Customer Connections Steering Group 18/10/2016 - Gloucester

Phil Swift, Director of Operations - Future Electricity Networks

The traditional role of the DNO was; keeping the lights on, maintaining the network and connecting customers along with high levels of safety and excellent customer service. Changes are already affecting this traditional role, such as; renewable DG, carbon reduction, existing network reaching limits, increasing connection costs & timescales, NGET impact, electric vehicles (EV) and electrification of railway lines.

Approximately 7.500 commercial DG schemes have been connected in the WPD region, representing 34% of the total renewable DG in the UK. A further 200.000 domestic schemes have been connected, although it is recognised this is an estimated figure due to domestic solar installations not always being notified to WPD once commissioned.

The network is reaching its limits to the point that significant costs are required for reinforcement to facilitate further connections being made. Demand for Electric Vehicle (EV) uptake is estimated at 6.3 – 7.8 GW of additional load requirement, an 11-14% increase in demand. Increase in EV would require investment of an estimated £8-11 billion.

Innovation is required to help manage the changing network. Alternative connection offers will set out management of exports during periods of low demand. Demand Side Response (DSR) is required to add/remove capacity as required.

A trial of approximately 700 cars is due to commence to understand what individuals are doing with their vehicles – when are they charging, where, what time of day. The trial is open to all; more information can be found at www.electricnation.org.uk.

Active Network Management (ANM) schemes are being rolled out to look at the network in real time and changing the network to move power to where it's needed through automated switching and alarm systems. This has currently been rolled out to 4 active zones, with a further 5 planned. These ANM schemes are moving the network more towards the anticipated DSO role. Communications will be important in the DSO role; networks need to be more resilient to ensure quick responses to changes/issues on the network.

In the long term, we need to see what's coming and expect the changes. Network studies are underway with the South West study being completed, the results of which can be viewed here. The South Wales study is now getting underway. WPD plans to carry out these studies every 2 years in each of the 4 DNO regions to keep track of changing markets and have visibility of upcoming changes. Going forward, the South West study has already highlighted areas for more detailed studies to enable us to approach Ofgem with evidence for investment.

Please be reminded that the Distributed Generation Stakeholder Workshop is taking place 11th November 2016 at Aston Villa, Birmingham.

Alison Sleightholm, Regulatory & Current Affairs Manager – Update on ICE

Incentive for Connections Engagement (ICE) is an improvement plan for all network operators driven by what connections stakeholders want. Each DNO needs to submit both a looking back report; what did we say we would do, what did we actually do, and a looking forward report; what will be doing going forward.

Ofgem took our plans to consultation asking for customer opinion to confirm if we were meeting what customer's had asked for. On reading the consultation responses, WPD looked for feedback specific to us and also common themes applicable to all DNO's. ICE puts us in a position of not only listening to feedback but also to act on it.

Further feedback will be provided by Ofgem later in the year, with particular consideration for the format of the plans themselves.

Actions are now being considered for WPD's 2017/18 plan, driven by the consultation responses. Better visibility of constraint information was a common theme for all DNO's, as was the outage programme and providing better information pre-connection about likely constraints. HV Self Connect improvements are likely to be tackled this year, in advance of next year's plan.

CCSG members were asked if anything was missing from our plan:

- Consistency of design approval process and reasons for rejections across the teams
- Disconnections – outside of GSoP process and therefore slower progression, but can have impact on timescales of associated new works
- Consistency in the provision of pre-connection information – another DNO provides information re harmonics, faults levels etc. within good timescales without needing to be chased
- Post Statement of Works sign off to confirm the outcome where no Mod Offer is required

Breakout Sessions:

1. **Sean Sullivan, Control Centre Manager – DG Owner/Operator Forum**

As part of our ICE Workplan actions, a DG forum has been established for generator owner/operators. The aim of the forum is to understand outage impacts for both DG owners/operators and DNO control centres. Endorsement of the ICE plan is key in ensuring we are heading in the right direction with our proposals.

The events are WPD hosted but independently managed by Regen SW to ensure it meets stakeholders' requirements. An initial forum was held in July and was very useful in understanding that constraint issues are not always about the actual constraint but in telling the generator there is going to be a constraint. Attendees expressed an interest in further events and a second meeting took place in September.

The feedback from these meetings is driving improvements:

- the policy on outage management has been reviewed and amended
- work is currently underway with the design team to provide outage forecast information at quotation stage
- weekly outage notifications have moved from trial to business as usual

In addition, a WPD website portal has been developed to allow DG owners/operators to preview programmed outages and constraints. Further improvements are in development following stakeholder feedback prior to the portal going live. The portal will provide:

- historic outage data
- forward look at planned outages
- enable updates to operational contact details for DG owners/operators
- reports on post outage details

An outage notification plan has been developed with outages being notified using various methods for voltage levels of 33kV and above, from inclusion in the annual plan and website updates to the standard notifications issued from the local offices. This has been included within the updated policy in agreement with Network Service Managers.

Emergency/faults cannot be notified in advance due to the nature of them being unforeseen. A decision was taken to keep 11kV and below outages to local office notification as they are often arranged at relatively short notice and are managed locally by individual depots.

Future Initiatives:

Just in time constraint management – WPD are trying to establish a process to avoid scenarios where the actual outage commences 2-3 later than proposed, resulting in missed potential 'generating' time. We are considering the feasibility of real time notifications to interested parties to give real time data of when constrained off/on and reduce the need for chaser or confirmation calls.

CCSG member asked about the data provided in noticing and real time:

- Annual plan will give rough estimate of dates
- 4 week notification email will tie down the dates and proposed time periods
- Real time will keep informed of changes, e.g. if switch out is delayed

CCSG member asked if DG operators can request amendments:

A) Amendments can be requested. The WPD single point of contact can facilitate queries between DG owners/operators and local teams to see if flexible solutions are available. Not all outages will be able to move or be amended, e.g. there may be conflicting requests from different customers, but having the contact enables a discussion to take place.

CCSG member asked if similar information will be available to demand customers who require it, e.g. communications companies:

A) WPD hold email addresses provided by companies with 'unmanned' sites. These are used for notifying planned outages. One particular communications company has a dedicated Distribution Manager looking after enquiries relating to their rollout programme and other companies can have a dedicated single point of contact if required.

CCSG member asked if there is an SLA for customer requested isolations. Responses to queries can be quick but it can be difficult to tie down a specific time for the isolation to take place:

A) Management team are not aware of regular issues, therefore if problems are arising customers are asked to escalate the issue.

2. Graham Halladay, Network Services Manager (South West) – Statement of Works

The statement of works process has changed and we are now entering into bilateral connection agreements with NG to include appendix G, with customers falling into 4 categories:

- 1 – Legacy generators
- 2 – Generation connected subject to technical requirements or due for connection
- 3 – Generators subject to constraint until NG works have been completed
- 4 – Cannot connect until NG works are completed

Positions within these categories can change as generators drop out of the process.

Appendix G gives visibility of what is connected and what is looking to connect, avoiding the need for individual submissions for each generator. Appendix G status will be confirmed at application, offer letter and acceptance stages in the process.

WPD is part of a working group currently looking at the Statement of Works and Appendix G processes with NG and all other DNO's. WPD have Appendix G in place or in progress for all 4 regions, therefore in addition to the working group we are in direct discussion with NG regarding the issues.

There is an element of materiality headroom which looks at what potential is available on the network for additional connections. This is usually set at 50MW but can be reviewed as the limit is reached. Appendix G becomes active queue management to utilise this headroom.

WPD send monthly updates to NG for changes in status, technology changes, drop outs and new applications. NG confirm they are happy with WPD's approach to the queue with a turnaround of approximately 2 weeks after which WPD can confirm the status to the customer. Depending on when the generator accepts a scheme in relation to the Appendix G notification being issued, this gives a timescale of between 2 and 6 weeks for the SoW outcome to be confirmed.

When materiality headroom is breached, applications are made to NG to see if:

a) the headroom can be increased – Project progression (quick process), or;
b) More detailed studies are required

WPD are currently going through this process, working with NG to see how we can proceed. Any costs involved will need to be passed on to the customers who caused the breach, e.g. if a detailed study is required, there are costs associated which need to be passed on to customers.

NG has 3 months to provide an update on the detailed studies – in which time WPD may have issued 3 Appendix G submissions. At present, NG is indicating that they will require the full 3 months' timescale, which will impact our ability to keep WPD applicants informed.

This is an evolving process to ensure customers get reliable, useful and timely information. We want to keep customers informed as much as possible and have added Appendix G information to our website here.

Parts 1-4 of the monthly submission are not currently available on our website as they name individual generators. We are looking at the possibility of anonymising the data to identify the MW connected, MW accepted and technology types.

Existing issues affecting WPD customers:

- South Wales – thermal issues during peak demand and peak generation periods, we are currently awaiting confirmation of the outcomes but could require significant reinforcement costs. Materiality headroom has not yet been breached but is getting close to possible project progression in some areas.
- East Midlands – one GSP has accepted but not connected generation exceeding the rating of installing an additional grid transformer. WPD are currently writing to customers to inform of the costs. Those exceeding the headroom of the new grid transformer we would look to manage through an ANM scheme on the existing 2 grid transformers.

Included within our ICE Workplan are actions to make information more user friendly, e.g. the interactive map to be viewed on a geographical basis rather than lists. At present, the information available is updated monthly once we receive confirmation NG are happy with what we've submitted.

CCSG member asked if costs will be apportioned and, if price causes customers to drop out, does the burden fall to those staying in:

A) Yes, the costs will be apportioned to all generation connectors who are proceeding once the works have been triggered.

CCSG member asked if we can link Statement of Works back to the website:

A) The Appendix G skips the Statement of Works process and takes us straight into Mod App or Project Progression processes.

CCSG member asked if there is a 'closure' on submissions:

A) There is no 'closed gate'. Customer causing the Mod App will be invoiced and where customers drop out of the process it may affect queue positions.
This hasn't yet been tested as we are only just going through this process.

CCSG member asked if there are any plans to align capacity maps & register with the Appendix G information:

A) Yes – we are looking to link together so that from a single map customers can view WPD/NG constraints, likely reinforcement costs, capacity availability etc.

Future CCSG Meetings:

21.02.2017 – more demand orientated, potential breakout sessions on Single Point of Contact and Strategic Investment – although these are not yet set in stone if particular requirements arise.

20.06.2017

24.10.2017