

Delivery Group – 3 September 2019



Agenda item	Time
Welcome, introduction and actions	10:00 - 10:05
Project update and planning	10:05 – 11:00
Connection boundary subgroup update and discussion	11:00 – 12:00
Access subgroup update and discussion on monitoring and enforcement note	12:00 – 12:30
Lunch	12:30 – 13:00
Cost models subgroup update and final report	13:00 – 13:55
Discussion – approach to analysing benefits to network/system operators	13:55 – 14:50
Non-SCR update	14:50 – 14:55
AOB and close	14:55 – 15:00

Actions update

Project update and project planning

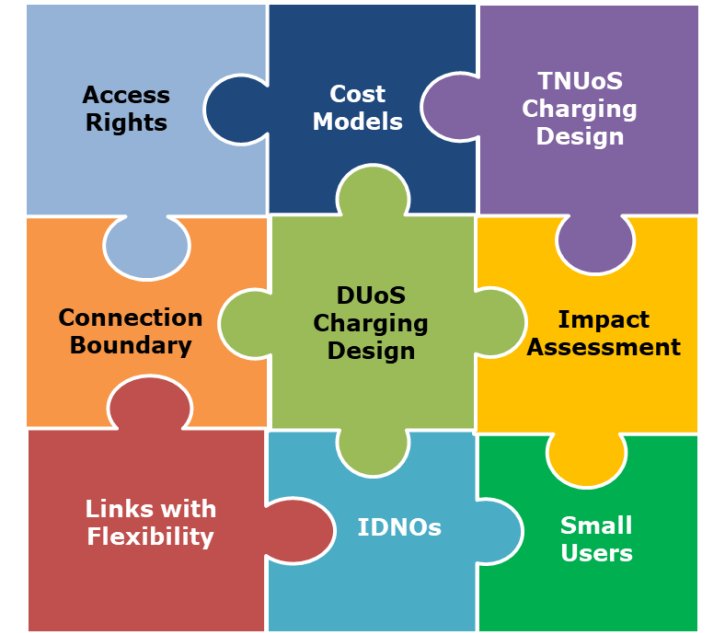
- 1st working paper due to published very soon. The content and structure of the working paper has been amended to take into account received from both the Delivery Group, Challenge Group and wider academia.
- The Charging Futures Forum in September (19 Sept) will be focused on the 1st working paper.
- We will publish a 2nd working paper at the end of the year that will focus on:
 1. Small user consumer protections
 2. Distribution connection charging
 3. Focused transmissions reforms
- We intend to publish our minded-to decision in 2020 and final decision in 2021. We currently envisage that any changes will be implemented by April 2023.
- We will continue to engage with the Delivery Group, Challenge Group and wider stakeholders to help inform our thinking.

- We are working towards the following milestones over the next seven months. Key dates are:
 - October** – GEMA to cover off on small user and connection boundary issues
 - November** – publication of second working paper, focused on small users, connection boundary and TNUoS generation charging
 - December** – Delivery and Challenge Groups, focused on potential shortlist of options
 - February** – GEMA to sign off on shortlist of options for modelling in the Impact Assessment

		Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	
Programme	Publications		1st working paper	Industry engagement		2nd working paper	Industry engagement			
	Ofgem governance/ decisions on access reform	GEMA	31-Jul			30-Oct				Feb-20
		Other				Academic panel - Oct 2019				
	External engagement	Delivery Group	26-Jul		03-Sep	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20
		Challenge Group	24-Jul		25-Sep			Dec 2019?		
		CFF	04-Jul		CFF- 19 Sept			CFF - Dec 20?		

We are delivering the SCR through seven workstreams:

- 1. Connection Boundary** – considering whether there is merit in moving to a shallow connection boundary
- 2. Access Rights** – reviewing the definition and choice of distribution and transmission access rights
- 3. Cost Models** – examining what costs should be in the forward looking signal, how costs vary by location and how they can be signalled to users
- 4. DUoS Charging Design** – assessing changes to how charges are designed to improve cost reflectivity and signals to users
- 5. TNUoS Charging Design** – assessing changes to the charge design for demand TNUoS and whether distribution users should face TNUoS charges
- 6. Small Users** – assessing whether the options can be applied to small users or amendments are required
- 7. Impact Assessment** – undertaking modelling to feed into the distributional, systems and behavioural impact of options



We are also considering several other specific issues alongside the overarching workstreams:

- **IDNOs** – we will undertake a sprint in the autumn to consider any specific impacts of our options on IDNOs before arriving at our shortlist for impact assessment
- **Links with Flexibility** – we will continue to work with colleagues and industry to identify links, including engaging on the DSO transition

- At the last Delivery Group we identified our initial thinking on the remaining work required for each workstreams
- In advance of this Delivery Group, we circulated draft detailed **product descriptions and project plans** for several workstreams

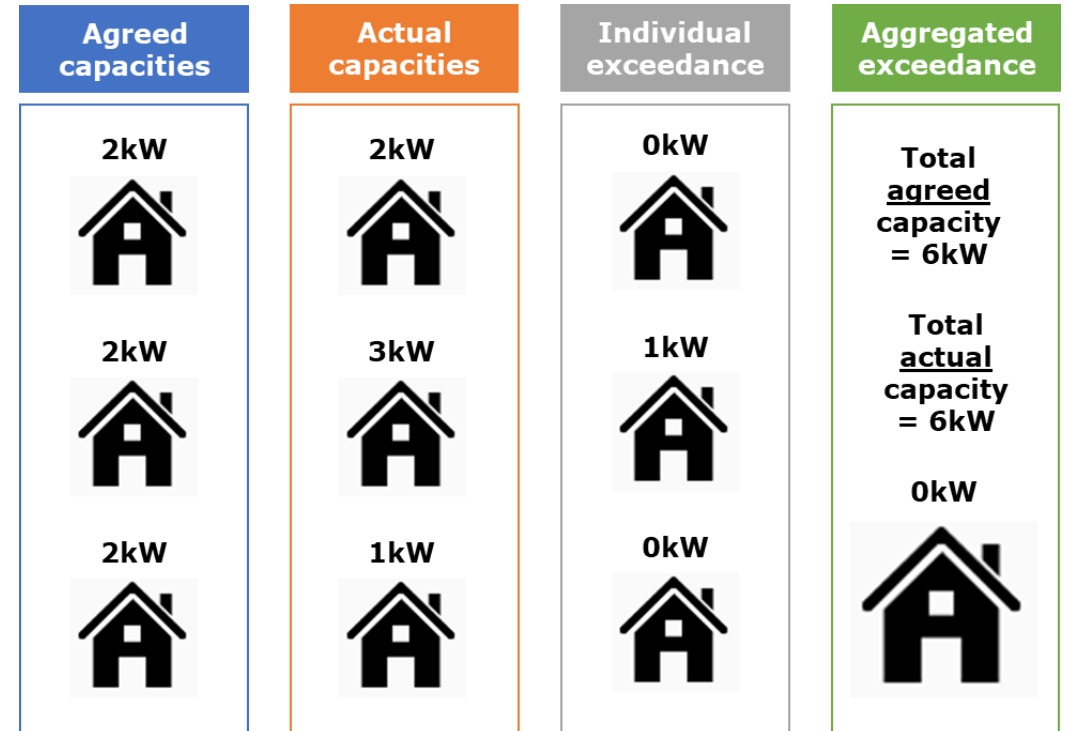
Do you have any initial feedback on the detailed product descriptions and project plans that were circulated?

- We want to give you greater visibility of work and progress against product descriptions across the subgroups
- There is an important role for the DG to ensure that our work is coordinated and supported as appropriate
- In advance of today's meeting, the ENA circulated a **tracking template** to allow the DG monitor progress across all the sub-groups

Do you have any feedback on the sub-group progress tracker that the ENA circulated?

- An introductory webinar was held with small user subgroup members in mid-August to provide to set the foundations for the subgroup going forward. The discussion covered:
 - The primary focus of the subgroup, which is to ensure access and charging arrangements are appropriate for small users, including considering any adaptations or protections which may be needed
 - Intended phases of work through to November 2019, plus an overview of work that has been done including foundational analysis led by Citizens Advice considering core capacity
 - Key actions for subgroup members to complete in advance of the first subgroup meeting in early September. These actions are focused on ensuring the Terms of Reference (circulated in draft form on 21 August) are agreed and that the subgroup are ready to engage on the necessary level of detail, starting from the kick off meeting.
- In support of this, Ofgem have also been developing a survey to engage with suppliers not currently involved in Challenge and Delivery Group activity to obtain their views on how emerging options apply to small users (CG suppliers have been engaged through surveys and interviews already). This was accompanied by a webinar on 31st July.
- The survey was launched on 27 August 2019, with returns requested by **12 September 2019**.

- At the June Delivery Group, we raised that DNOs cannot access disaggregated domestic consumption data might be an issue. Feedback from the DG was that it was unclear why the DNOs would want disaggregated data
- To clarify, the reasons for this are:
 - The data is needed in order to calculate exceedance charges (agreed capacity) and rebates (critical peak rebates), due to the netting off effect. This is illustrated in the simple exceedance charge example
 - It may be more cost efficient to centralise this, rather than all DNOs needing to make changes to their systems
- Based on our interviews with suppliers, our preliminary view is that they do not need disaggregated DUoS charges, as they already receive individual consumption data for customers who choose a HH tariff offering
- Discussion with WPD suggested that, if ELEXON were able work out what the total exceedance value was for the domestic customer group, the DNOs would be able to retain calculating charges and billing suppliers



We will need to work with DNOs to better understand:

- **Remaining issues with centralising calculation of total exceedance value**
- **The cost to upgrade their billing systems**

Connection boundary sub-group update

Aim of this session

- In this this session we intend to
 - a) provide an overview of the work completed by the group so far,
 - b) hear your feedback on anything you disagree with or think is missing and
 - c) set out the proposed next steps

Assumptions

The sub group considers there are a number of assumptions that need to be agreed upfront. This is a 'live' list and will be updated as the work is developed.

Assumption

- The connection customer will pay for their extension assets.
 - The consideration of options will include the extent of the locational signal from any new arrangements compared to the baseline, but not seek to maintain the current signal as a goal in itself. The sub-group assumes that other SCR sub-groups and cost recovery mechanisms will provide drivers for efficient system investment (e.g. locational DUoS).
 - It is assumed that the sub-group will assess the impact of locational signals caused by a change in connection boundary arrangements. However it is Ofgem who will evaluate the overall need for and impact of any locational signals as part of it shortlisting a package of options (once all sub-groups have been concluded), including any dilution of how Suppliers pass on DUoS charges to end consumers.
 - The retrospective treatment of customer contributions prior to the implementation of any SCR solutions (i.e. charged under the current Common Connection Charging Methodology) will be taken forward through the Ofgem led product "The Distribution connection charging boundary – Treatment of Existing Users".
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- Do you agree with these assumptions? Are there any missing?

Connection boundary – options under consideration

Category	No.	Title	Overview
Variation on current D arrangements	1.	Base Case ie “do nothing”	Existing “Shallowish” connections boundary – reinforcement paid for based on Cost Apportionment Factor (CAF), two voltage level rule, High Cost Cap (HCC) for DG
	2.	Remove HCC	Base case with HCC removed (applies to DG only)
	3.	Amend ‘Voltage Rule’	Base case with ‘Voltage Rule’ amended, eg customers only pay for reinforcement at same voltage level as the point of connection
	4.	Amend CAF	Base case with changes to CAF to reduce cost to connecting customer
	5.	Revised T charges to D	Base case with costs of T reinforcement socialised across D
	6.	Remove CAF	Base case with CAF removed (shallow via CAF = 0%)
Variation on current T arrangements	7.	T approach for reinforcement	Change to T approach for reinforcement (shallow via T approach). All extension assets would be paid for by the customer.
	8.	T approach to network extensions	Align with T principle but have a maximum length of extension assets that are paid for by customer
Other approaches	9.	Replace CAF	Base case with change to what customer pays, eg old ‘25% rule’
	10.	Standard connection charges	Move beyond shallow and have standard connection charges
	11.	Delayed payment options	Alternative payment options

The sub group has carried out a qualitative assessment of the options against the following criteria (without user commitment initially).

SCR guiding principle	Connection boundary assessment criteria
Principle 1: Arrangements support efficient use and development of system capacity	Impact on customers' requesting capacity (risk of requesting more than need leading to inefficient network design, particularly if future DUoS locational signals based on usage rather than requested)
	Impact of loss of locational signal
	Impact on flexible connections
Principle 2: Arrangements reflect the needs of consumers as appropriate for an essential service	Impact on connection charges for the connecting customer
	Impact on total DUoS charges
	Impact on Competition in Connections
Principle 3: Any changes are practical and proportionate	Ease of implementation (time, cost, complexity, number of customers impacted)

- Do you agree with these criteria? Are there any other factors should we consider?

The subgroup is planning to share an interim output with the Challenge Group which will:

- Describe the options in more detail with initial assessment of pros and cons.
- Set out an initial assessment of the options against our criteria.
- Set out an initial assessment of the feasibility of each option.

We are keen to hear your feedback today or after the meeting via email.

- Do you agree that we have identified the key options?
- Are there other options that we have not identified?
- Which aspects of the assessment do you consider that we need to develop as part of the next stage?

Moving to a more shallow connection boundary creates a risk for DUoS customers if they are left to pick the costs of projects which are cancelled or materially changed during construction. The transmission connection methodology mitigates this by requiring a commitment from the prospective user.

The sub group is examining the principles behind user commitment as part of the transmission connection methodology and how well transmission aligns with distribution. The group has noted some important differences, including:

- No concept of MITS in distribution
- NGESO's role and GB wide scope vs DNO area specific
- What is proportionate and feasible?
- Difficulty of mapping costs

The group is continuing look at how introducing user commitment might work in practice, developing options and preparing case studies to demonstrate.

Connection boundary – assessing the case for change and potential value

We intend to issue a set of questions to Challenge Group members to build the case for change and assess the value of the potential options.

Evidence of existing barriers to entry / distortions

- Examples of where connection charges have provided a barrier to entry
- Examples of where they have led to projects being located in other areas of the distribution networks where there are a) cheaper or b) quicker connections
- Examples of where users have connected to the transmission network instead
- Factors influencing the decision when choosing to connect at either distribution or transmission
- Other drivers on whether a project will proceed (e.g., time to connect, expected use of system charges or some other factor)?

Potential value of amending the connection boundary

- Advantages or disadvantages of moving the distribution connection charging boundary to a more shallow arrangement
- Likelihood of different outcomes
- Comments on the potential options

We plan to build the evidence base first, and potentially seek views on the options at a later date. We think this potential second survey would be more effective **after** discussion of the potential options with the Challenge Group. However this will have an impact on overall timings.

- Do you agree with this approach? Is there anything else we should ask?

Access sub-group update

- **Project planning:** We have circulated product descriptions for future work on access arrangements.
- **The impact of improved access choice and definition:** The subgroup has undertaken qualitative assessment of improving access choice and definition on efficient use and development of network capacity. We are currently seeking to identify sources of data that could be used to support this assessment (eg historical data on “flexible connections”).
- **Monitoring and enforcement:** We have circulated a note on the current approach to monitoring and enforcing access rights, and how this might need to change going forward.

Current arrangements

- The note captures the current approach used to monitor compliance with access rights.
- The note outlines the rights that network/system operators have to enforce access rights and actual the approach used.

Do you disagree with anything stated in the current arrangements? Do we need to capture additional information on any aspects of current arrangements?

Future arrangements

- The note captures how monitoring and enforcement of future access choices could work

Do you disagree with anything stated in the potential changes to monitoring and enforcement arrangements? Do we need to capture additional information on any aspects?

- The **network operators and system operators should** work with Ofgem to agree a clear and **consistent approach about when users might be network or system operators can disconnected or de-energised users for breaching access rights.**
- **Network or system operators should work together to agree a consistent approach to when and how application of physical control equipment might be adopted,** including the mechanism for recovery of costs associated with installing this equipment.
- If a user exceeds their agreed access rights, then this can create additional costs for network and system operators. **We recommend reviewing how we calculate the charges that apply for exceeding agreed access rights,** to ensure they accurately reflect the additional costs of users' exceeding their access rights.
- Excess capacity charges apply automatically on distribution via use of system billing where customers exceed their agreed capacity. **Consideration needs to be given on whether excess capacity charges should be introduced for transmission-connected customers.**
- Network and system operators should work together to ensure users are given appropriate incentives to comply with their access rights. This may include **greater consideration to the commercial ramifications of users failing to comply with their access rights obligations** (eg the forfeit of cheaper alternative access rights).

Do you have any comments on the proposed recommendations?

Lunch

Cost models sub-group update

The ENA circulated a version of the Cost Model and Forward-looking Cost Drivers subgroup's report before this meeting. **Key conclusions** can be summarised as:

- This report shows that the direction of travel identified in the previous work on locational granularity is likely to produce feasible options.
- It is unlikely that a wholly 'representative model' approach will suffice in undertaking the option analysis as the key assessment is the effect on locational charges. Assessment tools which are therefore closely linked to DNO network topologies, though with some simplification, are necessary to undertake this analysis.
- Detailed assessment of the options under various scenarios is now required. This will require development of detailed algorithms and network models to undertake more quantitative assessment of the options before detailed recommendations are made.
- Further analysis of the physical archetypes is required. To complete this, further details from the other DNOs is needed to ensure that archetypes are valid across GB and not merely representative of the ENWL area.
- Loading archetypes are dependent on the approach being used to develop long run marginal costs and need to consider likely future scenarios, not the current position.

The report also sets out the **next steps** that need to be carried out to support assessment of the cost model options:

- Build a prototype end-to-end charging model, based on the data provided by ENWL, to allow detailed assessment of the options described in this paper and develop clear charging rules and algorithms.
- Confirm the costs to be included in each of the cost model options, the forecasting approach and data sources to be used.
- Use the model to provide a detailed assessment of the options, particularly with regard to the size, stability and potential granularity of any charging signals
- Determine:
 - approach to modelling generation costs and benefits.
 - how demand and generation prices should be combined into an overall charge, particularly in respect of generation dominated areas.
 - a methodology for the time periods when peak charges ought to apply, in particular when different network levels peak at different times.
- Develop a number of network archetypes which represent the physical attributes of networks below primary substations (these physical attributes are unlikely to vary significantly over time)
- Developed criteria for assigning the agreed archetypes to each primary substation
- Develop methodologies for applying each of the defined charging options to the network archetypes.
- Other DNOs to populate the prototype with their own data. For the EHV networks and above this information should be readily available from published data sources such as the LTDS
- Other DNOs to undertake a data gathering exercise to produce a sufficiently large sample size of their networks below each primary substation to allow full GB wide analysis of the proposals.
- Complete analysis of the impacts of the options across GB to support Ofgem’s decision making process for the selection of the recommended approach

- The previous slide summarised the actions that still need to be carried out, in order to support a decision on the cost model and locational granularity options so shortlist
- In addition, as discussed at the June subgroup, the Charging Design workstream will also require support of the DNOs in order to obtain all the evidence required to shortlist the charging design options, including:
 1. Clearly articulating current network monitoring and the cost and time required to implement full HV and LV monitoring, to support the DNOs' view that it is not feasible (also relates to cost modelling)
 2. Building on the work done in the first Access Rights report, describing in more detail the way the DNOs plan their networks, the role of assumptions regarding behaviour change and the link with network charging
 3. Electrical connectivity data showing how HV assets are linked to the primary substations to support assessment of seasonality and multiple time bands within a DNO region
- We would like to take this opportunity to revisit the membership of the Cost Models subgroup and consider whether there are some skillsets that are missing and which are necessary to enable the subgroup to carry out the activities identified
- In addition, as will be discussed in the next session, we are starting to think about how we will quantify benefits associated with the options, including potential behaviour change this is required and whether a subgroup is required to separately assess this.

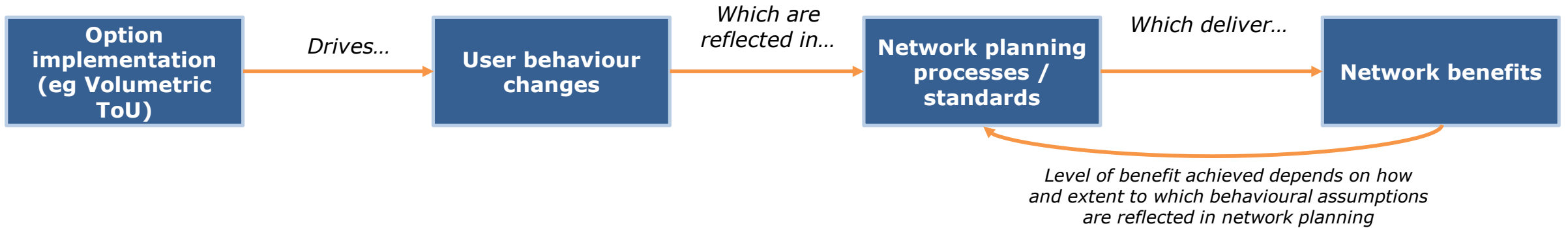
Discussion – approach to analysing network benefits

As part of the overall options assessment within the Access SCR, we will need to determine what network benefits (eg network investment savings) can be delivered, and the necessary changes that delivery of these benefits will be dependent upon. The Access working group have been considering these questions for access options, but network benefits will typically cut across workstreams. We therefore think it is important to expand this work across all options to ensure:

- Consistency across workstreams within the SCR
- The avoidance of unnecessary duplication of work or differences in interpretation
- Clear identification of the dependencies upon which benefits rely (for example behavioural changes and network planning processes/standards)
- Building on the last point, it is clear whether the network benefits would be expected under existing network planning processes/standards, and if not, how viable/realistic it is to expect that they could change in future to allow the options to generate network benefits

Purpose of this session:

- To discuss the relevant considerations that must be included in the assessment of network benefits (including but not limited to those above)
- To discuss and agree upon the mechanism (such as a new working group or through an existing working group) for taking forward the assessment of these benefits consistently across the SCR



Many of the benefits (and their quantum) which can be derived through Access reform will depend on the extent of the behavioural response provided by network users to the options implemented. The certainty of these responses will be a key determinant in defining the extent of potential benefits, and the degree to which these benefits can be built into future network planning.

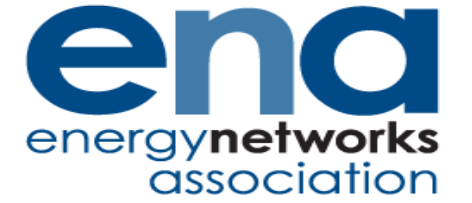
We propose to either (i) set up a new 'mini' working group; or (ii) utilise existing working group membership to consider these issues and to assess across the SCR, reporting by the end of the year on:

- The dependencies upon which benefits rely (eg behavioural changes and network planning / standards)
- How and the degree to which behavioural changes from the SCR options would feed through current network planning processes / standards, and consequently deliver identified benefits
- Whether additional types of behavioural changes could feed through network planning processes / standards if proportionate and practical changes were made to these processes/standards, to enable additional benefits to be realised. This would include consideration of the changes that would be required to do so.

- Do you agree these are the right questions to be asking?
- Are there any questions missing?
- How do you think this should be taken forward (for example does this require a new 'mini' working group or can existing working group arrangements be used)

Non-SCR update

The Voice of the Networks



Energy Networks Association

Non-SCR Industry-led Update

Paul McGimpsey
September 2019

Non-SCR Industry-led Access

Products 1 and 2:

P1 – Trading of Non-firm DG curtailment obligations

P2 – Exchange of access rights between users

- Combined (rules and principles) report shared with the TRANSITION and LEO innovation project teams.
- To be tested through stakeholder “war-gaming” sessions in September and October.
- Further stakeholder engagement planned to test stakeholder ‘value’
- Dialogue commenced with Open Networks WS1A – alignment with Product 6 Facilitating New Markets – Action plan to be developed beyond December 2019

Non-SCR Industry-led Access

Product 3

- Application Interactivity and Connection Queue Management
- Live consultation (under Open Networks):
 - Describes a ‘minded to’ position to move to a ‘conditional’ interactivity process, similar to that currently used by UKPN, but modified to improve how unsuccessful customers are treated.
 - Sets out a policy framework, enabling network companies to intervene in the connection queue to free up capacity where customers have delayed against agreed milestones.
- Both applicable to Transmission and Distribution Network Operators.
- Consultation closes on **25th September 2019**.

Non-SCR Industry-led Access

Product 4:

- The development of a common methodology for the recovery of costs associated with flexible connection schemes
- Change proposal agreed and passed into DCUSA governance.
- Proposed (DCP348) timetable:

Consultation Issued to Industry Participants	16 October 2019
Change Report Approved by Panel	18 December 2019
Change Report issued for Voting	20 December 2019
Party Voting Closes	10 January 2020
Change Declaration Issued to Parties	14 January 2020
Change Declaration Issued to Authority	14 January 2020
Authority Decision	18 February 2020

AOB and close

Future meetings:

- **Charging Futures Forum** - 19 September (etc venues, County Hall, London) - this will focus on 1st working paper.
- **Challenge Group** - 30 September (ENA offices) – this will focus on the 2nd working paper
- **Delivery Group** – 9 October (ENA offices) – this will focus on the 2nd working paper

Webinars

- Once we have published the 1st working paper we also intend to host a webinar – to provide an overview of the document.

Our core purpose is to ensure that all consumers can get good value and service from the energy market. In support of this we favour market solutions where practical, incentive regulation for monopolies and an approach that seeks to enable innovation and beneficial change whilst protecting consumers.

We will ensure that Ofgem will operate as an efficient organisation, driven by skilled and empowered staff, that will act quickly, predictably and effectively in the consumer interest, based on independent and transparent insight into consumers' experiences and the operation of energy systems and markets.