Problem Solving Session

Lack of Telemetry from Behind-the-Meter Assets

NESO cannot observe or monitor small or behind-the-meter assets because they do not provide us telemetry, resulting in a significant gap in system visibility.

- Carrot and stick; incentivise early movers to provide data and penalise late-movers
- How close to real-time can NESO get MHHS metering?
- Publish the SCADA data you have already in real-time, and industry will compete to find the best ways to model it (2)
- Or - to the point about publishing SCADA data, perhaps consider ESC or academic platforms to make an historical dump of data available?
- REMA proposal to require all assets >1MW to be in BM
- A query on the growth of plugin solar - and how much of an issue for visibility
- Innovation project should be carried out to gather data from generation assets of a specific site to determine learnings / modelling approaches that can be applied to fill data gaps (1)
- Suggest in conjunction with REMA comment it would need impressive registration speed
- How far have you gotten with GSP-level forecasting? Can you publish it so we can experiment with what seems to be driving error? Is behind-the-meter visibility strctly needed to improve?
- Can not focus on more information on limited/most problematic sites?
- Can machine learning be used to model the underlying assets?
- What level is needed or provides most improvement?
- Do you feed market prices into your forecast algorithms (eg power market prices, spark spread for gas engines etc)?
- Seems pretty fundamental to me - what about the new domestic HH meters?
- There is a granularity issue here. I am unconvinced of the value (to NESO) of knowing the exact location and behaviour of assets as small as plug in solar. Instead a robust approach to inferring the effects of aggregate groups of these assets (along with ways of estimating other relevant levers such as ophew rates) should be developed.
- Is there and issue with sending the data is it a lack of connectivity or is it a lack of incentive?
- Is NESO prepared to pay for extra metering and telemetry, or is it expecting asset owners to provide it for free?
- What about DNOs' own telemetery?

No Visibility of DNO Actions and Curtailment

NESO lacks visibility of DNO actions, including curtailment activities, limiting situational awareness of distribution-level interventions. This lack of visibility historically limits our ability to develop forecasting tools.

- BMRS-like data platform for real-time DNO dispatch transparency
- Can data exchange be improve between NESO and DSOs? (1)
- Surely NESO should be working hand in glove with DNOs?
- Integrated infrastructure planningn and dispatch decision making between DNO and NESO should be carreid out for cost optimal whole system planning
- If DNO's can provider forecasts using their greater visibility can this be shared with NESO?
- Is this a good use case/ innovation project using NESO's DSI?
- Was talking to someone at the UKPN DSO event about this on Monday. Better TD co-ordination is on their roadmap. There are projects actively seeking to improve the data sharing connection at the TD boundary that can be learned from and leveraged to move forward.

Absence of a Single, Reliable Asset Register

There is no single “golden record” of distribution-connected assets, and the quality and consistency of ECRs varies significantly, leading to unreliable asset data.

- Refer to them as Embedded as that will makes it clear from the start where they sit in the system
- This has been a problem since 2015. (1)
- Could Elexon's role as Flexibility Market Facilitator help?
- as an FYI - University of Birmingham is starting a body of work on an asset register for gas-to-power to validate work from IGEM and Progressive Energy
- P442 is going to be interesting for this !!!
- The asset register was discussed a great deal during Project Terre are there any useful learnings from that process? The issue was around how do you stop a DSR asset being called by more than one TSO
- Centralise a single ECR with data standardisation
- Is this not being developed in the FMAR?
- Can the FMAR take learning from the automatic asset register to develop more complete and up to date list?
- Asset register information is insufficient since hourly profiles are needed for managing and balancing the system, real time data on generation is needed (1)
- Foster genuine peer to peer energy trading and BTM assets will light up the map
- Can you publish a list of the data gaps and where you have tried looking, problems with MCS data etc?
- I dont think that the FMAR covers this use case. It has flexible assets that want to participate in the market, It wont cover passive solar etc.
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Unadjusted Outturn Data for ENCC Distribution Actions

NESO does not adjust historical outturn data to account for ENCC actions on the distribution network, which reduces the accuracy and effectiveness of model training and forecasting.

- Why not just do the adjustment? Could you collect and publissh which circuit(s) each known asset is linked to?
- Can counterfactuall modlieling, e.g. through causal forecast models not recover the adjustments?
- An easy win this surely? (1)
- Peer to peer will solve this too
- Explore what data flags are available to indicate when ENCC distribution actions have been taken - can this then be incorporated into model training? Depends on model being used, I suppose?
- Is it known how much resourcing it would take to publish data that does take account of ENCC actions (as well as potentially continue publishing data that does not?)
- Connect with Simon Stromberg's Basecamp Project

See an example