Public

Transmission Charging Methodologies Forum and CUSC Issues Steering Group

3 October 2024

NESO
National Energy System Operator

Agenda

1	Introduction, meeting objectives and review of previous actions - Dan Arrowsmith, NESO	10:30 - 10:40
2	NESO Connections update - Alex Curtis, NESO	10:40 - 10:50
3	Code Administrator update – Catia Gomes, Code Administrator NESO	10:50 - 10:55
4	CUSC Modification Hiatus verbal update – Milly Lewis, Code Administrator NESO	10:55 - 11:05
5	Fax Replacement within NESO - Jim Hunt and Paul Bainbridge, NESO	11:05 - 11:35
6	Introducing a cap and floor to generator TNUoS charges – Niall Coyle, NESO	11:35 - 12:15
7	AOB and Meeting Close - Dan Arrowsmith, NESO	12:15 - 12:30

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TCMF Objective and Expectations

Objective
Develop ideas, understand impacts to industry and modification content discussion, related to the Charging and Connection matters.
Anyone can bring an agenda item (not just the NESO!).

Expectations
Explain acronyms and context of the update or change.
Be respectful of each other's opinions and polite when providing feedback and asking questions
Contribute to the discussion
Language and Conduct to be consistent with the values of equality and diversity
Keep to agreed scope

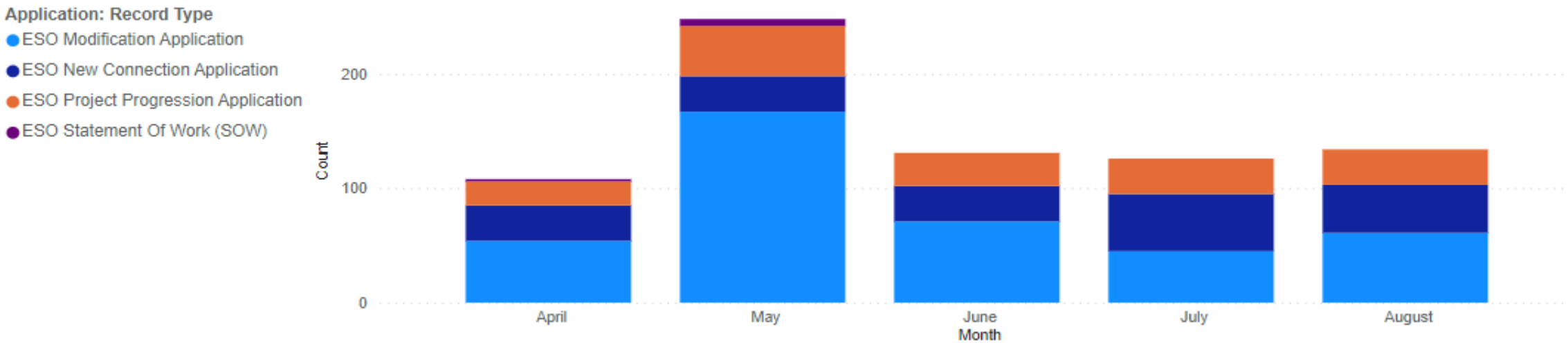
Review of previous action

ID	Month	Description	Owner	Notes	Target Date	Status
24-6	Feb	Update TCMF with progress on potential CUSC defect on double counting of Cancellation Liability and Security presented by Tony Cotton at TCMF 1 February 2024.	CG	TC and MC agreed to take offline. Action to remain open with further update to be presented at TCMF when appropriate.	TBC	Open
24-10	July	Share data on new connections that have been completed this year.	AC		August	Open
24-11	July	Clarify when users will receive documents / ATVs	DA		August	Open
24-12	July	Post implementation analysis of CMP376: Inclusion of Queue Management process within the CUSC.	DA		TBC	Open

ESO Connections update

Alex Curtis, NESO

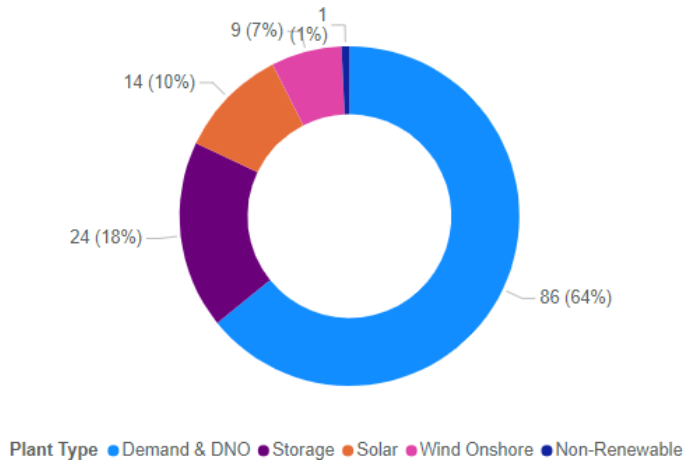
Connection Applications



Applications Received **August 2024**

Record Type	Count	Capacity
ESO New Connection Application	42	10,716 MW
ESO Modification Application	61	5,827 MW
ESO Project Progression Application	31	2,026 MW
ESO Statement of Work (SOW)	0	0 MW
Total	131	18,569 MW

Applications Received by Technology **August 2024**



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Transmission Connections

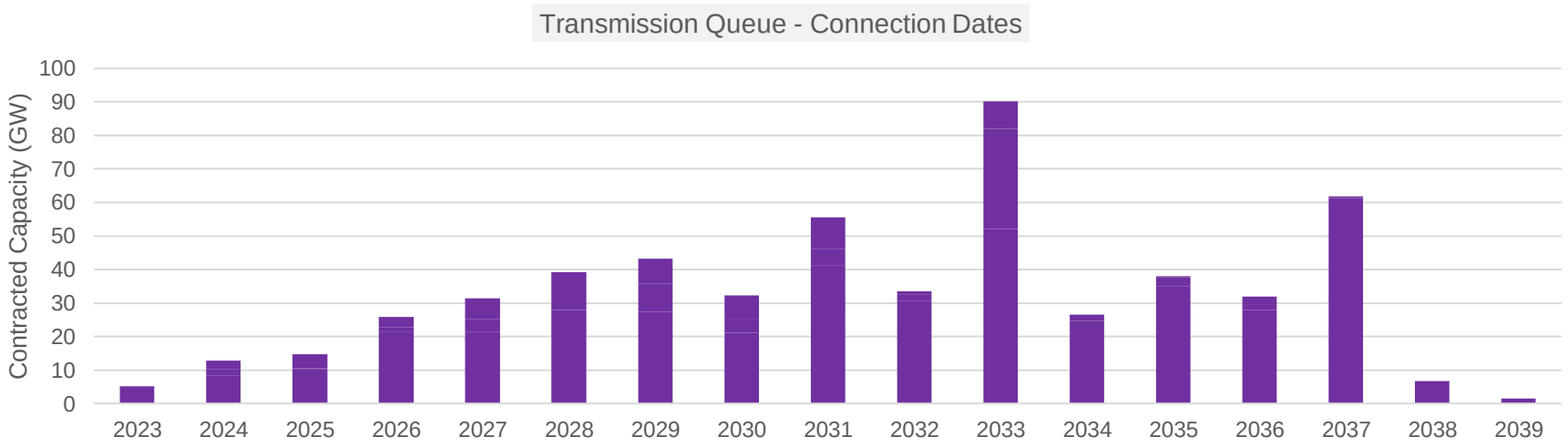
Queue

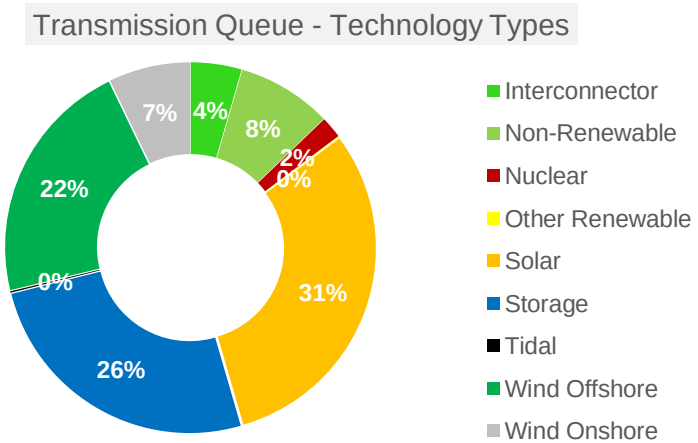
553GW
Queue Size

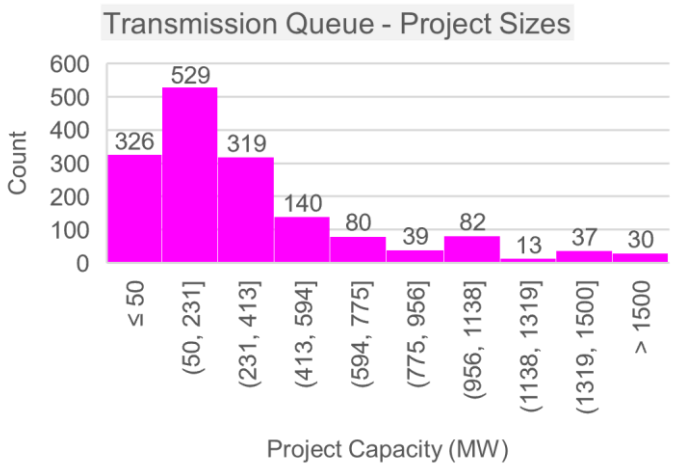
1,595
Contracted Projects

-
Connections (FON)

3
Terminations







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Code Administrator update

Catia Gomes, NESO

Key Updates since last TCMF

New Modifications / Nominations

CMP440 Re-introduction of Demand TNUoS locational signals by removal of the zero-price floor
CMP441 Reducing the credit risk of supplying non-embedded hydrogen electrolysers

Decisions

CMP393 Using Imports and Exports to Calculate Annual Load Factor for Electricity Storage – Authority **rejected** proposal on 30 September 2024
CMP413 Rolling 10-year wider TNUoS generation tariffs – Authority **rejected** proposal on 30 September 2024
CMP418 Dynamic Reactive Compensation Equipment (DRCE) costs (S14) – **Sent back** the proposal for revision of FMR on 30 September 2024
CMP424 Amendments to Scaling Factors used for Year-Round TNUoS Charges' - Authority approved original solution 06 September 2024
CMP430 Adjustments to TNUoS Charging from 2025 to support the MHHS Programme (Section 14) The Authority approved original solution 26
September 2024

Implementations

Establishing ISOP in industry codes 2024 implemented on 01 October 2024
CMP438 Clarification of Illustrative Example of a TNUoS Demand Reconciliation implemented on 02 October 2024

Authority Expected Decision Date

Modification	FMR submitted	Expected Decision Date
CMP315 'TNUoS Review of the expansion constant and the elements of the transmission system charged for' and CMP375 'Enduring Expansion Constant & Expansion Factor Review'	07/02/2024	05/02/2025 (previously 29/11/2024)
CMP316 'TNUoS Arrangements for Co-located Generation Sites'	12/06/2024	30/09/2024
CMP330&CMP374 'Allowing new Transmission Connected parties to build Connection Assets greater than 2km in length and Extending contestability for Transmission Connections'	10/08/2023	TBC Subject to CMP414 send back
CMP397 'Consequential changes required to CUSC Exhibits B and D to reflect CMP316 (Co-Located Generation Sites)'	12/06/2024	30/09/2024
CMP403 'Introducing Competitively Appointed Transmission Owners & Transmission Service Providers (Section 14)'	11/06/2024	31/01/2025 (previously 30/09/2024)
CMP404 'Introducing Competitively Appointed Transmission Owners & Transmission Service Providers (Section 11)'	11/06/2024	31/01/2025 (previously 30/09/2024)
CMP408 'Allowing consideration of a different notice period for BSUoS tariff settings'	13/10/2023	30/10/2024 (previously 30/09/2024)
CMP415 'Amending the Fixed Price Period from 6 to 12 months'	13/10/2023	30/10/2024 (previously 30/09/2024)
CMP436 'Update CUSC arrangements to replace the Electricity Arbitration Association with the London Court of International Arbitration (LCIA) (Non-Charging)'	07/08/2024	06/12/2024
CMP437 'Update CUSC arrangements to replace the Electricity Arbitration Association with the London Court of International Arbitration (LCIA) (Charging)'	07/08/2024	06/12/2024

The Authority's publication on decisions can be found on their website below:
https://www.ofgem.gov.uk/publications/code-modificationmodification-proposals-ofgem-decision-expected-publication-dates-timetable

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Useful Links

Updates on all Modifications are available on the Modification Tracker here

Ofgem's expected decision dates/ date they intend to publish an impact assessment or consultation, for code modifications that are with them for decision are available here

The latest CUSC Panel Headline Report and prioritisation stack are available here

If you would like to receive updates from the Code Administrator on CUSC modifications, please join the distribution list here

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CUSC 2024 – Remaining Panel dates

	Panel Dates	Papers Day	Modification Submission Date	(TCMF) CUSC Development Forum
October	25 (Face to Face Meeting)	17	10	3
November	29	21	14	7
December	13	5	28 November	21 November

CUSC Modification Hiatus verbal update

Milly Lewis, NESO

Fax Replacement within NESO

Jim Hunt and Paul Bainbridge, NESO

Fax Replacement within NESO

1. Overview
2. Access and Use
3. Screenshots
4. Security
5. Risk Mitigation
6. Reliability
7. Phased Launch and Proposed Code Change Governance Route

Overview

Business Drivers

- At the end of 2027, BT will be shutting down the PSTN network upon which the FAX machines rely.
- NESO would like to move away from this paper-based model to a digital solution.
- The new solution needs to be:
  - Easily adopted by existing and new market participants.
  - Secure.
  - Meet the needs of the market participants and NESO.
  - Deployed with minimal complexity / risk .

Principles

- The new technology being proposed to replace the use of the fax machine will be defined under an umbrella term of the “Designated Exchange System”. This definition will help to ensure any further enhancements will not require any future code changes.
- Phased approach to digitisation (not ‘big bang’).
- Reduce dependencies on other projects wherever possible.
- Security by design.
- Re-use / leverage existing platforms and technologies where appropriate .
- Adaptable for future developments e.g. the Open Balancing Platform (OBP).
- Provide all parties with the delivery / receipt assurance required.

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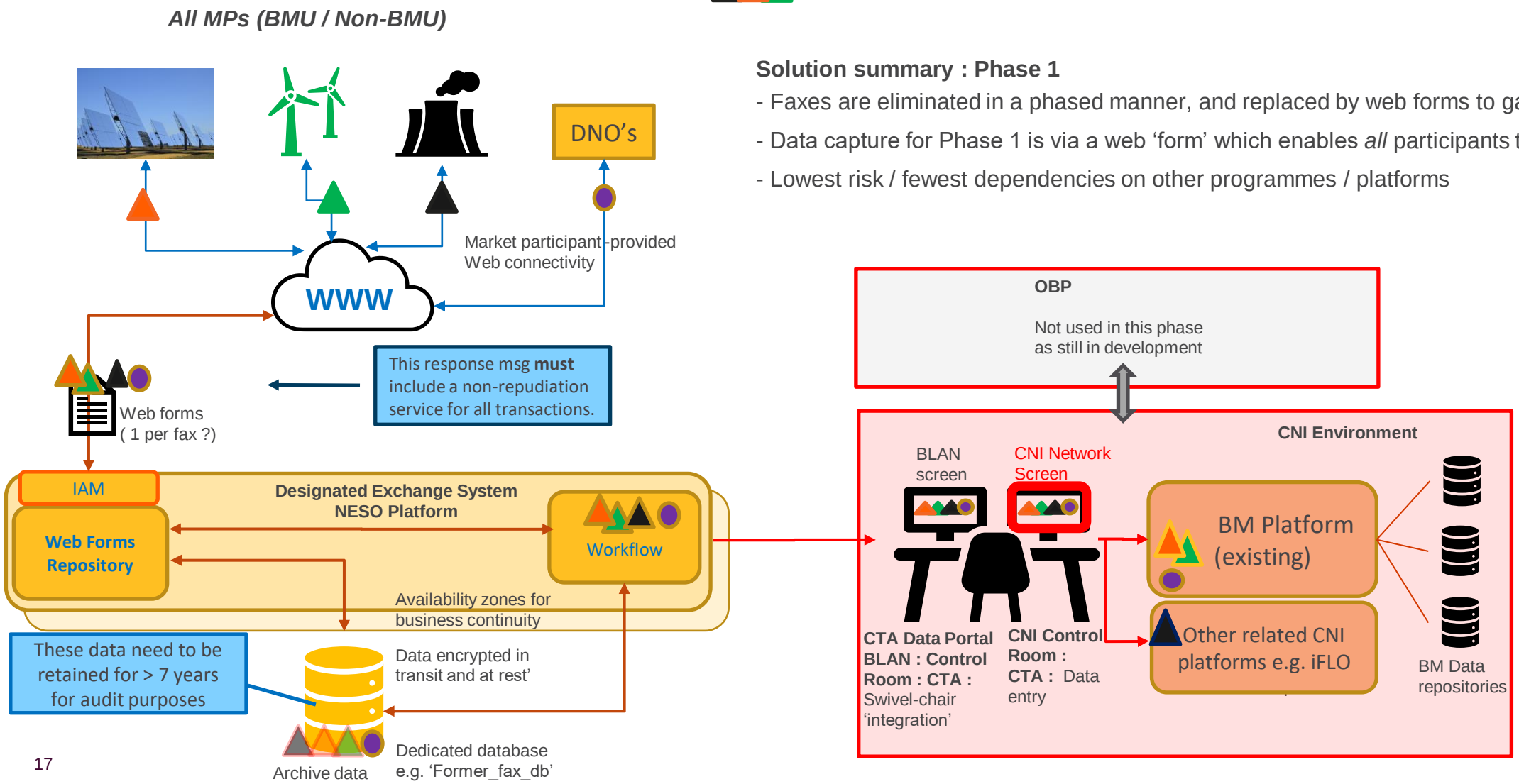
Overview (phase 1)

Shapes denote 'fax data' from market participants



Solution summary : Phase 1

- Faxes are eliminated in a phased manner, and replaced by web forms to gather data
- Data capture for Phase 1 is via a web 'form' which enables *all* participants to use digitised data
- Lowest risk / fewest dependencies on other programmes / platforms

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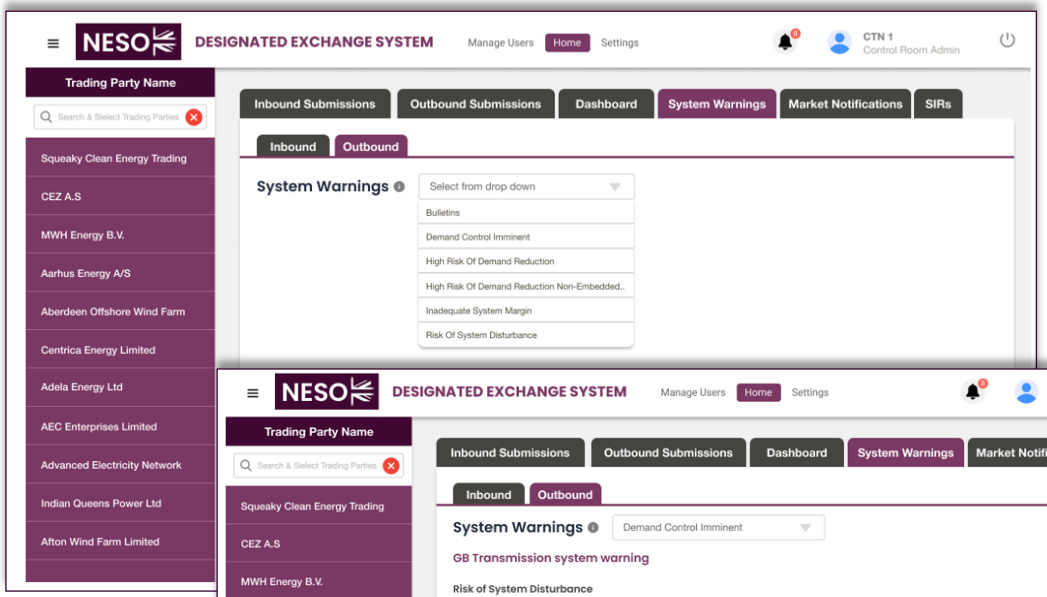
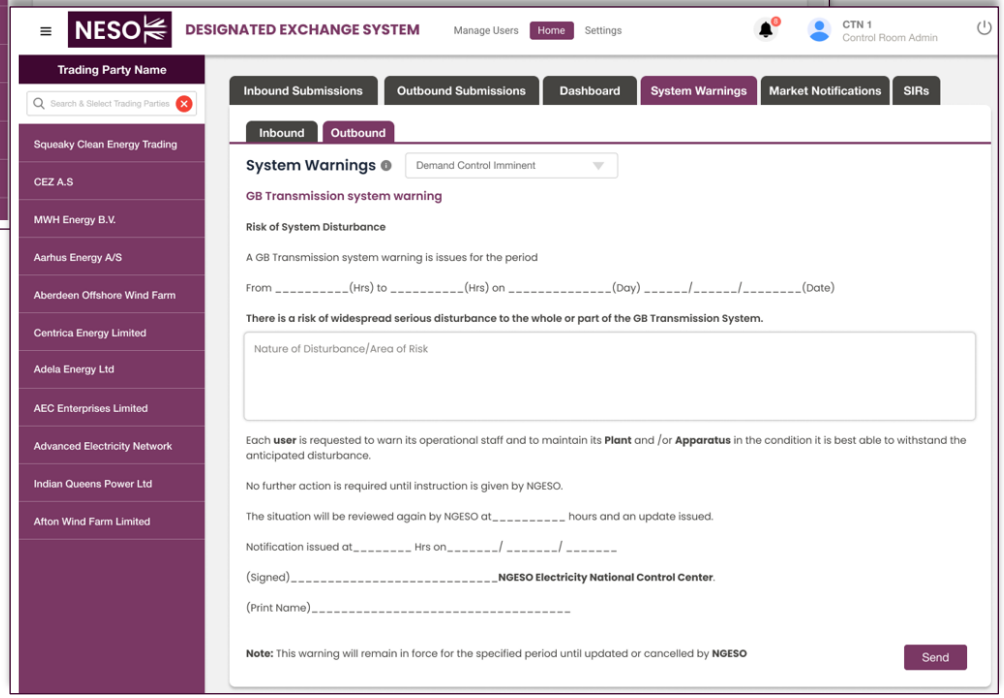
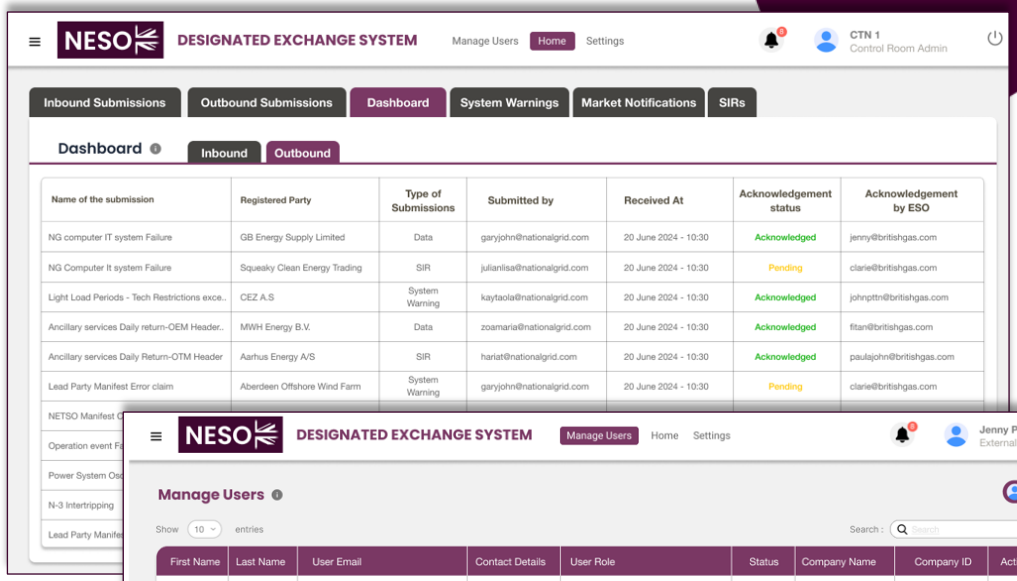
Access and Use

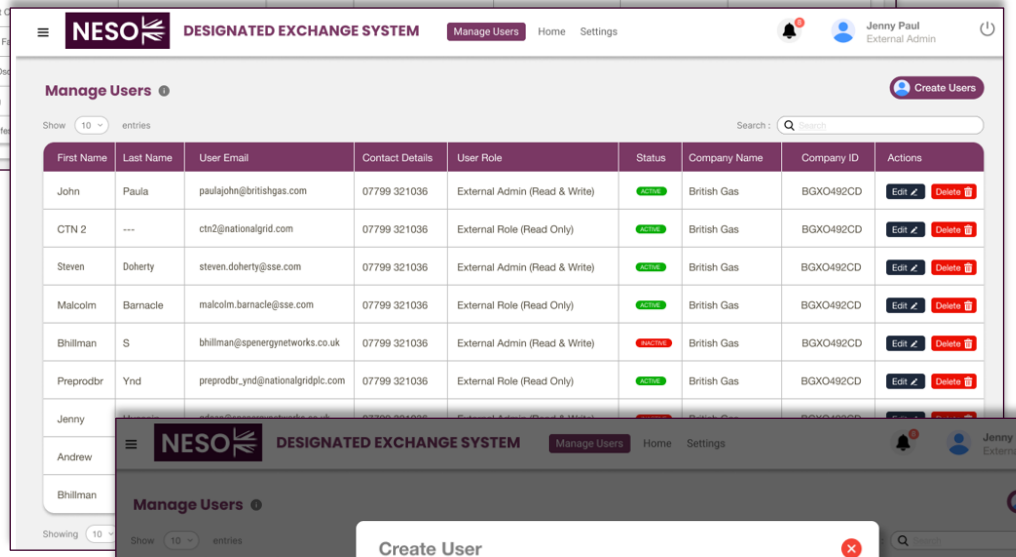
- Users will register details on first use to create an account.
  - First Name, Last Name, Email ID.
  - Company Trading Name. Company Trading ID.
  - Contact number.
- Subsequent access will require identification and authentication.
- NESO control room users will be able to view and respond to all incoming requests.
- Market Participants will only be able to see their own submissions and responses from NESO control room.
- Users will complete a web form with the same data that is currently faxed.
  - Each paper fax has a corresponding web form.
  - Data are entered using a combination of drop downs, tick boxes and free text.
  - Validation will be performed on several fiel.ds to help prevent errors.

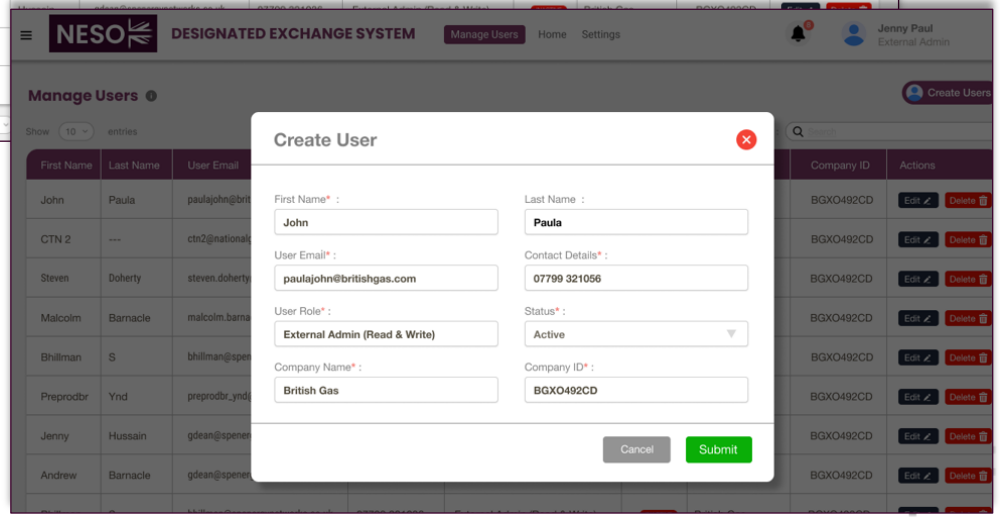
Screenshots











Security & Availability

- Encryption
  - All data will be encrypted in transit and at rest.
- User authentication
  - All users will be required to login to the platform using a named user account .
- Auditing
  - All actions by DES users will be recorded in the database for audit purposes.
- Availability
  - The platform will be designed to be highly available, running across multiple-regions and availability zones.

Risk Mitigation

- Reducing risk by decoupling from other programmes:
  - This phase builds the DES portal without any integration into other platforms such as OBP.
  - We are not dependent on other programmes delivery timescales.
  - Enables a quicker delivery and fast decommissioning of faxes.

- Data validation
  - The risk of erroneous data is mitigated by the NESO Control room performing a review and approval function prior to the data being submitted into NESOs systems

- Impact on market participants
  - We will adopt a phased approach, deploying the least critical 'fax' messages first to validate the platform and gather user feedback to deliver iterative enhancements.

Reliability

- Current Fax Machines use BT PSTN phone network:
  - Reliant on availability of BT exchange – no power at the exchange, no fax.
  - Localised failures of BT exchanges could impact individual BMUs.
  - Faxes are fallible – they are not 100% available.

- Solution is based on cloud-computing (Azure):
  - Aim is to exceed the 99.95% availability figure for BM.
  - Extensive high availability and recovery options are available.

- Dependency on reliable internet connectivity
  - Access is through a web page, so a reliable internet connection is essential (to be provided by the market participant) .

Phased Launch and Proposed Code Change Governance Route

- Phased launch approach – “big bang” too risky.
  - Roll-out access to the DES portal to users over a number of weeks.
  - Target the high priority and most frequently used templates first.
- The formal Grid Code and CUSC Proposals will be raised at the October Panels.
- Propose the “Self-Governance Modification to proceed to Code Administrator Consultation” based on the following rationale.
  - Feedback from Industry has shown that Users are keen to move away from fax machines which is aged technology.
  - No new additional obligations are being created, with the proposed changes introducing a different communication method for fulfilling current actions that take place via fax.
  - The phased launch described above will ensure Users only fully move away from faxes once they are comfortable with the proposed new platform.

  Note: Separate discussions will need to take place with Transmission Owners in respect of proposed changes to STC Procedures.

Introducing a cap and floor to generator TNUoS charges

Niall Coyle, NESO

Background

- On 30 September 2024 Ofgem published an open letter outlining their concerns around the uncertainty of long term TNUoS charges
- The 10-year projection of TNUoS published in 2023 signalled significant potential tariff increases, with those in northern GB projected to triple in some zones.
- This impact on generator TNUoS charges may:
    - Deter new investment in generation projects
    - Drive up generator CfD administrative strike prices, as well as wholesale prices and balancing costs
    - Increase costs for consumers
- Unprecedented levels of investment will be required to reach Clean Power by 2030, therefore urgent attention is required to address these investment risks.
- Ofgem consider that a cap and floor on generator TNUoS can address these uncertainties and ultimately reduce overall costs borne by consumers

Principles

Ofgem has encouraged NESO to develop a proposal that takes account of the below principles:

- Establishes appropriate, individual, upper and lower limits on the £/kW charges paid by generators through the Year-Round and/or Peak Tariffs.
- Retains regional/locational differentials in charges and between technology types through a single GB cap and floor.
- Maintains a procedure for ensuring compliance with the requirements on generator annual average transmission charges as provided for in Regulation 838/2010.
- Is capable of implementation without requiring NESO to change its TNUoS forecasting approach or timetable.
- Is capable of implementation from April 2026.

Proposal (1)

Cap

- Apply a single GB cap to the year-round shared (YRS) £/kW charge
- The cap value calculated as the 5-year average of YRS for zones 1-12 from ESO 5-year TNUoS forecast
- This choice of Zones captures all north of the B6 boundary where TNUoS volatility and escalating costs is most extreme

Floor

- Apply a single GB floor to the YRS £/kW charge
- The floor value calculated as the 5-year average of YRS for zones that have a negative YRS tariff in at least 3 of 5 years of the ESO 5-year TNUoS forecast

Why YRS?

- The YRS tariff is the only element of the wider tariff applied the same to all TEC types (i.e. scaled by ALF)
- Proposing to not cap peak/year-round not shared (YRNS) tariffs

Proposal (2)

Maintain gencap compliance

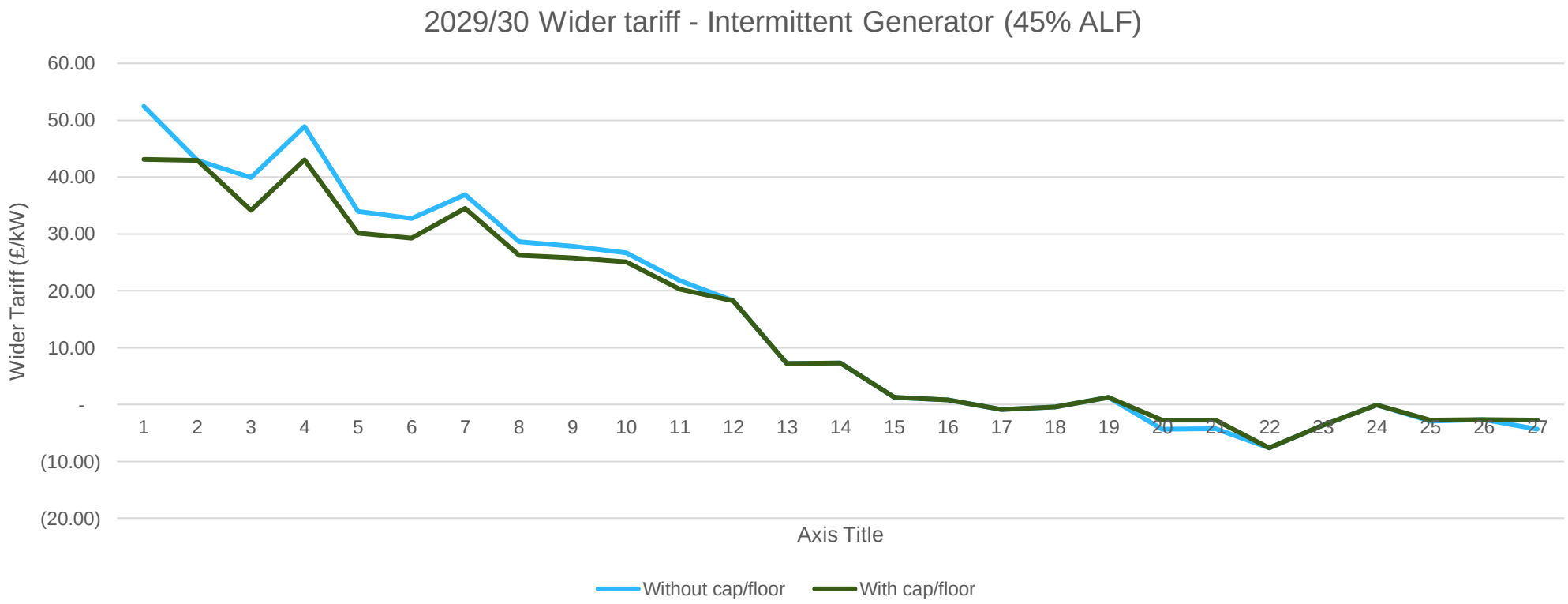
- Any under-collection in revenue because of the cap/floor will be collected via the generation adjustment tariff
- In practice this will offset against the negative generation adjustment tariff
- If within a year this adjustment would push average generation charges outside the range of the limiting regulation, any subsequent revenue will be collected via the transmission demand residual (TDR)

Duration of the cap/floor

- Propose for the cap/floor to be in place until reforms through the REMA programme are implemented
- A longer cap/floor may dampen the reformed locational signals put in place by REMA
- Further protection for generators making investment decision while the cap is in place may be required

Analysis

- Using April 2024 ESO 5-year forecast, the proposed methodology would cap YRS at £18.83/kW, and floor YRS at -£6.03/kW



*Excludes the generator adjustment tariff

Next Steps

- We plan to take feedback on board and continue to develop the proposal
- Aim to raise the modification proposal at the October CUSC panel, and request urgency from Ofgem
- Ofgem aim to make a final decision on the proposal by Summer 2025, ahead of the CfD allocation round 7 bidding window

AOB & Close