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Email to: EMR\_CMRules@ofgem.gov.uk

19 August 2016

**Consultation on further amendments to the Capacity Market Rules (the "Rules") pursuant to Regulation 79 of the Capacity Market Regulations 2014 (the "Regulations")**

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 welcome the opportunity to comment on Ofgem's further amendments to the Capacity Market Rules. We agree with Ofgem's proposed amendment to the definition of a Mandatory CMU and the proposed correction to the legal drafting of Rule 13.4.1B, i.e., the satisfactory performance for CMU portfolios.

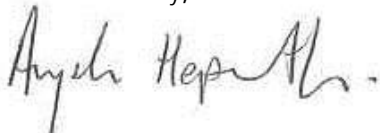
We also welcome Ofgem's action to correct the deficiency in the Load Following Capacity Obligation (LFCO) formula. However, we believe that EDF Energy's proposal best reflects DECC's policy intentions. If our proposal is not accepted, then we believe that National Grid's option is the better of Ofgem's two lead options as, unlike the Green Frog Power proposal, it is clear and unambiguous.

We also note that Ofgem has identified that National Grid have concerns that the use of Involuntary Load Reduction (ILR) could potentially cause settlement issues. If this is indeed the case, it could cause problems for the operation of the Capacity Market from October 2017 onwards rather than merely being a transitional issue of low materiality for 2016/17. We believe that Ofgem should request National Grid to provide an explanation of these concerns so that it can be established whether further action is required.

The evidence and reasoning behind our positions 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 Guy Buckenham on 07875 112585, 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, appearing to read "Angela Hepworth".

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

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## Attachment

### **Consultation on further amendments to the Capacity Market Rules (the "Rules") pursuant to Regulation 79 of the Capacity Market Regulations 2014 (the "Regulations")**

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

##### **Q1a. Do you agree with the proposal to amend the definition of Mandatory CMUs? Please provide evidence and clear reasoning for your answer.**

Yes. Capacity that is excluded from the Capacity Market should not fall into the definition of a Mandatory CMU. Reviewing the Capacity Market Register, we believe that this view has in fact already been adopted by participants; we are not aware that anyone has opted out a renewable generation CMU on the basis that it is a mandatory CMU and so must either participate or explicitly opt-out.

##### **Q1b. Do you think our proposed drafting accurately reflects the policy intent we have outlined?**

Yes. The proposed amendment ensures that any CMU that is excluded from the Capacity Market by Regulations 16, 17 & 18 is also excluded from the definition of a Mandatory CMU.

##### **Q2. Do you think our proposed drafting accurately reflects the policy intent we have outlined?**

Yes. The proposed amendment to Rule 13.4.1B brings that Rule into line with Rule 13.4.1.

##### **Q3. Do you agree with our preferred option for amending the LFCO formula? Please provide evidence and/or clear reasoning with your answer.**

No. we do not agree with Ofgem's preferred option and we continue to believe that the EDF Energy proposal better reflects the Government's policy intention.

Paragraph 104 of DECC's CM Detailed Design Proposals published June 2013, stated that:

*"However, in stress periods, providers' obligations will be 'load following'. That means they will only be required to be generating electricity or reducing demand up to the total level of their obligation if all capacity with capacity agreements is required to meet demand. In a stress event where only 70% of the total capacity with capacity agreements is required to meet demand, each provider will only be required to be generating electricity or reducing demand up to 70% of their raw capacity obligation."*

Similarly, paragraph 520 of DECC's Electricity Market Reform: Consultation on Proposals for Implementation published October 2013, stated that:

*“However, in stress periods preceded by a Capacity Market warning of at least four hours’ notice, it is proposed that providers’ obligations will be ‘load following’. That means they will only be required to be generating electricity or reducing demand up to the total level of their obligation if all capacity with capacity agreements is required to meet demand. In a stress event where only 70% of the total capacity with capacity agreements is required to meet demand, each provider will only be required to be generating electricity or reducing demand up to 70% of their full capacity obligation.”*

EDF Energy believes that the Government’s policy intent requires the load following obligation to scale with the demand that would have had to have been met by Capacity Committed CMUs if the stress event in question were to have been avoided (rather than the total National Demand which includes generation on the system excluded by Regulations 16, 17 and 18).

We also note that Ofgem has identified that National Grid have concerns that the use of Involuntary Load Reduction (ILR) could potentially cause settlement issues. If this is indeed the case, it could cause problems for the operation of the Capacity Market from October 2017 onwards rather than merely being a transitional issue of low materiality for 2016/17. We believe that Ofgem should request National Grid to provide an explanation of these concerns so that it can be established whether further action is required.

Between Ofgem’s two lead options, we prefer National Grid’s option because the formula is clear and unambiguous. On the other hand, the formula presented to describe Green Frog Power’s option may lead to difficulties in interpretation because of the imprecise use of mathematical notation in the formula for the terms  $AD_j$  and  $\max(AD_j)$ .

$$LFCO_{ij} = \frac{AAO_{ij} + PTCO_{ij} - SCO_{ij}}{2} \times \frac{AD_j}{\max(AD_j)}$$

Where:

- $AD_j$  is the average system demand in period  $j$  over the past five years
- $\max(AD_j)$  is the highest average system demand over the past five years

We assume that what is meant is that each of the prior five years is split into 17,520 periods (17,568 in a leap year) numbered sequentially from  $n=1$  to  $n= 17,520$ . Then average system demand for period  $j$ ,  $AD_j$ , is given by:

$$AD_j = \frac{\sum_{y=1}^{y=5} D_j^y}{5}$$

Where:

- $D_j^y$  is system demand in period  $j$  in year  $y$ .
- $\max(AD_j)$  is then the maximum of all  $AD_j$  calculated.

This is flawed, however, because across five years  $D_j^y$  with the same  $j$  will fall on different days of the week. For example, 5th December in 2016 falls on a Monday. It also fell on a Monday in 2011. In 2012, it was a Wednesday, in 2013 it was a Thursday, in 2014 it was a Friday and in 2015, it was a Saturday. This is before considering days that might or might not have been Bank Holidays and the impact of leap years. The result, in general, will be to under forecast demand for working days and over forecast for non-working days in the delivery year 2016/17.

It would, of course be possible to modify the formula to deal with this problem but this would introduce additional complexity.

**EDF Energy**  
**August 2016**