Innovation Basecamp 2026

4th February 2026 – Park Plaza, London

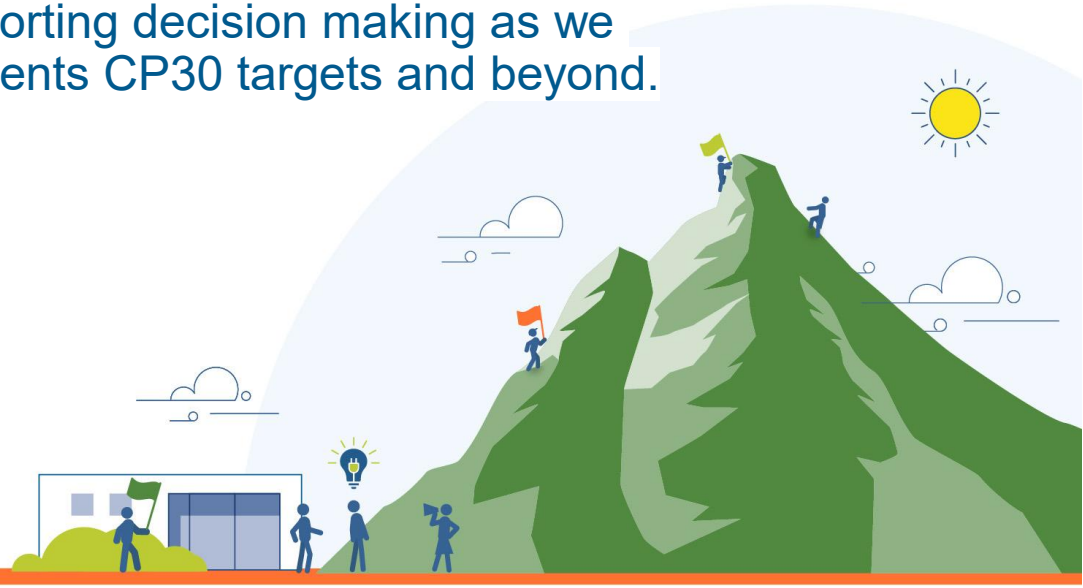
EIP161 – NTO Visulisation

Anna Blackwell / Ian Dytham

Introduction

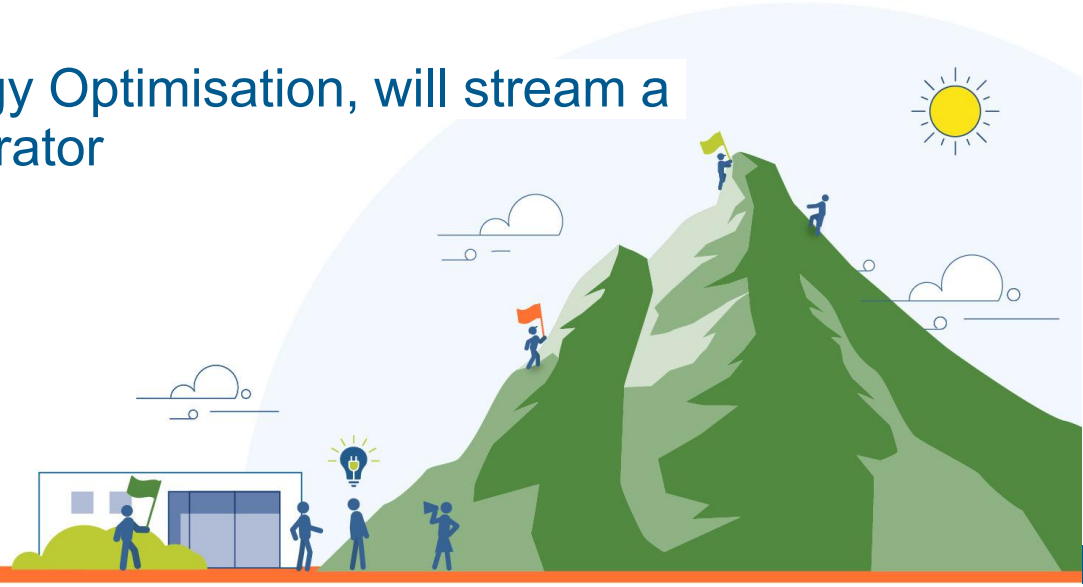
National Energy System Operator (NESO)

- NESO is responsible for planning and delivering the energy of today and the future.
- We operates the GB electricity system and have a gas planning role.
- Within this, the Network Control Programme is working to enhance the Electricity National Control Centre (ENCC) situational awareness tooling, supporting decision making as we transition towards a zero-carbon grid meeting the Governments CP30 targets and beyond.



Background Information (WIP)

- The decarbonised electricity system is increasing the volume of data a control room operator receives
- Characteristics such as inertia, system strength and oscillations becoming more common
- Flexible demand and generation is increasing the scenarios that need to be considered
- In addition, new automation such as Network Topology Optimisation, will stream a significantly increased volume of options to each operator



What are the Problems?

- Current displays use traditional graphs, tables and line diagrams
  - Not suitable for some complex issues
- Operational data is
  - Complex to interpret
  - Spread across different systems
  - Rapidly increasing in volume
- NESO needs to ensure control room operators identify the critical information to maintain the system integrity.
- **Existing display need to adapt to allow for optimal situational awareness**

Our Expectations

What are we looking for?

- **Solution Expectations:**

We are looking for research into new or novel design principles that can be used in our control room operator products to best visualise information including:

  - Inertia
  - Oscillations
  - System Strength
  - Network Topology Optimisation output

- **Non-negotiables:**

None

IMPORTANT

It is important for all innovators to note that we are looking for plans rather than just ideas as solutions.

Key Contacts:

- **For further information / Clarity:**
- **This builds on the NIA funded report into Network Topology Optimisation (NIA2_NESO087) which highlights the need for suitable user interface / user experience to enable the operator to interpret NTO solutions, as well as the NIA project, Future Operator Console: Optimised Visualisations (NIA2_NESO073)**
- Please email innovation@neso.energy if you require further clarifications including Basecamp – EIP161 in the subject line

- **ANY QUESTIONS?**

Energy Networks Association
4 More London Riverside
London SE1 2AU
t. +44 (0)20 4599 7700

@EnergyNetworks
energynetworks.org

scan me

Subscribe to our newsletter to receive updates from ENA

energynetworks.org/**subscribe**

The voice of the networks