

Meeting 2<sup>nd</sup> May 2024

# Markets Advisory Council

## Agenda:

1. Introduction
2. NESO & Director of Markets Update
3. ESO Planning, Modelling & Strategy Cycle
4. Introduction to ESO Balancing Costs Report (Lizzie Blaxland)
5. Flexibility Market Strategy update (Damien Kelly)
6. Scheduling & dispatch update (Izzie Sunnucks)

## Topics Discussed

### 1. Chair's Opening Remarks

Steve Jennings (SJ) welcomed new MAC member Ainhoa Anda, Head of Data Centre Energy at Google, and guests from ESO's Flexibility Market Strategy and Balancing Costs teams. Steve also introduced Vicki Mustard, Head of Gas & Whole System Market Development.

### 2. Director of Markets Update (Matt Magill)

- Matt Magill (MM) provided a brief update on NESO and shared an update on recent new appointments in the ESO Markets leadership team, including Rebecca Beresford as the new Director of Markets.
- Vicki introduced herself and provided a short update on the latest progress on the Whole Energy Market Strategy (WEMS) workstream. The group had a discussion around where heat fits into the WEMS project and agreed it would be prudent not to take any solutions off the table too soon. The WEMS report should start to articulate some of the key pros and cons for the decarbonisation of heat and how this should reflect a whole system approach. The group discussed that there is likely to be a big role for 'molecules' in the future power system, but it would be prudent to suggest that gas may not be the first choice of fuel for domestic heating in a net zero landscape. Members agreed that NESO should play a neutral role in establishing a co-ordinated plan across gas supply, production, and transportation sectors.
- SJ and MM reiterated ESO's intention to co-ordinate the electricity-focussed MAC in its current form with the Future of Gas Steering Group which is now being taken on by NESO. SJ rounded up the discussion by reiterating this type of big, strategic activity is a core interest for the MAC and they look forward to a more detailed discussion at the next session.

### **3. ESO Planning, Modelling and Strategy Cycle (Matt Magill)**

- MM talked through the many ESO modelling, planning and strategic activities and how they currently interact. This included Future Energy Scenarios (FES), Strategic Spatial Energy Planning (SSEP), Centralised Strategic Network Plan (CSNP), Operability Strategy Report (OSR), Balancing Costs Review and ESO's flexibility and market strategies. The purpose of this was to highlight the interactions and flow of information between different ESO workstreams and demonstrate a co-ordinated approach.
- One MAC member observed that we could easily draw the hourglass the other way: from local communities up to Regional Energy Strategic Planning and then into national market strategies. The group reiterated that it is imperative we think about the local impact on people, followed by regional as well as national. Achieving net zero is local by nature.
- Another member also raised a point that this process needs to exist in a closed feedback loop. Planning also needs to have enough elasticity to adapt to where markets are taking us. Therefore, updating FES needs to reflect the latest information which is derived from actual market behaviour and live information on reforms that are/aren't being delivered effectively.

### **4. ESO Balancing Costs Report (Lizzie Blaxland)**

- Lizzie Blaxland (LB) introduced ESO's first Balancing Costs Report (BCR) and described the three key messages: balancing costs are increasing to 2030 (largely driven by constraints); decisions which are made now will shape balancing costs into the 2030s; ESO initiatives create ~£18bn worth of savings before 2030.
- The group discussed the influence of constraints on balancing costs. A MAC member asked whether further context could be added as to a threshold for an 'efficient volume' of constraints (i.e., a totally unconstrained network will not deliver the optimum benefits for consumers, or sufficiently incentivise the enablement of flex).
- Another member reiterated previous ESO statements that constraints are an unavoidable consequence of the development of renewables in the short term, but longer-term transmission build will catch up and mitigate some of some of this effect. Another member cited the importance of differentiating between constraint costs and balancing costs because they are not the same.
- LB summarised the breakdown of the Balancing Costs Report which drills down into specific sections on response, reserve, and individual types of system constraint. LB also shared how balancing cost forecasts have been divided into pre-2030 and post-2030 for the first time. The difference post-2030 could range between £~2bn and £~5bn per annum depending on the rollout of nuclear SMRs, electrolysis, and hydrogen.
- One key observation which was made by MAC members was that none of the scenarios 'explode' into exponential growth in balancing costs, assuming we build the network in the future to keep future costs at bay. If transmission build is late, there is a potential that these costs may explode. LB clarified that the modelling in this report is founded upon the Beyond 2030 report recently released by ESO on future network build.
- The MAC recognised the transparency and level of work which has gone into producing this report and agreed it will be a useful resource for industry. A suggestion was made as to whether further granularity could be provided to show the breakdown of balancing costs so that industry can understand how the numbers were arrived at and where the greatest proportion of cost lies.

## **5. Flexibility Market Strategy (Damien Kelly)**

Damien Kelly (DK) summarised the three main focus areas for today's session: the call for input (CFI), feedback received on the case for change, and ESO's review of routes to market for demand side flexibility.

The key discussion points are summarised as follows:

- ESO plan to publish the CFI for flexibility markets strategy at ESO Markets Forum on 14<sup>th</sup> May and it will be open for 6 weeks. Engagement will be in the form of an industry webinar on 22<sup>nd</sup> May and further options for workshops and 121s. Feedback received will be incorporated into ESO's flexibility market strategy which we are aiming to publish in Q3 2024.
- DK summarised shared how ESO focus has been on sharpening the case for change, especially following MAC feedback at the previous session. DK described how decarbonisation of demand, plus electrification of heat and transport, poses both challenges and opportunities. For example, FES is forecasting up to a doubling of demand by 2050 which will require more generation and network capacity, whilst it presents a huge opportunity to unlock flexibility potential.
- One MAC member described how many different graphs and studies exist in this space which may tell different stories, but there is a common message across them all which is that unlocking flexibility will deliver the greatest benefits to consumers in the long run. Another member stated the importance of considering both implicit and explicit roles for flexibility (e.g., flexible load that responds to ToU tariffs as well as explicit market / ancillary service signals).
- The group discussed to what extent NESO will want to model implicit flex on the assumption that it might be useful to understand why, where, and how it is being unlocked. Flexibility might not all need to be activated by ESO, but it would be beneficial for ESO to have visibility and an understanding of the behaviour of flexibility from a holistic system operation perspective.
- Members reiterated the importance of cross-border flexibility and co-ordination with DSOs to make flexibility work. For example, the development of cross-border flex services in Europe is gathering momentum so it important that NESO gives this the required focus. Separately, herding behaviour could exacerbate constraints on the DNO networks. The group discussed how accurate forecasting of flexibility may help DSOs but mainly the ESO in our role as residual balancer. In the future, this could be enhanced through AI.
- DK also shared the work which ESO has done of establishing measure for success. This revolves around three key themes: co-ordination, competition, and coherence. The group had healthy debate around whether measurability of demand side growth should lead to setting of targets or not which would help measuring of success more auditable.
- The group challenged the initial assumptions which ESO had made in the RAG routes to market review table.

## **6. Scheduling & Dispatch Update (Izzie Sunnucks)**

- Izzie Sunnucks (IS) started with a recap of the previous MAC session and the two areas of focus for ESO in this space since: establishing a case for change and supporting DESNZ on options design for dispatch arrangements.
- IS shared an overview of DESNZ's forward plan for assessing different dispatch arrangements. This indicates whether we should keep self-dispatch with supplementary reform, or consider changes to a central dispatch mechanism. IS advised we are also

exploring how the other key inputs on REMA (zonal pricing & access rights) are significant and how this may solve or exacerbate our dispatch issues further.

- IS confirmed the aim for this work is to come to industry in June with a suite of plausible models that could fit within self-dispatch or central-dispatch regimes, and to check if there are models that we may have missed. IS clarified that any changes will be subject to DESNZ' governance process and the wider REMA assessment criteria.
- IS clarified there is no single definition of self and central dispatch, and this confusion is stifling the debate with industry. ESO are trying to break this problem down to show the relevant components. There are two key points which ESO are especially mindful of. Firstly, retaining self-dispatch but moving to locational pricing is a big change. Secondly, we are designing dispatch models mid-transition for a market that will be even further along the transition with more HVDC interconnection, storage, wind, and embedded generation by the time policy recommendations are implemented. So, whilst international comparisons are helpful, we are treading new ground in GB.
- A MAC member queried whether the central dispatch conversation is at odds with earlier discussions in terms of enabling flexibility. IS advised that it isn't always the correct assumption that central dispatch occurs at D-1. In other jurisdictions it can evolve with within-day and power exchanges can remain a significant input in some European examples of central dispatch. IS highlighted the benefits of central dispatch are largely to do with consent: specifically reversing the perspective on "the SO saying no in advance", as opposed to "the SO saying no once something has already been scheduled".
- Another member welcomed the nuanced discussion around dispatch reform because it is not that benefits accrue because of 'self' or 'central' dispatch, but it is the very features within them that drive the benefit. Scrapping the definition of self and central dispatch may be helpful to prevent simplifying or polarising the discussion too much.
- Izzie concluded that there is an expectation that we will come back to the MAC in the summer following further work and industry engagement, ahead of broader recommendations to DESNZ as part of REMA.

Meeting closed.