



Bringing Energy
Together

ADE Response to Open Letter on RIIO-ED2 Price Control | 15 October 2019

Context

The ADE welcomes the opportunity to respond to Ofgem's **open letter consultation on the RIIO-ED2 price control**.

The ADE is the UK's leading decentralised energy advocate, focused on creating a more cost effective, low-carbon and user-led energy system. The ADE has more than 150 members active across a range of technologies, including both the providers and the users of energy equipment and services. Our members have particular expertise in demand side energy services including demand response and storage, combined heat and power, heat networks and energy efficiency.

Content

It is essential that the RIIO-ED2 price control incentivises ambitious outcomes that help to deliver a smart, flexible, decarbonised energy system. If the price control does not achieve this, it will be much more difficult for the UK to achieve its carbon targets in a cost-effective manner that benefits consumers. It is important to focus on clear, concrete outcomes when considering the design of the price control.

The first section (p.1-5) of the ADE's response to the Ofgem's open letter consultation therefore focuses on the key outcomes that the price control should incentivise. The second section (p.5-12) answers the questions in the open letter. It is essential to read the two sections in conjunction with one another.

Part 1 - Key outcomes

Key asks

Visibility of opportunities and accessibility of markets

Goal: medium-term flexibility needs (one-to-two years ahead) procured via competitive auctions, with standardised procurement methodology and technical requirements in all DNO zones by 2023, with automated dispatch by 2028. Day-ahead markets for reactive power and constraints and long-term markets for permanent demand reduction where there is a system need are fully established by 2028. The markets below could start at EHV but should be extended down to all voltage levels over the RIIO-ED2 period.

- Establish close to real-time (e.g. day-ahead) markets for constraint management and reactive power via competitive auctions accessible to all technologies that can provide the services. Automated dispatch should be employed as soon as possible. The main value of these services would derive from relieving real-time constraints on the network, enabling the DNO to manage high levels of renewable generation without resorting to curtailment. These markets can build on learning from Power Potential, which trialled procurement of reactive power from distributed resources. The EPRG report on auction design for Power Potential

recommended procurement via day-ahead, pay-as-clear markets¹; this approach should be employed for the close to real-time markets suggested here. The ESO's high voltage pathfinder projects in the Mersey and Pennine regions may also provide useful learning².

- Establish a one-to-two year ahead market for contracts for reinforcement deferral, procured via competitive auctions. The main value from these services is allowing DNOs to analyse the growth of demand and generation in different locations before deciding whether to reinforce. This could be based on a version of the balanced scorecard suggested in Western Power Distribution's consultation on delivering a flexibility first approach³. Under this approach, assessment would be based on a number of categories, including Financial NPV, Whole System Benefits, Uncertainty and Optionality, Decarbonisation, and Accelerated Benefits to Consumers. This could be used as the basis for a pan-DNO approach, developed through detailed consultation with industry and Ofgem. It is important to recognise that the benefits of flexibility can cut across multiple categories. For example, the per day value to customers of faster connections allowing faster rollout of low-carbon generation fits into both 'Decarbonisation' and 'Accelerated Benefits to Consumers'.
- Establish a market for long-term network reinforcement avoidance, procured via auctions. Contracts would be auctioned yearly and run on a rolling basis, with providers continuing to receive payment as they continue to dampen demand in response to increased loading at the GSP. This would enable the procurement of an incrementally increasing flexibility 'shape' in response to a changing demand profile, allowing DNOs to tailor their need. Value from these services would derive from permanently reducing reinforcement through measures such as energy efficiency or storage. PJM and ISO-NE could be used as models.
- Commitment that DNOs will not use renewable curtailment to manage network constraints by 2028, instead procuring flexibility. This will form a major part of DNOs' contribution to achieving net zero and mirror the ESO's commitment to ensuring zero carbon system operation is possible by 2025.
- Migrate existing Active Network Management (ANM) contracts to procurement via tradable constraints market, with flexibility providers and renewable generation able to bid in. This migration should be conducted in a gradual manner, in order to analyse the changes to planning standards required and to avoid generators having their connection agreement altered at short notice. It could be achieved, for example, by the DNOs committing to a fixed cap of curtailment for all current and any future ANM generation rather than the current estimates, with the DNOs facing a financial penalty if the cap is exceeded. This cap would slowly be reduced over time as more flexibility becomes available to the DNO.
- DNOs to publish views of future system requirements, based on the signposting and forecasting approaches suggested in WPD's consultation on delivering flexibility first. 'Signposting' provides a view of future system requirements over a five-year period, highlighting areas that are expected to become constrained for demand, with probabilistic assessments. 'Forecasting' provides a view of what flexibility is required in an area over a two-year period, advising what flexibility DNOs are seeking in expressions of interest. The

¹ <https://www.nationalgrid.com/sites/default/files/documents/EPRG%20Report%20SDRC%209.3.pdf>

² <https://www.nationalgrideso.com/publications/network-options-assessment-noa/network-development-roadmap>

³ <https://yourpowerfuture.westernpower.co.uk/have-your-say/delivering-a-flexibility-first-approach>

ADE welcomes this approach but believes that it would need to be further developed in collaboration with industry. It is essential that these views be updated frequently; as an initial suggestion, 'signposting' should be updated annually, with 'forecasting' updated every three months. This approach could be achieved through the already announced review of the Long-term Development Statement that publishes a forward view of loading at GSPs. This should be reviewed so that it can be more easily used by commercial participants.

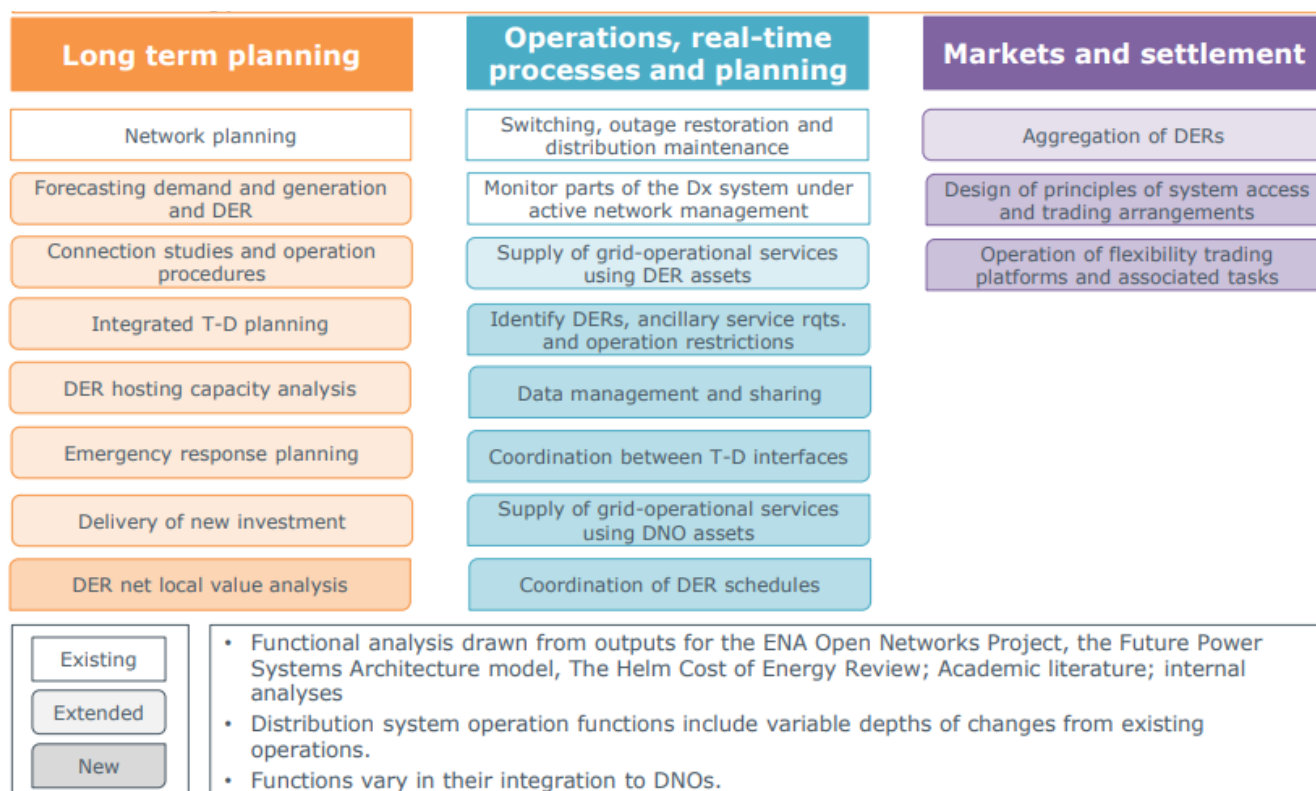


Figure 1: Ofgem analysis of DSO functions

Neutral market facilitation and removal of conflicts of interest

Goal: All prospective DSO functions able to be put out for competitive tender. Sufficient data transparency to allow competition on a level playing field for all competitive tenders.

- Ensure that DNOs tender for market and system needs as neutral market facilitators; this means that they cannot own or operate storage
- Ensure that no element of the RIIO-ED2 price control prevents the DSO functions listed in Figure 1 being put out to competitive tender at a later date. Ofgem should analyse whether any of the above functions can be put out to tender in advance of the price control. In any tender, the DNO in the relevant zone, all other DNOs and other commercial entities should be able to enter the tender and compete on level terms. This necessitates that sufficient data is made public for other entities to compete on level terms; data is key to maximising competition around these functions. Please see the ADE's asks around data for more details.
- Operation of all network assets that have been funded through RIIO or NOA should be contestable, with third parties bidding into an open tender. Subsidiaries of the relevant DNO would not be allowed to bid in, to remove the potential for conflicts of interest or information asymmetries

Valuing flexibility correctly

Goal: Flexibility is valued and procured according to transparent, Ofgem-approved methodology, which is common across all DNOs and takes all relevant costs into account. All network reinforcement justified by published cost-benefit analysis, any inefficient spending disallowed, and fast connections rewarded.

- ENA to publish criteria used by networks to decide whether to reinforce the network or procure flexibility
- All DNOs to follow common procurement methodology, designed in conjunction with the regulator and industry, which accounts for the risk of reinforcement proving unnecessary due to incorrect forecasting of demand growth and per day value to customers of faster connections, allowing faster rollout of low-carbon generation.
- Include an explicit incentive based on utilisation rate of the network
- All DNOs to explicitly justify, using Ofgem-developed cost-benefit analysis, any decision to conduct network reinforcement in preference to procurement of flexibility or smart grid services, and publish this justification
- Introduce a cost disallowance mechanism that enables Ofgem to disallow spending it is demonstrably inefficient
- Create an explicit incentive for speed of connection

Open and transparent procurement and dispatch

Goal: Procurement is sufficiently transparent to allow flexibility providers to give customers reliable estimates of price and regularity of dispatch. It is essential that any party undertaking the relevant DSO functions make significant investments in IT system development in order to fulfil this role effectively.

- Allow sufficient lead times between contracting of longer-term needs via auctions and delivery in order to allow flexibility to be aggregated in the area. This should be, for example, one to two years ahead
- Ensure that procurement and dispatch processes are automated and scalable, allowing large volumes of individually small capacity to be entered into markets and dispatched. This includes use of type testing for eligibility, objective and automatic pass/fail criteria, and limiting manual information inputs as far as possible
- Publish all tender results in accessible formats, containing similar details to those contained in STOR tender results
- Publish, in real-time, on an anonymised basis, where providers are being dispatched and for what volume
- Publish average number of times providers are dispatched in each procurement zone per year

Revenue stacking and service prioritisation

Goal: Flexibility providers face no unjustified barriers to revenue stacking and conflicting dispatch instructions are automatically reconciled to provide optimal system outcomes.

- In the short-term, all exclusivity clauses should be removed (except where explicitly justified) and clear prioritisation rules for dispatch be established
- In the medium-term, dispatch instructions should automatically be reconciled according to priority and fully reward providers who are providing a response that helps fulfil multiple

system needs simultaneously. This function should be tendered and fulfilled by a neutral third party

- Ensure common standards across DNOs relating to market design, judgement criteria in tenders, interoperability and security standards, and approach to dispatch
- Create a Distribution System Design Authority, building on the key recommendations of the ENA's Open Networks Project, to co-design information systems

Transparent, high-quality data, monitoring and reports

Goal: Data is of sufficient transparency, quality and availability to allow all parties to compete in tenders, both of DSO functions and for provision of flexible services, on a level basis. All data is presumed open, unless explicitly and publicly justified. We welcome Ofgem's commitment to implement the recommendations of the Energy Data Taskforce through RIIO.

- By 2023, sufficient data should be publicly available such that commercial entities and other DNOs can tender for DSO functions in a zone and be able to compete on level terms, with access to the same information and data, as the relevant DNO for that zone
- Introduce license requirements for DNOs to share all information, via data sharing frameworks, about location and characteristics of DERs with flexibility providers and platform operators and all other network data necessary to allow third parties to carry out Flexibility Platform tasks
- Introduce Output Deliverable Incentives around quality and timeliness of this information
- All data should be 'presumed open' and published, with any decision not to release data explicitly justified
- Asset registration should be undertaken via a single registration portal
- A Digital System Map should be created to increase visibility of Energy System infrastructure
- A universal catalogue of data sets should be created, in accordance with the Energy Data Taskforce's recommendation, with DNOs submitting all relevant data to it

Delivering whole system outcomes

- If a DNO takes an action that creates a saving for another DNO or the TO, a financial mechanism should be established that ensures that saving is shared, with the DNO taking the action receiving the majority of the saving

Part 2 - Response to consultation questions

Proposed objectives for RIIO-ED2

Q1. Do you have any views on the proposed objective for RIIO-ED2?

The ADE welcomes the proposed objective for RIIO-ED2. While the success or otherwise in achieving the objective will depend upon the details of the price control, ensuring DNOs deliver the value for money services that both existing and future consumers need is a sensible objective.

Strategic approach to RIIO-ED2

Q2. To what extent should we take into account outcomes linked to decarbonisation targets, and what outcomes might this involve?

It is vital that decarbonisation targets be placed at that heart of the price control and that DNOs are incentivised to help drive the transition to a smart, flexible, decarbonised system.

The outcomes that should be targeted are:

- Connecting as much renewable generation to the system as possible, as quickly as possible
- Ensuring best use of the system; i.e. avoiding having to constrain off large amounts of renewable generation
- Enabling the system to be as flexible and efficient as possible by creating liquid markets for flexibility services
- Protecting future consumers by avoiding unnecessary buildout and stranded assets

To achieve these outcomes, it is essential that the price control focus on incentivising the priorities outlined above.

Q3. Are there activities that DNOs are best placed to carry out in order to achieve these outcomes? What are the alternatives? Why would it be appropriate for energy consumers to fund these activities?

DNOs are best placed to carry out many of the core network services, such as connecting renewable generation to the system and managing constraints through use of flexibility services. Other activities, such as provision of flexibility and running the procurement process may be more effectively delivered by third parties.

It would be appropriate for energy consumers to fund the activities because a smart, flexible, decarbonised power system is essential to achieving the U.K.'s climate targets and ensuring a healthy economy, both of which are manifestly in the interests of existing and future consumers.

Q4. How should we assess DNO funding requirements and measure DNO performance in these areas?

Assessment of DNO funding requirements and measurement of their performance in the areas of core network services necessary to deliver decarbonisation should be relatively unchallenging – volume of renewable generation connected, speed of connection, most effective management of constraints and amount of flexibility procured should all be used as metrics to measure performance. DNO funding should target the necessary changes to drive improvements in these areas, compared to baseline.

Assessment of DNO funding requirements and performance in areas that could be delivered by third parties, such as flexibility provision and procurement, is more complex. We suggest an approach to addressing this question in our answer to Questions 9-11.

Q5. How should we incentivise DNO performance when the achievement of outcomes could be dependent on the actions of others?

The objective of the price control should be to incentivise DNO activities that enable the development of a flexible, decarbonised system. Please see Part One of this response for the ADE's priority goals for achieving this outcome. The outcomes incentivised should not depend on the actions of others to be met. For example, it would be better to incentivise the speed and ease of connection of renewable generation, rather than the volume of renewable generation that connects.

Q6. How do we ensure that network companies are best placed to undertake strategic investment and manage the associated risk? How should the risks of these investments be managed?

If network companies undertake strategic investment, it is essential that they provide a detailed cost-benefit analysis and that Ofgem have the final decision on whether the investment is made. This means that a structure must be put in place to determine how these investments are made and provide evidence for use in the analysis. A distribution-level Future Energy Scenarios (FES) document will be essential in providing some of this evidence, but more will be required.

Q7. What, if any, changes to the framework are required to support strategic investment?

Strategic investments are likely to require a different funding structure, given the difficulty of passing costs through to individual customers when investing for the benefit of future consumers. Analysis will need to be undertaken of where this funding should be derived from, whether the costs should be socialised and what contribution future consumers should make, if any, when they do connect.

Q8. How should we hold the companies to account for the delivery of strategic investment, and the outcomes that they are expected to deliver?

Please see the response to Question 6.

Q9. Is there a need to separate out the revenues and outputs for 'traditional' DNO functions from DSO functions? How could this be achieved?

Yes. The ADE welcomes Ofgem's approach to DSO functions, which recognises that many could be undertaken by third parties. It is essential that the price control be 'future proofed' in order to ensure that this option is maintained.

Funding for DSO functions should be conditional upon a DNO winning a competitive tender for the function, which other DNOs and commercial providers can also enter. Funding for outcomes that enable this approach, such as the DNOs adopting an open data approach and ensuring the data released is high-quality, transparent and machine-readable, should be part of the DNOs' core funding.

The best approach is likely to be for Ofgem to clearly define the DSO functions, create a mechanism for the short-term that allows investment without definition of who will be undertaking the activities and making the investments, then decide which parties are best placed to fulfil these functions at a slightly later date.

Q10. In the event of the DSO function being delivered by a separate party, how might we determine the revenues for DSO activities? What type of funding model would be appropriate to set DSO revenues? In this event, would changes also be required to DNO revenues and outputs?

Where a DNO is undertaking a DSO function, it may be appropriate to base their funding upon a similar approach to the ESO's RIIO-2 price control, with core costs passed through with little or no margin and a strong incentive scheme based on ambitious goals with clear deliverables.

Q11. Where a DNO is undertaking a DSO function, what type of outputs or outcomes are necessary to measure how efficiently they are performing this function? Over what time period could these be measured?

Please see Part One of the response for suggestions for what outputs and outcomes should be incentivised and measured.

Q12. In what ways could the existing arrangements drive more innovation and competition?

It is essential that the existing arrangements are used to drive more innovation and competition. As well as ensuring that functions and projects are openly tendered by default, incentives should be placed on the DNO to tender into competitions managed by third parties and to ensure that, in their tenders, the most innovative, flexible, low-carbon solution is implemented, regardless of who has proposed it.

Q13. To what extent should we set (and incentivise performance against) baseline totex allowances for activities where flexible solutions could be provided?

Q14. Should we instead set allowances based on the costs revealed through the flexibility tendering process? How might this work?

(The following is a combined response to Q13 and Q14).

The ADE believes that any spend that is uncertain should not be included in the baseline totex allowances, including activities where flexible solutions could potentially be provided.

For network reinforcement, DNOs and Ofgem should agree the Unit Cost Allowances (UCAS), then the DNOs should use the agreed UCAS, plus other elements such as risk of unnecessary reinforcement and value to consumers of faster connections, to calculate how much money would be required to reinforce the network. The DNO should then tender against this cost and pursue the flexibility option if it is cheaper than the cost, receiving the difference as an incentive payment. If the flexibility option is not the cheaper, the DNO should use the agreed UCAs to invest in network reinforcement.

If Ofgem base allowances on UCAS and volume uncertainty mechanisms, they should calculate the totex sharing factor on the basis of what the DNO would have had to pay if they had undertaken reinforcement on the basis of the UCAS. Allowances should not be purely passed through, as this fails to create a strong enough incentive on the DNO to procure flexibility where appropriate.

Q15. To what degree should DNOs modernise their handling practices to adhere to data best practice, and therefore (among other things) provide available, transparent, and interoperable data about their networks? What measures will be needed to ensure data remains secure?

It is essential that the DNOs modernise their data handling practices to ensure that available, transparent and interoperable data is openly available. This is key to enabling DSO functions to be opened up to competition on a level playing field and essential to the transition to a flexible, decarbonised energy system.

Ensuring that DNOs provide this data should be one of the primary goals of the RIIO-ED2 price control but should also be incentivised before 2023 as a priority.

Q16. How should we structure RIIO-ED2 to encourage metadata to be made available, and for data to be presumed open? How should we measure DNO performance in this area, and on what basis should funding be set to deliver relevant outcomes?

RIIO-ED2 should contain a set of clear, measurable goals, which are heavily incentivised. One of these key goals should be around data availability and, as outlined in Part One, this should be measured on the basis of external providers' ability to compete on a level basis in tenders for DSO services and for flexibility products, and on the percentage of data not released.

Q17. Do you agree with the themes we plan to include in our guidance on data best practice?

The ADE does not have a view on this question.

RIIO-ED2 Framework Consultation

Q18. We welcome views on our proposed position of a five-year price control for RIIO-ED2.

The ADE agrees with the proposal of a five-year price control.

Q19. Are there any elements of RIIO-ED2 price control that we should consider setting over a longer or shorter period? Please give reasons.

The ADE does not have a view on this question.

Q20. We welcome views on whether these enhanced engagement arrangements are appropriate for RIIO-ED2.

The ADE supports the use of enhanced engagement arrangements for RIIO-ED2.

Q21. We welcome views on whether the proposed output categories and incentive arrangements are appropriate for RIIO-ED2.

The ADE does not have a view on this question.

Q22. We are interested to hear if there are new elements of the services DNOs will need to deliver that should be included in the current output categories. Alternatively, we welcome views on whether these should be captured by a new output category. For these new elements, we are interested to hear how delivery of these services should be valued and measured.

The ADE does not have a view on this question.

Q23. We welcome thoughts on how to ensure that we continue to protect the interests of vulnerable consumers, particularly in light of the energy system transition.

The ADE does not have a view on this question.

Q24. We welcome views on how DNOs should continue to ensure their networks are resilient, particularly in the context of the new or changing way assets are used.

The planning standards review will help to ensure resilience and should be progressed rapidly.

Q25. We are interested to hear stakeholder views on how DNOs should ensure their networks are resilient to physical and/or virtual threats, as well as being able to withstand the effects of adverse weather and the impacts of climate change.

The ADE does not have a view on this question.

Q26. We would also like to hear how stakeholders believe climate change mitigation and adaptation may affect network maintenance and development in the short, medium, and long term.

The ADE does not have a view on this question.

Q27. We would like to hear views on how we ensure DNOs remain resilient to the challenges presented by an ageing and changing workforce.

The ADE does not have a view on this question.

Q28. We welcome views on how DNOs should work to minimise the impact of what they do on the environment and facilitate the transition to a low carbon energy system. We are particularly interested in the implications of the government's updated target of net zero emissions by 2050.

As outlined in Part 1 of this response, DNOs should commit not to use renewable curtailment to manage network constraints by 2028, instead procuring flexibility. This will form a major part of

DNOs contribution to achieving net zero and mirror the ESO's commitment to ensuring zero carbon system operation is possible by 2025.

Q29. We also welcome views on what this may mean for the type of activities networks undertake, how these may be funded, as well as the outputs and/or incentives they should be exposed to.

Please see above.

Q30. Finally, we are keen to understand how DNOs' performance should be measured, and how we should assess the value that consumers place on the provision of these services and activities.

Please see above.

Q31. We welcome views on how RII0-ED2 can best capture the benefit of whole systems solutions. We are also interested in views on how these benefits should be measured.

As outlined in Part 1 of this response, a financial mechanism should be established so that, if a DNO takes an action that creates a saving for another DNO or the TO, the saving is shared, with the DNO taking the action receiving the majority of the saving

Q32. We further welcome stakeholders' opinions on whether the electricity distribution sector's approach to whole systems should be different from the other sectors and, if so, why.

The ADE does not believe that the approach should be different from the other sectors.

Q33. We welcome views on how we should manage the uncertainty associated with forecasting allowances, and whether there are any mechanisms we could or should consider in helping to manage this uncertainty.

As outlined in our response to Q13 and Q14, the ADE believes that any spend that is uncertain should not be included in the baseline totex allowances. Greater use of uncertainty mechanisms, either via volume drivers or re-openers are likely to be the best way to manage this uncertainty.

Q34. We seek views on the use of indexation, particularly on any adjustments for labour and construction cost inflation.

The ADE does not have a view on this question.

Q35. We welcome views on our approach to highly anticipatory investment projects. We are interested to hear whether stakeholders would suggest additional processes or regimes for facilitating such investments that support the energy system transition whilst protecting consumers from potentially inefficient investments.

As outlined in our response to Q6, it is essential that structures be put in place to protect consumers from potentially inefficient investments in this area. The structure should help to determine how anticipatory investments are made, collect evidence for different options and analyse them through an Ofgem-designed cost benefit analysis that is used across the DNOs. Ofgem should have the final sign-off on whether the investment is approved.

Q36. We welcome views on the type of issues that should be considered through an interinstitutional group.

The ADE does not have a view on this question.

Q37. We invite stakeholders to advise what type of expenditure they believe should be subject to alternative arrangements for sharing risk, and what these arrangements may look like.

The ADE believes that anticipatory investment should be subject to alternative arrangements. Please see above for details of what these arrangements should look like.

Q38. We welcome views on the proposed innovation stimulus. We are interested to hear views on the types of projects that should be funded through either the NIA funding or a new funding pot.

The ADE does not have a view on this question.

Q39. How can the benefits of the innovation stimulus be maximised by supporting schemes proposed by non-network parties?

The ADE does not have a view on this question.

Q40. We also welcome views on our proposals for the different competition models in RIIIO-ED2, and what, if any, criteria should be set out for the use of early or late stage competition models.

The ADE does not have a view on this question.

Q41. We also seek input from stakeholders on how native competition obligations and best practices can be used to ensure the best outcomes for consumers and to drive changes in the role of the networks in a transforming energy system.

The ADE does not have a view on this question.

Q42. We welcome views on our approach to planning, forecasting and scenarios for RIIIOED2. In particular, do stakeholders have other suggestions as to how we can best manage forecasting risk for consumers?

The ADE agrees with the suggestion that all networks should form a consistent view of the future. Uncertainty mechanisms are likely to continue to be the best way to manage risk and should be employed wherever necessary.

Q43. We welcome views on our proposal to remove the early settlement process for RIIIOED2, instead focusing on alternative mechanisms to receive high-quality and ambitious business plans.

The ADE agrees with this proposal. The Business Plan incentive should be considered for the Transmission and gas price controls.

Q44. We also welcome views on our proposals to use the Business Plan Incentive and the confidence-dependent incentive rate arrangements for RIIIO-ED2. In line with this, we are interested to hear stakeholder views on the range that should be used for both of these.

The ADE agrees with Ofgem's proposals.

Q45. We welcome stakeholder views on our proposals to introduce measures to enable network companies to finance their activities whilst ensuring they receive a fair return.

The ADE does not have a view on this question.

Q46. We are interested to hear from stakeholders on how they believe we should set allowances for the cost of debt, particularly around the method of recalibrating the index.

The ADE does not have a view on this question.

Q47. We also welcome views on our proposed approach to setting allowances for the cost of equity, as well as our proposal to move away from RPI.

The ADE does not have a view on this question.

Q48. Finally, we would like to hear stakeholders' views on our proposed introduction of a 'sculpted sharing factor' in instances of high out- or under-performance, or whether an alternative mechanism could be more effective.

The ADE does not have a view on this question.

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