Zenobé's Response to Ofgem's Consultation:

'Getting more out of our electricity networks by reforming access and forward-looking charging arrangements'

18th September 2018

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1 Introduction

Zenobé Energy is the leading UK-based owner and operator of grid-connected batteries, financed by over £45 million of equity from private investors and an infrastructure fund. It has also arranged two debt facilities which, combined, are c. £35 million and the first debt in the UK secured against batteries.

The company has built, owns and operates 63MW of commissioned assets at seven sites and is building a further 10MW. Its portfolio of 73MW of batteries is contracted to supply services to National Grid, including Fast Reserve, FCDM, FFR and triads, Capacity Market T-1 and T-4. It is also developing services to support EV transportation charging, particularly of buses and other public and private fleet vehicles. In addition to this, Zenobé is optimising electricity usage for commercial and industrial customers including reduction of ancillary charges and addressing resilience issues.

This consultation response should be read in conjunction with our covering letter of the 18th September submitted at the same time.

2 Key Points

Zenobé would like to stress the following key points alongside our detailed response to the individual questions.

2.1 Overall objectives

As a provider of 'new technology' and services to consumers and the grid, Zenobé is a strong supporter of the Government's wider policy objectives of managing the efficient transformation to a smart, low carbon, decentralised energy system and the electrification of transport and heat. Likewise, we support Ofgem's aim of ensuring that electricity networks can be used efficiently and flexibly so that customers can have the access they require and benefit from new technologies and services, whilst avoiding unnecessary costs.

However, we do not believe that the proposals that formed the basis of this consultation give sufficient recognition to the role that new technologies and services can play in delivering the policy objectives of the Government and Ofgem; for example, by maintaining system stability or by reducing costs through increasing flexibility.

2.2 Encouraging new technologies & services

Ofgem's top priorities include enabling growth in demand, particularly stemming from new low carbon technologies, whilst managing constraints on the network. Zenobé supports these objectives however, we are concerned that the proposals may have some unintended consequences. As currently drafted, the proposals may inadvertently act as disincentives for users to adopt new technologies: technologies which can make significant contributions to the realisation of the aims of the Government such as carbon budgets, the successful deployment of smart meters and the renewable energy roadmap.

Numerous energy consumers have invested in storage or other demand-side response mechanisms to address ancillary charges and thereby change their behaviour to ensure that power usage is reduced at times of system stress, ultimately improving system stability and lowering consumers' bills. If the proposals set out in the Consultation Paper are implemented, these consumers would be penalised. Furthermore, uncertainty about changes to the system would likely severely curtail current and medium-term investment in new technologies, which are pivotal in providing flexibility.

The current proposals suggest that if storage owners and operators take power off the network to store - in order to then feed power back into the network to alleviate stress at times of high demand - they will be charged for both taking power off the network and subsequently feeding it back in. Additionally, according to the proposals, if storage providers choose not to provide their power when required, they could be fined given their classification as DG. Storage and other new technologies have different operational models to other DG, such as PV and wind.

If implemented, double-charging would disincentivise storage and service providers who are considering adopting new, efficient technologies. This ultimately goes against the Government's and Ofgem's objectives of incentivising low carbon technology and services in order to smooth demand and more efficiently enable growth in demand. It also creates a barrier to increasing flexibility in the way users set up their energy management structures, as customers will not have the opportunity to reduce their energy bills via storage, onsite generation or load management.

New technologies and services should lead to greater options for enhanced flexibility for customers driven by market pricing, wherever possible, whereas these proposals would primarily create flexibility for Distribution Network Operators (DNOs), limiting customers' ability to react to pricing and control their energy bills. Ultimately this will act against the Government's ambition of ensuring consumers play an active role in managing their energy needs and will not deliver lower bills or new services.

2.3 The development of holistic reforms

Zenobé would welcome the opportunity, alongside other renewable and new technology/ service providers, to be more involved in the development of access and forward-looking charging arrangements.

We understand that established energy system participants are heavily involved with Ofgem in driving this process forward. These established participants are prohibited from investing significantly in storage and, consequently, they are disincentivised to support this new technology, despite the fact that it is a Government objective to integrate such new technologies and services into the system.

Smaller companies can present valuable insights and solutions, but given their limited resources and the tight timetables of consultations, these companies are frequently unable to engage at the same level as big companies. As such, in order to ensure that any reforms deliver the original objective, it is vital that early engagement takes place with smaller companies and that adequate time is provided according to their resources and capacity.

The Baringa report and this consultation focus on the challenges that low carbon technologies can present. Whilst challenges do exist new technologies and services are part of the solution. If reforms are undertaken in a way that facilitates and encourages them correctly, low carbon technologies can alleviate many of the identified issues, for example, through speedily shedding load, feeding in power when the system is under stress, or through helping users to avoid charges by utilising demand more effectively and ultimately reducing both pollution levels and consumers' bills.

With several different reviews occurring concurrently and more potentially proposed (including a broader review of forward-looking TNUoS charges and the socialisation of Connect and Manage costs), Zenobé strongly believes that Ofgem should lead all of these reviews to ensure that:

- The benefits of these individual reviews are considered together in order to evoke effective overall proposals that do not lead to unintended consequences for other areas that have not been reviewed.
- Any reforms are fair, credible and consistent, developed in a transparent and inclusive way that recognises the needs of the network companies and existing generators, as well as incentivising new technology and service providers.
- Any changes are progressive and consider existing investments and business models established under the current system. Such changes should be part of a consultation or SCR, as industry-led change can be subject to conflicts of interest and may fail to be inclusive towards small companies.

2.4 Evidence and data

Zenobé strongly believes that the reforms would benefit substantially from robust evidence and data. We note that the accompanying Ministerial Foreword of 'A Smart, Flexible Energy System Plan' urged that:

- "We must seize the opportunities enabled by a smart system – including active demand-side response to price incentives, and the use of advanced energy storage technology."
- "We must maximise the ability of consumers to play an active role in managing their energy needs."
- "With a smart system, we can go further and faster in breaking down barriers to competition – allowing the widest possible range of innovative products and services to prove themselves in the marketplace."

However, there is little evidence to explain why the proposals set out in this consultation are fit for purpose and how they will maximise innovation and the active role of consumers. As we set out in our response, these proposals could unintentionally lead to a hostile environment for storage, consumers and innovation.

Within the consultation, Ofgem itself accepts that there is insufficient data to fully inform key assumptions. In particular:

- Zenobé questions the basis of the assumption that triads are over-remunerating. Triads incentivise demand reduction not only during the three triads periods but also during forecasted triad periods, corresponding to higher wholesale prices and peak hours of network capacity stress.
- Zenobé wishes to stress that triad avoidance and triads are an important part of revenues for new technology providers and are often included in extended contracts with third parties. The removal of triads would remove the incentive to put power into the system and invest in new technologies; this is compounded by the current uncertainty which is already leading to the deferral of investment decisions in the new technologies.
- That DNOs are neither equipped to measure constraints on the system in real time nor do they have data concerning the value of particular technologies in terms of their impact on the system.
- That the proposals need further analysis based on objective data and the presentation of scenarios to demonstrate the potential impact on a wider range of participants within the market.

3 Individual responses to consultation questions

3.1 Question 1

Zenobé supports the overall objective identified by Ofgem:

> *"To ensure the electricity networks can be used efficiently and flexibly, so that we can each have the access we need and benefit from new technologies and services, while avoiding unnecessary costs on energy bills in general."*

We also agree with the three priority areas identified as part of the case for change:

- Enabling growth in demand, particularly from new LCTs, whilst managing constraints on the networks.
- Managing constraints on the distribution networks as a result of growth in distributed energy resources on the distribution networks.
- Establishing an effective interface between transmission and distribution arrangements.

However, we would make the following key points:

- There is a need to evaluate both the constraints and the benefits resulting from low carbon technologies and distribution-connected generation before reforming the system.
- Storage is an economical and flexible solution to network constraints and is at an early stage in its deployment. More information is required to understand the benefit of its deployment relative to traditional network reinforcement in order to fully understand the financial effects of any proposed change in the charging system.
- As part of the case for change, this consultation and the Baringa report focus primarily on the challenges that new low carbon technologies and services present to the distribution and

transmission systems. They do not give adequate consideration to the significant benefits and value arising from the flexibility that such technologies and services can provide. For example, storage systems can react in seconds to either shed load or provide power in times of system stress, and thus provide crucial resilience. No estimates are included in the report to demonstrate this value.

- There is insufficient data to fully demonstrate the case for change:
    - There seems to be little evidence that triads are over-remunerating, as stated in the consultation document (see 4.25): "*the current approach to charging…may be introducing uncertainty, as the timing of triad periods is becoming increasingly difficult to predict. Also, they may not always align with periods of peak network constraints in particular areas*". Rather, triads are an important part of revenues and influencing consumers' behaviour. Income from triads drive investment in new technologies and are included in extended contracts between consumers and the providers of new technologies. The removal of triads would remove the incentive to invest in the new technologies which alleviate stress at times of high demand and put power into the system.
    - It is unhelpful that DNOs are neither equipped to measure constraints on the system in real-time nor have access to data concerning the value that particular technologies have in terms of their impact on the system. Without this information, the proposals risk leading the industry along a counterproductive path.
    - The proposals would benefit from analysis based upon objective data and the presentation of scenarios to demonstrate the potential impact on various participants within the market.
- The proposals around reforming access and forward-looking charging arrangements need to align with: the BEIS Industrial Strategy, the Clean Growth Strategy, the UK's renewables and low carbon targets, and the Government's objectives to deliver the electrification of heat and transport. This includes the Government's desire to put the UK at the forefront of electric vehicle deployment as announced at the recent Zero Emission Vehicle Summit.
- The proposals act as a disincentive for intensive energy users to provide mechanisms which reduce demand on the system at key times, such as on-site generation, storage and demand-side response. The gross volumetric/gross consumption option considered as part of the Targeted Charging Review is a clear example of a strong disincentive for low carbon technologies including storage. If the residual charges evolve in this direction alongside the forward-looking charges and access charges increasing capacity charges, then a hostile environment for flexibility, new technologies, renewables and innovation will be created.
- Companies will not invest in new technologies and services if they are not able to extract sufficient return from their investment and new technologies will not be adopted or developed if the financial benefits from their utilisation will not support both equity and debt financing.

3.2 Question 2

Zenobé agrees that access rights should be reviewed with the aim of improving their definition and choice.

Our comments in response to Question 1 also apply to this question. In addition to this, we wish to emphasise that the definition of Distributed Generation (DG) is very broad, covering all forms of generation: from traditional and renewable generation to storage and EV usage. We, therefore, stress that it is important for Ofgem to recognise that each of these forms of generation has different benefits and issues and that these new technologies and services are also part of the solution. If the reforms are undertaken in such a way as to incentivise them correctly, new technologies can alleviate many of the identified issues, for example, through speedily shedding load or feeding in power when the system is under stress, or through helping users to avoid charges by responding to price signals that reflect the system stress.

3.3 Question 3

3.3.1 Part A

It is important that smaller users are able to choose whether they have a clear access limit. A third party (DNO) should not be able to unilaterally decide or limit their access for several reasons:

- Whether or not a specific access limit will be beneficial for smaller users and households will be dependent on several variable factors, including but not limited to:
    - the number and age of people using energy within the site;
    - what they use electricity for;
    - when they use energy;
    - company or household growth; and,
    - developments in technology – new equipment, gadgets and smart technology.
- Whilst it will be challenging for smaller users and households to accurately predict their energy usage in the future, such users are still best placed to estimate their future energy needs. Therefore, if an access limit is to be set, it should be a 'customer choice' issue rather than one imposed by network providers.
- The difficulties inherent in predicting future energy consumption make it important that all users, including smaller users and households, have the option of adopting a flexible and "smart" energy consumption regime, taking advantage of flexibility incentives and financial benefits.
- Any costs or penalties associated with moving between specific access plans as circumstances change are likely to have an undesirable detrimental effect on users as well as creating disincentives to the adoption of flexible technology.
- A specific access limit would create a barrier to EV usage if it meant that customers were forced to pay a separate, expensive, capacity price for charging their vehicle.
- We agree that there are benefits entailed in encouraging customers to use smart technology to enable charging at selected times when demand is low. Users, however, must be able to override this if they require energy at other times. This should be driven by smart energy usage and wholesale price signals, which are themselves driven by stress on the system at the distribution level.
- The proposal for a specific access limit does not appear to be based on any data on current and predicted usage for smaller users and households.
- Not all small users need the total capacity allocated by default. There is an opportunity to re-allocate spare capacity and avoid unnecessary reinforcement.

3.3.2 Part B

Firm/non-firm and time-profiled access should be developed with the explicit consideration of how new technologies will impact such access arrangements. It is important to take into account of the fact that new technologies, including storage, can reduce the need for curtailment or the length of curtailment brought about by network constraints and lack of capacity in particular areas.

While firm/non-firm and time-profile access policies do not, in themselves, necessarily preclude or disincentivise new technologies, a failure to specifically include such technologies in the access plan modelling will, at best, render results inaccurate and, at worst, disincentivise the adoption of technologies deemed desirable within the Government's wider energy plans.

Lack of data and transparency
DNOs are natural monopolies in their region which can lead to a lack of competition and transparency. Consumers would benefit from more information about the distribution of costs and operations.

Risk
Non-firm access rules do not give total visibility of risk to consumers (including DG). Curtailments have detrimental effects on domestic and industrial consumers, especially large industrial groups with small margins, such as the paper industry. New technologies, such as storage technology, implemented by the consumer can address these issues and have the additional benefit of providing resilience to the system.

Caps
Zenobé supports the introduction of clear delimitations and caps on the authorised level of curtailment, as this will allow consumers to evaluate business risks more effectively. Such clear information will provide better information about risk levels and a basis against which the use and scale of on-site energy storage may be assessed and will enable the informed planning of demand-side response mechanisms (subject to addressing the double charging point raised above).

Level playing field
Transmission connected generation and distribution connected generation have different characteristics and have access to different markets. For example, transmission connected generation (TG) can bid for MFR whereas distribution-connected generation (DG) can only participate in the FFR market. DG and TG use different technologies, have different sizes, and pay different charges.

As DG and TG are different products with different rules which are involved in different markets, they should not be treated as direct competitors. However, if the aim is to reduce discrepancies between DG and TG then Zenobé agrees that this should be focussed on access to the MFR and FFR markets as without some adjustment in this balancing area there is a real risk that there will be higher prices for the balancing services contracted by National Grid.

'Connect and Manage'
Zenobé believes 'Connect and Manage' could be beneficial, but the revenues should be capped to avoid generators being paid more for turning off power than for providing energy.

Time-profiled access

A key concern for Zenobé is not having advance information about contracts that are to be agreed with National Grid or third parties. Having a timed profile connection significantly increases risk levels in the bidding process:

- The FFR is a monthly, weekly or daily auction; however, bidders cannot accurately predict their future capacity needs.
- If a 24-hour connection is in place and a company is not accepted for any bid, they would face large standing charges and loss of revenue.
- If a company has a night-only connection, they will not be able to participate in FFR 24h, leading to loss of income.
- As such, DG would be significantly disadvantaged in what is already a very competitive market, and TG connected balancing assets would benefit.

Zenobé is also concerned that time-profiled access will reduce the quality of service available to customers. If, for example, daytime access becomes more expensive than night-time access, a customer with full-time access, who cannot avoid having a connection during daytime, and who chooses timed-profile access after making the required changes to avoid night consumption, will pay as much for a daytime-only connection as the customer was paying previously for a better service.

3.3.3 Part C

Zenobé appreciates the principle outlined in paragraphs 3.25-3.32 of allowing a party access to a given geographical area (shallow access) but such access comes with risks.

Uncertainty of demand requirements

In practice, users of the system desire long-term stability yet they live in a world of change. Their weighing of stability versus cost will depend in large degree on the asset(s) connected, and the forecast development of their businesses. It is not always possible for users to accurately forecast their future energy usage and costs and so long-term stability bought at the cost of restrictive or expensive commitments can make the user a hostage to fortune – which is no way to incentivise growth and entrepreneurial behaviour.

DNOs should invest in upgrades to support customers' requirements and then recoup the costs through charges to customers. New technologies can support this investment in a manner that is cost-effective and flexible; for example, storage units can provide reinforcement to a network as demand increases or the profile changes and can be removed or relocated if demand changes.

Whether a business or a domestic user, the future is very uncertain, with several unknown possibilities, including: electric vehicle take-up; imposition of, or choice to move to enhanced energy efficiency measures; business or family expansion; technological developments; and, changes in working circumstances.

Given these variables, it is not possible for users to accurately predict their capacity needs in five, ten, or fifteen years' time, but the flexibility offered by storage can assist them to address these changes and provide increased flexibility at reduced cost compared to the traditional upgrading of distribution lines.

Timing of usage

Equally, it is not always possible to avoid peak hours, as not all businesses can have their energy supply interrupted, nor only work or use energy during off-peak hours. Equally, domestic consumers cannot always schedule their day to day activities to fit with the best capacity based tariffs.

Choice

Where certainty is elusive the responsibility of choosing to contract to a certain level of capacity on a certain level of access and a certain timescale, must reside with the users. They are the ones taking the risk of agreeing to a level of capacity that may not be sufficient to meet their needs in future years. In light of this, it is clear that the amount and quality of information available to users regarding system costs, access plans, usage data, etc. must be increased in order that they may mitigate the inevitable uncertainty.

3.3.4 Part D

We would suggest that distribution requires reform more urgently, as the volume of users connecting at distribution level is greater than at transmission level, and so greater benefits are possible. However, to make this more effective, greater transparency is needed. Consumers should have more information about the real cost of connections at distribution level.

3.4 Question 4

We do not agree with all the key links identified between access and charging in Table 1:

- The market should define access through wholesale pricing signals, with charges reflecting the level of user demand. This would give users the choice of when to use energy, giving them control over their bills. As currently drafted, the proposal will mean that energy storage providers will pay more for mitigating stress on the system during peak times through reducing demand or feeding energy into the system.
- We agree that users with reduced firm rights should face lower charges via UoS charges if transferred to a shallower connection boundary.
- The current proposals require that the user decides in advance when they are going to use the system. Whilst some users might benefit from a time-profiled approach, others would not. We believe that it should be the decision of the user to adopt a time-profiled approach or not. The consultation states that "charges should reflect the cost of obtaining access at different times". However, we would suggest that charges already reflect the cost of charging at different times. For example: red, amber and green hours. Advance commitments based on predicted requirements are unlikely to reflect the true cost of access.
- Consumers have made investments based on the current regulatory framework and charging system. Prolonged periods of change will disrupt this and existing investment proposals for new technologies.

- A system of upfront charges could prove prohibitively expensive for consumers.

3.5 Question 5

Any review of targeted areas of allocation of access must provide greater transparency so that the necessary information is available to the connectee. Currently, there are numerous variations in connection prices due to the differing levels of reinforcement and associated costs that DNOs demand. However, the DNO's process for establishing these reinforcement requirements is opaque. Currently, contestable connection costs can be estimated at low levels and then increase substantially over a project with limited to no opportunity for recourse from the developer. For example, a recent connection that Zenobé is developing is over 18 months late, has had five variations and is now around twice the DNO's original non-contestable estimate.

A regulated approach to costs should be developed by Ofgem in collaboration with all interested parties in order to arrive at a standardised pricing system.

3.5.1 Part A

Customers and DNOs have asymmetric information about access which leads to customers paying higher prices rather than a price reflective of the real cost of reinforcement. Due to the lack of available information, it is not currently possible to have 'fair' and 'cost reflective' auctions, with the cost of access often proving prohibitively expensive at auction. There is a distinction between the capacity of a business to pay for a connection and the importance of that connection to a business; given this, businesses with lower margins will be penalised in the context of an auction.

3.5.2 Part B

Zenobé agrees that it would not be appropriate for this review to consider universal auctions.

3.5.3 Part C

In terms of 'use it or lose it' access conditions, users should be able to decide if they wish to keep a connection or not. Users will be unlikely to continue paying standing charges if they are not using a connection unless they have a good reason to.

- It is important to maintain a level of flexibility for consumers. Provided a user is willing to pay, they should have the option of varying the amount of energy that they use without losing their connection capacity.
- In order to maximise effective use of the system, we agree that it would be helpful if users could "rent" or "sell" their capacity if they are not using it, providing that the DNO has visibility of this temporary change in user and any impact on volume or timing of usage. Such a system would require clear rules and information flows and would take some time to develop as Ofgem has stated in the consultation.

3.6 Question 6

A comprehensive review of forward-looking DUoS charging methodologies should be undertaken whilst ensuring that effective transition arrangements for existing assets are in place.

Low carbon technologies

Low carbon technologies (including PV and storage) can smooth the demand curve, thus avoiding or delaying until it is certain that further network reinforcement is required – providing a flexible solution that can be replaced with line upgrades when it has been proven that the upfront capital investment (CAPEX) is required. These technologies do, however, require CAPEX which will have been made with future incomes calculated on the basis of current ancillary service costs and payments. Changing these costs and payments could result in considerable loss of revenue for companies that have contracted debt in order to fund their investments. Uncertainty in this area would likely mean that investors would be unwilling to invest further in low-carbon technologies and services. Zenobé is already beginning to see this from its potential customers and any delay in take up of the new technologies stands in opposition to the Government's ambitions in this policy area.

Cost-reflective locational signals

An energy or service provider may invest in a non-congested area, only for other users to subsequently connect, thus causing an area to become congested. This would result in higher locational tariffs for all. The first user should not be penalised and required to pay additional charges on the basis that the circumstances have changed following their initial connection.

Triads

Industry has invested heavily in new technology and services in order to improve energy management. As such, triads are the basis of a significant number of existing business plans and long-term investments which will likely be compromised if changes are made. In line with this, if charges are introduced during peak times DG will be disincentivised from putting energy on the grid in order to assist the triads; and yet, if they do not do so, there are proposals to fine them.

3.7 Question 7

Any review of distribution connection charging boundaries should ensure fairness for both existing customers who have invested under the current regime, and new customers. Prior to any decision to change, detailed modelling should be undertaken to understand the impact on existing customers.

Most of the time DG are not causing a constraint on the transmission network or distribution but helping to meet supply and demand. Furthermore, it must be noted that not all DG have the same characteristics, applications and benefits.

Making DG pay connection charges on top of all other charges will also penalise DG.

3.8 Question 8

We do not agree that forward-looking TNUoS charging (either for small distributed generation or demand) should be reviewed for the following reasons:

Distributed Generation

DG, and in particular, low carbon technologies and storage providers, offer services to National Grid and the Balancing Mechanism to help balance supply and demand as well as supporting system stability. This reduces the UK's reliance on the most polluting sources of energy, with their inherent higher prices and less efficient manner of providing balancing services as they have to keep spinning in order to provide them, thereby increasing pollution. As the first new entrant in the Fast Reserve market for many years, Zenobé has had >50MW of our assets dispatched by the ESO and in under 12 seconds moved the UK frequency by 0.1Hz without any extraneous pollution. Our assets have replaced a large plant which has resulted in a more immediate and effective response for the ESO.

We believe this is a critical element of the UK energy generation and distribution strategy. While the consultation document sets out some possible advantages of changing the treatment of DG under such a review (4.21-4.23) we see no evidence in the information presented so far, of any quantification of this benefit. There also seems to be no acknowledgement of the special role of low carbon and storage DG, or any attempt to quantify the benefits of their activities. As such any review of the current arrangements on the basis of 'fairness' between DG and larger generators would be at best premature and at worst biased.

Triads and Negative demand

We wish to understand the basis upon which the assumption has been made that triads are over-remunerating. We do not see any clear evidence of this.

Currently, providers are positively incentivised to put energy into the system at times of stress or when required, yet the removal of triads would not only remove this incentive but turn it into a penalty with the threat of fines from DNOs.

If triads are removed, low carbon technologies and storage providers will not be incentivised to put energy onto the system during triad periods, and yet, if they don't do so, DNOs are proposing to fine them. This appears to contradict the strategy of Government and Ofgem to encourage the incremental replacement of the worst polluting generators' capacity with capacity generated from low carbon sources.

Equally, if industrial users are no longer incentivised to avoid triads and peak hours, the stress on the system will be higher, and further reinforcement will be needed, ultimately increasing bills for all users.

Fairness – Existing Assets and New Assets

Charging more expensive capacity-based fees will be detrimental for storage and other assets built under the previous rules.

Summary

Having regard for the above, we do not support a review, but should Ofgem decide to continue with a review, we stress that this should be led by Ofgem, with input from all interested parties, in order to ensure a credible, fair and workable outcome.

3.9 Question 9

A broader review of forward-looking TNUoS charges or the socialisation of Connect and Manage Costs through BSUoS at this time could be helpful for the following reasons:

- There are many different reviews being undertaken concurrently that are all inter-related and need to be considered holistically.
- Government and Ofgem should undertake a holistic review to ensure that overall proposals are effective and do not result in unintended consequences for any participants in the market, or impacts on other areas that have not been reviewed.
- A broader review would allow active involvement of, and engagement with low carbon technology and service providers, alongside existing participants and Network Operators (both transmission and distribution).

3.10 Question 10

We strongly favour an Ofgem-led task force to ensure fair and equal involvement by new technology and service providers, including low carbon technologies and storage providers, alongside existing participants and network operators. This approach would result in more comprehensive and transparent outcomes and would help to deliver a level playing field through an inclusive approach.

3.11 Question 11

We favour Option C: Comprehensive Option for SCR, with no areas for industry-led review outside an SCR) - Ofgem leading all the reviews to ensure fair and equal involvement by new technology/service providers, including Low Carbon Technologies, Storage and Other Service Providers alongside existing participants and Network Operators.

This approach will build credible, transparent and better outcomes. It will deliver a level playing field through an inclusive approach. Each player has a good understanding of how they themselves operate but may not understand or be willing to take account of other player's ways of operating, and therefore an impartial lead by Ofgem is essential.

3.12 Question 12

We do not agree with Ofgem's proposal to launch an 'Option 1' SCR. Our preference is Option 3 – Ofgem leads an end-to-end process to develop code modification(s). This will ensure a holistic approach as well as impartiality, ensuring that all views are taken account of. This is particularly important given

that existing participants and Network Operators have much greater resources and finance at their disposal than new technology and storage / services providers.

3.13 Question 13

We do not agree with the introduction of a licence condition on the basis described in paragraphs 5.11 and 5.12 and Appendix 5. The reason for licence conditions are to provide rules for licensees that have been considered holistically and balance the needs of all parties. Therefore, licensees should not be allowed to create their own rules, but to participate in an impartial process that allows their views, alongside other views, to be considered equally.

DNOs should operate within the system in a way that is calculated to be fair. To avoid a distortion in competition, the prevention of low carbon technologies entering the market, or the restriction of service to consumers the changes should not be decided by licensees.

We, therefore, consider Option C from Table 2 to be the best option.

3.14 Question 14

We are concerned that this new condition will distort competition as licensees would, in effect, be allowed to create their own licences. Please refer to our response to question 13.

3.15 Question 15

We foresee the following challenges with the timescales presented:

- The timescales need to ensure that they do not lead to uncertainty which would only serve to undermine renewable energy, low carbon technology and services investment. Investors will simply not invest if they are not certain of the returns they will receive over a sustained period.
- Difficulty ensuring adequate consultation with and participation of smaller companies (typically low carbon technology, storage or services providers) to make sure their expert views are taken into account.
- A potential lack of transparency of the overall programme of reforms, leading to uncertainty, mistrust and legal and political challenges.
- A lack of analysis on the potential impact of all of the inter-related policies.

To mitigate these, we propose that Ofgem:

- Introduces suitable transitional arrangements to protect those who have invested and expect a specific return under the current arrangements. The Government and Ofgem must provide assurances that those investing under the current regime to reduce stresses on the system will not be penalised by any reforms.
- Ensures there are adequate means and opportunities for the views of smaller companies to be consulted.

- Ensures that the overall process and key milestones are accessible to all participants. Ofgem should provide more information about the forthcoming steps, timings of decisions and an overall programme should be laid out for all the interrelated reforms.
- Undertakes scenario mapping as a way of identifying and quantifying all the potential impacts of all the proposed changes on renewable energy, carbon emissions, the objectives of the Industrial Strategy, and the Government's objectives for the electrification of transport and heart.

3.16 Question 16

It is vital that Ofgem engages fully with all market participants and, in particular, ensures early engagement with low carbon technology; storage; and other services providers, who offer real benefits for the efficient transition to a low carbon technology, without recourse to wholesale network reinforcement.

Therefore, full and active engagement needs to take place with smaller companies, as well as the larger participants, who are better placed to feed in their views. To date, the majority of smaller participants have not had the same representation or equal opportunities to give their views to Ofgem before the first draft of the consultation.

Given the complexity and volume of reforms, it is difficult to be aware of all the codes and licences changes, and it would be beneficial if all stakeholders were consulted even before the first draft of consultation is issued. For those participants that do not have a compliance department or policy team, it would be helpful if Ofgem could make particular efforts to ensure they are involved in discussions and understand the real financial implications of potential changes.