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James Veaney
Head of Connections and Constraint Management
Ofgem, 9 Millbank, London, SW1P 3GE

14 September 2016

Dear James,

Written response by RES to the Open letter consultation on the Incentive of Connections Engagement, summer 2016.

RES is one of the world's leading independent renewable energy companies working across the globe to develop, construct and operate projects that contribute to our goal of a secure, low carbon and affordable energy future. RES has been an established presence at the forefront of the renewable energy industry for over three decades. Our core activities are the development, design, construction, financing and operation of wind and solar PV projects and we are also active in electricity storage, and transmission. Globally, we have built approximately 10GW of renewable energy generation, including almost 10% of the UK's current wind energy capacity.

We have worked closely with many of the DNOs on their ICE plans, and continue to support distribution connection policy nationally through our vice-chair role on the ENA DG-DNO Steering Group. We continue to strongly welcome the principles of ICE, which we feel has led to evident improvement in the service provided by DNOs. We have embedded your response pro-forma into this letter. We hope the comments contained in our response can be used to continue to improve connections service for 2017 and beyond.

Yours sincerely,

Graham Pannell
Energy Networks Lead
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T +44 (0) 1923 299492

Response template – Incentive on Connections Engagement July 2016

<table>
<tr><th>Question</th><th>Response</th></tr>
<tr><td colspan="2">About you and your work</td></tr>
<tr><td>1. What is the name of your company?</td><td><u>RES</u></td></tr>
<tr><td>2. Which DNO's ICE submission is your response related to (see Annex 2 for DNO map)?

Please indicate clearly in your response to the questions below whether your comments refer to the DNO's plans as a whole, or to one of the DNO's licence areas.

If you wish to provide a response to the ICE submission of more than one DNO, please use a separate template for each DNO.</td><td>Ordered geographically (starting North), we work in all DNO areas except ENW (and London). ENW is therefore the only DNO omitted from this response. We have kept the same numbering in the following questions (e.g. #4 is always WPD).

1. SSE
2. SPEN.
3. NPg
4. WPD
5. UKPN

We've chosen to respond on all of these DNOs in one template. We hope this is not too much of an inconvenience. We look forward to discussing in more detail with the DNOs at the forthcoming DG Fora events.</td></tr>
<tr><td>3. What type of connection do you generally require? And for each type of connection, how many connection applications, including total MVA (Mega Volt Ampere) of connections have you made in the past year?</td><td>
<table>
<tr><th colspan="2">Type of connection</th><th>Total number of connections</th><th>Total MVA of connections</th></tr>
<tr><td rowspan="3">Metered Demand Connections

Storage</td><td><s>Low Voltage (LV) Work</s></td><td></td><td></td></tr>
<tr><td><s>High Voltage (HV) Work</s></td><td></td><td></td></tr>
<tr><td>HV and Extra High Voltage (EHV) Work
EHV work and above</td><td>Dozens</td><td>>200</td></tr>
<tr><td rowspan="2">Metered Distributed Generation (DG)

Wind, Storage, Solar</td><td><s>LV work</s></td><td></td><td></td></tr>
<tr><td>HV and EHV work</td><td>Dozens</td><td>>200</td></tr>
</table>
</td></tr>
</table>

	~~Unmetered Connections~~	~~Local Authority (LA) work~~			
		~~Private finance initiatives (PFI) Work~~			
		~~Other work~~			

Consultation questions

Section 1: Looking Back report 2015-16

We want your views on how well the DNOs have performed over the last year

1. Are you satisfied that the licensee had a comprehensive and robust strategy for engaging with connections stakeholders? Do you consider that the licensee implemented its strategy? If not, are you satisfied that the licensee has provided reasonable and well justified reasons?	Broadly, yes. Our own experience below: 1. SSE – we welcomed SSE's engagement through Scottish Renewables to build the 15/16 plan. We joined SSE's inaugural steering committee for ICE. 2. SPEN – we welcomed SSE's engagement through Scottish Renewables to build the 15/16 plan. We were impressed by SPEN's direct interviews with internal and external stakeholders. 3. NPg – we participated in NPg's open Connections Forum to contribute to the plan. 4. WPD – we participated in WPD's connections steering group to help develop the plan. 5. UKPN – we participated in UKPN's open DG forum to contribute to the plan.

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2. Are you satisfied that the licensee had a comprehensive work plan of activities (with associated delivery dates) to meet the requirements of its connections stakeholders? Do you consider that the licensee delivered its work plan? If not, are you satisfied that the licensee has provided reasonable and well justified reasons?	Summary responses below, noting issues from the 2015 plans we raised in our letter to you of August 2015. For brevity, based *only on our own experience of the plans and implementation for EHV & HV export customers*, we have offered a **subjective grading** of the 2015 workplan, scored A-E (where A is good) in three areas: • *Credibility* – is deliverability a key focus, has customer service evidenced the improvements, do we see company-wide 'buy-in'. • *Practicable* – Are the proposals useful & effective, i.e. *smart*. • *Ambition* – Do these proposals go beyond the basics, or beyond what other DNOs do? e.g. a grade of (AEA) would indicate a very well-intentioned and wildly ambitious but wholly impractical plan. -please see our letter to you dated 14/8/15 with a detailed review of each plan. 1. SSE – (AAC) – We supported the plan in 2015, although mindful that much was 'catch-up' with other DNOs. We have not seen issues delivering these actions. 2. SPEN – (BAA) - We strongly supported the plan in 2015. We have not seen issues delivering these actions. 3. NPg – (BBA) – We supported the plan in 2015. We have not seen issues delivering these actions. 4. WPD – (ABA) - We strongly supported the plan in 2015, and many actions represented the most ambitious of the DNOs, although we somewhat struggled to follow the KPIs and to find more detail on actions. We have not seen issues delivering these actions. 5. UKPN – (AAB). We supported the plan in 2015. We have not seen issues delivering these actions.

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3. Do you consider that the licensee's work plan provided relevant outputs (e.g. key performance indicators, targets etc.)? Are you satisfied that the licensee has delivered these outputs? If not, do you view the reasons provided to be reasonable and well justified?	Mostly. SPEN's focus on cost and timeliness was particularly welcome, as was the willingness to place numbered targets. UKPN's quantitative *Service Level Agreements*, e.g. to provide timely detailed design information, such as fault level detail, was very welcome. We hope that for 16/17 WPD can better tie their KPIs to the specific actions, something that has not been clear to us.
4. Do you agree that the licensee's strategy, activities and outputs have taken into account ongoing feedback from a broad and inclusive range of connections stakeholders? If not, has the DNO provided reasonable justification?	Yes
Section 2: Looking Forward plans 2016-17	
We want your views on what the DNOs aim to achieve in the coming year	
5. Are you satisfied that the licensee has a comprehensive and robust strategy for engaging with connection stakeholders and facilitating joint discussions where appropriate?	Broadly, Yes. 1. SSE – We note SSE's steering committee as a useful vehicle to shape the plan. We took part in an online survey to help SSE build its plan for 16/17. 2. SPEN – We welcome the new constrained generation forum. 3. NPg – Runs a good connections forum. 4. WPD – We welcome the CCSG. We also warmly welcome the "Owners/Operators Forum" initiative, to gain input from these types of customers who would not normally attend a more likely developer-heavy DG forum – and would like to see other DNOs to consider this. 5. UKPN – Runs a good DG forum. We welcome the additional supervisory steering group initiated in 2016. We commend UKPN's use of a DG mailing list with published progress updates.

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6. Do you agree that the licensee has a comprehensive work plan of activities (with associated delivery dates) that will meet the requirements of its connection stakeholders? If not, has the licensee provided reasonable and well-justified reasons? What other activities should the DNOs do?	1. SSE – Yes. Welcome actions on unused capacity, flexible options; also reinforcement info, DUoS visibility, post-acceptance process. 2. SPEN – Yes. Welcome detail on the customer experience. Keen to see "EC9" improvements in process and communications with the transmission business, which we have previously experienced as a significant obstacle. Notable positive stance on developing DSO models. 3. NPg – Yes. Although we would have welcomed more on the T/D interface, and more explicit detail on supporting ANM/flexible options. 4. WPD – Yes. Welcome focus on constraint information, on Statement of Works, and strategic options. 5. UKPN – Yes. Welcome focus on queue management, storage policy; and the refinement of actions on p46. Looking forward, we would like all DNOs to consider the information which can be made available on connection constraint, before or shortly after offer acceptance, for all types of offers (both traditional and 'flexible' offer types), due to an increased market focus on projected constraint.
7. Do you consider that the licensee has set relevant outputs that it will deliver during the regulatory year (e.g. key performance indicators, targets, etc.)?	Yes.
8. Would you agree that the licensee's proposed strategy, activities and outputs have been informed and endorsed by a broad and inclusive range of connection stakeholders? If they have not been endorsed, has the licensee provided robust evidence that it has pursued this?	Yes
We also want your views on how DNO plans will address issues for new connections in constrained areas	
9. Where flexible connection offers are available, do you consider that the DNO's work plan for 2016-17 sufficiently addresses concerns about the uncertainty of curtailment levels? For example, do their plans ensure that stakeholders have access to the data they	Not even close! ICE plans generally do not contain specific detail on such an issue. There remains a gap in both information provision to reduce uncertainty and in efforts to reduce constraint itself. This applies *BOTH* for "flexible" connection offers *AND* also for traditional offers. Traditional offers typically

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require for an investment decision?	permit the DNO rights of constraint in generic and ill-defined "abnormal network conditions"; these are increasingly materially affecting projects and the perceptions of investors. We have yet to see any evidence that this will be adequately addressed. We acknowledge the ENA's ANM working group consultation on what information customers may expect; however it is not clear that the outcomes will meaningfully address this issue for ANM connectees, it certainly does not address the issue for traditional connection offers.
10. Where consortium connections are available, do you consider that the DNO's work plan for 2016-17 reflect requirements for clear and detailed information about where, how and under what conditions such projects can proceed?	N/A. We believe this approach will be unlikely to support significant numbers of, if any, new connections, owing to the complexity and challenge in aligning both financing and build-out of multiple projects.
11. Where consortium connections are available, do you consider that the DNO's work plan for 2016-17 reflect requirements for clear and detailed information about where, how and under what conditions such projects can proceed?	N/A. We believe this approach will be unlikely to support significant numbers of, if any, new connections, owing to the complexity and challenge in aligning both financing and build-out of multiple projects.
12. Do you consider that the DNO's work plans include appropriate engagement to ensure that network investment plans are well communicated to stakeholders, including when new capacity will become available?	*Engagement on network investment plans*: With regards "*when new network capacity will become available*" please see our recent response to your "getting connections in constrained areas" consultation. Heat maps and capacity registers do help, and all 6 DNOs can be commended for improvements in this regard. *At the time of the constrained-areas consultation response*: 1. SSE – good heat map and supporting info (for export). Commitment to extend to import capacity is welcome [progress to be checked]. 2. SPEN – excellent heat map and supporting info (some technical gremlins still to iron out). 3. NPg – excellent interactive heat map and supporting info. 4. WPD – compared to the other DNOs, a poor map, little quantitative info. Capacity Register does not appear sufficiently updated. We note WPD's plans to improve the Capacity Register. However, WPD has worked to communicate regional constraints through letters published on its website, and has published TSO study outcomes, which are all useful in better understanding

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	implications for new capacity. 5. UKPN – some confusion as the platform has changed. Useful quantitative info is very hard to get to, if at all. All DNOs offer surgeries and encourage bilateral discussions on capacity for larger sites. We have not suffered obstacles in arranging meetings with DNO designers to discuss capacity, although follow-up actions with DNOs can be very slow – we fear designers' workloads are still heavily weighted to delivering fruitless speculative connection offers in the continued absence of up-front 'A&D' fees. We have experienced a number of occasions of DNO designers not understanding and therefore being unable to discuss important matters of the transmission referral process (statement of works, individual or batched, or Appendix G trials)
13. Do you consider that the DNOs' plans include appropriate activities to improve, where necessary, the provision of information on constrained areas of the network to provide better data about where connections may be viable?	Please see answer to Q9 above. Information to reduce uncertainty on distribution constraints remains poor or very difficult to access. We do note that WPD has an ICE action on this, and that UKPN and SSE have plans to make planned outages more visible to customers. Please also see answer Q12 above. We consider that "New Capacity" is practically synonymous with "Constrained Areas".
14. Are there particular additional activities or outputs which you consider should be included in the work plan of activities to better facilitate grid connections?	We support the work all DNOs are undertaking under the banner of "*Quicker and More efficient Connections*", including a focus on unused capacity (both legacy and new connections). Howsoever detailed in their various ICE plans, it is important that this work remains a priority for 2016/2017. We believe that all DNOs would benefit from a continued focus on the transmission / distribution interface (acknowledging that some DNOs have already done so). This would include: • Commit to extend / join / develop the present trials to replace "SoW" process; engage with the ongoing ENA WG and communicate developments to customers, both on process and by providing clarity on capacity (e.g. through improved heat maps). • Championing customers' requests in discussions with NGET on available capacity. • Commitments to deliver T/D information in a timely manner as possible, with clear routes of contact. • Clarifying anything which the DNO is progressing differently from other DNOs.

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Appendix – ICE plan 2015/16 summarily compared with our specific concerns from 2015

DNO	Our key ICE plan concerns (2015) -please see our letter to you dated 14/8/15	Performance / Comment
SSE	i. improve/replace SoW. ii. communicate Tsm works. iii. under-utilised capacity. iv. technical stds & access. v. more ambition. vi. network diagrams. vii. cost breakdowns. *viii.* Wayleaves/Consents.	i. SEPD in "Apx G" trial, a good start. North Scotland next? ii. Better info now on heat map. More to do. iii. (looking for 2016 commitment) iv. (looking for 2016 commitment) v. (look to 2016 plans) vi. More to do. vii. on request only, but detailed. viii. catching other DNOs. More to do.
SPEN	i. (DNO-wide) T/D interface. ii. (DNO-wide) unused capacity. iii. SPEN issues with land rights	i. Good work on SoW trials, however much to be done on ANM integration with TO, and the limited resource for contract management; ongoing. ii. Constructive efforts, ongoing. iii. Remains a challenge.
NPg	i. (DNO-wide) T/D interface ii. (DNO-wide) Unused capacity iii. Contracted capacity – update frequency? iv. ICP responsibilities detail	i. (looking for 2016 commitment) ii. Clear action, progress made, ongoing iii. (looking for 2016 commitment) iv. (looking for 2016 commitment)
WPD	i. (DNO-wide) T/D interface ii. (DNO-wide) Unused capacity	i. Good evidence of work with NGET. Looking for further commitments. ii. Future connections addressed. Commitments on legacy sought.

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	iii. Land rights acquisition. iv. Post-acceptance communication. v. Capacity register	iii. Very well addressed. iv. Action states completion; practice tbc. v. Useful tool – but update frequency has yet to meet original aim of monthly.
UKPN	i. (DNO-wide) T/D interface ii. (DNO-wide) unused capacity iii. SLA (e.g. fault level, protection detail) iv. Mapping tool v. Adoption agreement options and processes	i. Good evidence of work with NGET and interesting plans for 2016+. ii. (looking for 2016 commitment) iii. Good initiative iv. To date, far less useful than maps provided by NPg, SPEN. v. Progressed well with dedicated workshop

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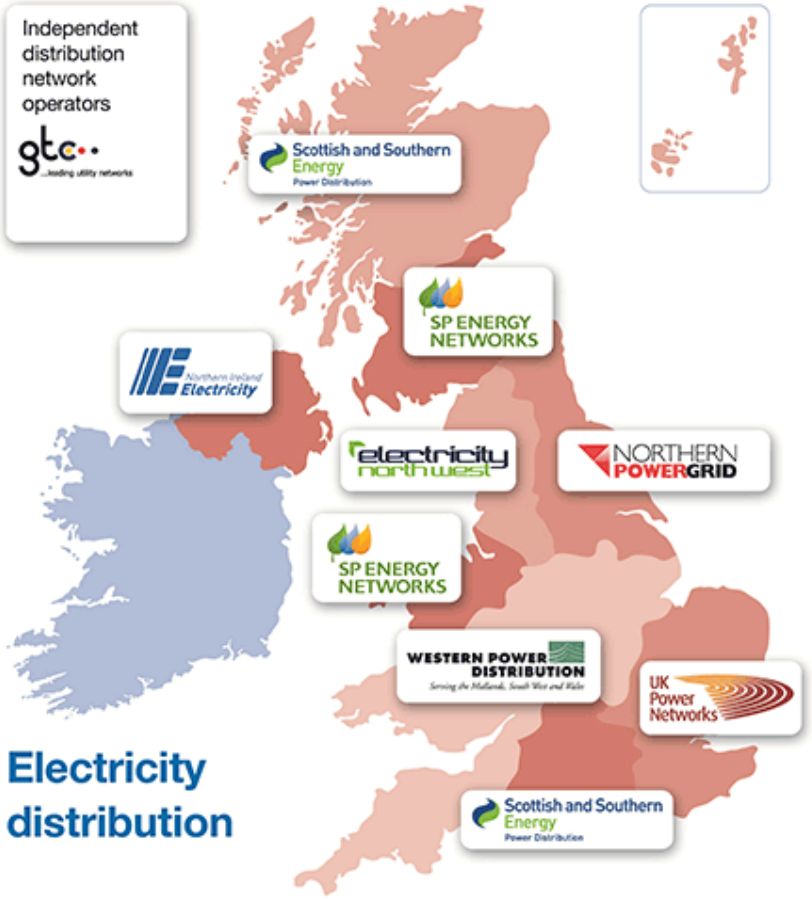
Annex 2 - Map showing DNO licensee areas[1]



[1] Image from Electricity Networks Association (ENA)