

**Olivia Powis**  
**Ofgem**

Submitted via email to:  
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**RWE Innogy UK**

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**RE: RWE response to consultation on Quicker and More Efficient Connections**

Dear Olivia,

We welcome Ofgem's consideration of the challenge of network reinforcement and the impacts that this has on the costs and timeliness of grid connections. This response is sent on behalf of the RWE group of companies operating in the UK. The consultation is of particular interest for RWE Innogy Ltd as a renewable energy developer with a national portfolio of distribution connected projects, and RWE npower retail.

While historically, the need for DNO reinforcement has rarely impacted on projects, over recent times we have had to cancel a number of our distributed generation developments due to prohibitive DNO network reinforcement costs. 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 prospect 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. DNO heat maps provide a strong indication that with increasing demand for generation connections such occurrences will only become more commonplace. RWE support cost reflective charging - the correct price signal should be provided in terms of constrained areas being less desirable. Nonetheless we recognise that the way that DNO network reinforcement is dealt with could in time create a country-wide block to development. RWE Innogy therefore support Ofgem's efforts to explore this issue before it becomes a more widespread barrier for decentralised power generation.

In terms of the questions raised in this consultation the priority should be that regulatory arrangements further encourage DNOs to invest in innovative solutions to manage constraints. Using alternatives to reinforcement works should benefit EHV, HV and LV developments alike current testing at the LV level (e.g. of active network management) needs to be transposed to higher voltage connections as soon as possible.

We remain concerned about the volumes of connection offer applications and the fact that this clouds visibility of DNOs and users regarding available capacity. As per previous responses on the subject, we support the introduction of Assessment & Design fees on application and also see merit in UKPN's approach to requesting landowner Letter of Authority for Connection Offer requests.

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Thirdly, we are also interested to see further detail on the RAV buyback type model for strategic network investment – we do not support the other options presented. The solution must lead to a lower overall cost of reinforcement and the risks to other network users regarding stranded assets should be minimised. Any anticipatory investment solution must be introduced in such a way that it does not create network charging volatility: an 18 month warning should be provided to suppliers and this should be straight forward if these investments are truly anticipatory.

We feel that the key blocks to faster and efficient connections have not been acknowledged in this consultation.

- a) 'Anticipatory investment' should be a secondary to improving the delivery of reinforcement works that already have contracted capacity justifying the need. In our experience some DNOs have been poor at delivering reinforcement works in a timely manner even where customers have been contracted and have paid for the works. Improved performance on speed and efficiency here is a priority as it would improve the connections experience for future connections customers too.
- b) The other major issue for distribution connections in terms of cost escalation and delays to connection is the need for upstream reinforcement works – at the transmission level rather than the distribution level. The recent announcement by WPD regarding no remaining capacity to connect is an example of this. In Scotland it is also mainly transmission network reinforcement works that add delays of years and substantial new costs to projects. There is no voltage rule between the D and T network boundaries to limit cost impacts or the pass through of Liabilities and compared to the embedded project timescales transmission reinforcement is very lengthy in duration.

In order to develop a holistic approach to delivering faster and more efficient distribution connections Ofgem should consider these two issues concurrently with anticipatory investment concepts.

Kind regards,

Fruzsina Kemenes  
RWE Innogy UK

## **Questions**

▣ **Scenario 1:** DNO funds (via DUoS) cost of anticipatory reinforcement (costs are socialised as no initial connection customer)

**Q1. Would a DNO be sufficiently confident about future connections demand and the benefits to DUoS customers to justify this approach? If so, in which circumstances?**

N/A we feel this question is for DNOs to answer and Ofgem to scrutinise.

**Q2. What other barriers are there to DNOs taking this approach? How might these be overcome?**

Under this Scenario all risk of stranded assets is placed upon DUoS customers. In our view this fails to send a signal to DNOs to spend efficiently and also fails to send an appropriate cost signal to users of the network. We do not support this approach.

We are unclear on the track record of DNOs in terms of the accuracy of their past load-growth forecasts. We request that Ofgem review this in order to decide whether the ability to forecast such trends should lie solely with the DNOs.

▣ **Scenario 2:** DNO funds (via DUoS) cost of anticipatory reinforcement when initial connection takes place (to be reimbursed by subsequent connection customers)

**Q3. What are your views on this type of approach and the RAV Buyback Model? Are there any elements which are essential, not required or should be changed – and why?**

We are supportive of Ofgem further investigating this model. However, due to the similarities of some aspects of this model to the Strategic Wider Words process, we would like to express three initial concerns Ofgem should be aware of when developing this further.

Firstly, Ofgem must ensure there is no ambiguity in Guidance Documents. Stakeholders must fully understand the criteria and assessment for any needs case assessment or cost benefit analysis undertaken by Ofgem with clear and concise definitions.

Secondly, consultations must be developed and presented in a manner which allows all interested stakeholder to easily access and assess them. Considering we are likely to see more of these types of developments than we have seen SWW stakeholders cannot be expected to assess the volume of information provided for SWW. For example, the SWW needs case assessment for Caithness Moray was accompanied by more than 200 pages of detail, Ofgem cannot expect thorough assessment from stakeholders if they place such a significant burden on them.

Thirdly, assessment of the RAV buyback model must be efficient – the SWW assessment has been very slow meaning that infrastructure is not delivered in an anticipatory manner, instead reinforcement need continues to act as a bottleneck for development. This can be remedied if Ofgem's framework for assessment is simpler than for SWW, clear from the onset and the information flows between DNOs and the regulator are swift.

We also request that Ofgem look at whether the initial connection customer requesting connecting is an essential part of this model or whether in effect the first customer could be treated in the same way

that a second comer would be. This would rely on the DNOs can identifying areas that are likely to become constrained ahead of this becoming the case.

**Q4. Please give details of any projects or schemes this type of arrangement could have helped progress which would have not otherwise gone ahead?**

In cases where the £200/kW rule has been used the full upfront payment was levied on the first-comer. The upgrades planned by the DNO would have released significantly more capacity than needed by the first comer but the cost to the original developer deterred the entire development proceeding.

Any capacity in excess of what the initial customer needs should be funded via DuoS – with second comers repaying this as they request connection. This would ease constraint bottlenecks, facilitate connection for both first and second comers and also reduce the cost of works overall in comparison to taking a piecemeal approach to reinforcement.

**Q5. What would justify requiring subsequent connection customers to only be able to connect to the new, enhanced part of the network?**

You shouldn't need a requirement as one would assume that if some anticipatory reinforcement has been put in, then there should be no other option available for connection on that part of the network.

However, if this proposal refers to other areas of the network being ruled out then this requirement does not seem justified. A cost signal should be sufficient to signal that this area of the network is best to connect to.

**Q6. What would justify a DNO charging a premium to subsequent connection customers to reimburse DUoS customers for the risk they bear in funding this work? What might be the impact of this? How should the premium be calculated?**

If Ofgem's aim with this consultation is to reduce costs and speed up delivery of Generation then we do not believe there is a need for a premium to be paid by developers. If the DNOs are appropriately drawn to deliver anticipatory projects via incentives and Ofgem are confident they can develop a system which can appropriately predict where anticipatory development may be needed, then there is no need for a premium.

One solution which could address this concern of ensuring DUoS customers are reimbursed for their funding would be to extend the second comer rule from the existing arbitrary 10 years out to the life-time of the asset.

**Q7. Over what time period would it be reasonable to expect DUoS customers to be reimbursed for their initial funding?**

As above we recommend extending the second comer rule from the existing arbitrary 10 years out to the lifetime of the asset (with appropriate depreciation factor etc. applied).

**Q8. When might it be appropriate for a DNO to have an upfront revenue adjustment to cover this type of scheme? Or should existing mechanisms be used?**

Any anticipatory investment solution must be introduced in such a way that it does not create network charging volatility: an 18 month warning should be provided to suppliers and this should be straight forward if these investments are truly anticipatory.

**Q9. Do you consider that this approach would have any implications on competition in connections?**

If the reinforcement is to an existing piece of network then it can only be completed by the DNO there will be no impact on CiC. However, anticipatory reinforcement could potentially include the building of new assets (for example a new 132 kV ring around an area). Under the current charging methodologies this would be classed as CiC if triggered by and a single developer but is classed as non-contestable if it is triggered by several parties. A positive development for CiC would be for Ofgem to consult on placing such works out to tender as CiC activities.

**Q10. What are your views on the DevCo model and process set out in Appendix 2? Are there any elements which are essential, not required or should be changed – and why?**

We would be surprised to see any initial generation customer assume the role of a Dev Co – taking on the risk and committing to the upfront funding of over-engineered assets. Under the new CfD regime renewable energy projects are under great pressure to minimise development and operational costs and income streams cannot be secured until a contract is awarded. In light of this a developer would be taking on a very large risk ahead of CfD allocation if they chose to be a Dev Co.

We are particularly alarmed by the suggestion below which is discriminatory and will encourage monopolistic behaviour. It is at odds with License Conditions:

“it has also been suggested that enabling the initial customer to stipulate the type of schemes it wants to see benefit from its investment could encourage this approach. This would involve the DNO potentially offering or withholding terms for a connection, depending on the type of scheme that subsequently comes forward”.

**Q11. Please give details of any projects or schemes this type of arrangement could have helped progress which would not have otherwise gone ahead? N/A**

**Q12. What would justify requiring subsequent connection customers to only be able to connect to the new, enhanced part of the network? N/A**

**Q13. What would justify a DNO charging a premium to second-comers to reimburse the customer? What might be the impact of this? How should the premium be calculated? N/A**

**Q14. Over what time period would it be reasonable to expect the customer to be reimbursed for their initial funding? N/A**

**Q15. What would justify the initial investor being permitted to restrict the type of schemes that would connect using the infrastructure it has paid for? For which type of schemes might this be appropriate? N/A**

**Q16. Do you have any comments on the recommendations proposed in Appendix 3 to enhance consortium arrangements? What would justify these recommendations? Are there any other changes which would support consortium arrangements? N/A**

**Scenario 4: Other ways of making it easier to connect.**

**Q17. What role, if any, could changes to engineering standards play in helping to accelerate the connections process without damaging reliability levels? In what circumstances would this be appropriate? & Q18. Which particular standards might most benefit the connections process if changed?**

The DNO's do not apply standards such as G54(harmonics) and P28 (voltage dips and transformer inrush) consistently. This causes delays and additional costs to the developer during the design/construction phase of the schemes.

Power factor requirements should also be used more consistently across all DNOs – currently only some choose to apply them in a more relaxed manner that can facilitate a greater number of connections.

DG would benefit if active network solutions, now tested at the LV level were introduced imminently at the HV and EHV levels too. We foresee that the main areas to resolve here are the adequacy of DNO IT systems to deal with a much larger number of generators across much wider geographical areas. DNOs should learn from both their own lower voltage trials and Transmission level implementation of network management in order to be able to accomplish this as soon as possible.

**Q19. What benefits might the introduction of assessment and design fees bring?**

The pressure on DNOs from huge connection quote volumes, and the low acceptance rates are widely documented. DNOs have presented their case for the reintroduction of A&D fees to both Ofgem and DECC already.

We support the introduction of fixed A&D fees – provided that they are set at a reasonable level that deters speculative applications and also provided that feasibility study standards and turnaround time is also improved and potentially guaranteed to provide a good alternative for ascertaining available network capacity.

UKPN now require each application to be accompanied by a Letter of Authority from the landowner stating that the developer has permission to develop on his land. This will prevent numerous speculative developers all applying for a scheme at the same site. This requirement should be easy to implement for other DNOs and can help.

**Q20. Could more flexibility in the way assumed available capacity is calculated help accelerate the connections process? Are there any other improvements to be made in how DNOs manage interactivity between schemes looking to connect to the same part of the network?**

We would welcome cross-DNO brainstorming to address this question. It would be desirable to see less rigidity and more consistency across DNOs as to how they calculate capacity. It is unclear to us whether DNOs assume max DG and min demand or alternatives? Do they consider seasonal variations and time of day variations in demand and DG?

**Q21. When might it be reasonable to withdraw capacity it has previously offered to customers?**

If through discussion between the DNO and customer it becomes apparent that reasonable endeavours to pursue a project are not being pursued by the developer. The milestones should be agreed in writing through two-way dialogue between the DNO and developer at the Connection Offer stage.

**Q22. Are there any other changes which could be made to reduce the need for reinforcement?**

Requiring DNOs to present the best solution and costed alternatives to reinforcement in Connection Offers in instances where they identify reinforcement need. This would help ensure that DNOs are actively and transparently considering the least cost innovative options alongside reinforcement.

**Q23. What would justify a DNO offering more flexible terms for connection charges? What might be the impact of this?**

Potentially this could be justified if available to all generation connectees in a non-discriminatory manner. Posting of liabilities would ensure that the original connection customer takes on their fair share of the risk relating to the costs of connection on the event that a project failed to connect.

**Q24. What type of schemes would most benefit from this arrangement?**

All.

**Q25. What could be done to protect other customers from picking up any costs which cannot be recovered from the original connection customer?**

Introduce liabilities alongside staged repayment profile.

**Q26. Are there any other measures that would reduce the cost impact of connecting to the network?**

As an interim to developing and implementing the RAV buyback model we have set out under previous questions the case for applying the second-comer rule to the “high reinforcement cost” element of the connection charge where the £200/kW threshold is breached.

There are two other key points to highlight:

- a) ‘Anticipatory investment’ should be a secondary to improving the delivery of reinforcement works that already have contracted capacity justifying the need.

In our experience some DNOs have been poor at delivering reinforcement works in a timely manner even where customers have been contracted and paid. For example some DNOs have been slow to commence the consenting grid connection works for contracted sites and this then adds significant program delays. Improved performance on speed and efficiency here is a priority as it would improve the connections experience for contracted parties as well as easing the backlog for future connections customers too.

- b) The other major issue for distribution connections in terms of cost escalation and delays to connection is the need for upstream reinforcement works – at the transmission level rather than the distribution level.

The recent announcement by WPD regarding no remaining capacity to connect is an example of this. In Scotland it is also mainly transmission network reinforcement works that add delays of years and substantial new costs to projects. There is no voltage rule between the D and T network boundaries to limit cost impacts and pass through of Liabilities and compared to the embedded project timescales transmission reinforcement is very lengthy in duration.

In order to develop a holistic approach to delivering faster and more efficient distribution connections Ofgem should consider these two issues concurrently with anticipatory investment concepts.