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14 July 2016

Consultation on a Proposed Income Adjusting Event submitted by National Grid Electricity Transmission plc in relation to the 2015-17 Electricity System Operator Incentives Scheme

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.

Black Start is an essential service to ensure the resilience of the country's energy system. While the expectation should be that it is very rarely used it is important that the appropriate tools are in place and are procured by National Grid in an efficient and economic manner. Given that only a limited number of generators can provide such an important service due to its regional nature, it is imperative that market participants do not take advantage of their dominant position in providing this "social good".

EDF Energy does not believe that the events submitted by National Grid as an Income Adjusting Event (IAE) constitute an IAE. In our view, the potential early closure of coal plants was foreseeable and the events cannot be considered as unexpected, fundamental changes in the wholesale energy market. We believe that National Grid should have started taking proactive actions from 2008, when the closure of (Black-Start providing) Large Combustion Plant Directive (LCPD) opted-out plants by the end of 2015 was signalled. We recognise that in some Black Start zones (South East and South West/South Wales) this appears to have been delivered. However, in a number of other zones heavily reliant on coal for Black Start provision, particularly Midlands, North East and North West, very limited progress appears to have been made, leaving the system exposed to known coal closures (Ironbridge), and to any downturn in the economics of coal leading to further coal closures. The collapse in dark spreads in 2009/10 signalled the risk of a dramatic fall in coal plant revenues and this has been repeated and in fact exceeded since 2014.

Recognition of these risks and early engagement with industry would have sent the appropriate signals to generators and investors to consider Black Start capabilities in their investment plans. This would have resulted in more providers of the service, along with innovation and investment in this area, and therefore, more competitive costs. We have not seen evidence that National Grid properly considered the alternatives available. For example, we would expect that National Grid explored a full range of alternatives including whether the SBR unit at Fiddler's Ferry and other units such as the biomass units at Drax could have provided the required service. Also while it may have been difficult for large "container type" diesel generators or newly installed diesel generation in conjunction with operational CCGT plant to provide a credible alternative given the timescales in this case, we would nevertheless expect National Grid to have explored, and where appropriate, discounted such options and evidenced this in its submission.

We do not support the method National Grid used to assess whether the contracts it signed with Fiddler's Ferry and Drax were good value to customers. Its assessment is based on how much earlier customers are restored by having the Black Start contracts in place and applies the Value of Lost Load (VoLL) for this period and volume. Critically, given that Black Start is the procedure to recover from a total or partial shutdown of the National Electricity Transmission Systems, a highly unlikely event, it would have been appropriate to use a probability weighting of the event occurring – National Grid use no probability assessment of the event happening in assessing consumer value. We also note that the value of VoLL used by National Grid is an order of magnitude higher than that considered for Ofgem's cashout reform, National Grid's Supplemental Balancing Reserve (SBR) procurement and the Government's capacity mechanism.

While we appreciate the importance of protecting commercial confidentiality, there is no transparency to help us determine whether the prices charged by Fiddler's Ferry and Drax are reflective of likely costs. However, based on existing contracts, we note that the contracts are 25-50 times the cost of existing contracts. In this context, we note that Fiddlers Ferry has secured an SBR contract for 2016-17 and having secured a revenue stream to keep the plant open and available for this period, it does not seem credible that such a high premium could have been required to secure the additional Black Start capability. In the case of Drax, no evidence is presented to explain why the Black Start capability could not have been provided in conjunction with any of the operational biomass fired units. In both cases, the absence of any mitigating evidence raises an open question of whether these companies have taken advantage of a dominant position in the market. Ofgem will need to satisfy itself and reassure market participants that the prices submitted by Fiddler's Ferry and Drax were reasonable and necessary, particularly when the vast majority of other Black Start providers did not have the geographical advantage of the winning bidders.

While we note the reasons for Ofgem not undertaking an impact assessment in this case, we consider that it would have been helpful to identify also some of the broader impacts of this procurement. Specifically, keeping these units open that would otherwise have shut or mothballed will have an impact on the wholesale energy market and scarcity prices for winter 2016/17. This will impact other market participants negatively. In addition to the wholesale market, it is possible that these contracts will also impact on the outcome of the capacity market. These effects should be considered in any decision by Ofgem. Ofgem needs to ensure that these contracts are good value for customers by ensuring that National Grid has taken all reasonable steps so that it can procure black start services efficiently and economically. Finally, these Black Start contracts raise serious concerns for future procurement of Black Start services, e.g. April 2017. We ask that Ofgem satisfies itself that this issue will not be repeated next year and that the way Grid system services are procured is competitive and transparent.

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,

Angela Hepworth

Angela Hepworth
Corporate Policy and Regulation Director

Attachment

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EDF Energy's response to your questions

CHAPTER: One

Q1. Do you believe that the event submitted by NGET as an Income Adjusting Event constitutes an Income Adjusting Event?

- **Do you consider the proposed IAE to constitute force majeure as defined in the BSC or in the CUSC?**
- **Do you believe that the event submitted by NGET was unforeseen? Please provide evidence to support your view where possible.**
- **Do you believe that the proposed IAE costs were beyond the reasonable control of NGET?**

CUSC defines force majeure as, in relation to any CUSC Party, any event or circumstance which is beyond the reasonable control of such CUSC Party and which results in or causes the failure of that CUSC Party to perform any of its obligations under the CUSC such as act of God, strike, lockout or other industrial disturbance. We believe that there are actions that National Grid could have taken to manage this event. None of the circumstances set out in the CUSC are applicable in this case.

The BSC does not actually define force majeure but "Supplier Force Majeure" has the meaning given to that term in Section S3.3.1 of the BSC. However, this definition would not apply to National Grid nor the thermal power stations that announced their intention to either close or mothball since neither are suppliers.

We do not, therefore, consider the proposed IAE to constitute force majeure as defined in the BSC or in the CUSC.

National Grid claims that the events were unforeseen since the potential closure announcements were earlier than expected under their Future Energy Scenarios (FES). However, the potential early closure of coal plants has been highlighted in the FES for several years, and while it may have been difficult to identify the exact plant that would close and the exact date, the risk of closure of coal plant during this decade was foreseen and could have been mitigated. Given National Grid's Black Start statement indicated a need for 2 or 3 units in each region it has been clear for some time that this requirement was becoming challenging and given the importance, contingency arrangements should have been considered. As National Grid note, the FES are simply scenarios and it is necessary to conduct sensitivities and assess the risks on an ongoing basis.

We do not consider that the events were unexpected or constitute fundamental changes in the wholesale energy market. Black Start provision in the North West, North East and Midlands remains heavily dependent on coal plants. A number of coal (and oil) plants providing Black Start were known to have to close under LCPD by the end of 2015, including Ironbridge, believed to be supplementing the Black Start provision into the North West region. We have already seen periods of very low dark spreads (2009 – 2010), which, if more protracted, could have led to the closure of some stations. Whilst not a Black Start provider, the potential early closure of Eggborough (a coal power plant in the North East) was initially covered in the media in early 2014 when it failed in its bid to convert from coal to biomass production. Although they found new investors in late 2014, by September 2015 closure talks had commenced again. In July 2014 a major fire, destroying the FGD plant on one unit at Ferrybridge (a Black Start providing coal power plant in the North East) and heavily damaging the other left the 2-unit station facing a circa £100m investment to continue operation long-term, a very challenging sum to recover in all but the highest of dark spread environments. Unsurprisingly, in May 2015, Ferrybridge announced its closure by March 2016. While National Grid may have not known with certainty that Fiddlers Ferry and Drax would announce their closure or intention to mothball, we do not consider the events or circumstances to be unexpected and unforeseen by those in the industry. We believe that National Grid was better placed to manage the relevant risks than consumers.

Arguably, National Grid was fully aware of the risks of early closure of power stations (including potentially coal) and the impact they would have on security of supply. As a result, in 2014 National Grid introduced SBR and DSBR to lessen the risks. Its attention appears to have been focussed on ensuring sufficient capacity margins and there is little transparency of their consideration on assessing the impact these potential early closures would have on its Black Start strategy. Indeed National Grid's System Operability Framework (published November 2015) indicates that Black Start issues would emerge in the early 2020s. And yet three months later they highlighted to the market that they in fact had a significant Black Start resilience issue within year (2016/17).

Furthermore, we do not believe that National Grid properly considered the alternatives available. For example, we are not aware of any evidence that would suggest that a full range of alternatives was explored. We would have liked to have seen whether the SBR unit at Fiddler's Ferry and other units such as the biomass units at Drax could have provided the required service. Whilst we are unsure that "container type", lorry mounted diesel generators or newly installed diesel generation in conjunction with operational CCGT plant could provide a credible alternative, we would expect National Grid to have explored, and where appropriate, discounted such options and evidenced this in its submission.

We therefore do not believe the proposed IAE costs were beyond the reasonable control of National Grid. We note that National Grid is taking forward four workstreams to develop its longer term strategy for Black Start in the areas of Technology, Restoration, Frameworks and Procurement. However, we strongly believe that, by early this decade, the risks around coal plant provision of Black Start were becoming foreseeable. At the very latest, National Grid's contingency planning should have encompassed Black Start at the same time as the initial introduction of tenders for SBR. This would have provided the necessary signals to existing generators and potential investors in Black Start capability to act resulting in more potential providers of the service, and therefore, competitive costs.

In our view, National Grid's lack of proactive actions led to limited choice resulting in National Grid paying 25 – 50 times the cost of existing contracts. Furthermore, even if the events were unexpected, the proper consideration of a full range of alternatives should have yielded lower cost solutions. It was within National Grid's reasonable control to minimise these costs.

Q2. Assuming the event is an IAE, do you consider that any or all of the costs set out in NGET's notice were caused by the relevant IAE?

- **Are there any additional interactions between costs incurred that need to be taken into account?**
- **Do you consider that NGET acted economically and efficiently in procuring Black Start in this event?**

For the avoidance of doubt, we do not believe the events are an IAE.

Since we do not have any visibility of the breakdown of the £113m, it is difficult to comment on whether the costs were caused by the potential IAE. However, based on existing Black Start contract values, the costs of the contract for two units are incredibly high, i.e. 25 – 50 times the cost of existing contracts, which seems to suggest they may not be cost reflective. In Fiddler's Ferry's case, it recently won an SBR contract for 2016-2017 and having secured a revenue stream to keep the plant open and available for this period, it does not appear credible that such a high premium could have been required to secure the additional Black Start capability. For Drax, it is not clear why it could not use any of its biomass units to support the Black Start service; using their biomass units would have resulted in significantly lower costs. In both cases, the absence of any mitigating evidence raises an open question of whether these companies have taken advantage of a dominant position in the market. Ofgem will need to satisfy itself and reassure market participants that the prices submitted by Fiddler's Ferry and Drax were cost reflective and necessary, particularly when the vast majority of other Black Start providers did not have the geographical advantage of the winning bidders.

Unlike the SBR service, where its Procurement Methodology clearly describes National Grid's intention of using London Economics' Value of Loss Load (VoLL) at £16,940/MWh to calculate the volume of SBR to procure, the Black Start Statement merely provides a high level description of the process it would follow to procure the service. In fact, there is no mention of its intention to use VoLL, especially at £67,780, which is inconsistent to the way it is used under the Capacity Mechanism, SBR or cashout. It is also worth noting that the VoLL used in the CM and SBR is based on outages during Winter-Peak-Weekdays. Since the potential need for Black Start can occur at any time, there is an argument to suggest that a lower VoLL may have been more appropriate.

We do not agree that National Grid acted economically and efficiently in procuring Black Start for a number of reasons:

- **Alternative options were not considered.** As stated above, National Grid should have considered short-term alternatives to Black Start ahead of the need to procure the service at short notice. For example, early discussions with DNOs to use its lorry based or container type generators in conjunction with operational CCGT plant or discussions with new CCGT developers could have resulted in alternative options being developed. In fact, instead of using VoLL to calculate the economic and efficient cost of procuring Black Start, it should have been assessed against the cost of alternative options.

- **National Grid's analysis to support these contracts looks fundamentally flawed.** Grid's assessment of the contracts with Fiddler's Ferry and Drax looks at how much earlier customers are restored by having the Black Start contracts in place and applies the VoLL for this period of time. Grid claims that the London Economic' report "recommends" using a VoLL figure four times higher for a four hour outage. This is less than clear from the report but more importantly National Grid's assessment does not apply any probability weighting. History shows that only one partial system loss occurred in 1987, nearly 30 years ago. It is not right to assume value for money based on an event happening each year.

A more prudent value of VoLL together with a probability weighting would likely not support the Fiddler's Ferry/Drax procurement. We suspect a more prudent assessment would have been more similar to the price of existing contracts. Therefore, we do not believe National Grid acted economically and efficiently in procuring Black Start on these occasions.

EDF Energy
July 2016