

electricity
north west

Bringing energy to your door



Distributed Generation Workshop

27 February 2018

Stay connected...



www.enwl.co.uk

Welcome Mike Taylor –Head of Customer Engagement



General Housekeeping



Please Sign In...



Facilities are out in the Foyer...



Mobiles and Electronic Devices
to Silent Please...



No Planned Fire Alarms...



In the Event of an Alarm...



**PLEASE FOLLOW STAFF OUT TO THE STREET AT THE
FRONT OF THE BUILDING WHERE WE WILL GATHER
TO THE LEFT OF THE MAIN ENTRANCE GATES**

Your Feedback is Important...



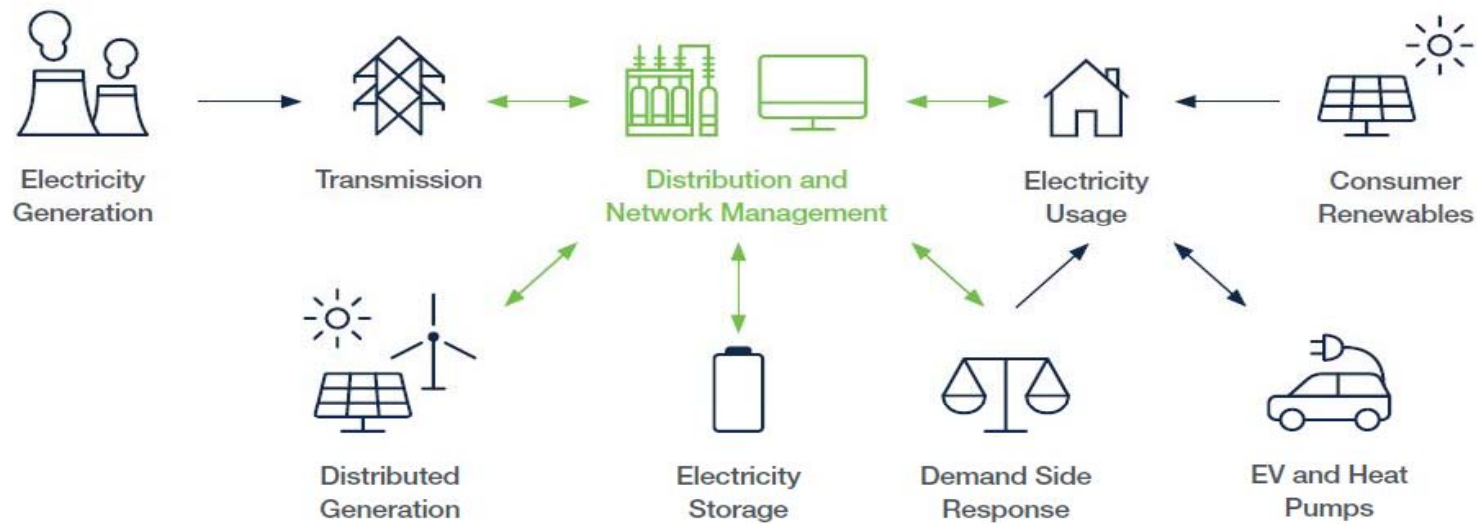
DNO – DSO



This has big implications for our role in the system - what used to be relatively simple...



...is becoming far more complex and multi-directional



Preparing for the future: Purpose and Principles



OUR PURPOSE

**Together we have the energy
to transform our communities**

OUR PRINCIPLES

**We are
SWITCHED ON**

MIND SET

We are SWITCHED-ON to our colleagues, customers and the world around us

**We are
ADAPTABLE**

SKILL SET

We are ADAPTABLE, always looking for better ways to get things done

**We take
PRIDE**

HEART SET

We take PRIDE in all we do because it matters to people's lives

With demand for electricity predicted by some to double by 2050, our customers' reliance on electricity to keep their lives running - from electric vehicles to home-working, solar panels to heat pumps - means that our role is changing and we need to ensure we're best placed to keep pace with change and meet that important challenge.

Because of the way we're managing the business and the pace of change in the industry, there was an urgent need to revisit our vision and values.

Our customers need cleaner, greener energy to enable and enhance 21st century life in the North West and our principles set out how we respond to that challenge.

Electricity North West is operating in a dynamic, rapidly changing environment. Our customers rely on us now more than ever before. We keep them connected with friends, family and the wider world; keep their electric cars running; ensure their house is warm when they get home from work and enable them to work smarter and more flexibly. We keep customers' lives running smoothly.

Electricity used to be a centralised model that changed little technically over many years – we kept the lights on. However, this is becoming far more complicated and multi-directional. To help us manage and meet the challenge of adapting to successfully operate in this fast-moving sector, we needed to develop a new forward looking purpose and set of principles (what we do and why we do it)

Agenda



Session	Time
Registration & lunch	12:30 - 13:00
Welcome & Introduction	13:00
DG in our area	13:05
Statement of Works	13:15
Incentive on Connections Engagement - 2018/19 Work Plan Review	13:35
LVDG Update	14:05
Break - 15 Minutes	14:10 - 14:25
Assessment & Design Fees	14:25
EU Code Implementation	14:55
Panel Questions	15:10
Close	

DG in Our Area

Steffan Jones - Infrastructure Solutions Manager



DG connected into ENWL Network in FY18



DG schemes >1MW connected or booked in to be connected...

TOTAL NUMBER OF GENERATORS CONNECTED IN FY18

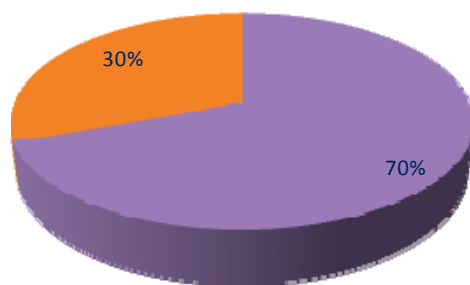
23

TOTAL CAPACITY OF GENERATORS CONNECTED IN FY18

185 MW

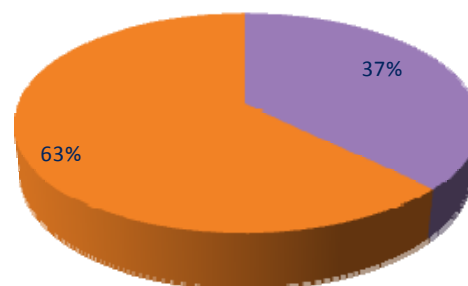
Volume by PoC Voltage

■ HV - 6.6/11kV ■ EHV - 33kV



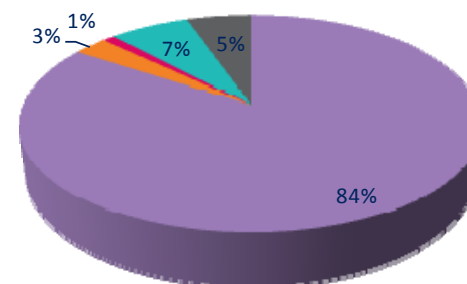
MW by PoC Voltage

■ HV - 6.6/11kV ■ EHV - 33kV



Overall MW by Technology

■ SYNCHRONOUS ■ CHP ■ PV ■ ONSHORE WIND ■ BESS



Statement of Works

Steffan Jones - Infrastructure Solutions Manager



Process Development Overview



Traditional

- SoW submitted at a project level
- Allowed timing at project need
- Issues with queue management
- All costs relate to the applying project

Bulk

- SoW submitted at a GSP level
- Allows better queue management
- Potential efficiencies on cost apportionment between Developers

Appendix G

- Requires a Bulk / Catch Up Submission
- Allows DNO to manage queues to defined headroom
- Increased Administration
- Replaces SoW as Modification Application is first NGET intervention

T.I.A.

- Transmission Impact Assessment
- Future process likely to be based on Appendix G process

PRE FY17

FY17

FY19

FUTURE ?

The process timeline...



Document
Preparation

5 - 15 Days



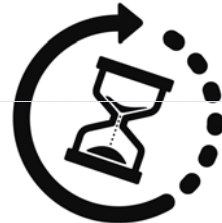
Submittal
Payment
Technical
Queries

15 - 35 Days



Technical
Competence

Milestone



National Grid
Review

28 Days



National Grid
Formal
Response

Milestone



Review
Clarifications

Communicate
with
Customers

Validity Period

90 Days



Project
Progression

Milestone

ENWL GSP's - 17 GSP's or 14 GSP Groups



Lakes

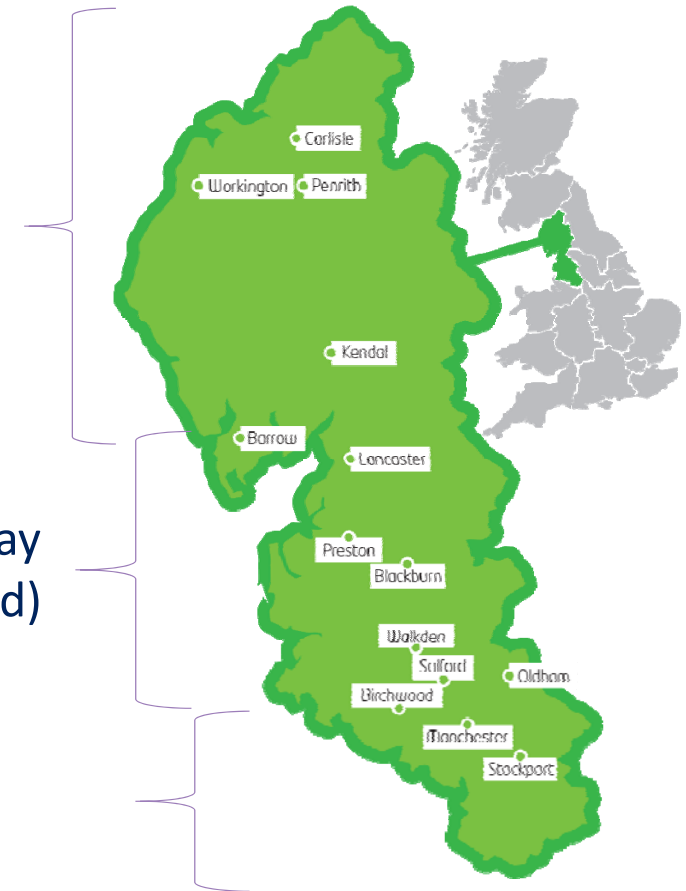
- 3 GSP's Harker, Hutton and Heysham (2 Groups)

Lancs & Central

- 8 GSP's Stanah, Penwortham (E&W), Rochdale, Padiham, Washway Farm, Kearsley and Kearsley Local. Also Bold (SP) (6 Groups + Bold)

South

- 6 GSP's Whitegate, Stalybridge, Carrington, South Manchester, Bredbury, Macclesfield Super Grid (6 Groups)



The Current ENWL Status of Play



- As of February 2018....
- We have submitted Bulk SoW applications on 12 of 14 GSP Groups
- Remaining GSP Groups and DNO Interconnector are in process of preparation
- We have received responses on 11 of the 12 SoW submittals
 - 5 of the 11 indicate Transmission issues and Modification Applications are required
 - Of these 5, Modification Applications have been issued for 3 and the remaining two are in preparation
- We have received one Modification Application response and this is now under review
- We have instigated the move to Appendix G process on 7 of the 14 GSP Groups

ICE Work Plan Review

Rebecca Johnston - ICE Manager



Introduction



- Rebecca Johnston
- 5 years with the Wayleaves Section
 - Grid and Primary
 - Secondary Networks
- 2nd January – Customer Engagement ICE Manager



2017 – 2018 Work Plan progress



Action	Output/KPI	Performance
Improve visibility of our flexible connections	Output: All generation quotations will highlight where a flexible connection has been offered	Flyer complete
Improve constraint data provided with flexible connection quotations	Output: Historical data to be provided for all flexible connection quotations. Up to 5 years' data to be provided in accordance with our records	Complete
Facilitate regular engagement sessions	KPI: Hold 10 events overall and target 80% of attendees review our events as 'useful' or 'very useful'	Ongoing
Implement online application	Output: Launch of online application and measure impact via number of applications submitted through the new process. Target 10% of applications to be made online	Ongoing
Develop a local energy strategy	Output: Stakeholder workshops held and draft local energy strategy circulated for ratification	Complete

2017 – 2018 Work Plan progress



Action	Output/KPI	Status
Champion Virtual Private Networks in industry to support more flexible and efficient connections	Output: Develop proposals for Virtual Private Networks	Ongoing
Host community energy event	Output: Host event and target 80% of attendees reviewing the event as 'useful' or 'very useful'	Complete
Continue to improve LV time to quote	KPI: Target average of 28 Working Days	Ongoing
Continue to improve HV time to quote	KPI: Target average of 45 Working Days	Ongoing
Continue to improve EHV time to quote	KPI: Target average of 58 Working Days	Ongoing

2017 – 2018 Work plan



Action	Output/KPI	Status
Provide quarterly updates on progress of actions	Output: Progress updates published online and distributed via mailing lists. Engage with stakeholders in workshops to monitor effectiveness of these updates, target 80% attendees reviewing our newsletters as 'useful' or 'very useful'	Ongoing
Develop Community Energy distribution list and share relevant updates	Output: We will target a minimum of 50 stakeholders by March 2018 and share newsletter updates on a quarterly basis	Complete
Establish DG owner-operator panel	Output: Establish a DG owner-operator panel	Complete
Target improvements in customer satisfaction	KPI: Target an average of 82% satisfaction with delivery and 85% satisfaction overall	Ongoing

Process



Internal
engagement

External engagement

Act on
feedback

Finalise &
Issue

Proposed 2018-2019 Workplan DG LV



Commitment	Action	Output/Key Performance Indicator	Delivery Date
Improve connection charging approach to make charging fair our customers	Conduct an impact assessment and plan implementation of assessment and design fees.	Engage with stakeholders regarding our proposals	Q4
We will share our vision for the transition of DNOs to DSOs.	Engage with stakeholders on our transition to DSO strategy	Hold an engagement session with our stakeholders	Q4
Target improved customer satisfaction.	Our aim is to target an improvement in overall customer satisfaction	<i>NB current 17-18 target is 85%</i> KPI: 85% satisfaction (subject to statistically significant sample sizes)	Q4
Target improved Time To Quote for LV DG quotations	We aim to outperform the regulatory standard by providing quotes on average in 28 working days (compared to the guaranteed standard of 45 workings days)	We will continue to work to 28 days	Q4
We will engage with community energy stakeholders on our network information	We will engage with community energy stakeholders on our network information	Hold an engagement session with community energy stakeholders	Q4
We will continue to offer opportunities for stakeholders to engage with us	We will facilitate a workshop specifically for our LV DG stakeholders	Hold a workshop centred around LV DG topics where 80% of attendees surveyed rate the event as 'useful'	Q4
We will continue to offer pre-application surgery sessions and webinars	Host connection surgeries for LV DG customers	Offer a minimum of 3 x surgery sessions/webinars 80% of attendees to rate event as 'useful' or 'very useful'	Q4

Sources of feedback



feedback	Sponsors	Where?	Who?	Our commitment 2018/19
"It's good to be providing a regular route for customer feedback"	4	Expert Stakeholder Panel	DG stakeholders	Target improved customer satisfaction subject to statistically significant base sizes.
We were told that customers needed more support and dialogue when it comes to viewing our network information	5	Community Energy workshop	Community stakeholder Energy	We will engage with community energy stakeholders on our network information
We were told that our workshops are useful and provide a good opportunity to meet our staff	5	Community Energy workshop DG Workshop	Community Energy and DG stakeholders	We will continue to offer opportunities for stakeholders to engage with us
"Going to offices and speaking to someone and seeing the maps to understand why some areas and locations might not work is really important"	5	Community Energy workshop	Community stakeholder Energy	We will continue to offer pre-application surgery sessions

Proposed 2018 – 2019 Workplan DG HV/EHV



Commitment	Action	Output/Key Performance Indicator (KPI)	Delivery date
Improve connection charging approach to make charging fair for our customers	Conduct an impact assessment and plan implementation of assessment and design fees.	Engage with stakeholders regarding our proposals	Q4
We will share our vision for the transition of DNOs to DSOs.	Engage with stakeholders on our transition to DSO strategy	Hold an engagement session with our stakeholders	Q4
We will review our EHV connection offers	We will review our connection offers and introduce a new offer pack in line with ours and stakeholder needs	Issue new connections offer pack	Q2
We will improve visibility of remaining available capacity	We will publish improved information on available thermal capacity & fault level	Publish online	Q2
Improve speed of response where transmission works required for a distribution connection	We will transition to a new transmission-distribution interface process, publish the new process on our website and publish transmission updates	We will communicate the new process to customers, transition to the new process and publish the process	Q4
Develop and continue DG owner/operators panel	Hold 1 x DG owner operator forum sessions for generators at 33/132kV	Hold a DG owner operator panel session . 80% attendees to rate the event as 'useful'	Q3
Target improved Time To Quote timescales for EHV quotations	17/18 – 58 working days We aim to outperform the regulatory standard by providing quotes on average in 58 working days (compared to the guaranteed standard of 65 workings days)	We will continue to work towards a 58 day average Time To Quote	Q4
We will continue to offer opportunities for stakeholders to engage with us	Offer surgery session and webinars and a workshop covering a range of topics	Offer 8 opportunities for stakeholders to engage covering a range of relevant topics 80% of attendees to rate event as 'useful' or 'very useful'	Q4

Sources of feedback



feedback	Sponsors	Where?	Who?	Our commitment 2018/19
We were told that we should communicate areas that are hard to connect to as a result of 'wider works'	5	Expert stakeholder panel Workshops	DG HV and EHV stakeholders	We will improve visibility of remaining available capacity
"I'd like a commitment of working with customers regardless of whatever process is used, more engagement essentially, don't leave us in a black hole"	4	Expert stakeholder panel	DG HV and EHV stakeholders	Improve information provision on transmission connection process
"Better communication between yourselves and NGET thus improving SOW process"	4	Workshops	DG HV stakeholder	Improve information provision and speed of response on transmission works required with a distribution connection
"As a consultant working with a number of developers, I would however like to have more engagement at early stages of a project where we're tasked to look at system sizes etc"	1	Surveys	DG HV stakeholder	Continue to host workshops and pre-application surgery sessions



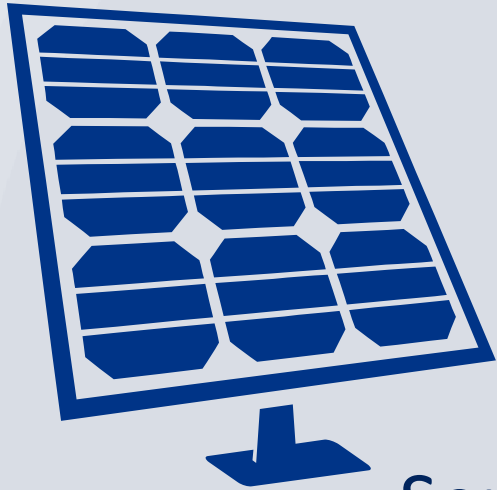
Feedback sheets

Thank you



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LVDG

Separate Work Plans for 2018 – 2019
Specific LVDG workshops – suggestions for topics?



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“COFFEE BREAK”
Please be ready to continue in 15 minutes



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Connection Offer Expenses – our approach

Stay connected...



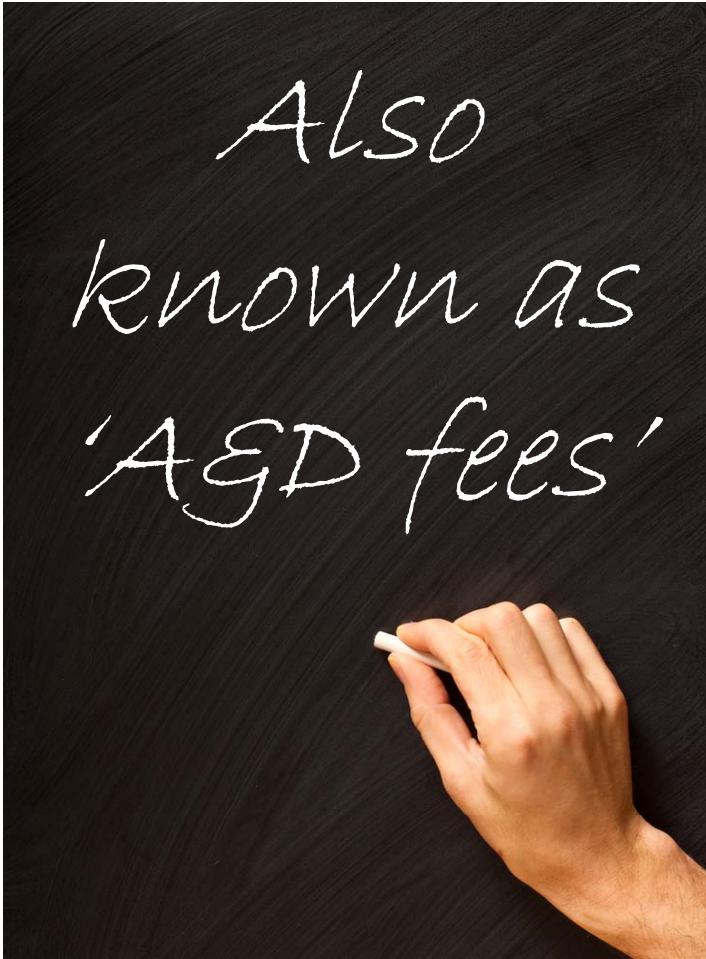
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BEIS intend to introduce new regulations
from April 2018

These will allow DNOs to charge
customers for their connection offer
whether it is accepted or not

BEIS intention is to allow a fairer
allocation of costs to customers

A photograph of a hand holding a piece of white chalk, writing on a dark chalkboard. The text written on the board is 'Also known as 'AGD fees''.

Also
known as
'AGD fees'

What do we propose to charge for?



What we won't be charging for

Budget Estimates

Minor connections (1-4)

Cancellations within cooling off period

Offers for service alterations or
diversions

What we will be charging for

EHV offers (demand and generation) from
May 4th 2018

LV and HV offers (demand and generation)
but from a later date

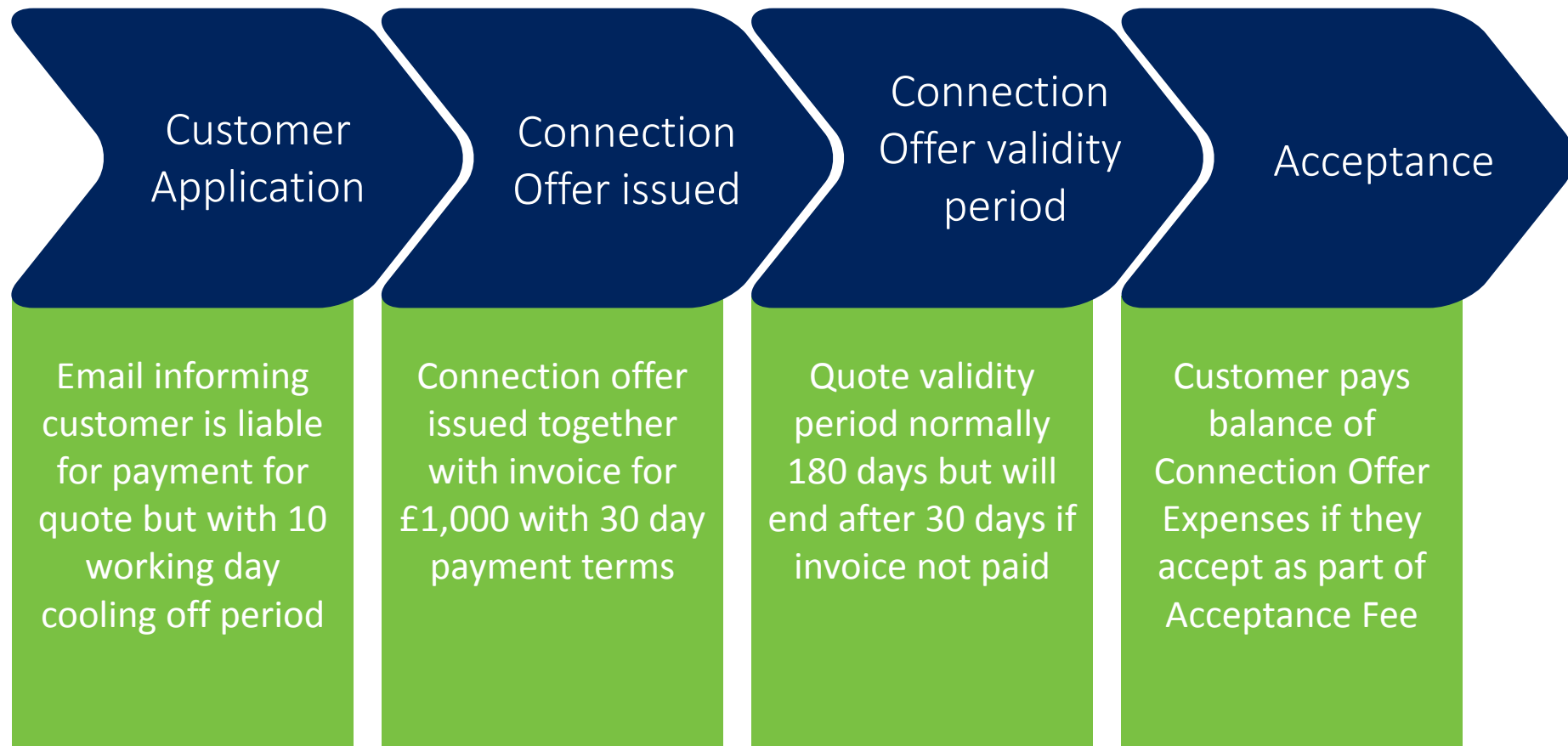
Requotes including interactivity requotes

Cancellations (after cooling off period)

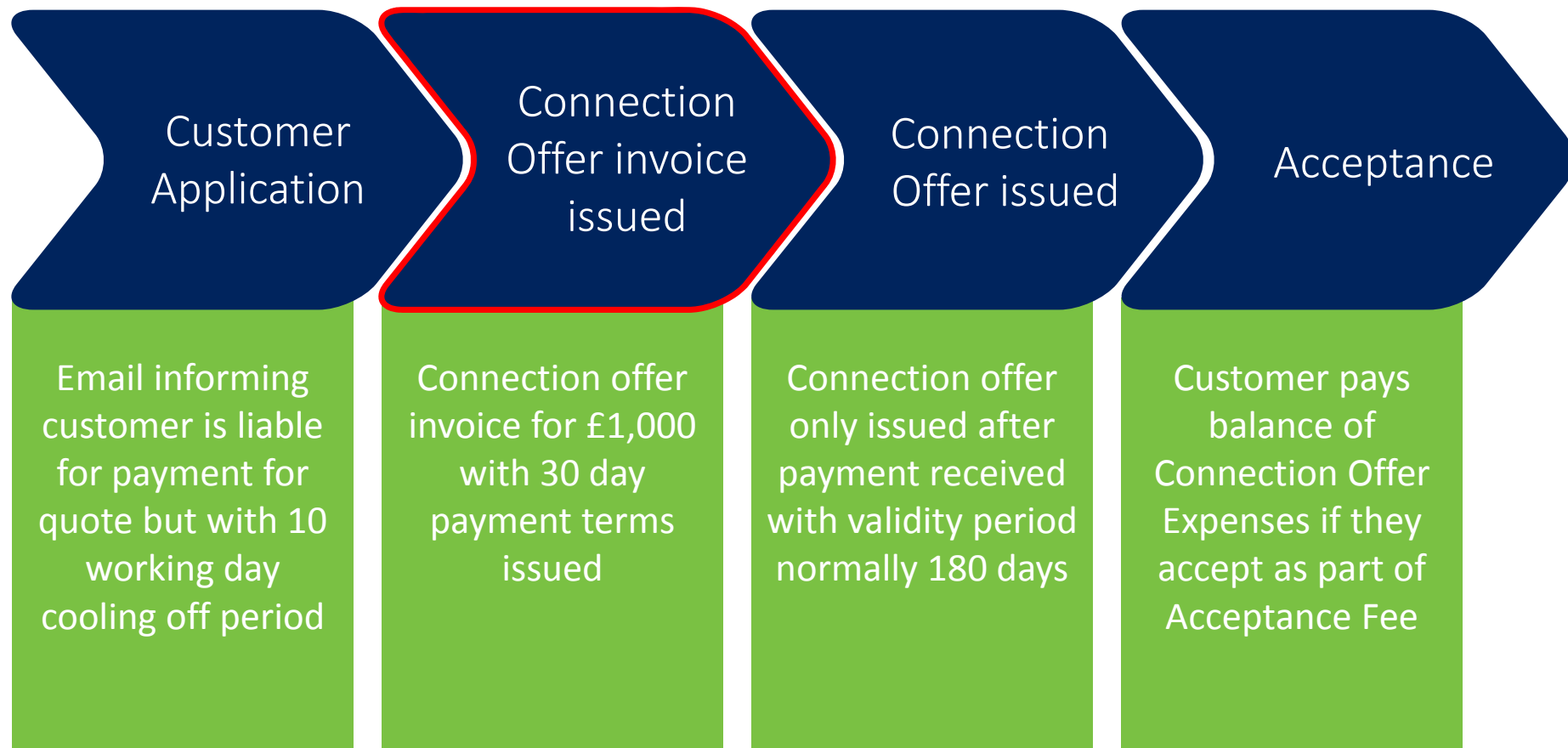
Gen+ initial assessments

These charges will be due whether the connection offer is accepted or not

The basic process



Revised process if payments not made



Gen+ process



Customer Submission

Customer submits up to six variations for same site eg different capacities and/or technologies together with **£500** payment

Budget costs and POC

We provide budget costs and POC for all six variants within 30 working days

Confirmation of viable options

You will have 7 days to confirm if any are viable and you want to progress through to a full offer using submission date as application date

Connection Offer issued

Connection offer issued together with invoice for £1,000 with 30 day payment terms

Connection Offer validity period

Quote validity period normally 180 days but will end after 30 days if invoice not paid

Our charges



For Connection Offers issued in ENWL area

Initial charge for any EHV Connection Offer:
£1,000

Residual charge on acceptance:
£20,200 for a full works offer

Residual charge on acceptance:
£15,800 for non contestable work only



How is our Connection Offer charge calculated?



- ☒ Includes cost of all Budget Estimates issued
- ☒ Includes the cost of all Gen+ initial assessments (less initial charge)
- ☒ Includes costs of all Connection Offers that are accepted
- ☒ Includes the costs of all Connection Offers that are not accepted

All costs associated with issuing Connection Offer are recovered through the Connection Offer charges: part recovered from initial £1,000 fee and rest on acceptance

Why do other DNO charges appear lower?



- ☐ Includes cost of all Budget Estimates issued
- ☐ Includes the cost of all Gen+ initial assessments
- ☒ Includes costs of all Connection Offers that are accepted
- ☐ Includes the costs of all Connection Offers that are not accepted

Only the cost of that Offer is included in the charge; other charges are included as an on-cost on the construction work and paid on acceptance



Four different options available to you for EHV offers

Budget Estimate	Gen +	Full Works Offer	POC Only offer
<ul style="list-style-type: none">•No charge•Can't accept•No queue position	<ul style="list-style-type: none">•Initial charge of £500 payable in advance•Further charge of £1,000 for full offer•Queue position retained	<ul style="list-style-type: none">•Initial charge of £1,000 for Dual Offer•Balance of £20,200 if full works accepted•Balance of £15,800 if POC only accepted	<ul style="list-style-type: none">•Initial charge of £1,000 for Connection Offer•Balance of £15,800 on acceptance

Applicable from 4th May 2018



QUESTIONS

&

DISCUSSION



EU Code Implementation

Steffan Jones - Infrastructure Solutions Manager



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Requirements for Generators

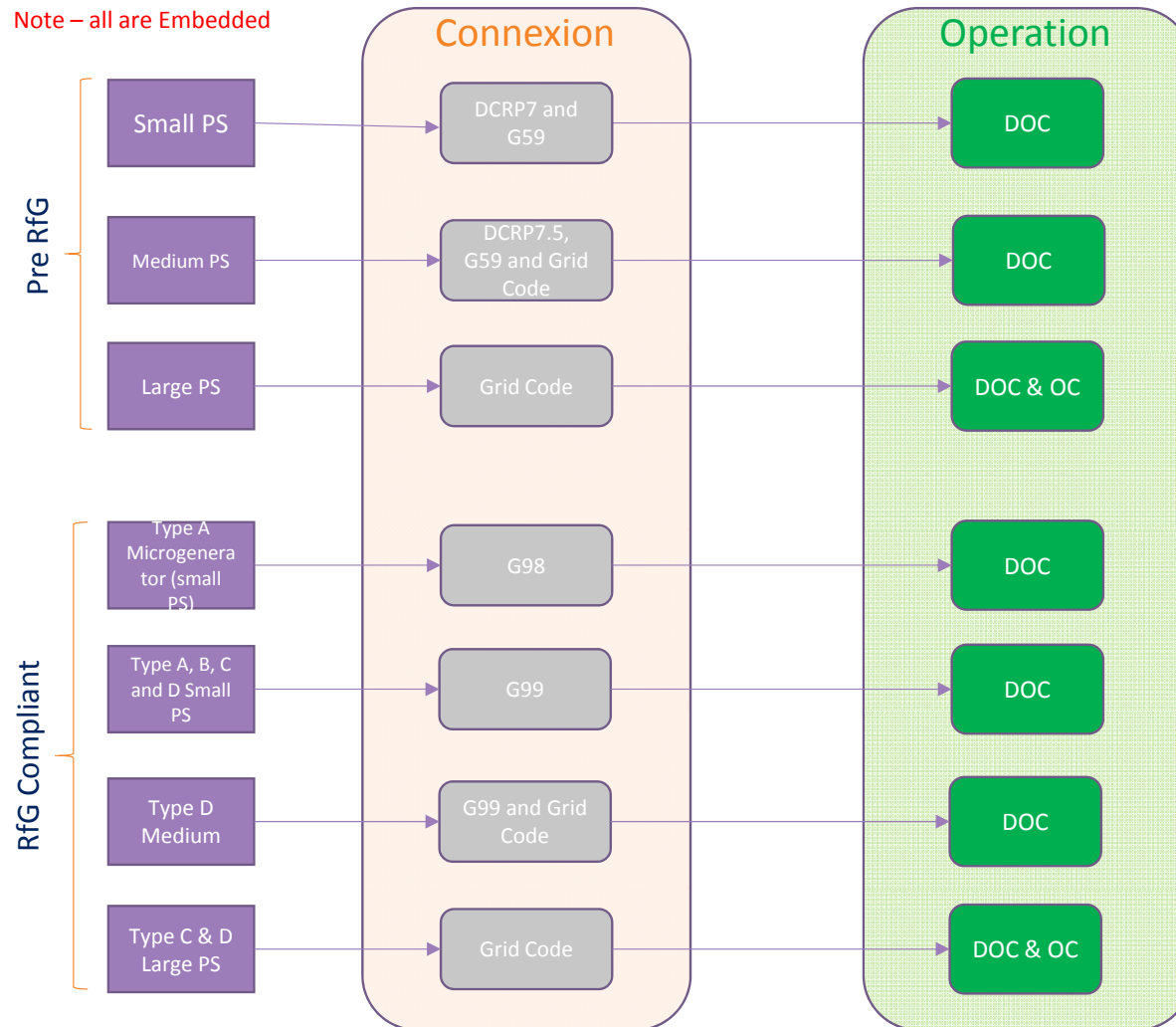


- Requirements for Generators (RfG) became a legal entity May 2017
- Applies to all generation commissioned after May 2019
- ENA EREC G98 & G99 drafted to incorporate GB requirements of the RfG
 - G98 covers microgeneration <16A/phase
 - G99 covers generation >16A/phase
- Currently in consultation, full approval May 2018
- ENA to publish user guides in parallel
- G98/G99 launch event planned, to explain in detail the changes
- Format of event TBC, possibly London, Cardiff and Glasgow
- Watch this space!

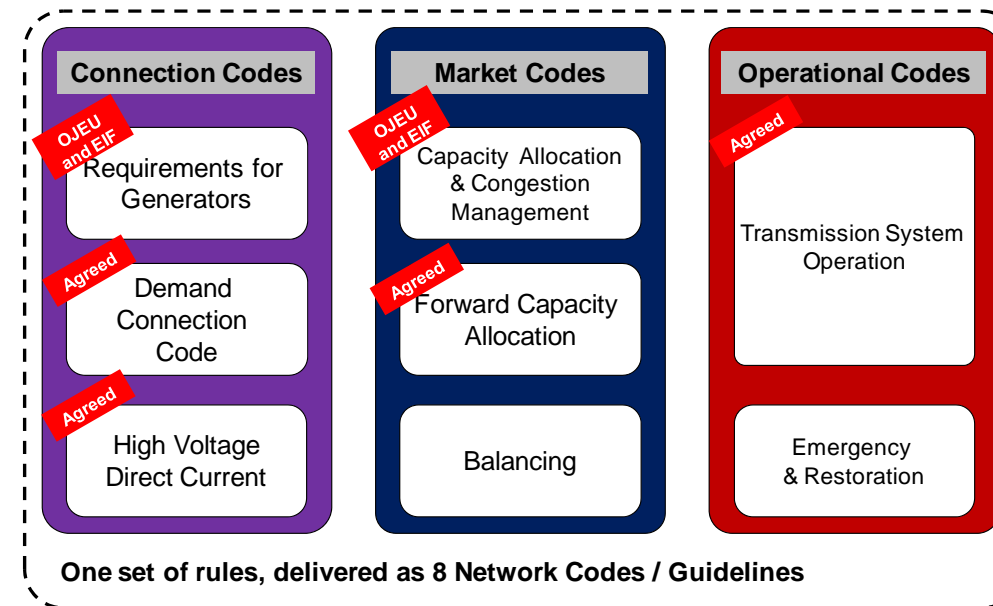
Interface with D Code & G Code



Note – all are Embedded



European Network Codes



RfG Bandings

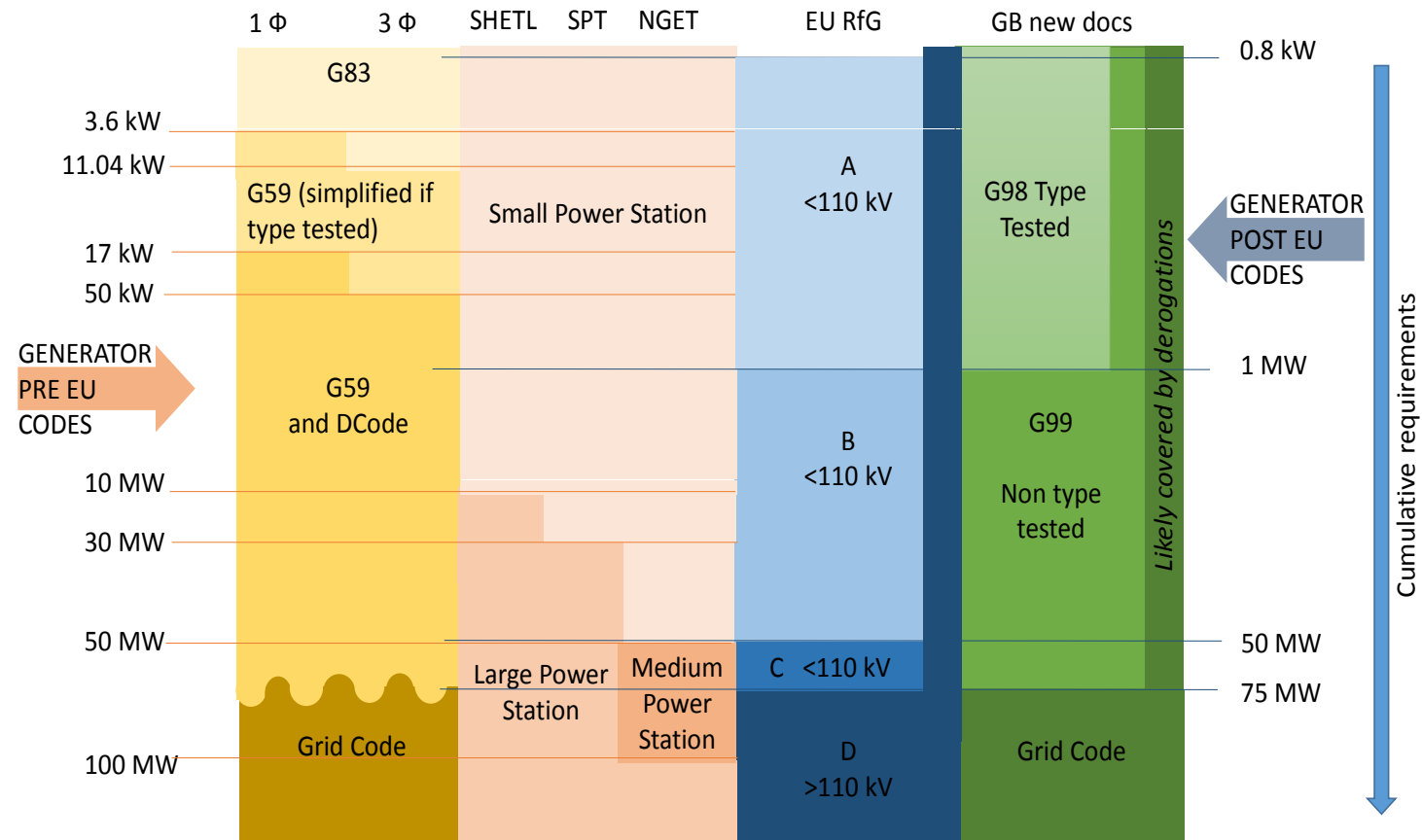


Connection Voltage <110kV

Band A	800W – 1MW
Band B	1MW – 10MW
Band C	10MW – 50MW

Connection Voltage >110kV
Or
>50MW

Band D



Panel Q&A



Wrap Up and Close

