#ncslondon22

# NETWORKS CUSTOMER SEMINAR

London

17th October 2022

nationalgridESO

# Morning Agenda

#ncslondon22

| Time | Presentation | | Who |
|---|---|---|---|
| **09:15** | **House keeping** | | |
| **09:25** | **Welcome**<br>Susana Neves e Brooks, Head of Customer Connections, ESO | | |
| **09:30** | **Introduction to the day and Transmission Connection Updates**<br>Susana Neves e Brooks, Head of Customer Connections, ESO | | |
| | **Breakout Sessions** (attendees choose the session they wish to attend) | | |
| **10:15-11:00** | **HND Update – Tower Suite** | **ESO Pop Ups – Bridge Room** | **TEC Amnesty & Queue Management – Mortimer Room** |
| **45mins session** | Graham Stein, Offshore Network Design Senior Manager (ESO)<br><br>Peter Sipawa, GB Offshore Connections Team Manager (ESO) | Early Competition<br>Winter Plan<br>TNUoS task force<br>Codes<br>Future System Operator<br>Markets Road Map | Joe Martin, England and Wales Onshore Connections Team Manager (ESO)<br><br>Kavita Patel, Policy Officer (Connections ESO) |
| **11:00-11:15** | **Coffee Break** | | |
| **11:15-12:00 [45min session]** | **HND Update – Tower Suite** | **ESO Pop Ups – Bridge Room** | **TEC Amnesty & Queue Management – Mortimer Room** |
| **12:00-12:30** | **Slido Q&A – Tower Suite** | | |

# Afternoon Agenda



| Time | Presentation | | |
|---|---|---|---|
| **12:30 – 13:15** | **Lunch – Bridge Room** | | |
| **13:15 – 15:00** | **Breakout Sessions** (attendees choose the session they wish to attend) | | |
| **13:15-14:00** | **ESO Connections – Connections Reform Workshop – Tower Suite** | **ESO Pop Ups – Bridge Room** | **CPA and Storage review Workshop – Mortimer Room** |
| | Susana Neves e Brooks, Head of Customer Connections (ESO)<br><br>James Norman, Networks Senior Policy Manager (ESO) | Early Competition<br>Winter Plan<br>TNUoS task force<br>Codes<br>Future System Operator<br>Markets Road Map | Djaved Rostom, Connection Operability Assessment Team Manager (ESO)<br><br>Ben Green, Electricity Connections Contract Manager (ESO) |
| **14:00-14:15** | **Break** | | |
| **14:15-15:00** | **ESO Connections – Connections Reform Workshop – Tower Suite** | **ESO Pop Ups – Bridge Room** | **CPA and Storage review Workshop – Mortimer Room** |
| **15:00-15:15** | **Coffee Break** | | |
| **15:15-16:00** | **Tower Suite**<br><br>**Panel - "Transmission Connections, challenges and opportunities"**<br>Susana Neves e Brooks, Head of Customer Connections NGESO<br><br>Paul Hawker, Head, Electricity Network Connections, BEIS<br><br>Harriet Harmon, Deputy Director - Market Operations and Signals, OFGEM<br><br>Merlin Hyman, Chief Executive, Regen | | |
| **16:00-16:05** | **Close**<br><br>Susana Neves e Brooks, Head of Customer Connections (ESO) | | |
| **16:05-17:00** | **Join us for tea and coffee and network with industry leads** | | |

# WELCOME

#ncslondon22

nationalgridESO

# Objectives for Today

**Share updates and information relevant to work being done by ESO**

**Engage and address questions from the Seminar attendees**

**Enable workshop environment and feedback sessions**

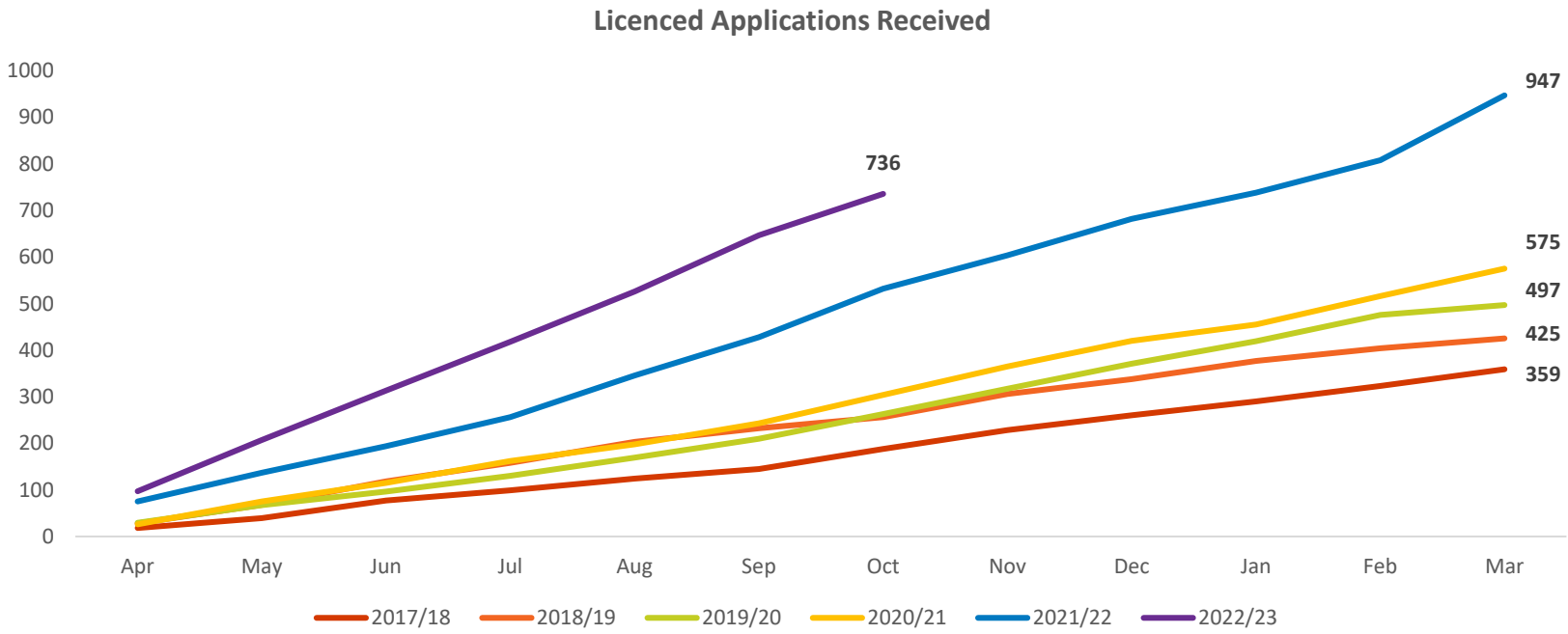
**Networking and opportunity to engage with members of ESO Networks SMT and other ESO Teams**

#ncslondon22

# TRANSMISSION CONNECTIONS CHALLENGES & OPPORTUNITIES

nationalgridESO

# Applications




The Transmission Contracted Connections background totals over **320GW** of generation and interconnectors

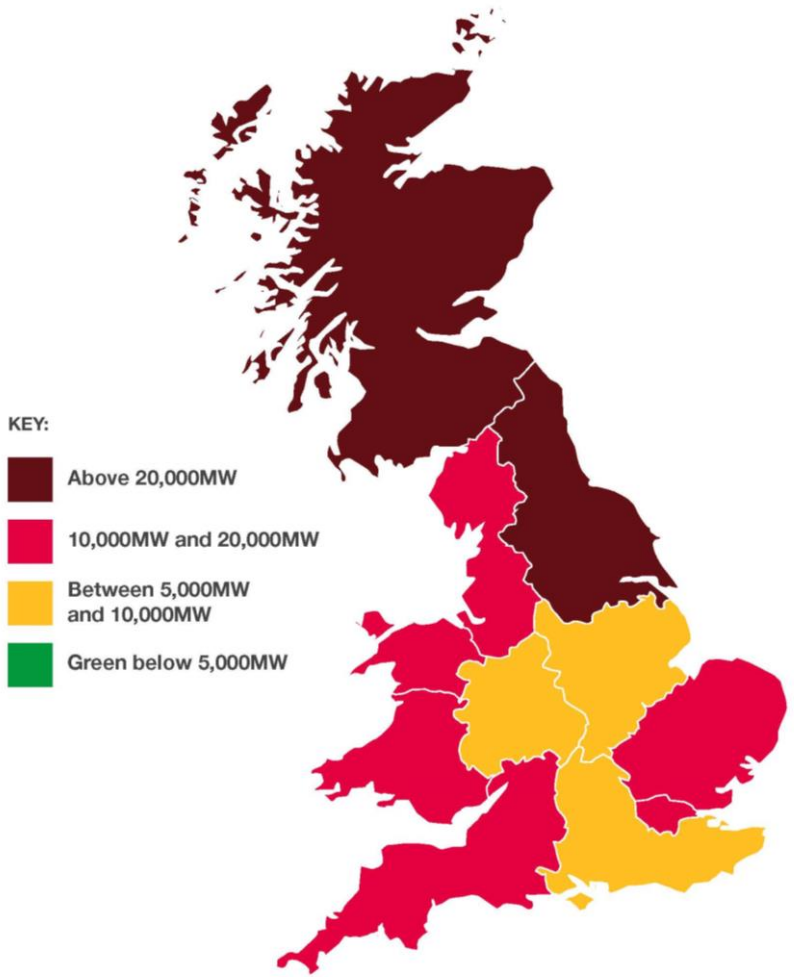
**Growth** of Licenced Transmissions Connection Applications

In **FY23, 70% YTD, current end of year projection on 1277 applicatios, 74% increase on FY22**

In **FY22, overall 64%**

# Heat Map

A single plan view of the generation volume and type due to connect across GB by 2036



Transmission Connections Challenges

# Summary

# Transmission Connection Opportunities

New conditions for Non-Firm Connections

Move from re-active to Leading & strategic

Enable innovation to resolve transmission contraints

Delivery of Holistic Network Designs

Grown and re-shaped the Connections Team

Review Construction Planning Assumptions

Accelerate GB Connections Reform

Run TEC Amnesty Event

Review BESS is modelled

Transmission Connection Light(er) Offer

Continuously identify areas and processes that can be improved

Improve customer experience and interaction, **Customer Portal**

Development Regional Programmes

Introduce **Queue Management**

# Transmission Connection Opportunities


## What are we doing [in collaboration with TOs]

Urgent focus on a more coordinated approach to:

- Review the connections offer process
- Create of opportunities for acceleration of connections already in the contracted queue
- Reviewing the scope of works and detailed design undertaken as part of production of a new connection offer

## What can we do differently:

- Supply a light(er) Connection Offer
- Timeline for detailed review of solution
- Focus on providing Customers with certainty of connection date and scope of works earlier than our Customers are experiencing at the moment

## Next Steps:

- Issue Light(er) Offer from the 1st of November 2022
- Hold a webinar on the 25th of October focused on providing insight into the what the lighter connection offer shall look like and the follow-on process

#ncslondon22

# CONNECTION PORTAL UPDATE

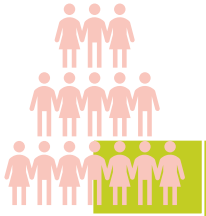
nationalgridESO

# Connections Portal - Update

**27th January 2023**

**Connections Portal Phase 1a release**

- **Controlled released approach:**
  - Release access to portal for the Early Adopters [approx. 50 customers]
  - Focus on staged release of the portal to assess performance and prevent platform to be overwhelmed from high number of users following release (+800 users)
  - Registration issues addressed (Feb 23)



**13th March 2023**

**Connections Portal Phase 1b release**

- **Open access to Registration and Portal to all ESO Customers**
  - Focus on addressing any defects or issues identified from Early Adopters user experience ahead of wider release
  - Ensure wider release is successful and delivers on the improvement to connection application process

**1st May 2023**

**Connections Portal Phase 2 – Focus Groups**

- **Focus Groups**
  - Run a series of webinars and workshops where NGESO will invite Customer to participate to enable further development of existing functionality to enable further improvements to the customer journey
  - Review requirement for development of further functionality and automation

# Connections Portal - Update

## Why is the Connections Portal delayed?

Focus on delivering a product that is fit for purpose

Ensure final product meets Customer expectations and improves customer experience

Complexity of build of new platform requires review and change of release strategy

Interdependency of Portal with other new and existing ESO platforms [impact to management of change]


#ncslondon22
BREAKOUT
SESSIONS
nationalgridESO

# Breakout Sessions

| HND Update – Bridge Room | ESO Pop Ups – Atrium Area | TEC Amnesty & Queue Management – Beaufort Room |
|---|---|---|
| Graham Stein, Offshore Network Design Senior Manager (ESO)<br><br>Peter Sipawa, GB Offshore Connections Team Manager (ESO) | Early Competition<br>Winter Plan<br>TNUoS task force<br>Codes<br>Future System Operator<br>Markets Road Map | Joe Martin, England and Wales Onshore Connections Team Manager (ESO)<br><br>Kavita Patel, Policy Officer (Connections ESO) |

# Holistic Network Design Follow Up

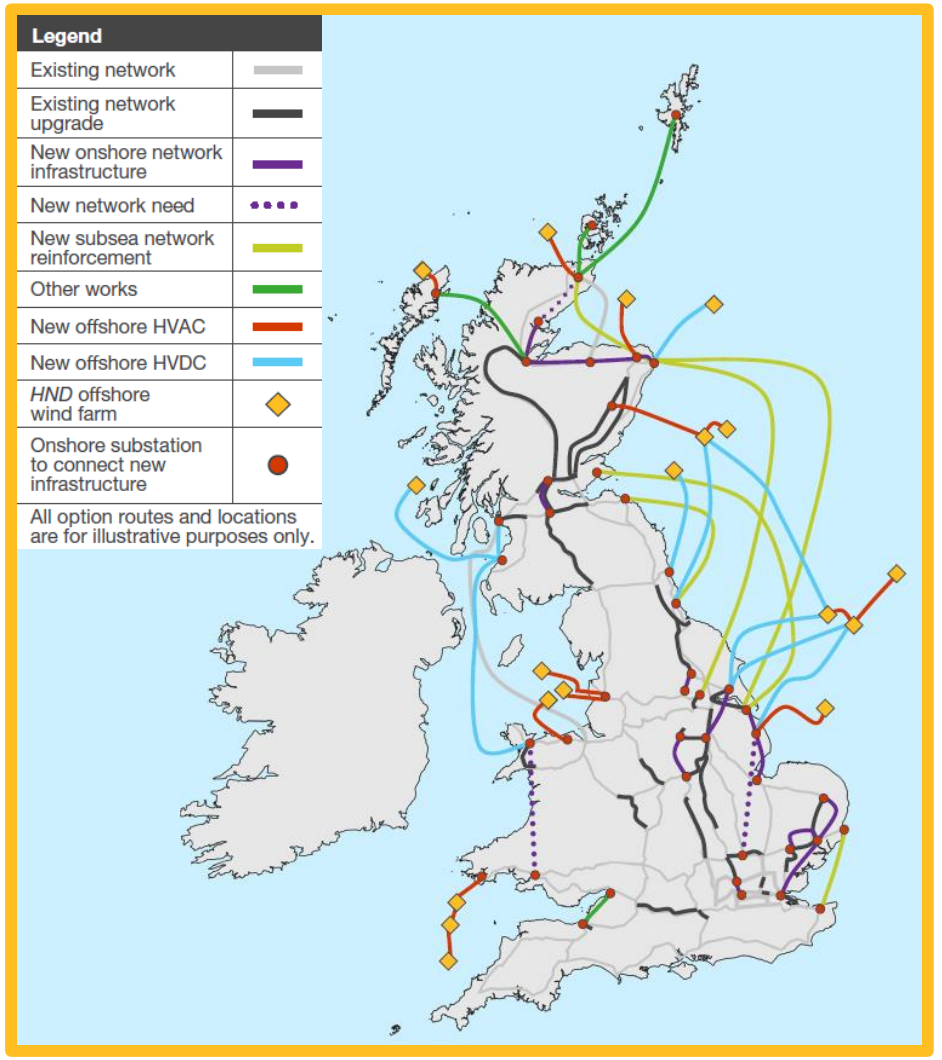
Graham Stein – Network Planning Senior Manager
Peter Sipawa – GB Offshore Connections Manager

nationalgridESO

# Holistic Network Design

## Overview of Recommendations

- Published in July
- Connects all 18 in scope offshore wind farms (23 GW)
- 15 landing points
- Establishes new offshore connections between different onshore regions
- Identifies and distinguishes onshore transmission projects that are required to facilitate the 2030 ambitions
- Reduces the impact on the seabed by a third smaller footprint of cables coming to shore than the radial design
- Additional network capacity increases the availability of offshore wind on the system by 32 TWh over 10 years from 2030 compared to the radial design – equivalent of powering 10 million homes for an entire year



# Holistic Network Design

## Implementing the Recommendations

### Connection Contract Update

We are working though these with the three onshore TOs. Significant interactions with the business as usual connection process and associated changes mean these are taking longer than expected. We now expect to work through contract updates until the end of Q1 next year.

### Asset Classification and Pathway to 2030 Delivery Model

Ofgem expect to shortly conclude their asset classification work for assets within the HND. A further publication on the delivery models for the Pathway to 2030 workstream is expected Q4.

### Accelerating onshore electricity transmission investment

In August, Ofgem consulted on how to support the accelerated delivery of strategic onshore electricity transmission (ET) network upgrades, needed to help meet the Government's 2030 renewable electricity generation ambitions. Ofgem is currently considering the responses to this consultation and analysing the TOs' delivery plans. Ofgem intends to publish a decision on the accelerated delivery framework in December.

# Holistic Network Design

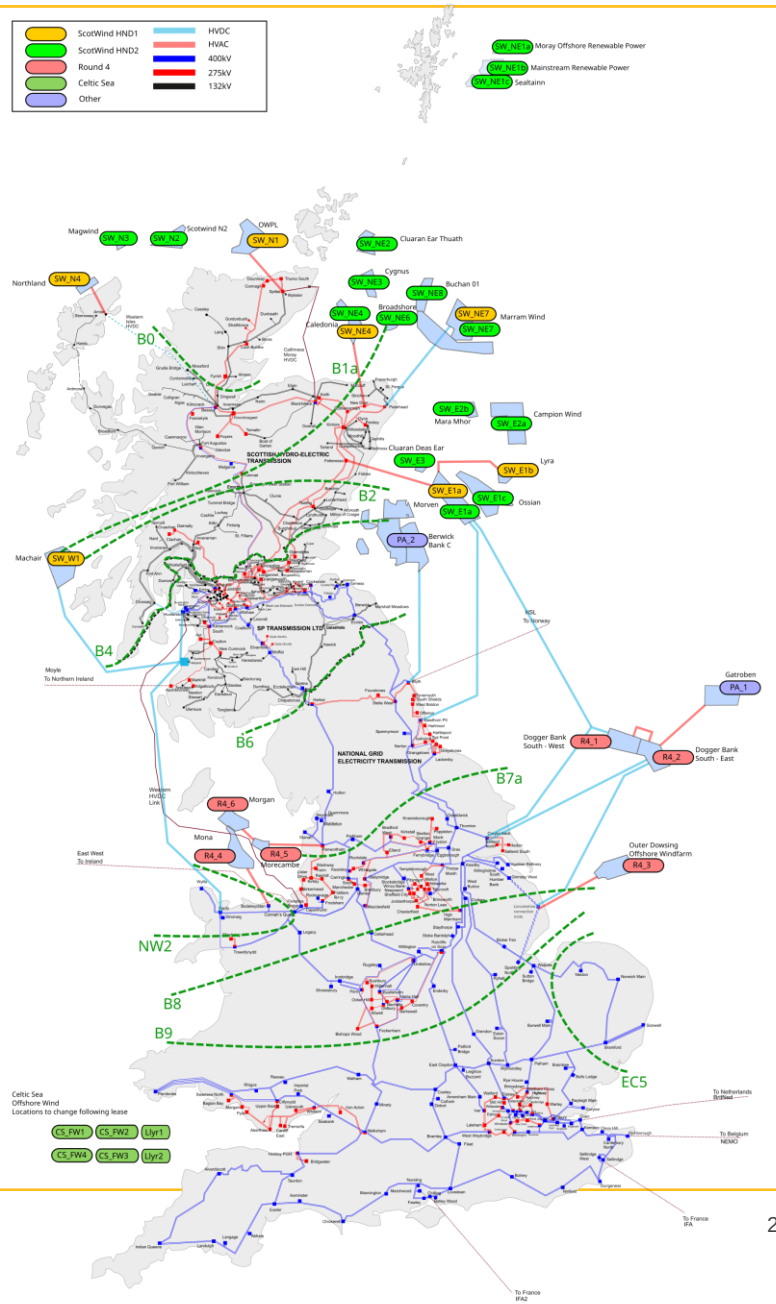
## What's in Scope?

ScotWind (~17GW)

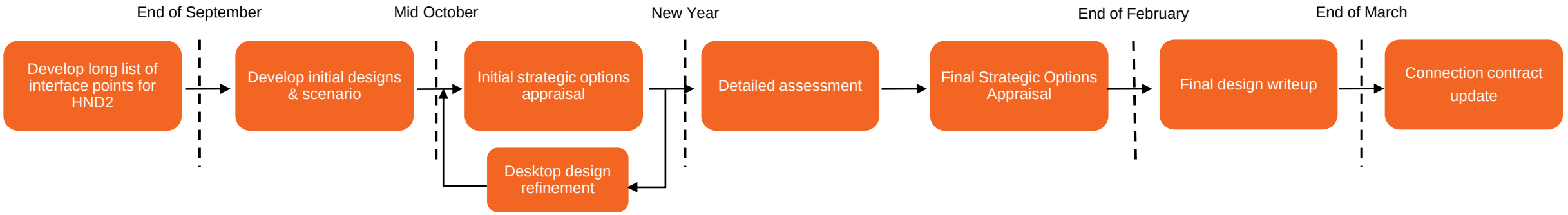
ScotWind clearing (~3GW)

Celtic Sea (4GW)

Celtic Sea test and demo (2 x 100MW)



# Holistic Network Design




- Feedback received from Scotwind Developers on technology and cost assumptions, methodology, capacities and interface points
- Terms of Reference available on the Offshore Transmission Network Review webpage
- Scotwind and Celtic Sea update webinars scheduled for October (25th and 27th)
- Our methodology will be published by the end of October
- Scotwind design workshops scheduled for the 14th to 16th November
- INTOG process closely monitored – we are working with Crown Estate Scotland to develop next steps
- Recommendations due by the end of March 2023
- Recommendations will feed into the second Transitional Centralised Stragic Network Plan (TCSNP2) which is being developed under the Electricity Transmission Network Review (ETNPR) and scheduled to conclude by the end of 2023
- We will be able to say more about how connections which are falling outside of HND will be managed by the end of this year

# TEC Amnesty & Queue Management

Kavita Patel – Connections Senior Policy & Change Officer
Joe Martin – E&W Onshore Connections Manager

nationalgridESO

# TEC Amnesty

nationalgridESO

*“We’re here to help build a system of the future that is clean, reliable and fair. We realise that to deliver net zero, we need to free up space on the connections register so that new low carbon projects can connect much more quickly.”*

**Julian Leslie, ESO Head of Networks and Chief Engineer, National Grid ESO**

# TEC Amnesty

ESO launches new initiative to connect electricity generation to the transmission system faster

TEC (Transmission Entry Capacity) Amnesty launched to clear stalled projects from the TEC register.

Expression of Interest running from 1 October to 30 November 2022 the amnesty window allows customers to leave the register at no cost or a reduced fee.

Part of a wider initiative of actions and reforms that the ESO are leading on to improve connections management in the short and longer term

# TEC Amnesty

The TEC Amnesty and Queue Management reforms are here to address short / long term challenges.

**Review of Construction Planning Assumptions**:

Ensuring processes are recognisant of the changes in volume of contracted generation and technologies.

Djaved Rostom

**Review of Storage Modelling**:

By end of October, ESO to share the conclusions of their research into how they model storage and different types of storage, so that the latest evidence is reflected in how network needs are assessed.

Djaved Rostom

**Developing Regional Development Plans**:

looking across the whole electricity system to unlock more network capacity, reduce constraints and open new revenue streams for market participants, to help unlock capacity at distribution level.

Andy Wainwright

# TEC Amnesty

**What is the TEC Register?**

- The TEC Register dictates the queue for connections to the national electricity transmission network and includes all projects that seek a connection offer.

**What is the TEC Amnesty?**

- To support the delivery of Net Zero, the ESO are offering network participants the opportunity to request to Terminate their Connection Agreement with minimal or no charges.

**What are the criteria for projects to leave the TEC Register?**

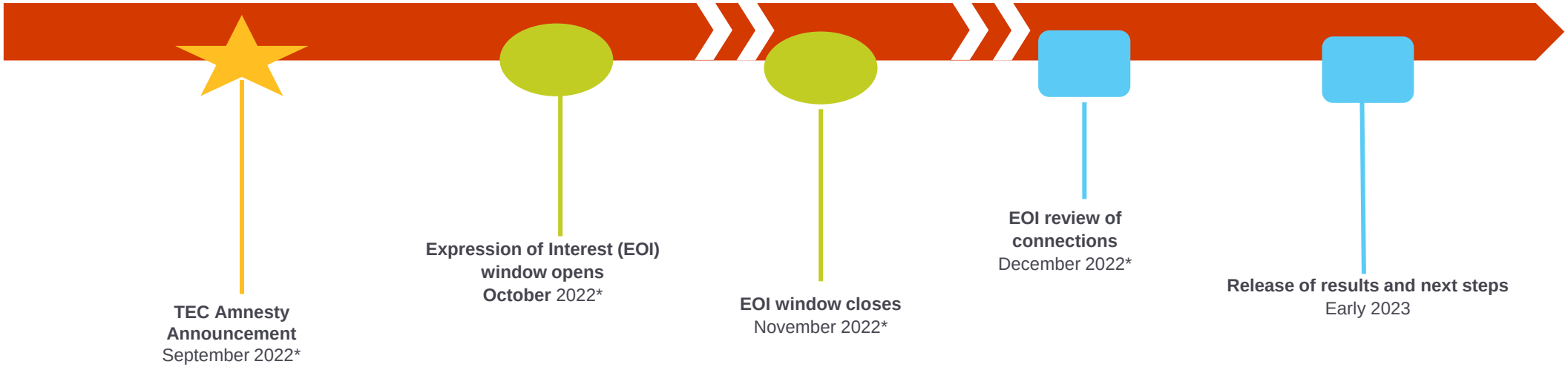
- That no costs associated with Transmission reinforcements would still have to be incurred had the original application been for the newly requested value;
- That the Termination is not considered to require any further analysis beyond a desktop assessment to ascertain the impact of the Termination on the planned Transmission works, or have an impact on the local connection works or to require significant changes to the Connection Agreement;
- That there is no detrimental effect on other Users of the network in that connection dates or costs are adversely affected

**Does TEC Amnesty apply to Bilateral Embedded Generation Agreement (BEGA) connections?**

- Customers that hold a BEGA can also come forward to express their interest to terminate or reduce TEC on the transmission contract held with NGESO;
- However, the TEC Amnesty doesn't extend to connection contracts between Customer and the relevant Distribution Network Operators

# What are the timescales to apply for this voluntary process?

For the period 1 October to 30 November 2022 inclusive users can fill out an expression of interest form and their agreement will then be assessed against the criteria and a decision will be made by early 2023.




*Dates for reference only

## TEC Amnesty Q&A Sessions

In August 2022 we held a Customer Connections Agora dedicated to providing further insight to the TEC Amnesty process, you can find the slides and recording from this session on our website.

# Transmission Entry Capacity (TEC) Amnesty - Next Steps

Reach agreement with OFGEM on the principles of this TEC Amnesty event and the timeline

Review and agree Terms of Reference with OFGEM and TOs for the Cost Benefit Analyses exercise for those connections that come forwards to terminate and reduce TEC

Provide ESO Customers with an update asap on timeline and details of the TEC Amnesty Expression of Interest event

# Queue Management

CMP376

nationalgridESO

# Introduction of Queue Management

There is also a need to implement more effective Queue Management (QM) arrangements. To that end, the ESO has raised a code modification, CMP376, under the Connection and Use of System Code (CUSC), to formally introduce QM arrangements. This modification is subject to approval.

QM will mean that projects which are ready to connect can do so ahead of those customer projects that may have applied earlier but are not ready or able to progress – currently the ESO are unable to prioritise the queue based on readiness to connect.

At the simplest level, if implemented, QM will introduce contractual milestones that customers must meet to retain their place in the connection queue, which will benefit everyone.

# Summary of Proposal

### Milestones

Date back from contracted completion date (note that the milestone duration time period is the contracted completion date to the effective date of the agreements)

### Evidence

Evidence for each milestone set out in the CUSC

Process to submit/validate evidence set out in guidance.

### Termination

Will apply to missed milestones if the evidence is not provided within 60 days of the missed milestone. *Projects will not be moved down the queue – they will be terminated*

### Scope and Implementation

All new applications and Modification Applications for parties who are requesting TEC (except BEGAs and non radial offshore connections) after the implementation date, which is 10 working days after Ofgem's decision.

### Exemptions

Force Majeure; Planning appeals (M2) in relation to the User's Consents; Any delay from Transmission Licensee or The Company  or CUSC 6.19

### Mod App

All QM milestone dates stay fixed unless exception provided (if milestones are missed prior to mod app and QM was not in place on their agreement then a 60-day notice will be issued alongside the mod app acceptance)

# Response to feedback – Changes taken forward

| | | |
|---|---|---|
| “Tolerance periods and cumulative delay proposals are confusing” |  | Tolerance periods have been removed with adjustments made to milestone durations. This also removes the need for a cumulative delay process |
| “Milestones do not cater for seasonality or challenges obtaining planning” |  | Timescales have been amended to reflect a number of factors, including the longer lead times and seasonality in relation to planning consents. |
| “Referencing milestones against Offer date makes it difficult for us to sequence our development activities” |  | The timescales now run backwards from Connection Date |
| “The use of connection voltages to tier milestone compliance durations is arbitrary” |  | We are proposing to tier milestone durations based on the lead time for project connection. This removes any risk of undue discrimination by technology or connection voltage. |

# Updated Transmission Milestones Proposal

| Retained Distribution Milestone Names for consistency | 1 year from requested Completion date | 2 years from requested Completion date | 3 years from requested Completion date | 4 years from requested Completion date | 5 years and above from requested Completion date (including EIA, DCO) |
|---|---|---|---|---|---|
| **Milestones:** | **All durations referenced from contracted Completion Date** | | | | |
| **M1 - Initiate Planning Consent** | Bilaterally negotiated | 18 months | 24 months | 36 months | 48 months |
| **M2 - Secure Consent** | | 12 months | 18 months | 24 months | 30 months |
| **M3 - Land Rights** | | 21 months | 30 months | 39 months | 48 months |
| **M4** | N/A for transmission (referenced to provide consistency to distribution) | | | | |
| **M5 - Contestable Design Works Submission** | Bilaterally negotiated | 18 Months | 24 months | 36 months | 48 months |
| **M6 - Agree Construction Plan** | | 9 Months | 12 months | 15 months | 18 Months |
| **M7 - Project Commitment** | | 6 Months | 9 months | 12 months | 15 Months |
| **M8 - Project Construction** | | 3 months | 6 Months | 9 months | 12 months |

# Timeline for CMP376V5b as at 3 October 2022

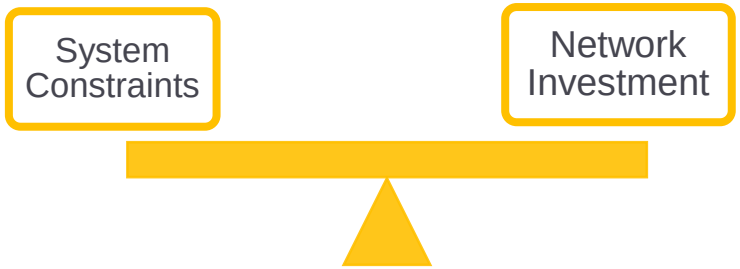
| Milestone | Date | Milestone | Date |
|---|---|---|---|
| Workgroup Nominations (15 working days) | Closed | Panel sign off that Workgroup Report has met its Terms of Reference | 24 February 2023 |
| Workgroups 1 – 5 | 28 October 2021, 13 December 2021, 28 January 2022, 6 September 2022 and 27 September 2022 | Code Administrator Consultation(15 Working Days) | 27 February 2023to 20 March 2023 (5pm) |
| Workgroup 6 – Agree the Milestone timings; Agree how Modification Applications impact on the Milestones set out in the Construction Agreement; Clarify the Original proposal and confirm if any possible alternatives; Review updated version of Legal Text; and Note possible questions to be raised as part of the Workgroup Consultation | 21 October 2022 | Draft Final Modification Report (DFMR) issued to Panel (5 working days) | 23 March 2023 |
| Workgroup 7 – Clarify solutions to be consulted upon, check in on Transmission vs Distribution differences, finalise Legal Text, finalise Workgroup consultation (including agreeing Workgroup Consultation questions), check in on progress vs Terms of Reference | 17 November 2022 | Panel undertake DFMR recommendation vote | 31 March 2023 |
| Workgroup Consultation(20 Working Days) | 25 November 2022 to 23 December 2022 (5pm) | Final Modification Report issued to Panel to check votes recorded correctly (5 working days) | 4 April 2023 |
| Workgroups 8 and 9- Assess Workgroup Consultation Responses, further review of Original and alternatives (including legal text) and carry out Alternative Vote | 9 January 2023 and26 January 2023 | Final Modification Report issued to Ofgem | 12 April 2023 |
| Workgroup 10- Finalise solution(s) and legal text, agree that Terms of Reference have been met, Review Workgroup Report and hold Workgroup Vote | 8 February 2023 | Ofgem decision | TBC |
| Workgroup report issued to Panel(5 working days) | 16 February 2023 | Implementation Date | 10 working days after Authority Decision |

# CONSTRUCTION PLANNING ASSUMPTIONS & BATTERY MODELLING REVIEW

nationalgridESO

# Background

- Oversubscribed generation background
- Studies indicating that the network will be constrained
  - Drives the need for substantial enabling works
  - Causes late connection dates as a result
- Common goal is to achieve net zero together.
- ESO's responsibility is to ensure network remains operable, economic and efficient
- Customer need to connect project in a reasonable amount of time at a fair cost.

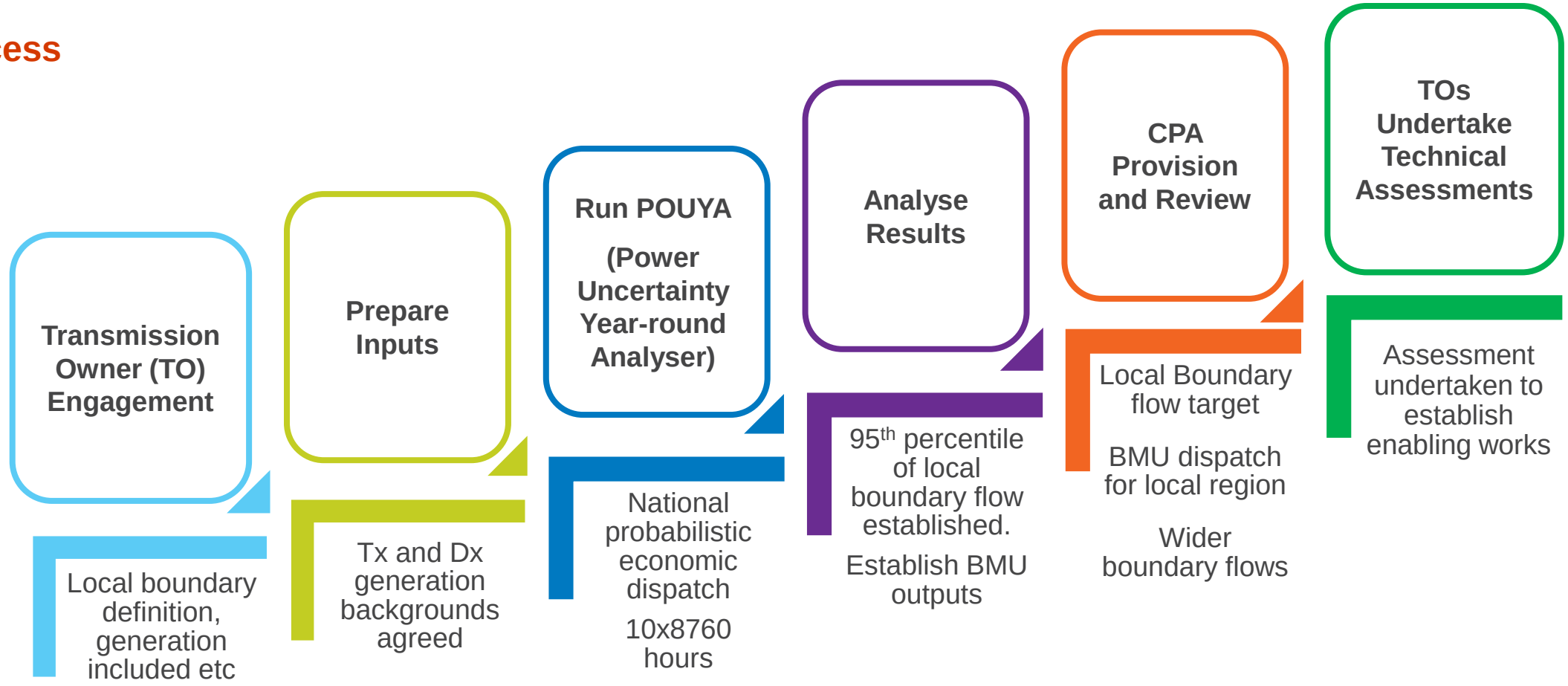



- Connection dates depends on
  - The volume of projects in the study background
  - The dispatch of the different technology types
  - Triggering of enabling reinforcement works

**We have reviewed the Construction Planning Assumptions including Battery Modelling and would like your feedback on the proposed approach.**

# Current Construction Planning Assumptions

## Process




**Improvement Opportunities**

**Attrition**

**Battery Modelling**

**Local and wider boundary assumptions**

**Consistent approach to enabling works**

# Attrition

## Data Review

- Contracted parties tracked across 10 years of TEC registers
- Projects tracked from application status to connected or terminated status
- Challenge to undertake this assessment for Distribution projects

## Observation

- 1/3 contracted MW actually connected
- Fairly small sample size, especially per technology group
- Could be dominated by large parties and vary over time

## Proposal

- Proposal for local and wider regional attrition percentages to be applied
- Attrition to be applied at both transmission and distribution level

## Implement

- Discuss and agree approach with Network Owners
- Review risks of the proposed approach and identify mitigation measures

# Proposed Attrition Assumptions and opportunities

## Local Region

- 50% Attrition rate applied to MW capacity
- Applied to projects without consents
- Applied by fuel type
- Applied to projects in the queue and projects with a connection offer

## Wider Region

- 66% Attrition rate applied to MW capacity
- Attrition by fuel type
- Opportunity to align wider background with FES
- Wider boundary capability limits applied

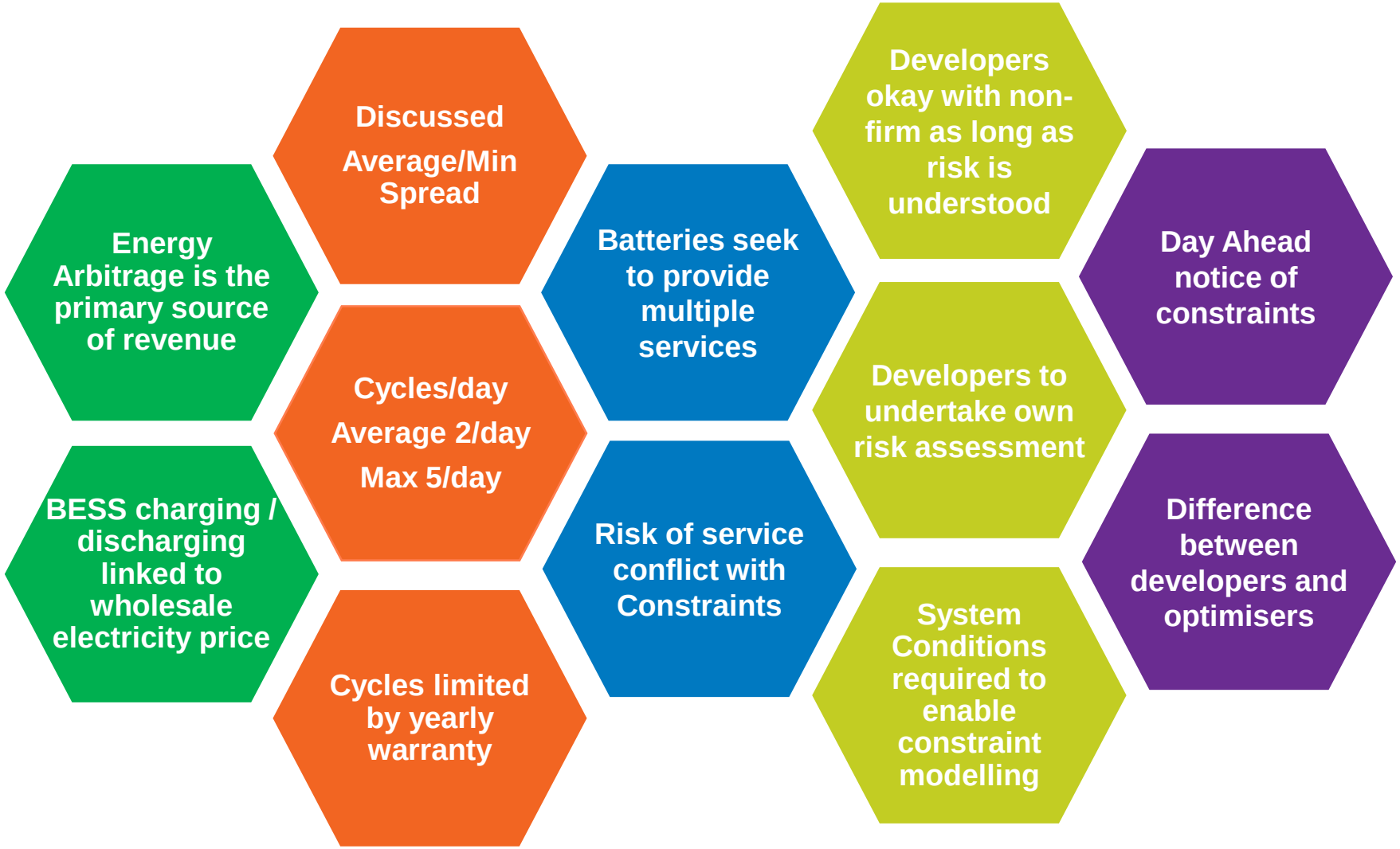
## Distributed Energy Resources

- 66% attrition applied to local and wider regions
- Mixture of appendix G data and FES
- DER output from POUYA
- Implication of DNO ANM Schemes

# Battery Assumptions

- Energy storage can play an important role as enabler of renewable energy penetration and facilitate the transition to net zero.
- Battery operation can have a negative correlation with system constraints.
  - Times of high renewable output – batteries unlikely to be discharging
  - Times of high demand – batteries unlikely to be charging
- A working group has been set up to explore news way of assessing battery connections that better reflects how the assets operate.
- We have engaged with selected battery developers to understand the business model for Battery storage.

# What have we learnt so far?



# Our proposal for battery assessments

- Non-firm connections to be provided allowing ESO to instruct batteries (both Tx and Dx) to move to 0MW should they be contributing to constraints. **Visibility and Control required**
- Based on the operating principles of energy arbitrage and implementation of visibility and control, batteries **could be treated as 0MW** instead of being considered as
  - Discharging at times of peak renewable generation output (generation export constraints)
  - Charging during peak demand conditions (demand driven constraints)
- Opportunity to monitor the performance of batteries over a period of time to offer firm connection
  - Without reinforcements, if frequency and duration of curtailment is acceptable
  - With reinforcements, if frequency and duration of curtailment has been underestimated
- NGESO will look at what information can be provided to enable BESS developers to model frequency and durations of constraints.
- We will be doing further work to understand how the operational profiles could change when BESS provide services
- We will be improving the battery modelling in POUYA based on the feedback received.

# Exploring alternative connection arrangements to facilitate earlier connection dates

- It is possible that the proposed CPA and battery assumptions do not result in earlier connection dates for some customers projects.
- We are exploring alternative connection arrangements to facilitate earlier connection dates.
- These ideas are conceptual at this stage but we would like to understand whether there is an appetite amongst the industry for such type of connections

**Non – firm connections for other generator types**

- Customers can already request an earlier non-firm connection ahead of their firm connection date.
- Traditionally restrictions have been linked to circuit unavailability, either planned or unplanned.
- This approach is different as the non-firm conditions could be based on certain system conditions in addition to the unavailability of transmission circuits.
- Under such scenarios, customers would be required to reduce their output to 0MW.

***"Delayed Enabling"* works**

- There may also be an opportunity to enable earlier connection dates on a firm but temporary basis.
- This applies where customer A who is ahead in the queue is not intending on connecting until a much later date and/or can't connect until enabling works are completed.
- This could enable customer B, who is behind in the queue, to connect their project and use the spare capacity until customer A comes along or network reinforcement enabling works are completed .
- Customer B would need to come off the system unless their enabling works were completed.

# What are the proposed next steps?

**End of October 2022**

New CPA approach agreed by ESO and TOs

- Agree on the application of attrition and battery dispatch
- Agree DER Modelling approach
- Agree wider boundary assumptions
- Review risks of the proposed approaches and identify appropriate mitigation measures

**Nov 2022**

Develop, agree and communicate strategy for review of customer offers using new CPA

- Agree methodology of how the assessment to review the enabling works and dates in existing offers will be reviewed.
- Agree principles relating to the identification of enabling works to ensure consistency

**Nov 2022 -March 2023***

ESO and TOs to carry out assessments using new CPA

- ESO Connections Team to lead on engagement with Customer on contract update opportunities.
- Develop new contractual terms and conditions to facilitate new approach

*Timescales subject to implementation of “lighter” approach to connections assessments

#ncslondon22

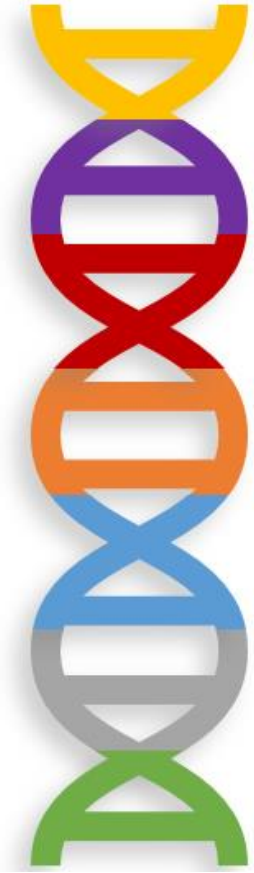
# GB CONNECTIONS REFORM [GBCR]

TRANSFORM | CONNECT | ENABLE NET ZERO

nationalgridESO

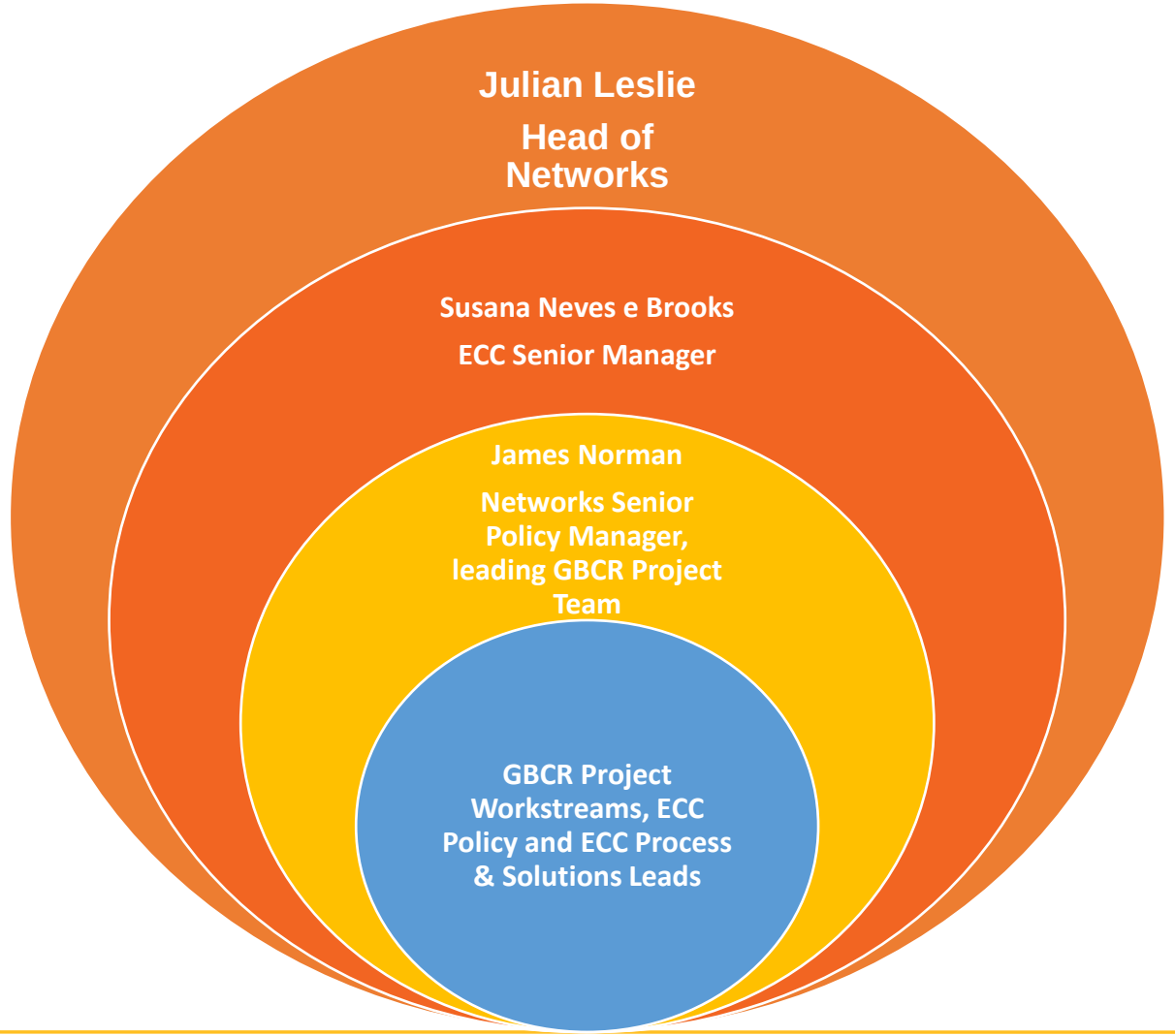
# GB Connections Reform – Mission Statement

ESO CONNECTIONS REFORM



- Whole System Approach to Transmission Connections
- Improvement to Customer Experience & Engagement
- Alignment with GB Energy Strategy and delivery of value to end consumers
- Supports the delivery of NetZero
- Enable a process that advances the projects that are ready to connect
- Process that embraces diversity and complexity of Connections within an evolving Energy System
- Future proof process [new framework for periodic reviews & simplify change]

# GB Connections Reform – ESO Leadership Team



# GB Connections Reform in one page

**CURRENT STATE**

- The queue for applications to Connect to the Grid at both distribution and transmission level has increased exponentially
- The way in which these processes work was not designed for the volume and agility now required
- The modelling of these future connections is driving an unprecedented level of reinforcements required on the system, creating system planning challenges
- The pace we need to transform our energy system including encouraging the right mix of technologies means that this is likely to increase

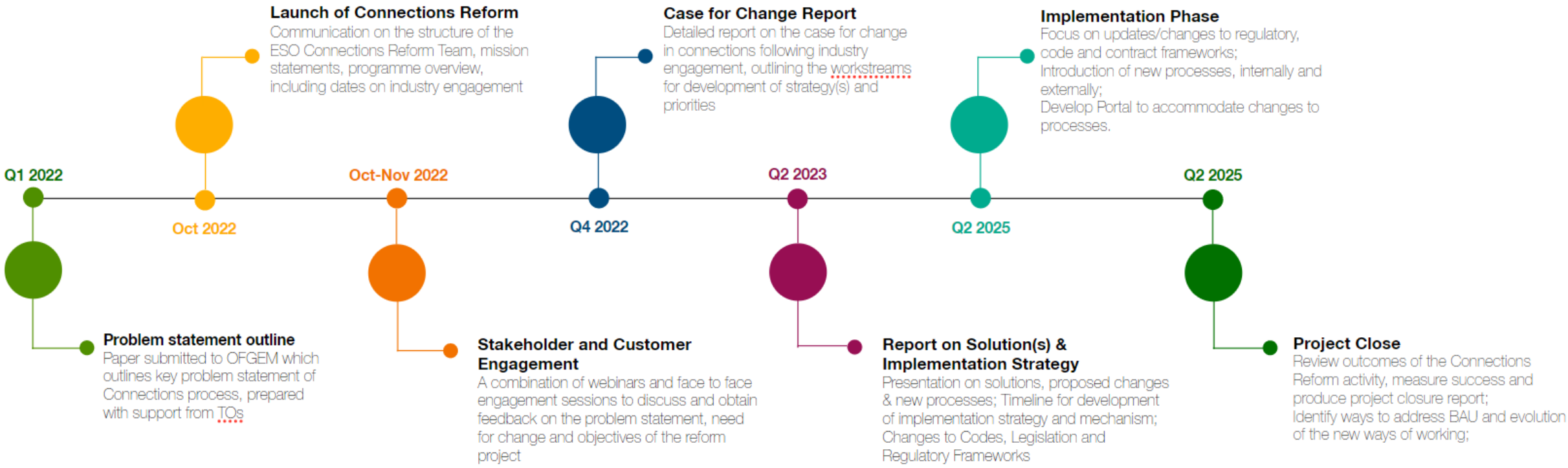
**CHALLENGE**

- Progress to enable decarbonisation of the UK Energy system will be inhibited should nothing change
- The current process doesn't enable us to easily assess progress to Net Zero goals and take corrective actions
- Potential for wasted effort and unnecessary spend leading to consumers paying more than required

**WAY FORWARD**

- Involve all parties to reform the connections process across OFGEM, TOs, DNOs, key Energy Stakeholders and Customers to ensure focus on the right outcomes
- Look more holistically at the challenges and ensure the right reforms are targeted across the system
- Create a fit for purpose process that enables us to progress the net zero aims and other whole system goals

# Connections Reform - Timeline



# GB Connections Reform – How will we Engage You

**Develop Case for Change**

Gather all insights into single document (internal Activity)

**Listen and Engage – November 1st – 18th 2022**

Initial workshops to understand concerns with current process

**Playback Sessions – Early Dec 2022**

Review Case for Change with wider parties

**Phase 2 with Full Governance Jan-Apr 2023**

Explore options and initiate external governance groups

# Connections Reform – What will happen next?



Define and communicate Governance Model



Release detailed stakeholder engagement programme



Share Pre-Read content for Customer and Stakeholder Engagement Sessions



Release first draft of the Connections Reform Customer Journey Map

# SEMINAR CLOSING PANEL

#ncslondon22

nationalgridESO

#ncslondon22

# Panel
# Transmission Connections: Challenges and Opportunities

Susana Neves e Brooks, Head of Customer Connections NGESO

Paul Hawker, Head, Electricity Network Connections, BEIS

Harriet Harmon, Head of Electricity Network Charging and Connections, OFGEM

Merlin Hyman, Chief Executive, Regen

nationalgridESO

# Thank you for attending today's seminar

Please provide feedback now on Sli.do:

**#ncslondon22**