



Meeting Title: Generator Owner Operator Forum

Meeting held on: 30th May 2018, UKPN, Newington House, 237 Southwark Bridge Road, London,

SE1 6NP.

Attendees: Customers:

Anna Benson – British Solar Renewables

John Daniels – Southern Water Colin Dobson – Kent Renewables Ltd

Kevin Dodd – Innogy Matthew Green – RES Paige Mullen – Nuvve

Federica Rappoli – Light Source Dale Radford – Essex County Council Valerio Scupla – CUBICO Invest Diana Sergurado – Solar Century Marcus Spedding – Solar Century

UK Power Networks

Richard Wilson (RW) – Outage Planning Manager, Network Operations Saleem Naeem (SN) – Network Control Manager, Network Operations Martin Hawkins – Control Room Network Manager (SPN), Network Ops Sam Wagiciengo – EHV Maintenance Manager (SPN) Network Ops Nigel Turner – Distributed Energy Resources Analyst, Connections

Number	Item
1	RW welcomed everyone to the meeting and explained how it's important that UKPN communicate with our Generator key stakeholders and welcome feedback etc.
	RW explained the G59 retrospective changes including that all DG commissioned after 1 st Feb (Non Typed tested) & commissioned after 1 st July 2018 (Typed-Tested) must comply with a number of new rules.
	RW provided update on the Kent Active System Management (KASM) scheme. Money is being invested in new contingency analysis software to cope with growing use of the network by wind and solar farms in East Kent.
	The KASM project will link up UK Power Networks and National Grid's control centres and will demonstrate for the first time the value of contingency analysis software on a distribution network
	Best Industry Practice manual – Collaboration across the industry including key stakeholders, Solar Trade Association (STA) EA Technology, UKPN, WPD.

Research carried out by STA indicates that in the period 2015 to 2017 the lost production of solar generators as a result of outages on the electricity distribution network equates to approximately 1% of the total installed capacity which represents approximately £10m per year across the industry.

The Document looks at the impact of outages on generation customers; details the reasons for such outages and how both parties should collaborate to help minimize this where possible

Should this be linked/referenced on UKPN Website?

Reducing constraint costs

Allow Customer to trade constraints between each other, RW SSE region multiple customers' confidentiality trading constraints.

2017 – 2 occurrences where increased costs was proposed to break/remake jumpers but due to network and time to carry out, reduction in overall outage duration would not be realised.

What information is prepared to share for the capacity trading?

UKPN can run a workshop or manage the mechanism.

Kemsley 2020 – potential 8-10 week shutdown due to National Grid. Customer initially informed of likely high impact outage and that UKPN are discussing with National Grid how to reduce. Two plans are being put together, one involves UKPN work and one involves National Grid but likely to reduce outage time to 2 x 10 days.

Mathew Green – do UKPN consider weather changes? – RW UKPN rely on obtaining accurate forecasts. Partying with Quintas Energy, forecasts good as UKPN use more local weather. Happy to discuss with customers to get more accurate forecast. MG looks at 14 days forecasts.

What time frame? RW UKPN may come to a group of customer to say we need constraint of 20MW, they will then decide amongst themselves.

RW With regards to outages should UKPN approach the Generator operator or owner? Incidences occurred where Operators notified but owners have contacted us unaware the operator already knew.

RW would customers be interest in UKPN providing quotes for additional switching points to potentially limit outage durations? This could include installing switches linking 132/33 to 33/11?

2/3 customers are in discussion in the SPN network area – there general interest from group, RW to work out how we manage this.

RW explained it's simpler to install switches at 33/11KV but more complex at 132 feasibility quotes to modify existing require longer timeframe. There are circa 50 EHV and 1,000's at HV customers

RW expand offer based on customers Capacity or voltage for example some customers have a capacity of 20MW connected at 11KV.

UKPN have a Contracted Connections Register available on our website showing all above 1MW contracted and connected generation. Keen to talk to customers to ensure all generation is on CCR. Conflicting information, one example is some old generation have no connection agreement and there is uncertainty to the agreed maximum export.

RW showed links streamline Generation page on UKPN website where customers can sign up for updates about planned outage information.

STA single point of contact with WPD UKPN distribution list 3 or 4 people so if someone away gets picked up.

Interruption/Outage form – Simple form to request information. What needs changing?

Remove need for owner covering letter if the request comes from a known contact for a site

Automated reports are being worked on, manual process to setup and check all data. Proposing to test this month. Will be routine automated email with on/off time and basic information relating to fault. Do you require the same information for planned shutdowns?

Proposing to include faults in the weekly reports; all data in one location.

HV outages are managed locally within the regions; looking at ways to manage this, however outages are normally of short duration. Have any customers had any issues with 11kV connections?

RW do customers use UKPN reference numbers? In some cases they use their own reference which UKPN can't always find easily, one way to help is look on the On DG mapping tool.

SN Single point of contact – all DG and other customers' queries goes through UKPN customer service team, telephone, email, social, media/twitter and post.

DG Mapping Tool – could include future outages on major works e.g. major switching at main substation, looking to update more outages. RW encourage customer to apply for DG Mapping tool, is this sufficient information for customers?

We are interested in customer feedback i.e. What we need to change, what are we doing well?

WDP portal useful for UKPN to develop? UKPN meeting to discuss, WDP based on data cut.

2 EHV Private Works Process

Sam W talked through his slide which detailed the overall process from a Customer/UKPN Engineering Assistant (EA), SAP/Field Engineer and Outage planning view point.

Customer provide method statement, quoting UKPN substation references. The enquiry is created in SAP and passed to the Field Engineer who collates job information and contacts customer and provide agreed details to EA who raise quotes in SAP etc.

UKPN would like to know year in advance of customers work, more time the better.

Considering rolling out to HV but there are differences between EHV & HV and the 3 regions so we're looking to better coordinate – quicker response time.

Kevin Dodd query

3 Outage planning Software Solutions – Rona Mitchell

Problems – DG customers often constrained due to planned outages, they also request their own planned outages to conduct maintenance. DG Customers requested that they would prefer to communicate in a more dynamic way.

Solutions – To build and trial Outage Planning and Tracking Tool including a customer facing portal to provide information of future outages, curtailment and ability for customers to request an outage.

Project Network Vision - May 2018 - May 2020: -

- Initial trial completed in EPN Funded Network Innovation Allowance.
- DER engagement
 - o gather requirements (Q3 2018)
 - Develop working group (Q4 2018)
 - Initial user testing (Q1-2 2019)
 - EPN go live (Q3 2019)

RW 3 software tools are used for each DNO region (EPN/LPN/SPN) presently and the aim is to develop a universal tool, limit on what can be stored. Talking STA WPD have portal just snapshot of data we want more interactive better coordinate make better use of services

WPD what's good?

FR good to have consistency across 3 regions, if UKPN tool works it could be rolled out to other DNO.

Customer user group – who would be interested? FR yes for Light Source

Link to SAP, useful to look at an area where other works at same time, can we coordinate with customers shut down for say maintenance.

Innogy plan maintenance/outages one year ahead, useful to compare UKPN programmes with customers, some work can be moved if beneficial for both UKPN & customer. Can we use a colour coding for easier review?

UKPN aware of National Grid planning and incorporate them into our plans

Single circuit Point of Connection – d customers want to know information further up the line.

Demand side response Generators offering capacity when required.

Database visual and use - useful to link in DG heat maps files.

Any Customer feedback to Rona

4 Q&A

800MW vector shift – RW across 3 regions setting applied by 01 June. Next stage above 5MW done, below proposal National Grid looking at Working Group 0079 01 June onwards more onerous.

Vector shift will be off although some customers preferred it.

Analysis of MW saved through outage planning – useful information? How much customer lose when e.g. solar farm off supply through outage