



### Thank you for joining this Webinar.

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- The slides from the webinar will be made publicly available on ENA's website.
- If you would like to receive information about the Open Networks Project or have any feedback you would like to submit, please get in touch with us at <a href="mailto:opennetworks@energynetworks.org">opennetworks@energynetworks.org</a>.

# **Agenda**



|   | Topic  | Duration | Presenter   | Time          |
|---|--|----------|---|---------------|
| 1 | Welcome  | 2 mins   | Emily Jones (ENA)   | 2:03pm-2:05pm |
| 2 | Introduction to Flexibility Consultation   | 5 mins   | Simon Brooke (ENWL)   | 2:05pm-2:10pm |
| 3 | Flexible Services P2 Procurement processes P5 Primacy Rules for service conflicts P7 Baselining Methodology  | 30 mins  | Helen Sawdon (WPD) Matthew Rivett (NG-ESO) Helen Sawdon (WPD)                       | 2:10pm-2:40pm |
| 4 | Flexible Services Q&A  | 20 mins  | Product Leads   | 2:40pm-3:00pm |
| 5 | Flexible Connections (ANM) & Non DSO services P3 Principles to review legacy ANM contracts P8 Apportioning curtailment risk P9 Curtailment information P6 Non DSO Services | 30 mins  | Fiona Navesey (ENA) Sven Hoffman (WPD) Harriet Walsh (UKPN) Matthew Hamilton (SSEN) | 3:00pm-3:30pm |
| 6 | Flexible Connections Q&A   | 20 mins  | Product Leads   | 3:30pm-3:50pm |
| 7 | Next steps   | 10 mins  | Simon Brooke (ENWL)   | 3:50pm-3:55pm |



## **Introduction**

The purpose of this consultation is to seek views from stakeholders on our flexibility developments to date, and planned future developments, in order for us to update and adapt our work accordingly. Therefore, the questions in this consultation are structured to:

- encourage as many stakeholders as possible, from a wide variety of viewpoints, to engage with our development work on flexibility;
- provide feedback on the content of our work to date;
- and help inform and shape the future work to be undertaken by ENA and the Open Networks Project.

Everyone is welcome to respond, and we openly invite feedback and questions during today's webinar.





### **Product Deliverables**

• Outline confirming timescales for alignment with ESO timescales or reasons for not being able to align. This paper will also confirm implementation timescales for any proposals for alignment across ESO and DNO procurement timescales.

### **Proposal**

- P2 team conclude there is not any particular value to create concurrent market procurement timelines across DNOs and the ESO.
  - Previous feedback has been inconclusive.
  - Real-time procurement currently being trialled by TEF consortium will align closer to the ESO.
- P2 team are fully aware of the drive for alignment and the paper is seeking feedback on the options analysed, including scheduled timescales, staggered timescales or standard timelines.
- We also identified opportunities to improve co-ordination and visibility of upcoming flexibility procurement to market participants across the DNOs and ESO and welcome feedback.
  - Enhancing the ENA website with overview of DNO/ESO timescales.
  - Utilising the <a href="https://www.preceden.com/timelines/748912">https://www.preceden.com/timelines/748912</a> more effectively.



### **Stakeholder Questions**

- 1) Do you agree with the P2 team's findings regarding the alignment of DNO and ESO timescales? Please provide your rationale and any supporting evidence that we can use to inform our approach particularly in short medium timescales (now start of ED2)?
- 2) How could we further evolve alignment of procurement processes in future?
- 3) Do you agree that the proposed improvements to visibility of requirements will be of direct benefit to your sector of the industry, if so, please share your rationale and how you would utilise this information? Do you have thoughts on how we can improve visibility further?





## **Description of Primacy**

WS1A – P5 is using the following description of Primacy to develop our thinking:

"Conflict between one or more services required by the ESO or the DNOs may result in inefficiencies within the electricity system. In order for the ESO and the DNOs to manage service conflict and optimisation efficiently and transparently, whilst also facilitating the potential for flexibility market platforms, there is a need to develop a set of clear principles and "primacy" rules. These will enable the order of despatch of services to be influenced by whole system value and ensure that the division between market/price-driven actions and the electricity system hierarchy of operations/needs is clear and transparent."



## **Primacy Product Aims**

#### We will seek to deliver the following outcomes from the product:

- Using work developed under Open Networks (2019 WS1A DSO Services Conflict Management & Cooptimisation and DSO Revenue Stacking), this product will develop a set of principles and primacy rules for addressing flexibility service conflicts (T-D).
- These rules will look to balance:
  - the local networks' technical requirements;
  - the risks to the overall operability of the whole system;
  - the value for Flexibility Service Providers (FSPs) through the facilitation of market / price driven actions;
  - the needs of emerging market based platform developers; and ultimately the end consumer.



### **Consideration of Relevant Projects**

- As part of the first deliverable of the Product, we have reviewed a number of previous and ongoing projects
  that cover both UK and International work in this area.
- Each project has been appraised for any relevant outcomes or areas highlighted that could feed into the development of Primacy Principles, Rules, Use Cases or Scenarios throughout the remainder of the Product.
- The table below shows some of the projects already reviewed:

| Project Reading List |                      |                     |                  |  |  |
|----------------------|----------------------|---------------------|------------------|--|--|
| WS1A - P5 (2018/19)  | EFFS                 | ReFlex              | Piclo Exchange   |  |  |
| Transition/Leo       | Co-ordination of ANM | RaaS                | Energy Exchange  |  |  |
| Fusion               | TraDER               | Flexible Power      | ESO Primacy Work |  |  |
| Power Potential      | EFCC                 | Distributed Restart | Power Responsive |  |  |
| Cornwall LEM         | IntraFlex            | CLASS               | DA/RE Platform   |  |  |
| Interface Platform   | GOPACS               | eSIOS/CERCE         |                  |  |  |



### **Development of the Product**

We understand that Primacy is a complex area, which could result in the derivation of many Use Cases and Scenarios.

We would therefore like to ensure that we've captured as much of the current work related to Primacy as possible, prior to the development of the next PID deliverables.

- We would specifically be interested in the following areas:
  - A brief overview of the project/report
  - Any specific areas relevant to Primacy
  - Any recommendations of Principles, Rules, Scenarios or Use Cases
  - Outcomes of any testing of Primacy and lessons learnt

• This work will then help inform the derivation of Primacy Principles and initial Use Cases and Scenarios for further development and eventual implementation.





## P7 – Common Baseline Methodologies

This product is a continuation of the 2020 WS1A P7 product which sought to assess existing UK and international baselining methodologies. Following the assessment and consultation with stakeholders, the 2020 product recommended suitable methodologies for adoption by the UK distribution flexibility market.

### 2021 Objectives;

- Implementation of common baseline methodologies for adoption by all DNOs.
- Further consult with stakeholders on the 2020 baseline recommendations.
- Finalise the baseline design.
- Produce a DNO implementation and ongoing-governance plan.
- Build a Baseline Verification Tool for publication.

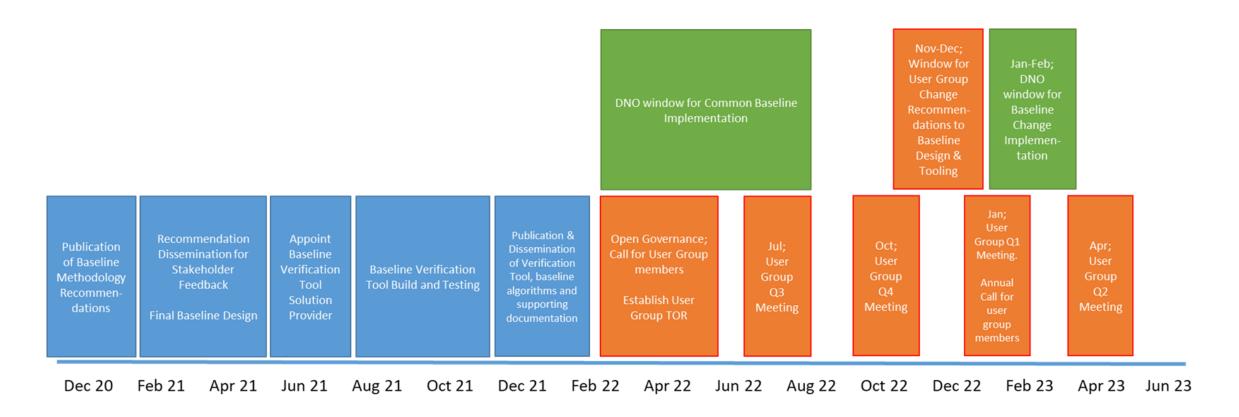


## P7 Interim Report - Published July 2021

- Interim Report Key inclusions;
  - Concludes not to deviate from 2020 recommendations.
  - Considers feedback around technology inclusion; concerns for emerging technologies and the Historic baseline.
  - Identifies that the current approach can accommodate all technologies via the alternative Nomination baseline, but also recognises that,
  - as DNO experience increases over time there is a structure in place through Open Governance to develop more appropriate/accurate methodologies.
- Provides detail on planned Open Governance arrangements.
- Provides detail on planned delivery of the Baseline verification tool.
- Includes an easily interpretable table of the final baseline design.
- Includes a roadmap for ongoing P7 activities, DNO implementation and ongoing governance.



# P7 Roadmap

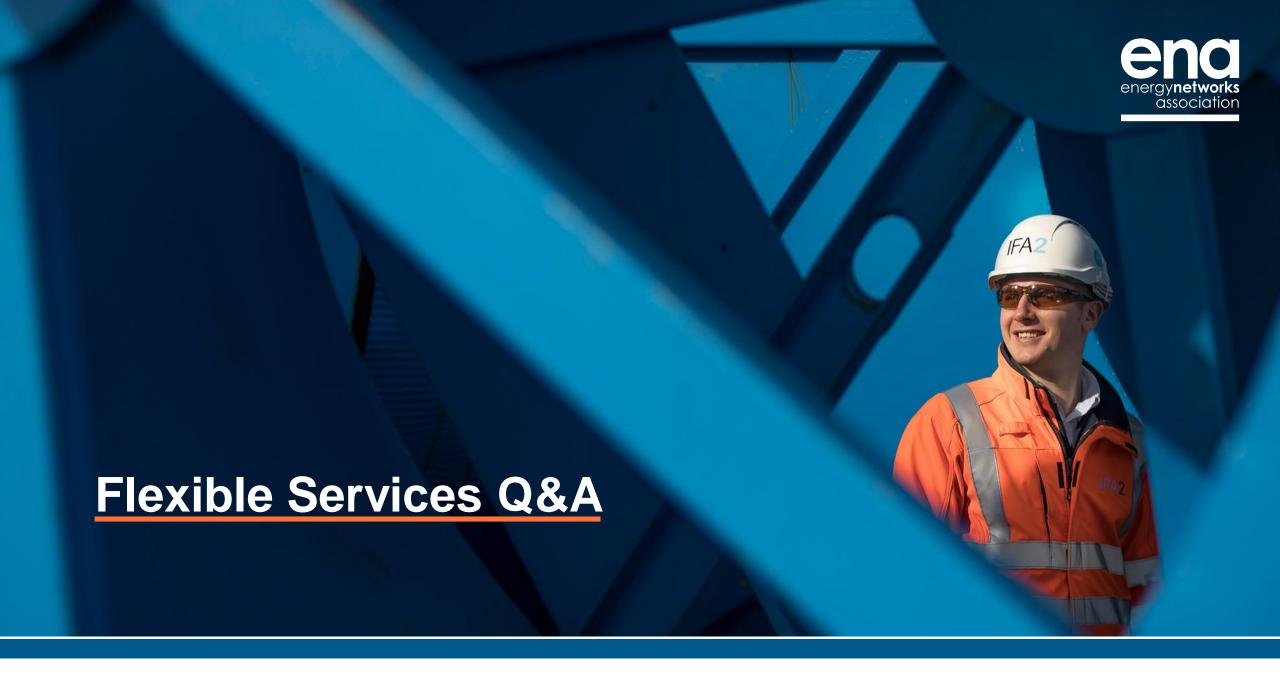




### **Consultation Question**

Does the roadmap outlined for the delivery and development of aligned baseline methodologies for the management of distribution constraints meet the needs of the market?

- Implementation of simple and accessible baselines in the early stages.
- Publication of the Baseline Verification Tool transparent and accessible.
- Framework in place for ongoing development Open Governance.





## WS1A P3 Principles to review Legacy Flexible Connection (ANM) Contracts



## **Background: Concerns with Legacy Flexible Connection Contracts**

- Flexible Connection (ANM) contracts (and degree of curtailment risk) is often fixed at the point of connection – but the value users place on network access and the network constraints / needs can change over time.
- Curtailment requirements and windows, determined at connection, may need revisions and / or customers should be able to exit these contracts. There is no formal process for reviewing or exiting legacy contracts that may have been in place for many years.
- Interdependent Products
  - WS1A P9 focused on provision of better curtailment information; including once the FC(ANM) asset is operational
  - WS1A P8 focused on apportioning curtailment risk better and providing more certainty to customers with Flexible Connections (ANM)
- A focus on low regret activity Ofgem Access and FLC SCR decision could have a material impact on choices / need / attractiveness of Flexible Connections

# **WS1A P3 Activity to Date and Headlines**



### **Activity:**

- Sampled contracts from all the DNOs reviewed to assess current approaches
- Flexible Connection (ANM) Stakeholder Focus Group engaged to review the findings and their feedback incorporated into the next steps and a final report

### **Headlines (Flexible Connection (ANM) Contract Review:**

- Customer FC(ANM) Contract Exit options
  - These exist currently via the modification request (G99 Form) process often supplemented with DNO Surgeries (or equivalent)
- Standardisation: FC(ANM) contracts tend to be fairly standard; most use a standard contract with the details of the ANM scheme included in an appendix or contained within the connection agreement
- **Technical and Commercial arrangements:** at high level, the arrangements / requirements for the Flexible Connections are similar
- Curtailment information
  - Curtailment information provided to the customers at connection tend to vary significantly by DNO (due
    to modelling and charging differences) although the core principles are the same
  - On going curtailment information / annual reviews also vary by DNO

# P3 Next Steps – DNOs considering:



- The need to signpost better the customer option to request a modification / exit their connection agreement more proactively and how this might be accommodated.
- The need and / or benefits of a common Flexible Connection (ANM) agreement, given how similar the existing Flexible Connection (ANM) contracts are currently.
- Whether the variances in approach identified, e.g. the two-stage connection offers and preagreed 'Planned Interruptible Capacity' approach, should be features offered by all DNOs in their Flexible Connections (ANM) contracts; and
- Whether DNOs should offer an (additional) service where a far more granular view of curtailment risk with additional sensitivities etc. is provided with the Flexible Connection (ANM) contract and / or whether third party routes offer useful alternatives to the DNO curtailment assessment.

Q9— Do you agree that there is an exit route, using the current G99 approach, for existing FC(ANM) customers who want access to firm(er) connections? If not, what do you see as the barriers?

Q10 – Do you agree with the findings of the Product 3 report and if so, which area(s) are of most interest going forward?



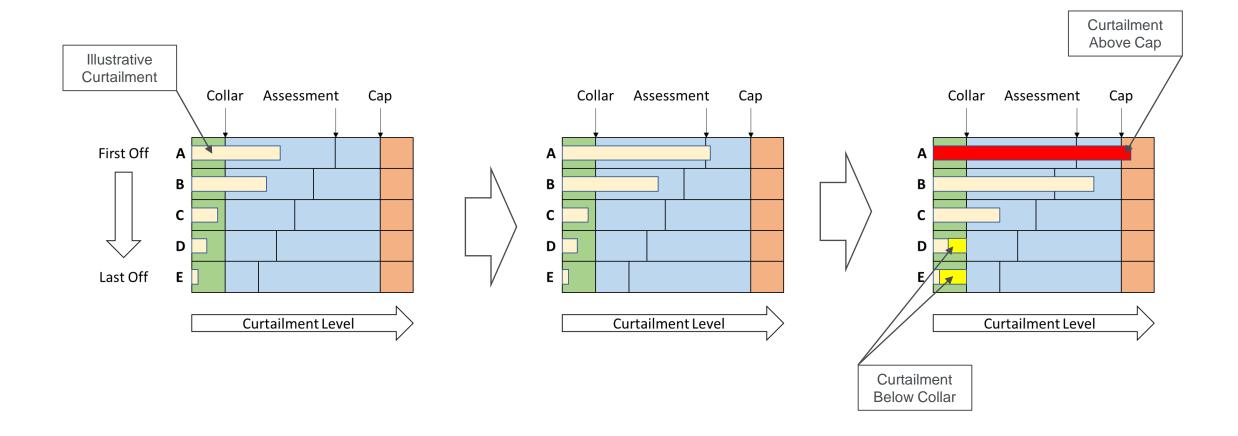


# WS1A P8 Optioneering – Outline of Proposals

- First proposal is for FC(ANM) customers to be provided with a curtailment CAP an upper limit over the assessed level of expected curtailment. Breaching of the cap should be seen as a trigger for load related reinforcement
  - Avoids the risk of background load growth / changes being masked by ANM systems maintaining load levels within thresholds, increasing curtailment of FC(ANM) customers
  - In this context, load related reinforcement includes flexibility service procurement
- Second proposal is for customers to be provided with a curtailment COLLAR a lower limit under the assessed level of expected curtailment
  - Customers with curtailment levels below the collar level <u>could</u> be asked to curtail outside of LIFO mechanism in order to manage cap breaches pending implementation of reinforcement



# **Illustration of Cap-and-Collar**





## WS1A P8 Benefits of Approach

- Provides FC(ANM) customers with an upper bound on risk: previously unlimited risk to customer now shared with DNO
- Cap as a trigger for load related reinforcement provides funding mechanism
  - For transferred risk
  - For investment in network where it is needed (where congestion is highest)
- Inclusion of flexibility service procurement as reinforcement option ensures cost effectiveness, as with "conventionally triggered" load related reinforcement decisions
- Collar mechanism shares risk more equitably among customers benefiting both from the initial avoidance of reinforcement costs and from subsequent works funded through socialised costs which will reduce curtailment risk post-completion



## **Overview and Objectives**



Workstream 1A Flexibility Services Product 9 is working with stakeholders to identify the principles and key data requirements to deliver improvements in the provision of curtailment information between now and the end of ED1.

#### **Product benefits:**

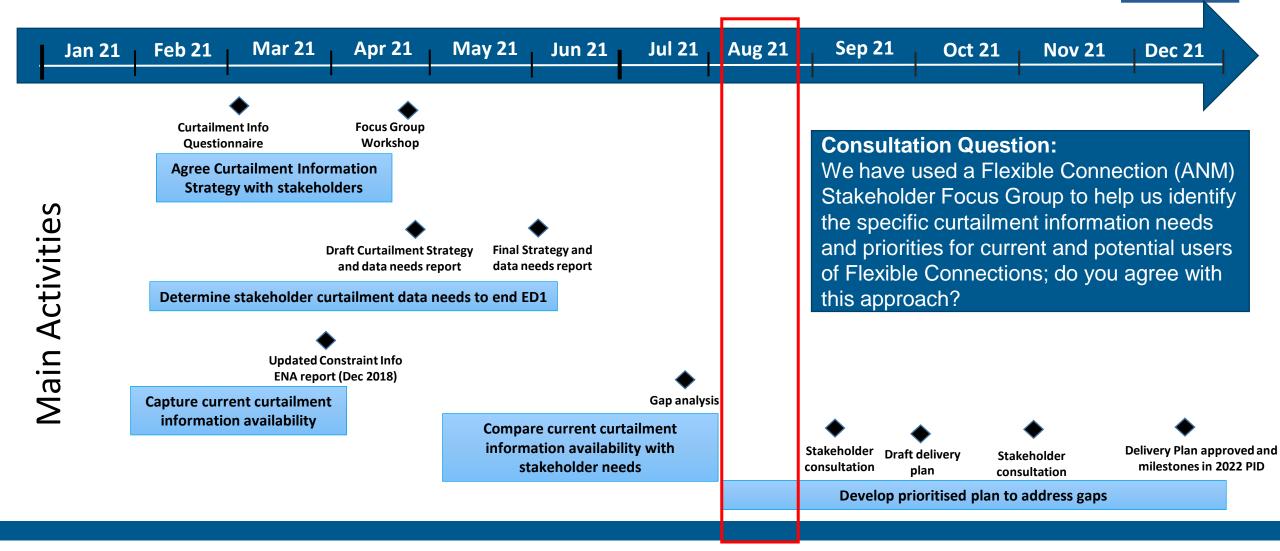
- Improvements in availability and frequency of both curtailment and network information should increase opportunities for both firm and non-firm assets to provide / stack flexibility services, ultimately reducing system costs for the end consumer
- Facilitate liquid flexibility markets, whilst accommodating the anticipated growth in low carbon asset connections, to support GB's transition
- Promotes best practice approaches across DNO's
- Improves viability of flexible connection product to stakeholders

#### Scope

- a) Review existing DNO approaches to providing curtailment information
- b) Gather stakeholder feedback on priorities and key data requirements for improving curtailment information.
- c) Complete gap analysis comparing existing DNO curtailment information availability vs stakeholder feedback on priorities and data needs
- d) Work with stakeholders to develop prioritised implementation plan for delivering improvements between now and the end of ED1

## **Progress to Date**





### **Outcomes to Date**



Based on stakeholder feedback via questionnaire and workshops, the following principles and data needs have been identified as priorities for stakeholders:

#### **Priorities for improving curtailment information:**

- Transparency on the nature of constraints, modelling assumptions and commercial alternatives
- Enhanced granularity and accuracy of network data
- Access to historical half-hourly power flow data from network loads and generators
- More regular updates of heat map data
- Consistent information provision across DNOs
- Faster response times from DNOs for information requests
- Enhanced availability and accessibility of actual curtailment events, e.g. through an online portal

#### **Consultation Question:**

Do the curtailment information requirements we have identified as a priority, with input from the Stakeholder Focus Group, meet your needs? If not, what additional requirements are there?

### **Focus Areas for Next Steps**

#### Stakeholder Feedback:

 The Product Group will reach out to the Focus Group for feedback on the gap analysis and agree with stakeholders the priorities

#### **Implementation Plan:**

- Based on stakeholder feedback, the Product Group will draft an implementation plan for improving curtailment information to the end of ED1
- Stakeholder feedback will be sought on the draft implementation plan and any further feedback will be incorporated to the final plan to be published by 31<sup>st</sup> December with delivery to begin in 2022

#### **Open Data/Data Sharing:**

- To be able to meet some of the stakeholder data needs that have been identified will involve making data available that has historically been identified as commercially sensitive
- This Product Group will seek further clarification on the feasibility of DNOs making this data available to stakeholders, taking into consideration other work that is being done in this space, e.g. Ofgem's Energy Data Taskforce recommendations

#### Impact of Ofgem's minded-to position on Access SCR on P9 work:

- The Product Group has considered Ofgem's minded-to position on Access SCR and it's impact on P9 work.
- The Product Group does not believe that the outcome of the Access SCR decision should not have a major impact on P9 work, as the timescales for delivering the P9 implementation plan are short term; to the end of ED1 and the Product Group believes that the overall benefit of improving access to network data remains irrespective of the outcome of the Access SCR decision.



Consultation Question:
Do you agree with our
focus areas for next steps
and if not, please provide
us with alternative
proposals?

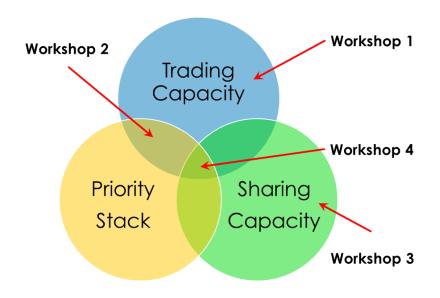




## **Objectives and Organisation of Market Simulations**

### **Objectives**

- In 2021 WS1A P6 carried out market simulation exercises for trading and sharing of capacity and risk of curtailment.
- Aiming to use the learning from these to run live trials & develop BAU guidelines.
- The market simulation exercises were designed to be interactive sessions focused on obtaining stakeholder feedback on work undertaken by the Non-Access SCR working group who developed principles and rules that could be used to govern trading and sharing of capacity.

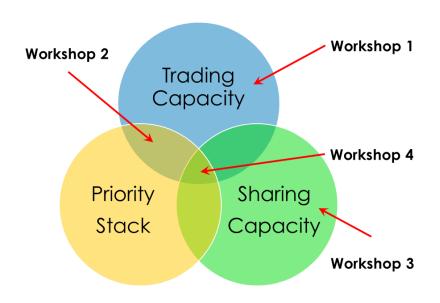




### **Objectives and Organisation of Market Simulations**

### **Four Workshops**

- Workshop 1 Trading Firm Capacity
  - where users with excess Firm Capacity trade it with users who have insufficient Firm Capacity.
- Workshop 2 Trading Risk of Curtailment (Non-Firm Capacity)
  - where users with a low risk of curtailment could trade their priority stack position with users who have a higher risk of curtailment to increase certainty.
- Workshop 3 Shared Capacity
  - where a group of participants combine and share their capacity to enable new connections or trade any excess.
- Workshop 4 Potential Customer and Network Benefits
  - reviewed the feedback from Workshops 1 to 3 and discussed other potential benefits and wider barriers.





# **Summary of Feedback**

| Appetite/ Interest   | DNO   | Trading   |
|--|---|---|
| There is some appetite for Trading and Sharing of Capacity, but less so for Trading Risk of Curtailment.               | The effect of Sensitivity Factors and lead time for system studies / approval could affect market growth.         | Need visibility of the users willing to trade and market information; no price information to DNO.                |
| There is a risk there may be more sellers than buyers.   | Should the DNO be the NMF given it is a non-core activity, they lack expertise and they will trade in the market? | Trading and Sharing Capacity could increase LCT penetration, increase network usage and replace some ANM schemes. |
| Other changes, e.g. Profiling Capacity and outcome of the SCR, could reduce appetite for Trading and Sharing Capacity. | Impact of trading or sharing capacity on third parties needs to be considered.                                    | ST / MT trades suit temporary / ad hoc requirements at low risk and LT trades suit investment decisions.          |
| The effect of Sensitivity Factors and lead time for system studies / approval could affect appetite.                   | Require clarity on what constitutes hoarding, market rules and trading mechanisms.                                | Standardisation of P2P contract and trading blocks would encourage market participation and growth.               |





#### **System Study Requirements**

Consider how managed market growth could be accommodated without adversely affecting the potential appetite for trading and sharing of capacity.

#### **Sensitivity Factors**

These could act as a significant barrier to trading and sharing capacity. Consider how these could be developed so that users have an early indication of the capacity to trade.

#### **Market Operation and Rules**

Further detail is required. Develop a clear set of market rules to enable the trading and sharing of capacity and consider how the market would operate and be facilitated.

#### **Standardisation for Trading**

Work with key market actors to develop a standard P2P trade agreement, determine acceptable minimum duration and determine minimum trading periods.

#### **Data Availability**

Open data is being actively discussed but further progress will lower barriers to entry and support trading.

#### **Aligning Changes**

A roadmap of known decisions would help users understand the journey from Firm / Non-Firm Capacity through trading of capacity and flexible capacity agreements to other known future changes.

#### **Appetite**

Given the variation in appetite, it is proposed WS1A P6 conducts a more rigorous poll to determine the level of interest in trading and sharing capacity and the potential value.

#### **Phased Introduction**

This would avoid overload of the DNOs with system studies, allow further consideration of the effect of trading on ANM systems and provide visibility of other changes that may be more attractive, e.g. profiled capacity.

# **Next Steps**

### **Flexibility Workshop Topics**

- Trading Capacity
  - LEO/Transition (trials approx. Nov-21 to Feb-23)
- Trading Risk of Curtailment (Priority Stack)
  - TraDer, other Open Networks Activities/Products
- Sharing Capacity
  - LEO

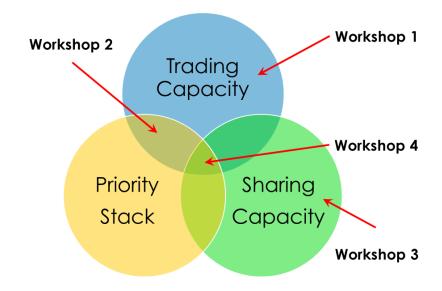
### **Original Plans for Live Trials 2021**

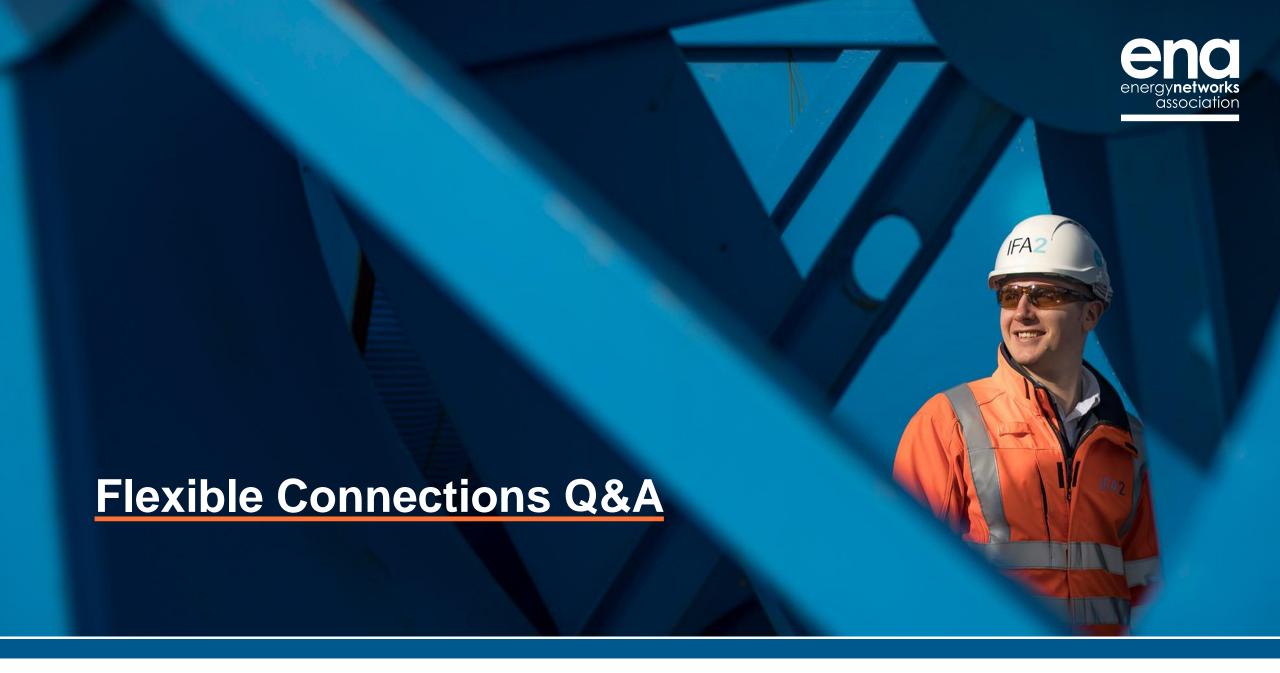
- Transition have offered to include us as one of their reviewing stakeholders on their P2P work
- Landfill gas generators will be invited to participate in Transition if they're within the Oxfordshire area

### Proposed Postponement of P6 to Q3/4-2022

Waiting for learning from other projects and products











# **Next Steps**

Thank you for joining, we will share the recording and slides in the coming days.

Open Networks is hosting an additional webinar on 8 September, alongside BusinessGreen, titled 'Flexible Futures: Exploring the role of flexibility in the net zero transition'. It will consist of a panel session looking at the evolution of flexibility aswell as offering another chance to ask questions/engage with the project team on the consultation. Sign up <a href="here">here</a>.

The consultation closes on 24th September 2021. Please send your responses to opennetworks@energynetworks.org. It is our intention to review the responses to this consultation and publish our comments on the feedback by the end of October 2021 on ENA's website.

# **WS1A Flexibility Consultation Documents**



• Flexibility Consultation wrapper document Flexibility figures - Full GB wide update 2021

| Flexibility Services Documents |   |  |
|--------------------------------|---|--|
| Product 1                      | Open Networks CEM and Tool User Forum: Terms of Reference   |  |
| Product 2                      | Review of DNO-ESO Flexibility Procurement Process Timescales  |  |
| Product 7                      | Verification tool specification Interim report on the outcomes of stakeholder engagement including a final baseline design, governance strategy proposal, and a draft implementation plan |  |

| Flexible Connections (ANM) |  |  |
|----------------------------|--|--|
| Product 3                  | Report on stakeholder feedback and recommendations   |  |
| Product 8                  | Paper detailing at a high level the future options for apportioning FC(ANM) curtailment risk   |  |
| Product 9                  | Revised ONP "DNO Provision of Constraint Information" report Report that captures the principles underpinning improvements, stakeholders' key requirements |  |

| Non-DSO serv | ices   |
|--------------|--|
| Product 6    | Paper summarising market simulation findings |



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