WESTERN POWER DISTRIBUTION

Serving the Midlands, South West and Wales

WPD Connections Customer Steering Group

Graham Halladay – Operations Director

26 February 2020

HOUSEKEEPING

- ✓ **No Planned Fire Alarm Test Today**

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AGENDA

Agenda

Welcome drinks		09:30 – 10:00
Introduction	Graham Halladay	10:00 – 10:10
Director's update	Graham Halladay	10:10 – 10:30
ICE update 2019-2020	Tim Hughes & Team	10:30 – 11:00
Coffee		11:00 – 11:20
ICE Workplan 2020-2021	Tim Hughes & Team	11:20 – 11:45
Connection Offer Transparency	Peter Aston	11:45 – 12:15
Lunch		12:15 – 13:00
Accelerated Loss of Mains Change Programme for Distributed Generation	Peter Aston	13:00 – 13:30
Capacity, Allocation & Reservation	Tim Hughes	13:30 – 14:00
Summary, feedback and next steps	Tim Hughes	14:00 – 14:30

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Introduction
&
Directors Update

Graham Halladay

Operations Director

CCSG FEBRUARY 2020: DIRECTOR'S UPDATE

- **RIIO – ED2 Update**
  - **Timetable**
  - **Ofgem's Workstreams**
  - **Customer Engagement Group**

- **Stakeholder Engagement Opportunities**

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WPD Business Plan Timetable

Business Plan Development - Milestones		
Date	Ofgem Milestone (as per ED2 Open Letter Aug 2019)	WPD Milestone
Aug-19	Open letter and Framework Consultation	
Oct-19	Open Letter response due to Ofgem	
Q4 2019	Framework Decision	
Mar-20		Update of expenditure and activity volume forecast (using RRP structure)
Jun-20	Sector Methodology Consultation	
Aug-20		Provision of documented key strategies/investment proposals
Sep-20		Update of expenditure and activity volume forecast (using RRP structure) - for PPL
Nov-20	Sector Methodology Decision and Business Plan Data Templates issued	
Jan-21		First draft of detailed Business Plan (for stakeholder engagement)
Q1 2021		Stakeholder review of executive summary draft Business Plan
Feb-21		Revised documented key strategies/investment proposals (following sector methodolog
Mar-21		Second draft of detailed Business Plan (following stakeholder engagement)
Mar-21		Population of BPDT templates and assopciated commentary
Mar-21		Production of justification documents
Mar-21		Production of CBAs
Apr-21		Formal management review and PPL sign off of BP2 and BPDT
May-21	Business Plan initial submission to Ofgem and RIIO-2 Challenge Group	
Dec-21	Business Plan final submission to Ofgem and RIIO-2 Challenge Group	

Ofgem Workstreams

- There are a number of Ofgem proposed working groups set up to consider specific output areas for the RIIO-ED2 price control:

Working Group	Topics to be covered
Safety, Resilience & Reliability	Quality of Service, Guaranteed Standards of Performance, Network Asset Risk Measures, Cyber resilience, flooding, resilience
Customer Service, vulnerability and Connections	Broad Measure of Customer Service, Stakeholder Engagement and Consumer Vulnerability, Social obligations
Overarching approach to setting RIIO- ED2	Overall approach incl. to decarbonisation, strategic investment, whole systems, competition and flexibility
Decarbonisation & the environment	Decarbonisation, energy efficiency, SF6, oil leakage, BCF, visual amenity, losses
Cost Assessment	Totex, Business Plan Incentive, Cost Benefit Analyses

- In addition to the RIIO-ED2 output specific working groups there is also ongoing engagement on the following key topics with industry:
  - DSO
  - Open Data (Following the Energy Data Task Force report)
  - Charging – Ofgem are expected to publish their Significant Code Review minded to decision in autumn

Customer Engagement Group

- WPD was the first DNO to form its CEG (Chair Nov 2018; members Jan 2019)
- Independent Chair (Duncan McCombie, CEO of YES Energy Solutions – a fuel poverty company) and independent Secretariat
- 14 members – a robust recruitment process followed for members and Chair, including 90+ candidates assessed with an external, independent expert carrying out a parallel process
  - Recruited against 24 knowledge/expertise criteria. Each has a min. of 3 representatives to ensure diversity of thought and depth/capacity to challenge
- Separate CEG site with published terms of reference and governance, minutes of meetings etc.

  https://customerengagementgroup.westernpower.co.uk

(Back row L to R)

Martin Crouch Former Director of Electricity Distribution, Ofgem
Caroline Farquhar* Senior Policy Researcher, Citizens Advice
Merlin Hyman Chief Executive, Regen (Community Energy specialists)
Pamela Taylor Former Director, Innovation & Strategy, Ofgem
Ian Graves Chief Executive, Competitive Future
Matthew Rhodes Chair of Energy Capital West Midlands & Board Member of Greater Birmingham & Solihull Local Enterprise Partnership
(Chair)Duncan McCombie Chief Executive, YES Energy CiC
James Heappey* MP Member of Parliament, Wells
Jocelyn McConnachie Former Director of Customer Engagement, NG
David Mitchell Snr Energy & Climate Change Exec, Chemical Ind Assn
Felicity Jones Partner, Everoze (energy storage specialists)

(Front row L to R)

Simon Roberts Chief Executive, Centre for Sustainable Energy
Miranda Mayes Research Director
Lewis Shand-Smith Former Chief Ombudsman & CEO
(Secretariat) Lucy James Managing Director, EQ Communications
Lesley Queripel Head of Regulation and Policy, E.ON UK

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Stakeholder Engagement Opportunities

- 6 Stakeholder Workshops to be held across WPD's Region

TUES 25th FEB	WEDS 26th FEB	THURS 27th FEB	TUES 3rd MAR	WEDS 4th MAR	THURS 5th MAR
CORNWALL	BRISTOL	SWANSEA	NOTTINGHAM	BIRMINGHAM	MILTON KEYNES
Royal Cornwall Showground	Bristol Pavilion (formerly Gloucestershire Cricket Ground)	Liberty Stadium	Trent Bridge Cricket Ground	Villa Park	MK Dons Stadium

- Local Distribution Manager engagement with LEPs and LAs to:
  - Get an update on the current development plans so we can forecast and react to future capacity requirements.
  - Get a view on their decarbonisation strategy and the rate of delivery of it against the Net Zero by 2050 target.

- We are reviewing whether to hold a second Connections Stakeholder Workshop Event following the success of the Villa Park event in November 2019.

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Incentive Connections Engagement (ICE) Update

26 February 2020

Tim Hughes & Penny Carolan – Connections Policy

Incentive on Connections Engagement (ICE)

ICE - Overview

- **What is It?**

  Introduced in RIIO-ED1, designed to drive improved engagement for larger or more complex connection customers as well as higher levels of service

- **How does it work?**

  DNO's submit evidence each year that they engage with their stakeholders and respond to their needs. Ofgem consults with large connections stakeholders on the DNO's "Looking Back "report. Ofgem can apply a penalty up to 0.9% of annual base revenue.

- **How have we performed?**

  NO penalties have been applied in RIIO-ED1.

  Ofgem said They are overall pleased with all DNO's and areas have improved

Key context

ICE was introduced under RIIO-ED1, with the aim to:

- **Replicate the effects of Competition**
- **Incentivise DNOs to improve the overall customer experience**
- **Enable Customers to influence a DNOs high level strategy and Workplan of activities**

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Ofgem Outcome
ICE 2018-19 – “Looking Back” report

The Ofgem consultation in July 2019 assessment set out a number of concerns for development to all DNO’s:

- **Lack of notification on ICE plans** – external stakeholders are suggesting they do not receive notification of the ICE Workplan.
- **Difficulties signing up for communication** – Some stakeholders highlighted difficulties in signing up to DNO mailing lists.
- **Request for additional engagement methods** -Stakeholders suggesting the need for additional engagement methods.
- **More quantitative outputs** – KPI’s on the ICE Workplans seem vague or generic.
- **Connections process**– Stakeholders highlighted difficulties in relation to the application process.

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ICE Workplan 2019-2020

- **42 Committed Initiatives** – includes 4 new initiatives added in October 2019

WPD ICE Workplan Focus Area Key 2019/20	
2019/20 ICE Focus Area	**Numbers of Actions**
Network Capacity Allocation and Reservation	4
Transition to DSO	6
Availability of Information Pre & Post	14
Assessment & Design Fees	1
Low Carbon Technology & Electric Vehicle (EV)	8
Competition in Connections	3
Community Energy	3
Legals & Consents	1
Connection Offers & Agreements	2

- Q2 End June 2019 = 3 completed initiatives
- Q3 End September 2019 = 10 completed initiatives
- Q4 End December 2019 = 11 completed initiatives
- Q1 End March 2020 = 18 due to complete

Engagement leads to action

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DSO Consultation on Economic Process ICE Initiative 2.1 Completed Q3

Flexibility Consultation – Delivering a Flexibility First Approach

Visibility
- Forecasting of system needs
- Publication of flexibility data
- Signposting to where flexibility services will be required

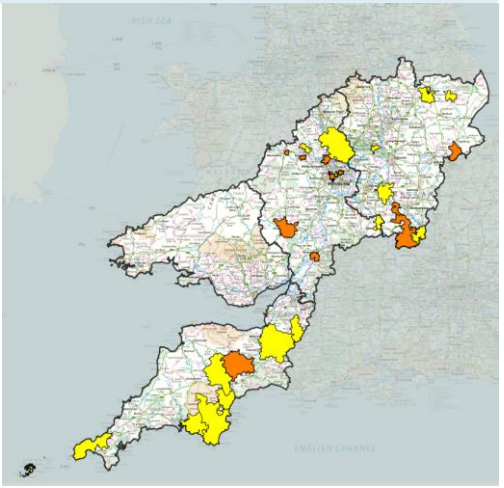
Accessibility
- Multiple routes to market
- Access options for a wide range of participants
- Low barriers to entry

Sustainability
- Investable flexibility products
- Ensures value of flexibility is realised
- Aligned to decarbonisation

Transparency
- Open processes
- Auditable decisions
- Consistent outcomes

2019 flexibility procurement zones

149 Primary substations assessed for flexibility in 2019



www.flexiblepower.co.uk

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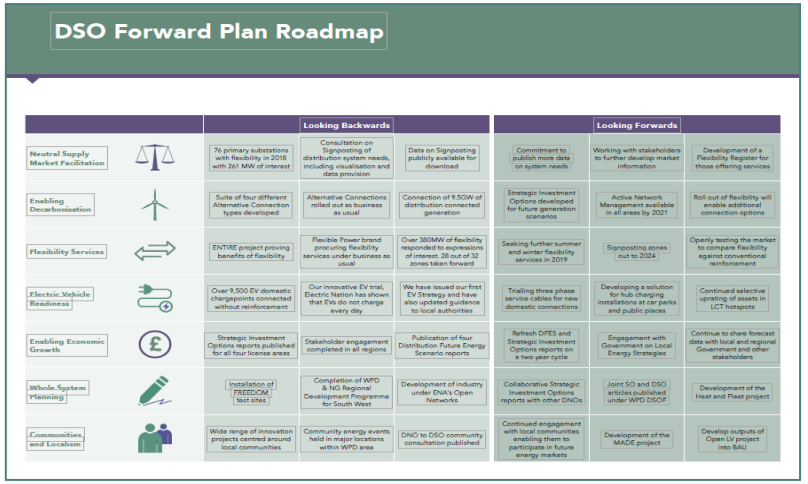
DSO Forward Plan ICE Initiative 2.5 2019/20 - Completed Q2

Part of the Forward Plan

- Promote Innovation, Flexibility and Non Network solutions
- Facilitate neutral markets for efficient whole systems outcomes
- Improve the resilience and security of the electricity system at a local level
- Drive competition and efficiency across all aspects of the system



As part of the publication we have implemented a Forward Plan roadmap to give a clear indication of the next steps.

DSO Forward Plan: **www.westernpower.co.uk/smarter-networks/network-strategy/dso-strategy.**

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Further enhance “Connections Information” webpages ICE Initiative 3.8 Completed Q3

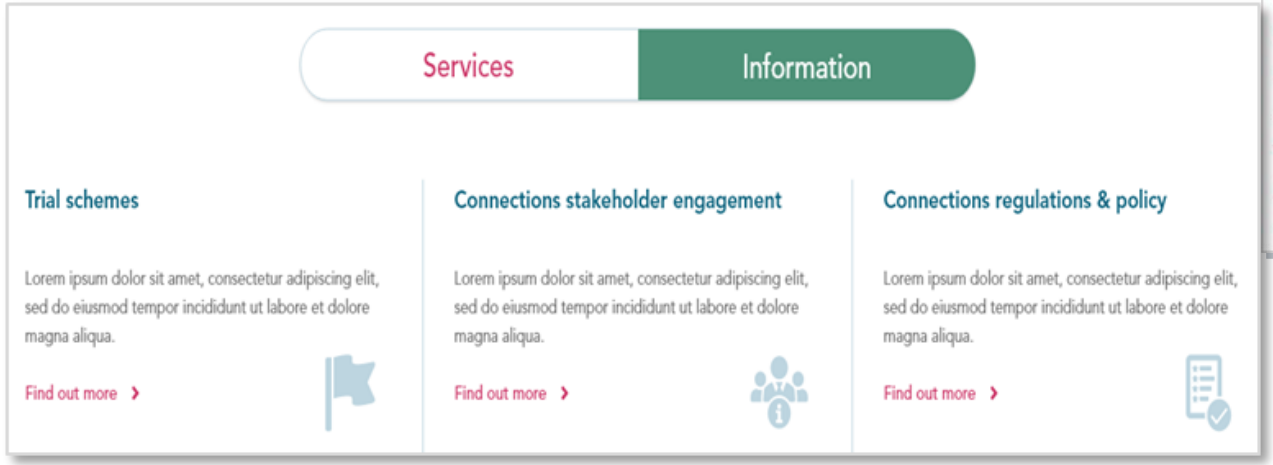
Improving the customer’s online journey

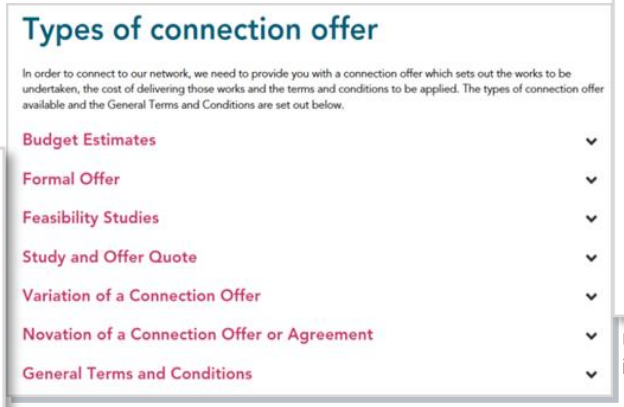
Following on from the improvements made to the connections services webpages, we agreed to implement improvements to both navigation and content for the connections related information on our website.

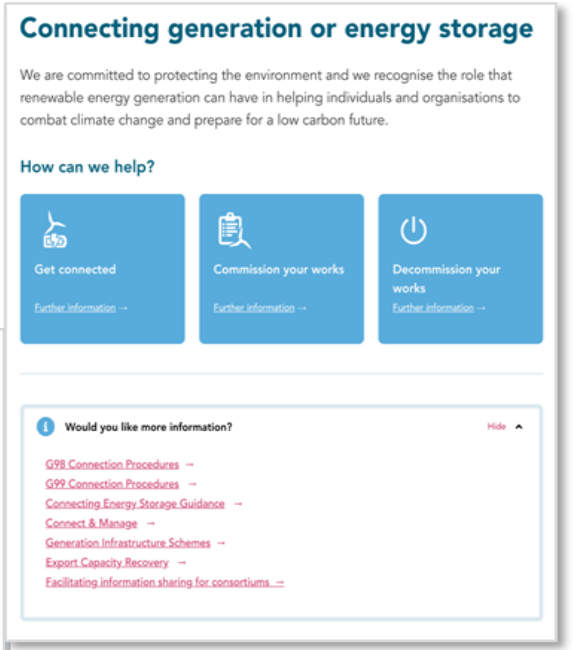
Improve navigation to information areas

Implementation of a ‘toggle’ approach to available options.

A new toggle approach to minimise page scrolling







Use of expanding sub-headings in place of text heavy single information

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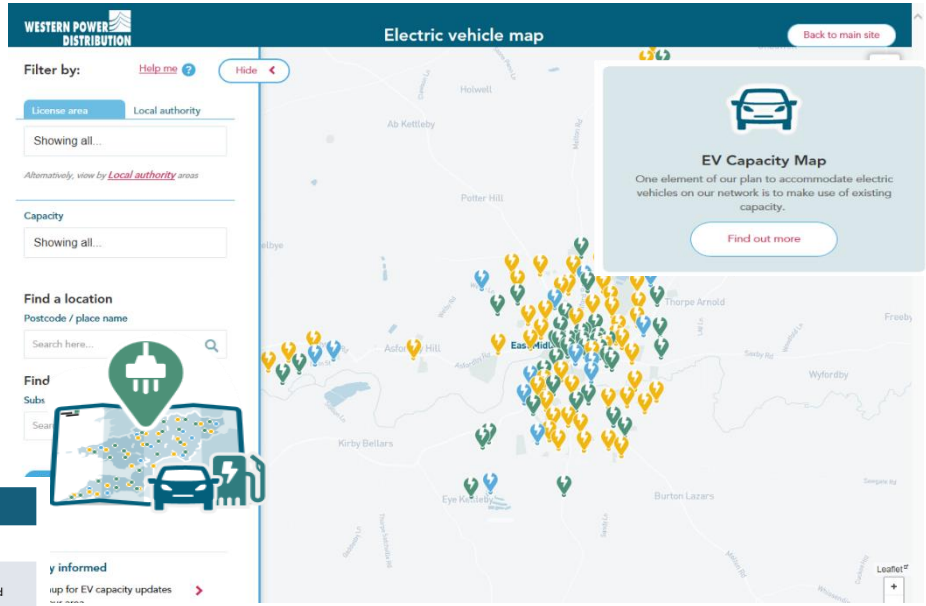
Electric Vehicle Capacity Map ICE Initiative 5.6 Completed Q3

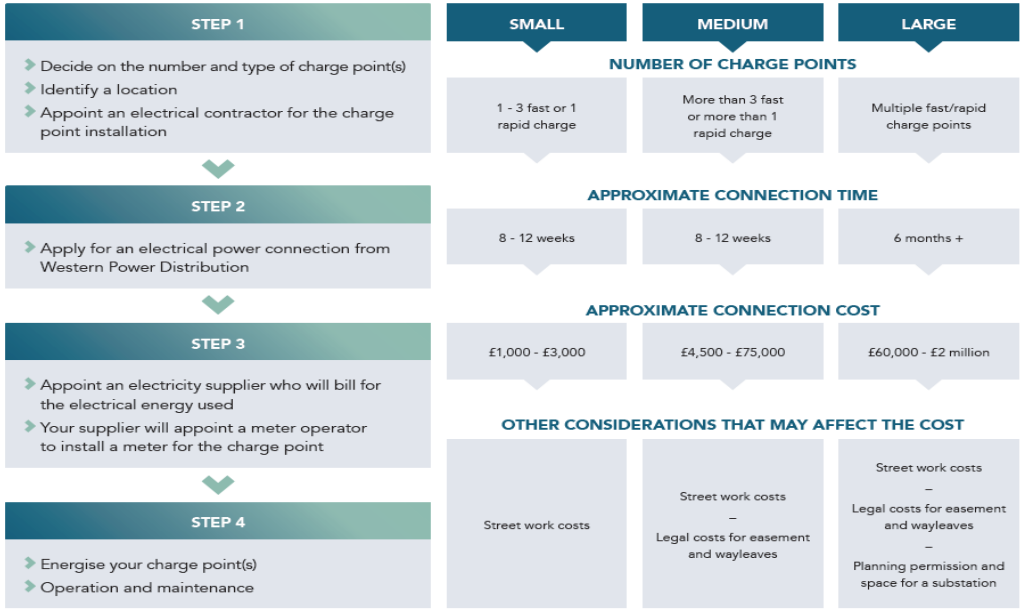
Feedback from our stakeholder engagement in February 2019 and specific EV events, stakeholders expressed that their priority was for us to provide further information, guidance and assistance on connecting EV.

Our new EV capacity map is now live on our website and can be viewed here:
www.westernpower.co.uk/ev-capacity-map



Electric Vehicle Brochure "Getting Electric Vehicles Moving ICE Initiative 5.2 Completed Q4

- Domestic Smart Homes EV's and Storage
- On Street Charging Solutions
- Hub Charging Solutions
- Depot Solutions



www.westernpower.co.uk/electric-vehicles

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Competition in connections (CiC) guidance on variations ICE Initiative 6.1 Completed Q3

As part of our ICE Work plan, we have committed to provide the Independent Distribution Network Operator (IDNO) or Independent Connection Provider (ICP) community with a process to vary Connection Agreements.

- a) The final connection works
- b) Design approval
- c) Any other associated contestable works

The process was emailed to ICP and IDNOs in September 2019 in a connection bulletin and our local teams were provided guidance in order to ensure customers see a consistent approach. To take advantage of this service ICPs can contact WPD Connection Policy team: **WPDCONNECTIONSPOLICY@westernpower.co.uk**

Consistency of Budget Estimates ICE Initiative 9.1 Completed Q3

Following on from our Stakeholder Surgery in February 2019 and our Major Customer Survey 2019, Stakeholders feedback indicated a requirement for standardisation around budget estimates, providing a consistent approach across WPD, as stakeholders fed back that currently budget estimates varied in terms of the level of detail and in the format.

NEW Budget Estimate Letter for all Voltages

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Refreshment Break

Incentive Connections Engagement (ICE) Workplan 2020/21

26 February 2020

Tim Hughes & Penny Carolan – Connections Policy

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Incentive on Connections Engagement (ICE)

ICE Workplan Development

We use stakeholder feedback to identify **priority areas** to address through our ICE Workplan

Through further engagement we will commit to a set of initiatives to address the priority areas

As the initial set of initiatives are delivered, further improvement areas and additional initiatives may be included within our ICE Workplan throughout the year

We measure the success of the improvements made through a set of Key Performance Indicators (KPIs)

Key context

ICE was introduced under RIIO-ED1, with the aim to:

- **Replicate the effects of Competition**
- **Incentivise DNOs to improve the overall customer experience**
- **Enable Customers to influence a DNOs high level strategy and Workplan of activities**

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Incentive on Connections Engagement (ICE)

Relevant Market Segments

CONNECTIONS Relevant Market Segments								
Demand Connections				**Distributed Generation**		**Unmetered Connections**		
LV work	HV work	HV & EHV work	EHV work & above	LV work	HV & EHV work	LA work	PFI work	Other work
Connections to metered premises for demand customers at all connection voltages e.g.: ► Domestic houses ► Commercial & industrial units ► Electric vehicle charging points ► IDNO networks				Connections to metered premises for generation at all voltages e.g.: ► Rooftop solar installations ► Largescale windfarms ► Battery storage		Connections to unmetered premises for demand connections for local authorities or private sector e.g.: ► Street lights ► Bus shelters ► Telecoms kiosks		

Key context

- **The ICE is designed to capture performance in the Relevant Market Segments of the local connections market**
- **The ICE does not capture performance in the Excluded Market Segments which are measured and incentivised under the RIIO-ED1**
- **Time to Connect incentive**
- **Customer Satisfaction Survey**

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Incentive on Connections Engagement (ICE)

The priority areas CCSG identified in Oct 2019 for 2020/21 IC Workplan.

A. Availability of Information
B. Low Carbon Technology
C. Network Capacity Allocation and Reservation
D. Transition to DSO
E. Competition in Connections
F. Connection Process

Are there any other priority areas we should be considering?

Can you identify specific actions or improvement areas we should consider?

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RECAP - Ofgem Outcome
ICE 2018-19 – “Looking Back” report

ICE Workplan Development Areas

- **Lack of notification on ICE plans** – external stakeholders are suggesting they do not receive notification of the ICE Workplan.
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Ofgem Outcome
ICE 2018-19 – “Looking Back” report

- **Lack of notification on ICE plans** –
  external stakeholders are suggesting they do not receive notification of the ICE Workplan.

- **Ask the Audience**

- What is your opinion?
- What are your experiences?
- Do you have a perspective?
- How would you like us to communicate our Workplan?

Feedback

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Ofgem Outcome
ICE 2018-19 – “Looking Back” report

- **Difficulties signing up for communication**– Some stakeholders highlighted difficulties in signing up to DNO mailing lists.

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- How would you like us to engage?

Feedback

Ofgem Outcome
ICE 2018-19 – “Looking Back” report

- **More quantitative outputs**– KPI’s on the ICE Workplans seem vague or generic.

- **Ask the Audience**

- What is your opinion?
- What are your experiences?
- Do you have a perspective?
- How should we measure our ICE Workplan actions?

Feedback

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ICE Workplan 2020/21 – Potential Actions

- Improve network capacity map for Transmission ANM and curtailment levels for the different DG technologies
- Improve information on queue management and lost capacity
- Share learning on proposals to implement a three-phase service as minimum standard
- Establish simplified connection offers for unmetered connection works
- Improved process for connection surgeries
- Improve information around project planning and timescales

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Thank you for your Feedback & Support

CCSG – Connections Offer Cost Transparency

WPD ICE 2019/20

Connection Offer Cost Transparency

Peter Aston
Primary System Design (PSD) Manager

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WPD ICE 2019/20

- Action 9.2 Connections Offer Transparency
- This presentation sets out the proposal
- We would like your feedback for further development in March 2020
- Please ask questions and make suggestions as we go

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Aims of action 9.2

- **Wording from the ICE Workplan**

"Improve the accuracy of costs within WPD offers and transparency of assumptions, with the assumptions that are made clearly highlighted within the quotation. Ensuring the connection quotation is clear, accountable and concise."

- **Ensure the quotation is transparent, accountable and concise, in relation to design and cost assumptions**

- **Improve accuracy of costs by establishing clear guidance internally on design assumptions which impact connection charges**

CCSG – Connections Offer Cost Transparency

Proposal

- Provision of two documents, one external, one internal:

- External document
  - Narrative document to be provided with each connection offer (with focus on EHV as this is where biggest variations can be), on the impact of design assumptions which might affect the connection charge. ‘My Connection Charge - Design Assumptions and Managing Cost Variations.’

- Internal document
  - Improve accuracy of costs by establishing clear guidance internally on design assumptions which impact connection charges.

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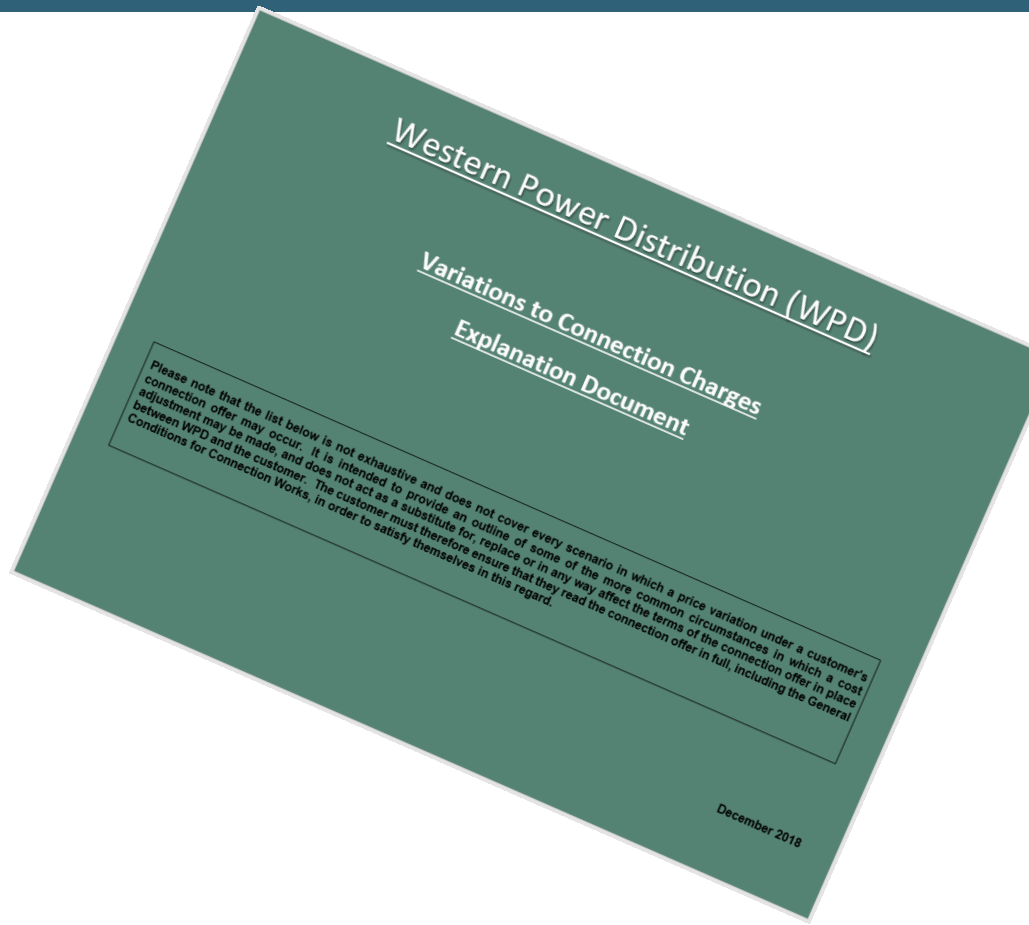
External design assumptions and cost variations document

- Builds on the ‘Variations to Connection Charges’ document from the 2018-19 ICE plan
- Aims to provide clearer explanations
- Focuses on the main areas of cost variation



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‘My Connection Charge - Design Assumptions and Managing Cost Variations’

Proposed contents:

- Overview of design process
- Description of design elements
- Assumptions made at initial design phase
- Potential variations at detailed design phase
- Potential variations at construction phase

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‘My Connection Charge - Design Assumptions and Managing Cost Variations’

Proposed contents:

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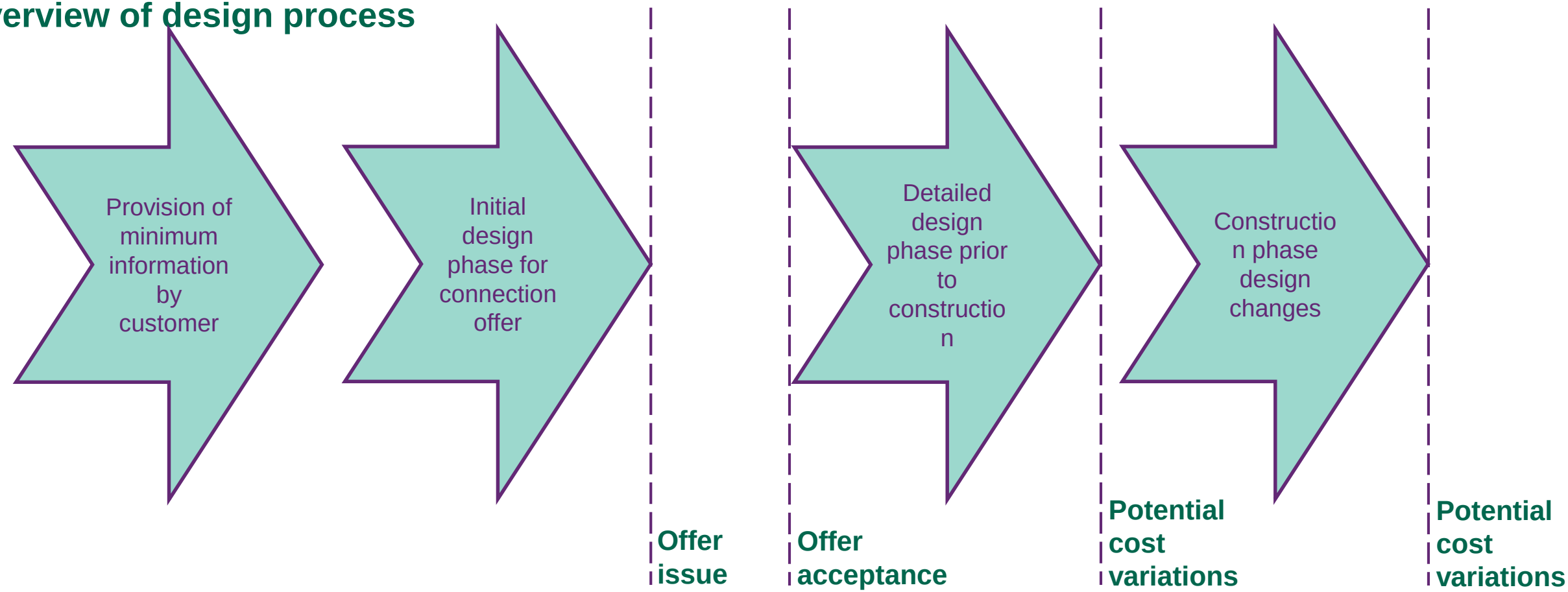
Overview of design process



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Overview of design process

Provision of minimum information by customer

- Needs to be as accurate as possible
- Will be used as the input for the initial design stage
- Changes to this information during the project could affect the overall design

Initial design phase for connection offer

- Customers value a fast time to quote
- Reduced time scales leave less time for design works
- Electrical analysis to determine POC, connection assets and reinforcement
- Most designs are based on desk top analysis and assumptions

Detailed design phase prior to construction

- Circuit route design, including cable surveys, tower designs, consents and planning
- Substation asset design, including civil works and planning permission
- Protection systems
- Comms network design
- Use of external consultants and contractors
- Environmental surveys

Construction phase design changes

- Unexpected ground types not identified through trial holes
- Delays from other infrastructure owners (e.g. road and rail crossings)
- Difficulties with access across third party land
- Delays from availability and delivery of plant

CCSG – Connections Offer Cost Transparency

‘My Connection Charge - Design Assumptions and Managing Cost Variations’

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- Potential variations at construction phase

CCSG – Connections Offer Cost Transparency

Description of design elements

- The table below gives a selection of some of the design elements and their descriptions

Design element	Description of design element	Cost variables
Circuits – underground cables	Connection assets required to connect the customer from their proposed point of supply (PoS, i.e. the metering circuit breaker) to the point of connection (PoC) determined by WPD. Cable circuits are comprised of insulated conductors typically buried 0.9m deep, with cable lengths joined together in joint bays. The cables can be directly buried in the ground or installed in ducts, depending on thermal rating requirements and installation considerations. It is usual practice to install a pilot cable or fibre optic cable with the main power cable. Underground cables can be laid in roadways or various types of unmade or agricultural ground. Installations in third party land require landowner consent. They generally do not need planning permission. The installation of underground cables is significantly affected by ground conditions for digging the trench. It can also be affected by the presence in the ground of hazardous substances, unexploded ordinance (UXO), archaeology and environmental issues. They can be combined with overhead lines to have a mixed underground / overhead route to suit requirements.	Route length Land owner consent LA road access Ground type Depth of dig Hazardous substances UXO Archaeology Environmental issues Directional drills Infrastructure crossings Tenders

CCSG – Connections Offer Cost Transparency

Description of design elements

- The table below shows the design elements proposed to be included

Design element
Circuits – underground cables
Circuits – overhead lines
Substation works – plant items
Substations works – civils
Telecommunications
Reinforcement – circuits
Reinforcement - substations
Protection (electrical)
NGET / NGESO charges
Earthing
Power quality

CCSG – Connections Offer Cost Transparency

‘My Connection Charge - Design Assumptions and Managing Cost Variations’

Proposed contents:

- Overview of design process
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Assumptions made at initial design phase

- The table below gives a selection of some of the design elements and assumptions used in offers

Design element	Assumptions at initial design phase
Circuits – underground cables	Design works: Electrical assessment of POC location and voltage, desk top route options from POC to POS, high level route constraints identified (e.g. railway, canal, etc), minimum cable size costed. Assumptions: cable route, no terrain constraints, no consenting issues, good ground conditions (e.g. no rock), no highway constraints, etc. Site visit unlikely to have happened, due to time constraints.

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‘My Connection Charge - Design Assumptions and Managing Cost Variations’

Proposed contents:

- Overview of design process
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- Potential variations at construction phase

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Potential variations at detailed design phase

- The table below gives a selection of some of the design elements and potential variations in cost between initial design phase and detailed design

Design element	Potential changes from initial to detailed design phase	Potential increases in cost – 33kV only shown
Circuits – underground cables	• Cable size increase – due to deep cable lays (extra heating effect), proximity of other cables, etc. • Route length increase – due to consenting issues, infrastructure constraints, archaeology, UXO, local authority restrictions on road access, etc. Variations in length of 10-20% are quite possible, sometimes higher • Digging cost increase – due to unknown hard ground conditions (e.g. concrete underneath tarmac, rock, etc).	• Approx £15k - £115k / km • Approx £200k - £400k / km • Approx £45k – 75k / km

CCSG – Connections Offer Cost Transparency

‘My Connection Charge - Design Assumptions and Managing Cost Variations’

Proposed contents:

- Overview of design process
- Description of design elements
- Assumptions made at initial design phase
- Potential variations at detailed design phase
- Potential variations at construction phase

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Potential variations at construction phase

- The table below gives a selection of some of the design elements and potential variations in cost between detailed design and construction

Design element	Potential changes from detailed design to construction phase	Potential increases in cost – 33kV only shown
Circuits – underground cables	Route length increase – due to access issues, archaeology, UXO, local authority restrictions on road access, etc. Digging cost increase – due to unknown hard ground conditions found when digging (e.g. concrete underneath tarmac, rock, etc).	Approx £200k - £400k / km Approx £45k – 75k / km

CCSG – Connections Offer Cost Transparency

Internal guidance on design assumptions

- Builds on existing systems and processes for providing scheme costs
  - Regularly updated standard work elements
  - Costing system
- Aims to give planners a quick reference point to check their assumptions, so is not prescriptive
- Focuses on the main areas of cost variation
- Uses the same design elements as the externally facing document

CCSG – Connections Offer Cost Transparency

Internal guidance on design assumptions

- The table below gives an example of the guidance which will be given to WPD planners

Design element	Assumptions to check when preparing scheme for connection offer
Circuits – underground cables	**Route** – is it feasible? Are there any obvious obstructions to using the route, such as other infrastructure crossings or difficult terrain? **Land owner consent** – are there any known landowners who could be difficult to get agreement from? **Local authority road access** – are there any known road embargoes? **Ground type** – is it a concrete road, or potentially concrete underneath the tarmac? Is there known to be rock just under the surface? **Depth of dig** – is there expected to be a deep dig to require a larger cable size for thermal reasons? **Hazardous substances** – is the area known to contain hazardous substances? Does the route cross an old landfill, chemical works, power station, etc? **Environmental issues** – are there any obvious environmental issues to consider, (SSSI, etc)? **Directional drills** – has enough money been allocated for potential aborted drills? **Tenders** – is there any business knowledge that tendered costs are currently coming in high, e.g. due to limited availability of contractors?

CCSG – Connections Offer Cost Transparency

Next steps

Consolidate any feedback from today

Finalise documents for end of March 2020

Provide the document with all new connection offers from April 2020, for EHV schemes

Provide the internal guidance to planners from April 2020

Any question's?

CCSG – Connections Offer Cost Transparency

Thank you

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LUNCH

Accelerated Loss of Mains Change Programme

Peter Aston, Primary System Design Manager,
WPD
26th Feb 2020

Loss of mains protection

- Loss of mains protection - Vector shift or Rate of Change of Frequency (ROCOF)
- Vector shift – has experienced mal-operation following 400kV faults
- ROCOF – historical setting of between 0.125Hz/s and 1Hz/s has led to frequent trips
- G59 – modified to v3 on 1 Feb 2018 to include new LOM settings:
  - Removed Vector Shift as Loss of Mains protection
  - Increased ROCOF settings to 1Hz/s, 500ms time delay
  - Applied immediately to new connections
  - **Retrospective for existing sites. Implementation by 31 Aug 2022**.

Cost of balancing the system

- Due to potential loss of DG for ROCOF and VS, National Grid Electricity System Operator (NGESO) holds a large amount of reserve on the network to cover these losses.
- £30.3m (2015/16), £30.7m (2016/17), £59.2m (2017/18)
- Predicted to cost £600m between 2018 and 2024, as DG penetration increases and system frequency is less stable, due to reduced inertia.

Accelerated Loss of Mains Change Programme

- NGESO has identified a system need to accelerate this change before 31 Aug 2022:
  - System stability, emphasised by 9th Aug 2019 low frequency event
  - Cost of operating the system and holding reserve for LOM trips

- NGESO have decided to pay customers connected prior to 1 Feb 2018 to change their LOM protection to the new settings

- From Oct 2019 – Oct 2021 (approx.)

- Either a settings change, disabling of settings, or relay change

- Payment is £1500 / £500 for a settings change or £4000 for a relay change

- Total payments to customers approx. £175m, plus £10m admin

Accelerated Loss of Mains Change Programme - WPD

- Contract with NGESO and other network operators
- Number of sites in WPD approx. 10,000
- Represents about 9GW
- Payments to WPD customers approx. £40-50m
- **Plenty of funding left – please apply!**

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Process

- Apply through the ENA Portal – went live 2nd Oct 2019
- DNO verifies application and approves for a window
- NGESO assesses and accepts applications against budget
- Generator undertakes works and provides evidence
- DNO pays generators for works completed
- DNO invoices NGESO for payments to generators plus admin costs

Further information available at:

http://www.energynetworks.org/electricity/engineering/accelerated-loss-of-mains-change-programme.html

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Criteria

For participation, sites must meet the following criteria:

- Operate in long term parallel with the distribution network
- Connected prior to 1st Feb 2018
- Currently has the following LOM protection:
  - Vector Shift
  - ROCOF with settings more sensitive than 1Hz/s (i.e. not compliant with G59/3)
  - ROCOF where the settings have already been modified to meet G59/3

- Have not previously received payment

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Progress

- Dedicated administration resource in place to undertake this work
- 987 applications received so far
  - 553 in Window 1 (2nd Oct 19 – 12th Nov 19)
  - 434 in Window 2 (13th Nov 19 – 11th Feb 20)
- 498 sites recommended to NGESO by WPD in Window 1
- 486 sites approved by NGESO in Window 1
- ~50 sites completed works, another ~110 by end of Mar 2020
- Completion dates currently spanning all of 2020 and into Q1 2021
- Recognised contractors list published - https://www.westernpower.co.uk/downloads-view/81532

Witnessing and sample site visits

- Relay changes and disabling of settings are required to be witnessed, unless works are undertaken by a recognised contractor.
- A % of sites where changes were not witnessed will be subject to a sample site visit (maybe up to 600 sites for WPD).
- Sample site visits (for selected sites) are required for payment to be released.

Any Questions
&
Thank you

Capacity allocation and reservation update

Managing requests to connect multiple domestic dwellings and/or commercial units to WPD's Distribution System

Tim Hughes – Connections Policy Manager

CCSG

Our objective

We are developing improved processes to:

- **Ensure a fair allocation of capacity** – by allowing capacity to be allocated according to customers needs, understanding that larger developments have longer lifespans and a degree of uncertainty

- **Allow allocated capacity to be reserved** - by allowing capacity to be reserved over the lifespan of the development as long as the customer can evidence progression

Key context:

Applications for multi-MW developments regularly received

Developments will typically have long lifespans – 20 years and longer

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Our task

These new processes must balance the needs of all:

- **Create customer confidence** – by providing those customers who hold a Connection Offer with a reasonable level of assurance that the capacity will be available for their use during the build out of the development
- **Enable quicker connections** - at the same time, protect other customers who have a more immediate requirement for capacity and who may be facing higher connection charges for reinforcement as a consequence of ‘capacity-bagging’

Key context:

Many areas are constrained or becoming constrained because of committed capacity

Causing applicants to ‘overegg’ their capacity requirements

Our journey

We have spent some time developing these processes:

- **Stakeholder engagement** – interacted with stakeholders through consultation process and via various stakeholder events including CCSG and CiCG
- **Policy position** – communicated via our policy decision document and through a Webinar to try and reach as wide an audience as possible
- **Stakeholder reservations** – some stakeholders expressed concerns and requested further discussion

Key context:

Initial consultation issued

Followed by Update document

Policy decision document provided high level policy

Our considered position

We have tried to take these concerns in to account:

- **Information at application stage** – we have lowered the bar in terms of information requirements such that applicants may receive a ‘firm’ Connection Offer rather than a Budget Estimate
- **Speculative development** – we have relaxed our approach to the inclusion of additional costs where a scheme could be deemed speculative
- **Scheme progression** – we have accounted for the fact that some larger developments will build out over longer periods

Key context:

Stakeholders tell us they need a firm offer in order to progress

‘Speculative Development’ may reserve capacity on commercial terms

House builders want to ensure project viability

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Information at the application stage

Applicants will be able to provide a lower level of information in order to obtain a Connection Offer:

- A description of the type of development (domestic/commercial/mixed)
- The approximate number of properties by type
- The overall kVA requirements for the development
- A development boundary plan showing the anticipated PoS(s)
- The indicative number of connections and capacity ramp up each year

Key context:

Larger development details may be uncertain

Longer build out schedules mean changes more likely

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Managing schemes

We are implementing changes to reflect customer requirements:

- **Scheme longevity** – Connection Offers for smaller developments will reflect a build out period of up to 5 years
- **Scheme progression** – slow moving schemes that take longer may still be allowed to retain their capacity
- **Large developments** – developments built out over a number of phases may reserve capacity over longer periods
- **Draw down facility** – the customer may draw down capacity for each phase over time

Key context:

RoC recognizes longer build out periods

Provides customers with a level of certainty

Finding the balance

By taking a more flexible approach we need to retain our ability to terminate those schemes that are not progressing and blocking others:

- **Offer Milestones** – will give us the ability to terminate if customers cannot evidence progression
- **Confirmation of Appointment** – provided by landowner within one month of acceptance
- **Obtain planning consent/Provide outstanding information** – relates to full planning.
- **Project progression** – a means to check that schemes are moving forward

Key context:

Protect customers from capacity banking

WPD will not terminate without prior discussion

Instances of acceptance without authority

Queue Management is subject of industry discussion

Next steps

We are working toward implementation as quickly as we can:

- **System requirements** – development of WPD systems to accurately record project status
- **Webinar** – to communicate to stakeholders the detail of our approach
- **Training** – essential in order to ensure consistency across areas
- **Guidance** – guidance documentation will be provided and made available on our website

Key context:

Considerable process changes required

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Review

We will review following implementation:

- **Internal feedback** – we will liaise with our delivery teams and monitor success
- **External feedback** – we will liaise with our stakeholders to gauge their views on operability
- **Potential to evolve** – feedback will be assimilated and any potential actions considered

Key context:

Recognizes that refinements may be required

Part of our ICE commitments

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Summary, Feedback & Next Steps

Tim Hughes

Connection Policy Manager

Wednesday 26th February 2020

Summary and next steps

- Issues
- Feedback captured from today
- Dates of next workshops – placeholders sent to members
- Topics for next workshop – Do you have an requests?

Dates	Topics
June 30th 2020	- Present a review of progress against the finalised ICE Workplan 2020/21
October 21st 2020	TBC
February 2021 - TBC	TBC

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