

**Thank you for joining the Open Networks webinar for –  
WS1A P5 Interaction between ANM and DSO Flexibility Services**

**This webinar will commence at 11:05am to allow time for everyone to enter their registration details.**

If you are unable to play the audio through your device, you can also dial in by calling **+44-20-3478-5289, Access code: 321 654 073**  
Your microphones will be muted for the duration of the Webinar. Please ask questions through the Q&A function rather than the chat function as we will monitor the Q&A more closely.

There will be a brief pause between slides where some questions may be answered straight away.

Some questions will be addressed at the end of the presentation.

Any questions that we do not have time to discuss during this webinar, or any questions that require a considered response will be sent out via email at a later date.

Please note that this webinar will be recorded and that the audio, chat messages (anonymised) and slides will be made available on our website.

Should you want further information about the Open Networks project, please don't hesitate to get in touch with us at [opennetworks@energynetworks.org](mailto:opennetworks@energynetworks.org).

# Energy Networks Association

## WS1a P5 – Interaction between ANM and DSO Flexibility Services

16<sup>th</sup> June 2020

# Interaction between ANM and DSO Flexibility Services

## Outputs of ON2019 WS1A P5

ON2019 WS1A P5 focused on the conflict management and co-optimisation of flexibility services within the whole electricity system. This covered the interactions between network constraints and service accommodation across transmission, distribution and iDNO networks.

## Outputs

There were three key reports published:

- Conflict Management and Co-Optimisation Framework

*This identified a process for identifying conflicts between network constraints and service accommodation and the information required to do so. Additionally, potential mitigations were outlined to be taken forward through real-life examples of conflict as this becomes apparent on the system.*

- Stackability of DSO Services

*Review of the compatibility between DSO and other services likely to form part of the revenue streams for a flexibility asset. The review included the stackability of different revenue streams within the same half-hour and also in adjacent half-hours/periods.*

- The stackability of ANM and Flexibility

*Explanation of the typical implementation of ANM versus Flexibility – highlighting differences in approaches and usage. Examination of current likelihood of ANM users solving issues where flexibility is sought. Proposals for resolving conflict potential.*

# ANM and Flexibility

There is a substantial difference in coverage and scale of ANM vs Flexibility Services currently.

DNO Flexible Connections	ANM/Flexible Connections (MW)
Industry Total - End of 2018	2517.8
Industry Total - End of 2019	3169.6

DNO Flexibility Services	MW Contracted
Industry Total - End of 2018	61.8
Industry Total - End of 2019	157.4

ANM has the following characteristics:

- Real time operation
- Embodied in the connection agreement
- ANM connection option is chosen by customer when seeking a new or modified connecting, but subsequent curtailment is mandatory
- Requires ANM equipment physically on site to manage the connection
- Dispatch of curtailment is controlled end to end by DNO systems
- Forms an enduring requirement
- Limits distribution network access
- Used where the user is responsible for costs
- Uncompensated for activation
- Reduces up front connection charges
- Curtailment shared by a deterministic approach (Last in, first out; proportional)
- Operation of existing connections unaffected

Flexibility Services have the following characteristics:

- Forms a distinct commercial agreement
- Participation is voluntary and compensated
- Used where the network is responsible for costs
- Services are contracted for a set period of time
- Contract can be terminated subject to the terms and conditions
- No inherent requirement for physical equipment to manage the connection
- Dispatch can be through intermediary platforms
- Services can be scheduled ahead of time or dispatched in real time
- Network access is not affected, but there may be commercial penalties for not following an agreed load profile
- Connection agreement, and associated connection costs still required
- Open for any existing user to participate

Crucially, as the curtailment of ANM connections is forecasted, service procurers should be able to take a view on when ANM is likely to conflict when providing Flexibility Services.

**There is no inherent reason why ANM users cannot provide, or be compensated for providing Flexibility Services.**

For DSO Flexibility Services, the standard terms developed by Open Networks have no exclusivity clauses pertaining to ANM connections.

# Development through Open Networks

## Previous Work

### *User Information*

User assets managed by ANM systems will be provided sufficient information on ANM Constraint Information, as per ON2018 WS2 P7. When procuring Flexibility or Balancing Services, the flexibility providers will be given sufficient information to understand potential service windows and will have to warranty that their connection agreement does not prohibit provision of services within those service windows.

### *Procurement*

Flexibility Services will be procured in line with recommendations of ON2019 WS1A P2 – DER with non-firm connection arrangements will be assessed to understand the probability of curtailment during the service window.

### *Conflict Management*

Processes for identifying potential conflict of services and accompanying mitigations for resolving the conflict have been developed under ON2019 WS1A P5 Conflict Management & Co-optimisation.

## Potential Future Work

### *Non-DSO Services*

Data and information to enable non-DSO platforms to undertake these functions

### *Standardisation of ANM to Flexibility Services*

- Termination of existing ANM connection and re-application for a new connection with associated costs
- Continuation of existing ANM terms and conditions
- Procurement of flexibility to provide short-term firmness of network access rights; either
  - through interaction with the DNO; or
  - trading with peer to peer markets
- Longer term conversion to an unconstrained connection through the DNO using flexibility (associated costs apportioned)