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| <h1>Proposal for a Capacity Market Rules Change</h1>  |   |  <p>Making a positive difference<br/>for energy consumers</p> <p><b>Reference number</b> (to be completed by Ofgem): <b>CP313</b></p> |
| <b>Name of Organisation(s) / individual(s):</b><br>innogy   | <b>Date Submitted:</b><br>17/10/2017  |  |
| <b>Type of Change:</b> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Amendment</li> <li><input checked="" type="checkbox"/> Addition</li> <li><input type="checkbox"/> Revoke</li> <li><input type="checkbox"/> Substitution</li> </ul>  | <b>If applicable, whether you are aware of an alternative proposal already submitted which this proposal relates to:</b><br><br>We are unaware of any alternatives. |  |
| <b>Proposal summary</b> (short summary, suitable for published description on our website)<br><br><b>Introducing ‘Other Technology Class’ to ensure that innovation in capacity provision is encouraged rather than limited.</b>  |   |  |
| <b>What the proposal relates to and if applicable, what current provision of Rules the proposal relates to</b> (please state provision number):<br><br>Schedule 3, (There are possible consequential amendments required in other sections of the Rules- e.g. Section 2.3).   |   |  |
| <b>Description of the issue that the change proposal seeks to address:</b><br><br><p>The list of technologies under Schedule 3 is narrow and means that “Generation capacity (both existing and new)”, that is not explicitly listed is excluded from being able to prequalify. This prevents competition for capacity provision from some generating units on the GB energy system today which could otherwise meet all the CM requirements; it also limits new technologies entering the CM.</p> <p>While adding new technologies to Schedule 3 is theoretically possible, inclusion of a new Generation Technology Class is an unduly lengthy process which is not in tune with the rate of innovation in the energy sector, or the CM auction cycles. The status quo rules limit competition and act as a barrier to innovation.</p> <p>This proposal seeks to ensure a market-wide, technology-neutral capacity mechanism where all eligible capacity providers compete in a single capacity auction to discover the lowest sustainable price at which the necessary capacity can be brought forward.</p> <p>The solution is that an ‘Other Technology’ Class is added to Schedule 3 to enable flexibility in entering technologies that are new to the CM. This Class should be open for any un-listed new or existing capacity provider that can demonstrate that it meets all the CM eligibility criteria.</p> <p>In terms of specifying the de-rating factor, a formal route should be created for applicants to self-nominate a value where the Delivery Body is unable to define the Technology Class Weighted Average Availability.</p> |   |  |

This is important as the historical data for technologies or technology hybrids that are new to the CM does not necessarily exist. In addition self-nomination of de-rating has the advantage of ensuring that differences in load factors based on geographical location, model specifics and age of assets can be reflected. It would also reduce the bureaucratic burden compared to the status quo where the SOS has to advise on the de-rating for each new technology class.

Note, that when it comes to the application process, the Delivery Body needs to consider that the 'Primary Fuel Type' for an 'Other Technology Class' may be outside a pre-defined list.

Reflecting on the CM Rule Change Objectives:

It is in the interest of present and future consumers to see innovative capacity provision and competition from the broadest range of sources. Technologies of today and the future, that are outside of the narrow list in Schedule 3, could potentially provide capacity and aid security of supply at competitive or lower cost. They may have the potential to deliver capacity with reduced greenhouse gas emissions. We envisage that the change would facilitate applications from new technologies as they emerge, and will ensure that renewable energy generators that are not in receipt of Low Carbon Support can actually participate.

The market rules need to enable the least cost technology options to emerge for ensuring generation adequacy.

This amendment would promote investment into R&D and innovation for bringing forward future capacity, it would also bring forward capacity and ensure system stress events are met from quarters that policy makers may not have envisaged.

**If applicable, please state the proposed revised drafting (please highlight the change):**

### **SCHEDULE 3: GENERATING TECHNOLOGY CLASSES**

**1.1** The Generating Technology Classes for the purposes of these Rules are the classes specified in the first column of the following table. The second column of the table contains further details about plant types included in each such class.

| Generating Technology Class | Plant Types Included   |
|-----------------------------|--|
| 'Other Technology'          | New or existing capacity providers that do not classify under any other Generation Technology Class. |

*The proposal is to add the text highlighted in yellow to the end of the table in Schedule 3.*

*As noted there are likely consequential Rule amendments required – such as:*

#### **2.3 De-rating of CMUs**

2.3.1 The Delivery Body must, where data for the Generating Technology Class is available, for each calendar year, calculate:

- (a) a De-rating Factor for each Generating Technology Class; and
- (b) a De-rating Factor for DSR CMUs.

2.3.4 A De-rating Factor is:

- (a) for CMUs in a Generating Technology Class (except where 2.3.4 (d) applies) the Technology Class Weighted Average Availability ("TCWAA") of that Generating Technology Class;
- (b) for DSR CMUs, the Average Availability of Non-BSC Balancing Services ("AABS"); and
- (c) for an Interconnector CMU, the Equivalent Firm Interconnector Capacity ("EFIC") of that CMU.
- (d) for an 'Other Technology CMU' the self-determined value of that CMU.

*We expect that Ofgem will wish to consider rules around self determination- and we leave such proposals to be developed via their expertise and through consultation with industry.*

**Analysis and evidence on the impact on industry and/or consumers including any risks to note when making the revision - including, any potential implications for industry codes:**

It is evident that Schedule 3 presents an incomplete list of technologies capable of providing electricity, capable of independent control, with a net output measured by half hourly meter(s), and capacity in excess of 2MW. There are other Generation Technologies that could meet the General Eligibility Criteria (and not fall foul of any Excluded Capacity Criteria). For example, while the intent of the CM is that renewable generators that forgo Low Carbon Support or that are no longer in receipt of Low Carbon Support should be eligible- Schedule 3 only lists 'hydro' and 'biomass' Technology Classes.

While an alternative solution would be that more technology options should be listed- this would still exclude any technologies that policy makers may not be aware of. There may be new innovative capacity solutions just around the corner that are not yet on the radar. The speed at which the battery storage technology has innovated is a clear cut example of how quickly new energy resources can enter the scene.

The foreseeable impacts on consumers are better value for money through enabling further competition in the CM and ensuring the least cost technology options can be brought forward for meeting the System Operator's capacity requirements. The risk that providers overstate their capabilities is one that needs to be considered. A formal route for de-rating new entrant technologies will be forthcoming through this modification. Secondary Trading Rules, Non-Delivery Rules and the penalty regime should be used to ensure that risks of unreliable providers entering the CM is mitigated. It is essential that the system operator and regulator have confidence that the capacity market can deliver when called on.

The proposal is not in conflict with The Electricity Capacity Regulations (these clearly delegate the setting of Generation Technology Class to the Rules).

We foresee no wider impact on other industry Codes.

**Details of Proposer** *(please include name, telephone number, email and organisation):*

**Fruzsina Kemenes, Tel: 075 577 58488, Email: [fruzsina.kemenes@innogy.com](mailto:fruzsina.kemenes@innogy.com), innogy**