely unknown frequency/duration of constraint even if they agree to an “un-firm” offer. DNOs must provide this information upfront.

In some areas constraints on the DNO network have reached a tipping point. It is apparent that some DNOs have not been monitoring the pressures building up on their networks on a continual basis. As a result DNOs have not provided a truly reflective signal to customers at the point of connection application. This has led to connection customers receiving notification that they will be constrained off for weeks or even months - late in the connection cycle. There must be upfront information provided by DNOs with their offers regarding the forecast likelihood, duration, frequency and cause of constraints. We have responded in detail regarding the need for better information in the recent consultation on ANM schemes. We feel that all forms of alternative connection offers should come with this information as standard.

Need for a rethink of cost allocation methodology

Ideally, even if unfirm offers are made, there should be a threshold set above which the cause of constraints is remedied rather than allowing the extent of being constrained down to perpetually increase. The costs of the remedy could be allocated back to the collective of unfirm contracted parties under the agreement that their connection would not be constrained off after the completion of these works. Currently, the DNOs don't have a clear route in their charging methodology to then allocate the costs of the works needed to avoid constraining parties off. A fair methodology is needed to allocate such costs across the parties driving the constraints. The Connect and Manage model should be considered for DNO application. Thereby generators could accept a single circuit unfirm connection up to the point of connection onto the nearest BSP/GSP and the DNO be required to manage the network thereafter, constraining generation with appropriate constraint payments, whenever necessary and upgrading the network when the constraint costs signal that an upgrade is more economical.

£200/kW 'high cost cap' needs reform

There is also a specific issue with the signal for major reinforcement provided by the £200/kW 'high cost cap' and the second comer rule. The signal currently deters the necessary reinforcement works being done because no single party is willing to pick up the tab. Over recent times we have had to cancel a number of our distributed generation developments due to prohibitive DNO network reinforcement costs received in the Connection Offers. In these cases the £200/kW threshold had been breached and in one extreme a significant length of 132kV overhead line and a 132/33kV substation had fallen to the

developer (us) to cover in terms of cost, with no prospective of the costs ever being recovered as the DNO does not apply the second-comer rule to this “high reinforcement cost” element of the connection charge. We suggest that as an interim measure and quick win Ofgem extends the second comer rule to the high reinforcement cost element of charging.

We raised this point in our response to the Quicker and More Efficient Connections consultation and seek an explanation as to why it has not been considered by Ofgem.

Pace of reinforcement works delivery must improve

Where generators have agreed to reinforcement works often the experience has been that the DNO is slow to deliver. This must change. Can Ofgem provide some regulatory driver for improved performance on speed and efficiency of reinforcement works?

Duration of planned maintenance works should be kept to a minimum

There are no clear rules on what is acceptable for the pace of work to deliver planned maintenance works. As there is no meaningful compensation to be made to effected parties there is no financial exposure for DNOs and hence no pressure to complete such works in a way that minimises the impact on customers. (The Network Unavailability Rebate is a weak instrument).

New regulatory approach to network reinforcement needed

We are very encouraged by the new direction of Ofgem’s thinking, as set out in the ‘Quicker and More Efficient Connections’ consultation. We are particularly supportive of Ofgem’s proposed ‘RAV buyback model’. We urge solutions to be implemented quickly a major block to decarbonisation objectives has started unfolding.

Addressing the issue of connections on a constrained network appears to be detached from the ICE plans. ICE plans appear to limit themselves to considering alternative connection offers. ICE plans have definitely helped in DNOs delivering heatmaps and network information and some have contracted capacity registers. These outputs can be praised. This has been helpful as it can enables customers to make their own assessment of network capacity. Ofgem appears to be driving change in RIIO era with the Low Carbon Network Fund and the work on Quicker and More Efficient Connections. We were surprised to understand that many of the options (e.g. Options 1 & 2) discussed in the consultation are already open for DNOs to utilise and are therefore disappointed that they have not been used.

It is unclear to us if ICE is actually the best place for this big issue to be tackled or indeed if something more drastic is needed to remedy the situation.

Please do not hesitate to get in touch should you have follow-up questions,
Kind Regards,

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