National Grid Electricity Transmission Stakeholder Engagement Consultation

There are a number of areas where our stakeholders have asked us for further explanation, or we would like to discuss a topic in more depth with stakeholders in order to be able to develop our business plans. We would welcome your thoughts on the questions listed below.

We request that you provide your answers by **5pm on Friday 18th November**. Responses received by this time will be taken account of in our business plan development. When responding can you please provide us with your name, contact details, the name of the organisation you represent and whether your response is confidential.

We have scheduled a workshop for 10th and 11th November, where we will be discussing the topics surrounding the questions below. We would be pleased to welcome you at this workshop where you will have the opportunity to discuss the topics below with National Grid staff, in order to aid your responses to these questions.

If you have any queries please email talkingnetworkstransmission@uk.ngrid.com or call Graham Frankland on 01926 653667 or Claire Spedding on 01926 655915.

Responder's Details

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Is your response confidential? No

Business Plans

Q1. Did you find our business plan documentation easy to navigate?

A summary (see Q4) that signposted the relevant details in the other documents would have helped navigation.

Q2. Did you find the content contained within our documentation easy to understand?

Generally the content was cohesive and well explained. The supporting annexes provided more detail where required and "The Future of Energy" annex was helpful in setting out National Grid's view of the plans' context. The plan focused on the "outputs" and "revenue" parts of RIIO, but there was little on "incentives" or "innovation".

Q3. What did you particularly like/dislike about the presentation of our plans?

The level of transparency was a step change from the previous price control process. The plans read as though they are a decision document rather than setting out a strategy to deliver a least regret or no regret plan. There is the presumption that the investments associated with Gone Green is the de facto baseline and there is limited consideration of credible alternatives. This assumption drives considerable levels of investment, yet there is little, if any, mention of asset stranding risk in the plan. Given the scale of proposed expenditure, uncertainty mechanisms notwithstanding, we believe that there should be further debate around alternative baseline scenarios that could credibly deliver the 2020 targets. We would have liked to see more of the actual generation used in the analysis and the resultant power flows on the planned network, to highlight the intended utilisation of the planned network and provide some justification of the intended spend.

Q4. What improvements could be made in terms of content, structure or format?

To the extent that it is practicable, a summary that sat between the "Headlines" and the "Overview" documents and contained a bullet point list with some descriptive narrative setting out what National Grid was planning to spend, where, when and why. This would allow a reader to quickly understand the business plan.

The move to an outputs-based framework necessarily means that it is difficult to identify a direct linkage between investments and outputs. Where investments deliver more than one output this should be highlighted to avoid double-counting. Some sensitivity of the input assumptions in the context of a Gone Green outcome would have helped in the justification of some of the specific transmission investment cases.

Q5. In terms of the business plans themselves did we represent your views and previous feedback correctly? And do you think we have incorporated it into our plans correctly?

It appears that National Grid has reflected stakeholder views, although it would be useful to understand reasons why some views/options were rejected.

Managing risk and uncertainty

Q6. Do you agree that uncertainty mechanisms should be employed to adjust allowed revenues where the associated costs are uncertain and outside of our control? If not, what other mechanisms do you consider could be appropriate?

The eight year RIIO price control will be set against the background of a significantly changing energy sector over the next decade. This makes it difficult to be precise, ex ante, about the outputs and demand for services that the networks will be required to deliver and the revenue necessary to fund them. Given this we agree, in principle, that uncertainty mechanism should be employed. However, key will be agreeing the baseline outputs and associated revenue that the uncertainty mechanisms will then flex. The extent of the financial impact where outturn diverges from the scenario needs to be better explained.

An alternative mechanism would be one such as TIRG or TII where funding is provided outside the main price control allowance and is based on a demonstrable needs case. Such an approach does add more complexity into what is an already complex framework but considering the sums of new planned investments, complexity alone should not be cited as a reason not to pursue alternative approaches which can deliver a lower cost option.

Q7. Do you believe that the range of the uncertainty mechanisms proposed is appropriate?

We agree that the set of uncertainty mechanisms proposed is appropriate given the range of risks faced, but it is not completely clear what the range of costs may be given some of the uncertainties facing the industry. Specifically, for some of the larger cost system upgrades, the effects of a changing geographical location of thermal generation are not explored in a level of detail which would minimise the costs in a range of uncertain future scenarios.

Charging

Q8. Are predictability and transparency your key concerns in relation to electricity transmission charging? Why?

We have long argued the case for predictable and transparent transmission charges as it is important for suppliers setting tariffs to include accurate forecasts of future charges. Given anticipated future volatility of charges driven by the Introduction of incentives around delivery of a range of primary outputs, efficiency incentives and uncertainty mechanisms, stability of charges (perhaps within a range) is likely to become important.

Q9. Changes to tariffs can be caused through changes to the methodology that dictates how tariffs are calculated (e.g. through project TransmiT) and changes to the inputs to that methodology. Which of these factors are of most concern to you?

As a supplier that needs to forecast these tariffs, it is important that we understand the derivation of charges and all the factors listed will feed into the level of charges. The major sources which lead to unpredictability and opacity are not associated with the existing system capital and maintenance costs but arise due to changes in the methodologies used in deriving charges and the inclusion of large lumpy costs from year to year. Some of the charging options being considered under Project TransmiT would, if implemented, impose step changes to charges for both Generation and Demand Users. Since the level of charges each User faces is critical in the process of driving the locational aspect of new investments in Generation and Demand we believe that the effects of the cost of system expansion is not fully

explored alongside the outcomes of Project TransmiT. Since the RIIO process and TransmiT are happening concurrently, we believe that efficiencies in the future development of the power system may not be optimised as sufficient interaction between these two processes are not considered.

Q10. Charges are made up of a residual element (changes to which alter the charges all customers pay) and a locational element (changes to which modify the relative signals between customers). The predictability of which of these elements is most important to you and why?

The predictability of both of the elements of Transmission Network Use of System (TNUoS) charges are of equal importance since the residual charge is simply an amount added to the locational TNUoS to recover the TOs maximum allowable revenue (MAR). Currently the residual charge is large compared with the locational element since many elements of the costs incurred in the transmission of power from generation to demand are not represented in the charging model. The historic reasons used to justify the arbitrary split of assets which are deemed “locational” to those being “non-locational” are flawed; these under-represent the incremental costs incurred in the transmission network used in charging thus resulting in a smaller proportion of the charges being derived as “locational”. Since each User pays the total charge, the element which varies between Users at different location is not represented sufficiently accurately and the efficiencies is developing the network is most likely not realised.

Q11. Can we do more to help you understand and predict transmission charges?

We believe that with the TCMF and availability of the Charging Model, National Grid currently provides a good understanding of the charges. Whether this framework needs to be enhanced under RIIO, following Project TransmiT or EMR will be determined by the additional complexity and volatility that arises. We do have concerns about the impact on TNUoS of offshore networks and associated onshore investments, which could introduce volatility over a project’s lifetime. It will be important for National Grid to set out clearly, in advance, what it assuming about offshore transmission network build.

Q12. Do you have any suggestions as to how we can improve predictability/transparency?

There is clearly a linkage between charging predictability and revenue predictability. National Grid may need to provide more frequent updates of its revenue recovery against allowed revenue, together with any changes to revenues that may lead to a mid-year tariff change.

Q13. Is stability of charges an issue, providing it is forecasted and predictable?

As set out in Q8 above, we do not support mid-year changes to charges. Under current regulatory arrangements, National Grid may need to make such mid-year adjustments to comply with revenue over/under recovery incentives. We accept that smoothing revenues may attract additional financing costs, but thought should be given to the net benefits of introducing a smoothing mechanism.

Network Availability Policy

Q14. Do you have any comments on our draft Network Availability Policy?

No Comments.

SO/TO Interaction

Targeted N-1

Q15. Are we missing any issues and / or actions?

We believe that the cost-benefit of Generator inter-trips and congestion management as alternatives to investments should be explored further.

Q16. What views do you have on risk trade-offs?

To minimise the effects of any optimisation between transmission network spend and operational efficiencies on the consumer we would like the SO to take measures which reduce the impact of a reduction in security of supply to the consumer. Since controllable generation closer to the loads would always provide a better standard of supply, the correct incentives for plant which can locate relatively close to the load is

imperative. This is the case in every power system in the world and it appears from the details of RIIO and TransmiT that we are moving away from this principle.

'Smarter' transmission network

Q17. Do you agree the transmission system is reasonably smart?

"Smart" is a relative term, but we believe that the existing network does have a number of elements which can enable it to operate safely in many cases. The use of Static VAr Compensators, Capacitors, Reactors and Quadrature Boosters are all devices which are used extensively by the grid operator to direct the flow and maintain the system voltages under a wide variety of generation and Demand patterns. This has come at a high cost. We believe that the alternatives of using the charging mechanisms and the cost of providing Ancillary Services to encourage other providers of these services to locate where the services are needed are not optimised. The important question on the smartness of the network is academic unless it delivers best value for money.

Q18. Which approaches do you consider relevant/important/likely to bring benefits over the next ten years? Which approaches do you consider to be irrelevant/unimportant/unlikely to bring benefits over the next ten years?

National Grid as NETSO should examine the potential benefit of using different operational approaches and solutions against the cost of new build.

Q19. Have we missed anything, e.g. is there technology that we are not considering but should?

We have not identified anything.

Network Development Policy

Q20. Do you think that we have chosen the most appropriate mix of RIIO-T1 methodologies for reflecting investment in wider works? If not, what alternative arrangements would you propose?

In our view, the critical scenarios for meeting the renewables scenarios are not explored sufficiently. As our earlier remarks indicate, we would like to see the effects of using different conventional and renewables generation patterns across the network to optimise the new build of transmission. We believe that the impact of the

primary charging methodologies on the location of new generation across the network could deliver a more optimised network build.

Q21. Do you have any comments on the ODIS future scenarios stakeholder engagement process?

The Seven Year Statement and the ODIS future scenarios should be harmonised in some way which would allow a better view of the impact of the likely new build of generation and transmission.

Q22. Do you agree with our proposed approach to identifying, optimising and triggering wider works in a timely fashion?

We believe that NG could further enhance the scenarios used when looking at, for example, the case for the Western HVDC link. The incremental power transfer capability across boundary B6 could be assessed against the cost of the reinforcement and other alternatives which could involve a more coordinated operation of the distribution networks in parallel with the transmission system. These alternatives and incremental onshore transmission enhancements are not shown and we believe that these should be considered.

SO Investment

Q23. Do you think that the timing of our SO investment plan is appropriate?

We agree that the SO investment plan is appropriate and the expected benefits should justify the investment. The timing of this can be relatively early as the systems can deliver benefits even under the current background operations. We have endorsed some of the measures envisaged in the SO plan, e.g. AGC to be used in conjunction with system to generator inter-trips to main supply standards following network loss.

Q24. Do you agree with our approach in balancing the mix of resources and IT systems in undertaking the SO role?

The mix of technologies and personnel is a matter for the SO to ensure that they remain at the forefront of operations when compared to equivalent systems worldwide.

Q25. How do planned / unplanned outages of our control room systems affect you?

We have a wide range of automatic systems and backup manual procedures which are used from time to time. These are pragmatic processes and work well for our current portfolio of sites; this may need to be reviewed for all operators with a changing mix of size and numbers of sites, i.e. larger number of dispersed wind parks.

Q26. Do the benefits identified from our investments justify enhancing our control room capabilities?

The benefits identified for the SO function can be realised and measured to asses the efficacy that should be communicated back to stakeholders as they are realised.

Future Engagement

Q27. What have you liked about our Talking Networks engagement?

The facilitated workshops have worked well, especially as National Grid has brought forward specific proposals based, in part, on stakeholder feedback. This has built confidence in the consultation process. There has been a good mix of stakeholders at the workshops and a reasonable level of debate. We believe that the DNO network operators' business plans and incentives, although regulated by other mechanisms, should be in some way coordinated with the Transmission system network process. This may provide a more complete view of the total costs faced by Users and may highlight any areas where savings can be made.

Q28. What could we have done better?

Stage 1 workshops suffered as both National Grid and its stakeholders were a bit unclear about how the process would work. Also, the sessions where a bit

unfocused in that stakeholders were requested to give views about what we wanted from RIIO, without much detail on what was actually realistic. Some level of independent views from non stakeholders, e.g. Academic reviews maybe used to give an indication of how these plans measure up against international and fundamental analysis.

Q29. What do you like / dislike about the day-to-day stakeholder engagement activities we carry out? For example, the SO Incentives consultation, new transmission route consultations. What else could we do?

In general, National Grid manages day to day stakeholder engagement to a good standard. There are industry meetings and formal consultations as well as bilateral meetings if required.

Q30. How would your organisation like to be consulted in the future?

We are happy with retaining the current points of communication / contact with National Grid.