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Strategy consultation for the RIIO ED1 electricity distribution price control BEAMA response

BEAMA have established a Smart Grid Task Force to provide an effective platform from which product specific expertise can be provided to inform the development of smart grid solutions. The objective of this group is to provide product specific expertise to inform the development of product standards for the up-scaling of low carbon networks during the price control period.

BEAMA has a wide level of coverage across all product sectors that constitute key elements of a smart grid and therefore the new task force provides an effective platform through which expertise from the vendor community can inform scenarios for the future availability and functionality of low carbon networks solutions.

The next price control period (ED1) is a key milestone in the move the industry will take to meeting our climate change and carbon emission targets. We are therefore encouraged by the move ofgem have made to incentivise the take up of these technologies as part of the RIIO process. BEAMA are in full agreement with the conclusions made in the Smart Grid GB report, 'Smart Grid: A race worth winning', which outlines the financial benefit in investing in smart solutions now, as opposed to continuing with a conventional investment strategy in grids. While the costs savings in this approach cannot be ignored, the environmental and social benefits are equally as motivating and must be valued alongside the monetary costs.

Our response to this consultation focuses on the need to understand the likely infrastructure investment over the ED1 period. A summary of our key points raised in the response are outlined below;

- Ofgem need to define how the learning outcomes from LCNF are expressed to ensure this is transferred effectively into ED1 Low Carbon Network investment. This will ensure industry can work to develop standards and facilitate the up scaling of low carbon solutions. The use cases from LCNF projects will be of great value to the industry and so ensuring the transparency of this process is key.
- The new IP arrangements for the Innovation package will provide a deterrent for manufacturers, specifically SMEs to engage with smart grids and provide a barrier to Low Carbon Network investment over the ED1 period.
- The arrangements for customer engagement for innovation projects need to be simplified. Experience from the LCNF projects would indicate that the current conditions often result in delays to projects and discourages participation.
- The proposed innovation package needs to be structured to ensure the upscaling of LCNF projects and the integration of smart grid solutions into the business as usual approach for DNOs.
- There needs to be explicit incentives for low carbon network investment. This is not only required to guarantee a certain level of investment during the ED1 period but also to ensure consistency in the technological solutions DNOs may adopt. BEAMA therefore support a standardised approach to low carbon network investment.
- The high level nature of the document and the lack of detail on some key areas make it difficult to provide a fully reasoned response and comment on the appropriate level of investment needed. For example the consultation gives no indication and clarification on the limits, if any, that may be placed on the contractual arrangements between DNOs and suppliers, that is with regards to the limits placed on demand and corresponding tariff agreements with customers.

The main concern is that investment in Low Carbon Networks would be put off until the start of the ED2 period. It is important that throughout ED1 funding for innovation projects (NIC and NIA) is structured to ensure low carbon networks and smart grid solutions are developed to be integrated into the business as usual operations on the networks. For this up-scaling of low carbon networks the commitment for investment needs to be made by the network companies

in their business planning process, and the manufacturing community needs to work with the DNOs to ensure industry standards are developed to secure the supply chain.

Our consultation response is outlined below and we would be pleased to provide any follow up to this that might be required. We have also submitted a response to the NIC and NIA informal governance consultation which are also outlined in this response.

Do you have any comments on our stakeholder engagement approach?
BEAMA are pleased to see that company-led engagement is being encouraged through the RIIO ED1 process. Through the Smart Grid Task Force BEAMA hope to provide a platform through which DNOs are able to engage effectively with the manufacturing community. For BEAMA members it is essential that the business planning process remains as transparent as possible. As the outputs emerge from the Low Carbon Network Fund projects BEAMA see the need for increased engagement and knowledge sharing between the DNO and vendor community. This would help to facilitate the effective development of product standards which will guide greater levels of certainty for network operators in the availability of smart grid solutions for the up-scaling of low carbon networks. The Smart Grid Forum provides an appropriate format through which engagement with the vendor community can be increased. Going forward this forum can provide a valuable group to look at smart grid solutions and the route to market for these technologies in the UK throughout the price control period. The development of industry standards should form a key focus for new work streams within the forum. BEAMA support the proposal under WS5 for the development of a Smart Grid Portal for industry to share learning and expertise, both as part of the LCNF projects and through the vendor community. This will provide a key mechanism to ensure industry collaboration and it will provide a tool through which the UK's understanding of Smart Grid solutions can be developed.

Do you have comments on the form or structure of the price control?
BEAMA agree that longer-time frames are required to consider the value and cost benefit of implementing low carbon technologies and smart grid solutions. We therefore approve of the extended price control period as part of the RIIO process, providing more explicit incentives are developed for innovation and smart grid solutions.

Do you consider that the proposed outputs and associated incentive mechanisms, taken together with other elements of the price control, will ensure that companies deliver value for money for consumers, and play their role in delivering a sustainable energy sector? **Do you agree that a specific output or incentive focused solely on the connection of low carbon technologies is not necessary?**
An explicit incentive needs to be proposed to ensure investment in low carbon networks over the ED1 period. In addition this should encourage a standard approach to network innovation to encourage consistency in the market approach and up-scaling of current LCNF projects. BEAMA view the current incentives proposed to facilitate timely connections, network

reliability and reinforcement are insufficient in driving investment in low carbon networks and provides scope for DNOs to avoid investment in smart solutions for the networks during this price control period.

We do recognise the significant level of uncertainty that may be attached to the take-up of low carbon technologies, but without some defined outputs form the network companies with regards to how they may help to facilitate this, the take-up could potentially be limited further.

Do you agree with our proposals on the level of detail DNOs will be required to submit on the different scenarios in their business plans?

BEAMA support the proposal for DNOs to put forward their own 'best view' scenario to reflect the likely impact of accommodating low carbon technologies on their network. This is justified due to the regional differences in how these technologies are likely to evolve during this price control period and therefore some areas will justify additional investment than others.

The work stream 3 cost benefit assessment model needs to be robust if this is to be used to inform the business plans and scenario development. In particular further work needs to be done on ensuring the inputs for this model are correct and justified. BEAMA are establishing a working group under the Smart Grid Task Force to provide technology specific expertise to help develop further the likely tipping points in this model. This is an action under WS3 of the Smart Grid forum.

Should costs of load and generation growth for existing customers in profile classes 1-4 be socialised, until smart metering data is available?

Considering the likely impact network reinforcement charges would have on low carbon technology uptake if individual customers are charged, BEAMA agree that the cost should, for now, be socialised. Key to this is the development of a standardised approach for the notification of low carbon technology installations.

BEAMA have been working closely with the Energy Networks Association to establish a common notification procedure for the installation of heat pumps on local networks. A similar format can be adopted for other low carbon technologies which represent significant loads and/or power quality issues for local networks.

In the context of electric vehicle infrastructure a similar procedure should be established to ensure network operators are made aware of where electric vehicles are being charged. There would be no requirements for additional certification as the installation of this equipment falls under the existing competency framework which will ensure the quality of installation and establish the notification process.
Where there is no power quality issue no approval process would be needed.

Should DNOs retain the ability to charge existing customers in profile classes 1-4 who install equipment which poses significant power quality issues for the network?

BEAMA recognise that in socialising the network costs with low carbon technology connections, there is no longer an incentive for customers to invest in technology which limits the impact on the network with regards to power quality. Therefore we see the need to provide some incentive for this.

BEAMA's work on heat pump notification procedures acknowledges this requirement and provides a mechanism for identifying products on the networks and the related power quality. This is managed under the current MCS scheme, and would allow for any form A to C Heat Pump to be installed on a network without interruptions to supply and power quality.

Product certification can be used as a mechanism for other similar low carbon technologies that may present a power quality issue and would support the product registration process.

Do you have any views on the role of innovation in RIIO EDI?

BEAMA view the proposed innovation package as a key enabler for the upscaling of LCNF projects and the transition to integrating low carbon networks and smart grid solutions into a business as usual approach for network operators.

The proposed package as it stands does however need some changes in order to ensure its role in doing so. Notably the Network Innovation Allowance (NIA) should specify funds for low carbon network innovation, thus providing an explicit mechanism for this form of investment, in addition to the Network Innovation Competition (NIC).

BEAMA agree that any arrangement made under the NIC or NIA for low carbon network investments should be reviewed within 2 years allowing for the outputs and use cases of the LCNF projects to inform the innovation process. As previously outlined BEAMA hope to see the proposed innovation package for ED1 stimulating the upscaling of LCNF projects and importantly a standardised approach to innovation emerging.

BEAMA have submitted a response to the consultation relating to the governance structure for the innovation package proposed. Our comments are summarised below:

<u>IPR</u>

BEAMA members are concerned over the potential impact the IPR principles, as outlined in the NIC governance, may have on the development of the market.

BEAMA members are content with the governance arrangements concerning IPR currently integrated into the LCNF process. From a vendor perspective bringing background IPR to a project, the current rules and principles are fair and the definitions of foreground and relevant foreground IPR are suitable.

The new NIC governance outlines the need to disclose forward (and potentially fixed) pricing, for licensing of background and foreground IP, as part of the negotiation and registration process. While this is feasible in principle it may be challenging to implement. Two key issues arise from this new governance structure.

1. It is not common for all vendors to price set for licensing of background IP, and generally speaking pricing is set by many factors and therefore the pricing of background IP is not a reliable comparative measure.
2. The NIC requires an evidence based negotiation on background and foreground IP. It is currently unclear how ofgem intend to assess a NIC submission, on future costs of background IP, or through the process of fixing price certainty for other DNOs. Clarification

on this is needed and without sufficient guidance DNOs could create different rules for NIC submissions which would form a barrier to participation from the vendor community, specifically SMEs who need to protect their IPR and for whom the UK will represent a large share of the market.

A key objective of the NIC should be to ensure that access to innovation fund participation has to be available to the widest possible stakeholder groups.

A suitable approach would be to use the market price to establish a baseline for background IP. This will reflect the market conditions at the time and where customer's money pays for some, or all foreground IP there could be a central mechanism to integrate this back into the UK market, rather than to individual DNOs.

Clarity and guidance for DNOs on the NIC submission process, and what would be acceptable for negotiating IP arrangements for NIC bids, needs to be provided by ofgem.

BEAMA would like to propose that more focused discussion on this topic is initiated with stakeholders to ensure the governance structure going forward is fair for all participants and that it will not form a barrier to the development of valuable innovation projects in the market.

NIA

BEAMA would like to see funding under the NIA allocated to specific innovation investments associated with low carbon networks and smart grid solutions. This will help to clarify the level of investment in low carbon infrastructure over the price control period and provide confidence that this market is being driven by a specific mechanism under ED1.

Customer engagement

From experience during the LCNF programme it is recognised that the customer engagement process in projects often results in delays in delivery which in turn presents a negative perception of the project and indeed the project partners involved may also experience reputational damage. Delays to the program caused by the customer engagement conditions increase the costs of the innovation project and discourage the participation of the supply chain to avoid potential reputational damage.

In the past project partners have been chosen on the basis that they may already have a direct relationship with the customers affected by a given project, however, the rules on customer engagement largely nullify these benefits.

BEAMA recognises this as a very real issue and one which needs to be addressed for the ED1 innovation package. If similar conditions are required under the NIC and NIA projects BEAMA are concerned that this would limit the potential that could be gained from these programs through the lack of participation from the supply chain potentially slow UK market development in the low carbon technology sector.

Ofgem need to consider how they can better leverage the relationship management, possibly through project partners (i.e. suppliers, local authorities) who already comply with data protection, privacy and other requirements.