Welsh Government's response to Ofgem's consultation: DNOs' future role in supporting the rollout of low carbon technologies and energy efficiency

Q1. Should DNOs play a role in co-ordinating and supporting a cost-effective energy transition through improved planning and supporting/directing targeted delivery? How can they help make the transition more efficient and affordable for everyone, and do they have a role in supporting lower-income households?

This response is split into 3 parts.

(A) Although DNOs can play an important role in the planning and delivery of transitioning to a net zero energy system, it is our view that local and regional decision-makers should retain overall responsibility for coordinating the energy transition as they know the priorities for their area the best, and have the democratic mandate to make decisions. Local and regional stakeholders are considering wider energy system decarbonisation (e.g. transport & industrial decarbonisation, heat networks) whereas this consultation focuses on DNOs leading on the coordination of domestic retrofit. It is important that discussions around domestic retrofit do not happen in isolation from the wider energy transition discussions.

DNOs have to deliver very significant network developments over the next 25 years and expanding their role into this new sphere risks moving focus away from their primary responsibilities around getting power to properties by developing and reinforcing networks.

The DNOs have the technical understanding of the networks (i.e. current constraints, future plans to reduce constraints) to assist decision-makers within the Corporate Joint Committees (CJCs) and Local Authorities (LAs) in Wales ensure local priorities are incorporated within strategic network planning. They can also help stakeholders identify area based projects.

DNOs can play a critical role in ensuring that their data is easily accessible to the stakeholders that need it (e.g. LAs, NESO, Ynni Cymru), whilst adhering to data protection rules, and compatible with datasets that other organisations hold (e.g. energy suppliers) to help them identify vulnerable customers, customers off the gas grid, areas with network capacity constraints etc. If the DNOs could specify which types and size of LCT or EE measures would be beneficial from a network perspective in different locations, that would be very useful to planning area based retrofit schemes.

In the Welsh context, Ynni Cymru could play a role in working with the DNOs to identify areas best suited to smart local energy systems (SLES) and to help DNOs with their own planning assumptions (e.g., to what extent can SLES reduce the need for new network capacity by smart use of PV, BESS, EVs and heat pumps).

The key issue remains, however, that the DNOs are focused on system optimisation (i.e. overall system cost reduction and system resilience) which may differ from decision-makers priorities. They are also operating across different geographical areas to local / regional stakeholders.

Overall, we would welcome and support the suggestions for enhanced coordination including stronger engagement with devolved governments, improved data sharing, and better alignment of network investment with local decarbonisation programmes. The proposals could align well with Welsh Government's long-standing area based work including feeding into LAEPs and other work like our long standing Warm Homes programme to reinforce the value of devolved experience informing GB wide regulation.

(B) DNOs can help make the transition more efficient and affordable for everyone by providing technical expertise to help local and regional stakeholders identify and prioritise projects which balance local priorities (e.g. economic growth, fuel poverty reduction) against system wide cost reductions that ultimately benefit everyone through bill reductions. Without this, it is possible that projects will be pursued which have high grid connection costs, put additional strain on the networks and do not fully unlock flexibility opportunities therefore increasing system wide costs. Having dedicated staff that can be key contacts for local and regional stakeholders is essential to building trust, ensuring DNO datasets can be used effectively to inform decisions and helping to build network literacy.

(C) In terms of whether DNOs have a role in supporting lower-income households, DNOs currently have no legal requirement to do this. DNOs shouldn't be responsible for making decisions where there could be trade-offs between reducing system wide costs, reducing fuel poverty, meeting decarbonisation goals, maximising local economic growth and unlocking health benefits. These are political decisions that should be made by local, regional and national decision-makers to ensure funding is focused on the needs of the people of Wales. However, we would support the inclusion of a duty on DNOs to consider a fair transition. This duty, to ensure that less affluent areas are not left behind and denied access to LCTs and particularly EVs, is important in delivering a fairer energy system. That said, DNOs can assist local and regional decision-makers in

understanding how fuel poverty reduction can be incorporated into strategic network planning. DNOs can identify areas where LCTs could deliver benefits to the system; then other actors can determine whether the proposed measures would positively benefit lower-income households and those experiencing fuel poverty. It is important that a complete and coherent dataset on fuel poverty is collated, utilising information from multiple organisations (e.g. energy suppliers, DWP).

Q2. Do you agree with the overall rationale and scope of 'Enhanced Co-ordination'?
Yes. We agree that DNOs can enable optimal planning and delivery of retrofit by sharing data with local and regional stakeholders, helping them to identify and prioritise suitable areas, and ensure these programmes are considered when developing and delivering network investment plans.

Greater emphasis on meaningful stakeholder engagement will help ensure local priorities are captured in DNO business planning and NESO's work. We welcome formal recognition of devolved governments as key DNO stakeholders, with an expectation that engagement will result in positive input into network planning decisions.

Q3. What are your views of the effectiveness of the existing Collaboration Plan requirements? Do you think the enhanced Community Collaboration Plans we have described would be helpful to stakeholders and, if so, how best should they be monitored?

This response is split into 3 parts.

(A) Existing Collaboration Plan requirements for DNOs to publish plans and share data have been welcomed as transparency helps to build trust.

(B) We welcome the suggestions to enhance the Collaboration Plans. A commitment to ongoing stakeholder engagement events would help to build trust and encourage local and regional stakeholders to continue engaging in the network planning process. It will be important to tailor the engagement to the audience as identified by Nesta's recent work. In particular, the provision of 'technical support or advice to local authorities to support their area-based decarbonisation programmes', 'tools or software to enable local authorities to deliver decarbonisation or retrofit plans or build and connect renewable generation' and 'present different network build options to local authorities to inform their decision making' would all be very useful to LAs and CJCs. These activities would support both the creation of the Strategic Development Plans (SDPs), the delivery of the Local Area Energy Plans and help increase the rate of housing

decarbonisation. It will be important for DNOs to engage with the Welsh Government and other stakeholders to ensure any tools do not duplicate what is already available.

Requiring DNOs to show where their network planning has changed as a result of engagement with local or regional stakeholders and through assessments of their plans would be incredibly useful to helping build trust and demonstrate that the DNOs are committed to working with stakeholders.

It would be useful to better understand how these engagement activities and the Collaboration Plans could be combined with other network planning initiatives (e.g. RESP, SSEP, local area energy plans) to ensure stakeholder fatigue is minimised.

With regard to the Optimal Scheduling and Co-ordination Agreements, which would commit parties to sharing network and retrofit investment plans, in principle this sounds useful and could overcome any data sharing issues. The energy plans should be considered to ensure these are maximised and the co-ordination agreements are as efficient as possible. Where possible these should also be considered in terms of delivering local and regional development plans, ensuring that relevant information is included in those processes as well.

(C) In terms of monitoring the plans, as highlighted in the consultation document there is a risk that engagement becomes a tick box engagement. The suggestion that Independent Stakeholder Groups assess the quality of the engagement is welcomed, however this should be linked to other activities where possible (see previous comment).

Q4. How useful is the data currently published by DNOs, and is it presented adequately?

The data published by DNOs is useful, particularly when presented spatially and easily downloadable. However, the challenge remains that local and regional stakeholders often do not have the resource or expertise to meaningfully engage and use the data that DNOs are publishing. There is still a gap in terms of translating what the plans and data mean for stakeholders on the ground in the short-, medium- and long-term in clear and concise non-technical ways. In the future we are looking to use digital twin systems to help all stakeholders interrogate data sets in a meaningful way. It will therefore be vital that data provision from DNOs and iDNOs is consistent and complete to facilitate this.

This data should also be shared with local planning authorities where relevant to ensure development plans include the relevant information where required.

Q5. What are your views on strengthening the System Visualisation Interface requirement, and would it be valuable for DNOs to collate and publish additional non-network datasets, if so, which datasets would be most beneficial?

Additional data, provided in a map format but also downloadable via different formats (e.g. csv) would be useful to local stakeholders. In terms of identifying area based retrofit projects being able to view network information alongside housing and wider social information would be very beneficial. The additional data sets could include EPC data, socio-economic data, fuel poverty estimates, council tax exemptions, planned heat networks, location of new housing developments, tenure, installation of LCTs, customers with physical or mental health issues, smart meter data and the energy types used by vulnerable customers. These datasets would need to be consistent across DNOs and data protection issues would be need to be managed appropriately.

Whether this role should be carried out by DNOs must be considered. In Wales we have DataMap Wales, which houses multiple data sets that can be interrogated in different ways. This would therefore seem to us to be a Government function rather than a DNO role. Funding this work for the English regions, separately from networks but working with them, could help unlock delivery.

As mentioned previously, one of the key constraints however is the lack of resource at the local and regional level to interrogate this data. There is a need to provide advice to stakeholders to help them navigate the huge amount of information available. Local authorities with extreme limits on their time need to be able to find what they need quickly and have someone explain to them how it could be used (this is linked to the point above on ensuring development plans can access and illustrate relevant information).

Q6. What are your views on the Working with Local Authorities and others proposals we have set out above? What if any, would be the key elements of this? Are you aware of particular entities who would benefit from such advice?

The provision of DNO technical support and advice could support local authorities and CJCs identify area-based decarbonisation plans. The regional energy teams in Wales could use this support to identify area-based decarbonisation programmes that support the decarbonisation of homes as well as businesses, transport, industry and reduce constraints on the network. This information and support could not only identify projects that decarbonise homes but would offer the opportunity to identify wider SLES projects.

It is important to note that this support could help deliver the ambitions of the Local Area Energy Plans across Wales. However, any tools being developed should not duplicate existing support (e.g. Net Zero Go, RESP, Powering Wales Renewably, local and regional development plans).

In terms of the DNOs sharing possible network build scenarios with local authorities, we can see this adding value by demystifying the process and showcasing how their involvement in FES and RESP make a difference to DNO's business planning and subsequently influence the local and regional development plans. This is incredibly important to ensure continued stakeholder engagement in strategic network planning.

It could also help to demonstrate the importance of incorporating local / regional energy projections to ensure that the amount of network infrastructure built is minimised. Currently the framing of RESP and other strategic network plans do not always clearly communicate how these processes will operate to reduce stranded assets and build the minimum amount of infrastructure that's needed to transition Wales to net zero.

The key hurdles to doing this however might be
(a) how to communicate how distribution network planning may depend on transmission network plans and the differing timescales for these decisions,
(b) how to be transparent about plans that will be dependent on planning permissions and
(c) how to ensure network technical information (e.g. MW, voltage) can be translated into something meaningful to non-energy focused people (e.g. planners, housing officers).

There is currently no single organisation responsible for considering whether new network proposals are the optimum grid options for Wales (in this instance) in terms of meeting policy requirements and local needs. This becomes a much more pressing issue with the increase of iDNOs and potentially independent transmission operators coming forward with plans as well. It should be a priority to take a planned approach to networks at both distribution and transmission level, and consider the interoperability of the two systems. This is required to minimise the impact of grid infrastructure and to ensure the grid delivers its maximum potential as part of a wider network.

There are two clear requirements here. One is for additional capacity for local and regional authorities, who are now seen as key to a successful energy system transition, to engage with network design, principally through RESP but also around local need directly with the DNO. This is an un-resourced function and needs resourcing urgently. The other requirement is for an advisory function, which could lie either with DNOs or

with the RESP team, advising decision makers on how well a network proposal contributes to a holistic distribution network design. The RESP team taking this role would be preferable as DNOs are likely to be acting as developers and would be conflicted.

Q7. How could iDNOs support the proposals in this portion of the consultation? How could either private wire connected properties or license-exempt networks feature in these proposals?

In terms of providing information, it will be important to require iDNOs to provide consistent datasets. Provision of low voltage data sets still has a great deal of value when holistically planning the network and assets connected to the network. While we would not expect RESP to look at the intricate detail of low voltage planning, the ability to interrogate the low voltage network, through a digital twin system, will enhance the ability for stakeholders to build a picture of suitable places for LCTs and network reinforcement. It will also feed into enhanced understanding for those looking at flexibility in order to balance our grid systems – not a local authority issue but another important requirement for data from iDNO sources.

In terms of engaging with stakeholders, where there are multiple network operators operating in a local authority, stakeholder fatigue must be minimised and communication channels clear. Experience also leads us to believe that iDNOs do not hold enough insight into full system considerations, being engaged to target specific project needs largely, and they are most likely to speak to stakeholders about their own schemes where a more joined up approach would be helpful for decision makers.

Generally we would like to see more integration of iDNOs into major and strategic system or scheme planning. This would need facilitating to be effective. The INA sits in a number of strategic planning groups; however reaching and getting input from individual iDNOs is also important in having the data to be able to plan the best solutions.

The are a couple of assumptions within the consultation text for iDNOs – point 3.57 talks about them only being involved in 'local' networks. However an iDNO in Wales is planning a set of lines that reach across multiple local authority areas. Point 3.58 suggests that iDNO work may fall outside RESP interest as iDNOs are working at low voltages. The same scheme mentioned will be at 132kV – the highest distribution network level for Wales.

We flag these assumptions to raise that we feel it is important that iDNOs are not excluded, either purposefully or inadvertently, from any part of regulation that would encompass the larger DNOs, as we are seeing an enhancement and a shift in the iDNO

role and ambition, and regulation needs to provide consumers and stakeholders with the same protections, in line with this ambition.

In terms of private wire and license-exempt networks, there may be benefits to be had from including these within role-definitions. Data gathering for modelling could be of benefit to the system. For example, in identifying areas where an approach to a private wire holder could alleviate a system constraint, for instance.

We can see no reason to exclude iDNOs from any final decision on an appropriate role for supporting LCT roll-out. We would advocate for including them in these plan considerations, acknowledging that there may need to be specific licence clauses appropriate to their circumstances.

Q8. We are keen to understand how these proposed Enhanced Co-ordination activities could best integrate with NESO's RESP processes in the near and long term, and how these proposals could complement, or be in tension with, RESP development?

We would hope that there would be integration between DNO engagement at the low voltage street-level planning and RESP's focus on higher voltage strategic decisions in the near term. It's possible that it would be appropriate to combine engagement activities to reduce stakeholder fatigue in certain circumstances so local actors don't feel like they are having the same conversation with both the DNOs and NESO.

Clear role boundaries are needed to avoid duplication between DNOs, NESO (specifically RESP) and the work in the warm home space.

There should be an overall responsibility to ensure the proposed grids are the best to deliver the policy requirements. For any local or regional development plans in Wales they are required to provide the evidence about resistibility, deliverability and options as part of the process then the examiners decide whether this evidence is sound. There needs to be an overall consideration in terms of how the grids work together across Wales and the UK and whether the options which are taken forward are the best to deliver the policy requirements. Enhanced coordination is the best opportunity to achieve this.

Q9. Do you think if DNOs adopted the type of Expanded Role described above this would add value and support the rollout of LCTs and EE? Could this model provide an effective and viable way to deliver network and system benefits? If so, could this be achieved while also prioritising support for low-income households?

This response has been split into five parts: (a) DNOs identifying suitable areas for area based retrofit, (b) the role of DNOs in financing area based retrofit, (c) installation of LCTs by DNOs, (d) added value of DNOs being involved in area based retrofit, and (e) whether the DNOs play a role in prioritising low-income households.

(a) Covered in response to Q1.

(b) DNOs could provide funding to area based schemes that will deliver a reduction in the network investment costs. However, Welsh Government has concerns around DNOs owning LCT assets from a customer protection perspective. There would likely be other organisations better placed to do this, particularly given the trust that would be required between customer and asset owner if these assets were to be remotely controlled to maximise flexibility services. If another organisation played this role, however, the DNOs would be an important partner alongside certification bodies, financial services, the insurance sector, local authorities and social/commercial housing developers. The DNOs could play a critical role, alongside other stakeholders, in ensuring assets are operated in a way that maintains system integrity and maximises asset performance whilst minimising customer's costs.

(c) The DNOs do not have experience in installing LCTs and completing energy efficiency measures, therefore those elements would be best left to other stakeholders.

(d) Overall Welsh Government agrees that area based schemes could reduce costs through economies of scale whilst simultaneously strengthening the product and services supply chain, and supporting installation, maintenance, and end of life upcycling stages that would otherwise create significant future costs for households. We would welcome further discussion around the role DNOs play alongside other actors in this space (e.g. Warm Homes Agency) and the financial packages needed for different types of customers. Developing the supply chain should be done jointly by the DNO and certification bodies, and in Wales should align with Welsh Government skills policy to ensure the workforce can meet the demands of this approach.

(e) The consultation notes that the DNOs could be tasked with prioritising low income households, alongside achieving system and/or network benefits. As previously stated in Q1, making decisions on these trade-offs would be more appropriate for local and national governments. Para 4.9 of the consultation makes a point about low-income families being left behind in the energy transition and having to cover an increasing share of the systems fixed costs as more consumers move away from current energy sources. This point is well made and is of great concern to elected officials at all levels. It is essential to keep the cost of any DNO interventions in focus, and we must ensure these costs are not carried by low-income families already struggling with energy bills.

Whilst socialising costs to be recovered by networks can spread the cost over long periods, reducing the impact in any year, it is still a regressive way of funding interventions, particularly as the more affluent are already installing measures to reduce their energy use and their contributions to system costs. The Welsh Government's position is that the transition to a low carbon energy system should be funded in a progressive way.

As Wales has Local Area Energy Plans across all Welsh local authorities, a history of area based schemes and the Powering Wales Renewably digital twin of gas and electricity networks, it remains an excellent place to pilot DNO led actions.

Q10. What are your views on us considering these proposals using a network benefit and wider system benefits approach? Do you have relevant information on the likely network, system, consumer or efficiency benefits of such an approach?
We would strongly advocate using a benefits approach to evaluate these proposals. We would recommend taking a long term, system wide approach to benefits, as set out in the Wellbeing of Future Generations Act in Wales. Officials would be happy to discuss what a wellbeing framework might look like in this instance.

Clearly articulating the benefits of a strategic network planning approach will be essential to engage stakeholders. Local and regional stakeholders are likely to be interested primarily in benefits including: increase in realised installations, local supply chains, reduction in bills, reduction in fuel poverty, as well as wider benefits including health benefits from warmer, less damp homes.

Q11. Do you have any views on the archetypes presented and their implications? Do you have any other approaches we should consider?

This response is split into (a) commentary on the archetypes, (b) reflection on the comment on technologies being considered and (c) evidence on other components.

(a) Reflections on 'Laying the groundwork': It will be essential for DNOs to deliver local enabling works (e.g. proactive unlooping, fuse upgrades) to support LCT roll out at scale and at pace. This option would align most with the DNOs' existing skillsets. Another organisation would need to be responsible for delivering strategic area based retrofit (with input from DNOs as previously mentioned) and they would likely be better placed to oversee the procurement process.

Reflections on 'Widening Participation': We have concerns about DNOs leading an area based retrofit scheme (see Q1) or installing LCTs (see Q9). However, we would support a

mix of funding sources for area based schemes (see Q9) and would welcome further discussion on how to address the upfront costs to ensure the transition to LCTs is just.

Reflections on ' Focused intervention': We have concerns that this archetype would present significant consumer protection challenges.

(b) The consultation says the focus could be on solar PV and battery storage as these provide the highest cost-benefit ratio in terms of local network benefits but we would argue that area based retrofit programmes should not be solely based on network benefits. It is important that wider health benefits of warmer, less damp homes that could be provided by energy efficiency measures and heat pumps are not underplayed. The priority must be to assess each property and install measures in an appropriate sequence. As per Q1, the key concern associated with DNOs taking a lead position in decision-making is that their priorities for area based schemes may not align with local or regional priorities.

(c1) Welsh Government could provide data on the costs and benefits of different technologies from previous retrofit schemes if required.

(c2) Heat pumps and other low carbon heating technologies could be included in area-based schemes even if they provided modest wider system benefits if funding was secured from other partners rather than just from the DNOs. For example, if health benefits were secured, the health boards might be interested in match funding some projects.

(c3) There is a need for multiple organisations to share information to identify suitable properties (DNOs, health boards, local authorities, UK Government, Welsh Government, energy suppliers). There are interesting examples of linking health and housing information to identify households that could benefit from retrofit work that could be expanded upon (e.g. Cwm Taf project). In terms of engaging with customers, we do not believe DNOs would be the right actor. There are other actors that are more trusted by customers (e.g. charities, local installers) because they are better known to them. Note that the SolarTogether project has seen local authorities engage with customers as a 'trusted' body.

(c4) The consultation mentions several types of funding mechanisms (p34-36). Our key concerns are around how this would impact customers' bills. It is important that private investment in installing LCTs is maximised as much as possible, ensuring the 'able to pay' invest in technologies that will add value to their homes. We do not consider it appropriate for DNOs to be stepping into the space of providing loans. Welsh Government would welcome a broader discussion on the funding of area based

decarbonisation. Any expanded DNO role must address market failure without distorting markets, protect consumers, and avoid unfair bill impacts, particularly for low income households.

(c5) The installation of LCTs and undertaking of EE measures sit outside DNOs' core competencies. There is already a skills shortage in this area and other organisations are better placed to deliver. If these measures are not done well there are big reputational risks.

(c6) A pilot where DNOs offer to contribute to funding LCTs on the condition that they, or an intermediatory actor, are able to own / maintain / control them to maximise flexibility benefits would be interesting. An Optimised Retrofit Programme project did this within social housing so lessons learnt could be shared. There are risks associated with consumers being wary of giving control to the DNOs to operate LCTs in their homes. Appropriate safeguards would need to be introduced to ensure value for money and service standards for customers.

However, in the future, assuming that automation and consumer protection could keep up with the requirements of these technologies, theoretically it could be possible for system benefits to be achieved without DNO ownership or control of LCTs.

Q12. Do you have views on whether pilots of these approaches would be valuable? And, if so, whether the pilots should potentially include a range options across archetypes, or whether the scope should be narrowed in advance? What should be the main focus of any pilots?

Pilots focused on delivering outputs of the Local Area Energy Plans would be very beneficial to Wales. Pilots could expand lessons learnt through the Optimised Retrofit and NEST programmes to consider how area based schemes could encompass all housing tenures potentially with a focus on areas where fuel poverty is high.

Pilots that look at spatial areas that span multiple DNO areas or focused on delivering smart local energy systems more broadly would be interesting.

Q13. How could iDNOs support the proposals in this portion of the consultation?
If the decision is taken for DNOs to have an expanded role then we would have some expectation that iDNOs would have similar obligations. Otherwise it may lead to challenges in determining levels of operational cost recovery from Ofgem, as the current iDNO price controls align to DNO price controls. If DNO cost recovery increases because they are required to invest in LCTs, adjustment would be needed to scale of recovery for iDNOs if they were not to be required to invest in LCTs.

IDNOs are frequently used within new housing developments. There may be opportunity to pilot housing developments that arrive to market with appropriate LCTs installed but under the ownership and control of an appropriate party to be able to operate the assets across the development estate productively in flexibility markets. Consumer protections would need to be clear in any such arrangement.