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### **Electricity System Operator Incentives from April 2017**

EDF Energy is one of the UK's largest energy companies with activities throughout the energy chain. Our interests include nuclear, coal and gas-fired electricity generation, renewables, and energy supply to end users. We have over five million electricity and gas customer accounts in the UK, including residential and business users.

We support extending the current System Operator (SO) incentive scheme, with "quick win" changes that could improve the scheme and provide detail attached to this letter. We believe that this approach with some changes is likely to be in consumer interests.

We do though have a number of concerns:

- The impact of the recent black start contracts has highlighted flaws in the incentive scheme. On balance, we agree that the cap and floor and sharing parameters should not be changed but we believe that a higher threshold for an Income Adjusting Event is appropriate. We also consider that there should be a way to manage these unexpected and material costs to limit impact on industry and consumers.
- We strongly believe that the SO should have a licence obligation to develop a more proactive engagement plan with service providers and investors to ensure that parties can understand the SO's needs and potential commercial opportunities.
- We also believe that the SO should pursue more market-based approaches and revise their procurement framework to enable greater competition, more efficient procurement and increased transparency. Again this should be delivered through a licence obligation.

Developing the longer term scheme should be Ofgem's priority; we would urge Ofgem to focus its resources on the "fundamental review" – a lot of this work can be taken forward even without full clarity on the future independence of the System Operator. The same challenges need to be faced albeit the exact incentives may need to change depending on the nature of the SO.

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Our detailed responses are set out in the attachment to this letter. Should you wish to discuss any of the issues raised in our response or have any queries, please contact Mark Cox on 01452 658415, or me.

I confirm that this letter and its attachment may be published on Ofgem's website.

Yours sincerely,

A handwritten signature in black ink that reads "Angela Hepworth".

**Angela Hepworth**  
**Corporate Policy and Regulation Director**

## Attachment

### Electricity System Operator Incentives from April 2017

#### EDF Energy's response to your questions

#### CHAPTER 2: Whether to maintain the existing incentives framework

**Q1a. Should we place financial incentives on the SO in the period between 1 April 2017 and when we are in a position to implement longer term SO incentives?**

Yes. We agree with Ofgem that there is evidence to suggest that the incentive scheme has had a beneficial effect for consumers and that removing financial pressure on the SO to take the most cost effective course of action could create risks for consumers.

**Q1b. If we maintain financial incentives from April 2017 to spring/summer 2018, should we use the existing BSIS framework?**

Yes, we believe it would be beneficial to maintain the existing overarching SO incentives framework. The speed of change in the energy system means that there is a risk that the historic cost relationship that underpins the SO modelling will not hold or increasingly will become inaccurate. It will be important for Ofgem and its advisers to satisfy themselves that these models will be sufficiently representative to drive the right outcomes.

**Q1c. Do you agree that if we maintain the existing incentives framework during this period, we should seek improvements from the 2015-17 scheme? Please provide evidence to support your answers**

Yes, where "quick win" changes are possible and there is clear evidence that improvements are needed, Ofgem should seek to introduce them in the interim scheme. Further comment is provided below on the scheme details. However, we would urge Ofgem to focus their resources in developing the longer term scheme.

#### CHAPTER 3: Scope of potential changes from the 2015-17 scheme

**Q3a. How could the BSIS target setting approach and modelling methodologies be improved in the short term?**

We support Ofgem's suggested BSIS changes in chapter 3. We comment specifically on demand forecasting and black start services below.

**Q3b. Do you believe the existing BSIS sharing factor and cap and floor remain appropriate?**

Regarding the cap and collar and sharing mechanism, one issue that has come to light this year is the scale of one-off contracts that the SO can enter into impacting and dwarfing these parameters. While we believe that this is a black start specific issue, to the extent that there are other cost drivers that could materialise in this way, then this is a significant issue for industry. The key issue is to ensure that the SO is strongly motivated to identify and highlight risks to the costs of operating the system early. There needs to be a medium term incentive allowing the SO to take actions in good time to mitigate these risks. Given this, it may not be appropriate to adjust the BSIS cap and collar and sharing mechanism at this point but it may be appropriate to increase the cost threshold to claim an Income Adjusting Event for the next scheme. We provide further commentary below.

#### **Q4. What is the best way to set an incentive on the SO to incur efficient costs when procuring Black Start from April 2017?**

We believe an ex post assessment of whether costs are efficient is the most appropriate action given the circumstances. The SO has a broader licence obligation already to act in an efficient and economic manner. An ex post assessment should assess whether the SO has undertaken an effective market engagement exercise to establish potential service providers and their lead times including considering innovative solutions and that the SO has undertaken an effective procurement process to minimise costs including effective negotiation of prices for these services. Recent experience has shown that Black Start costs can be huge and ultimately will be borne by customers. Ofgem, in their recent determination, has identified issues in the process of black start procurement and it is critical that lessons are learnt.

Ofgem could direct to disallow the pass-through of any costs to consumers that it concluded were not economic or efficient. Given the expected volatility in black start costs in the near term, the budget for black start costs should be ring-fenced and costs above the ring-fenced target should not be passed on to customers during that charging year even if they were deemed economic or efficient. Instead, they should be recovered in the following two charging years. Such a change should encourage the SO to be more proactive and innovative in its black start procurement strategy and also protect consumers from unexpected or inefficient charges.

In addition, we believe that in parallel there should be a medium term licence obligation on the SO to bring forward greater liquidity in black start providers with the intention of securing better outcomes for consumers in future years. This would involve significant market engagement to highlight SO needs over the short to medium term. This obligation would include the SO reporting on actions and progress to Ofgem.

#### **Q5a. Do you agree that we shouldn't maintain the MDLC?**

The implication of removing the Model Development Licence Condition (MDLC) is not clear from the consultation. Although we are aware that Ofgem intends to conduct a fundamental review, it is not a fait accompli that the models used in BSIS will not have a role in the future. There is a risk that removing the licence could impede discussions later

on. Unless Ofgem can demonstrate that the benefits of removing the licence condition outweigh the costs associated with maintaining the models, we think the licence condition should be maintained.

**Q5b. Do you agree that we shouldn't maintain the SO IRM? Are there any alternative ways to encourage innovative behaviour from the SO in the short term?**

While we understand the arguments for scrapping this incentive it feels at odds with the challenges that the SO faces. It is exactly at this time with significant changes to the energy system creating new operability challenges that there should be a strong incentive to innovate. While this may get overrun with the "fundamental review" this is potentially two years away. In the interim, potential value could be secured from this scheme. The existing form of IRM though may not be a suitable mechanism for an interim scheme as there will be limited time for the SO to develop proposals. One option is to create an enduring scheme that bridges the next two years and can then be reviewed through the fundamental review. It will be important that any developments (particularly large value items) are funded in future years as with the current scheme.

**Q6a. Do you believe there is a need for a new incentive on short term demand forecasts from April 2017? How could this be designed? What timescales should it be based on: week ahead, day-ahead, hour-ahead, other?**

Yes, a new financial incentive on short term demand forecast would be a beneficial introduction from April 2017 given the developments Ofgem outlines. Accuracy of short term forecasts will be most critical as these tend to drive larger costs and inefficiencies. Therefore, while we support a range of timescales, the strong focus should be on within day short term forecast for the incentive.

**Q6b. Do you think there needs to be any changes to the wind generation forecasting incentive or new incentives on any other system forecasts?**

The current financial incentive on the SO to produce accurate day-ahead wind generation forecasts rewards/penalises the SO depending on how its average forecasting error each month compares to an agreed target. We think it would be useful to include accurate day-ahead solar generation forecasts as well which may be a by-product of the demand incentive in any case.

**Q7. Do you think the SO's procurement of balancing services needs to be more transparent and open? If so, what steps should be taken? Should the SO pursue more market-based approaches? Should we introduce any incentives or requirements on the SO in this area from April 2017?**

Yes. We are concerned that:

- There is not sufficient information on the future SO requirements, in particular, the scale of the market for various balancing services, their value and the likely market trend for these services. The System Operability Framework is an excellent document to provide a good overview of the likely issues that the SO will face but the next step is needed to turn this into market opportunity for Grid services. With reducing conventional plant on the system and the level of investment in new generation / service providers, it is critical that this information is made available to market participants and investors. For instance, information on the market for balancing services will allow investors to make informed decisions about marginal investment that may facilitate the delivery of balancing services above those prescribed in the Grid or Distribution Code (mandatory services). Retrofitting kit will increase costs.

We believe a competitive market will be available for many of these services but the SO is not taking full advantage of that potential. A more proactive engagement plan with service providers and investors is necessary to ensure that they can understand the SO's needs and potential commercial opportunities. NGET's Commercial Balancing Services Standing Group meetings have not met since May 2015. This, or an alternative forum, would be a useful vehicle to engage industry.

- Procurement of some Grid services has not been sufficiently sign-posted and ad hoc leading to risk of inefficiencies:
  - While we acknowledge that the energy system is going through a transition leading to new challenges, some procurement of balancing services appears ad hoc. The recent procurements of Black Start this year and the recent Enhanced Frequency Response (EFR) tender all appeared with limited planning and market signal. This risks limited competition and limits the ability for innovation or projects that may take more time to develop.
  - A number of balancing services interact – there are trade-offs between them, e.g. EFR substitutes other forms of (primary) frequency response. To procure EFR separately from primary and secondary response risks inefficiencies as it requires the SO to second-guess the likely price of this service in the market in advance of tender outcomes. What is clear from the recent tender is that this is prone to error and risks inefficiencies in procurement. For the recent EFR tender the SO expected costs to be in the region of £30/MW/h but the results were as low as £7/MW/h.
  - Finally, in some cases it may be necessary to offer longer term contracts to parties particularly for new investments. This may mean that the SO incentives need to flex to allow procurement of longer term contracts, e.g. 4 years plus as was the case for EFR.

The SO should develop and publicise a framework for procuring balancing services. This should include balancing services they procure in the short, medium and long term and a procurement plan for those services. In developing this framework, the SO should consider the merits of bundling the procurement of some of these services which could

result in a more efficient result. For instance procuring services at the same time allows service providers to offer contingent bids – this may reduce the costs of services.

We strongly agree that the SO should pursue more market-based approaches. For example, we note that the Irish Electricity Market (SEM) has been designing an innovative System Services procurement regime (DS3) in the light of the increasing level of renewables and non-synchronous generation which will see the procurement of 14 ancillary services bundled into one auction. This allows participants to offer more competitive prices across more than one service. While we recognise that this is a material change and potentially too complex a change for the GB market, if a similar framework were implemented in GB, it would allow the SO to optimise its purchases through economies of scale and scope – e.g. trading off between inertia, Frequency Response, Reserve or balancing actions in the BM Market. This could reduce overall transaction costs and BSUoS charges.

Overall, we believe that the SO needs to undertake a significant review of their balancing services, set out clear view of the future market for these services and fundamentally revisit their procurement framework. We believe in this case that a licence obligation on the SO to undertake this work is important with clear market engagement plan and milestones to deliver a revised framework. This would then be an important basis on which to develop Ofgem's fundamental review of SO incentives. For the avoidance of doubt, the SO should not be rewarded for developing such a framework; we expect the SO to have an effective procurement framework in place.

**Q8. Do you agree with our proposed scope of changes? Is there anything else you believe should be changed, added or removed from the existing scheme?**

In general, we support the proposed scope of changes and where we disagree, have provided our views in our answers.

We note that Ofgem is also considering a new SO-TO mechanism that allows the SO to transfer funds to the TO and reduce system costs for purely economic reasons. The consultation states that under the current regulatory framework, no party is financially incentivised to consider the impact actions have on total system costs; hence cost saving opportunities are being missed. While this may be true, we note that parties have a general licence condition to develop and maintain an efficient, co-ordinated and economical system of electricity transmission. We would argue that the SO and TOs have a general duty to consider the whole system costs and ensure that the system is run efficiently. We think there is a risk of creating a culture where the TOs and SO get rewarded (i.e. in addition to recovering their costs) for simply fulfilling their obligations.

It is also not clear why it is not possible to strengthen the requirements under the STC to ensure the TOs and SO work towards a whole system approach rather than creating a new incentive to enable the SO to fund the TO.

## APPENDIX 1 – Consultation on SO-TO mechanism

**Q9. Do you agree that there is a need for a mechanism that allows the SO to exchange funds with the TOs? Are there any additional pros and cons that we should consider in our analysis? Do you agree it should be introduced from April 2017?**

We do not agree that such a mechanism is required - we would expect parties to work together to identify least costs and such a mechanism may cut across the general licence obligation to develop an economic and efficient transmission system. If this overriding obligation is not strong enough then a financial mechanism may be appropriate. An alternative approach to achieve this would be to require the TO to cover the additional SO costs caused from changes to their planned outage requirements, e.g. agreed year ahead plan. Effectively the TO is best placed to make judgements and balance between the costs of changing working practices on their system outages and the increased costs incurred by the SO of constraint payments for instance from delays or extensions to outages. It is not clear why the cost should be placed on the SO (and ultimately consumers) for something outside of the SO's control.

Given our view on Q9 we do not have views on the remaining questions in Appendix 1.

**Q10. Do you agree with the codified-approach?**

**Q11. What do you consider to be the most appropriate cost recovery levy methodology?**

**Q12. Do you agree with the proposed approach with regard to the financial aspects of the mechanism outlined above?**

**Q13. Do you agree with our proposed investment threshold for Ofgem approval?**

**Q14. Do you think the costs incurred through a mechanism should be incentivised as part of an overarching financial target on balancing costs, or as part of a separate financial incentive?**

**Q15. What, if any, impact will limiting the mechanism to the end of RIIO-T1 period have on the efficiency of potential projects that cover both RIIO-T1 and RIIO-T2 periods?**

- Q16. Are there any other criteria we should consider for such projects?**
- Q17. What level of transparency would you want regarding this mechanism?**
- Q18. Do you consider that we have identified the changes required correctly?  
Are there any other changes required to the existing framework in order to implement the mechanism?**
- Q19. Are there any other factors that you think we need to consider in the design of the mechanism?**

**EDF Energy  
September 2016**