Member's Briefing – Initial overview on the Review of Electricity Market Arrangements Consultation

Introduction

The Government has finally published the highly anticipated Review of Electricity Market Arrangements (REMA) consultation. Below, we provide a brief overview of the areas within scope of REMA and offer initial high-level analysis.

There are 10 chapters within the main consultation document. Chapters 1 and 2 explore the policy context and future challenges. Chapters 3 and 4 give a broad overview of the Government's intended approach. Chapters 5 – 9 consider options for a Net Zero Wholesale Market, and delivering "Mass Low Carbon Power", Flexibility, Capacity Adequacy, and Operability. Chapter 10 explores two other options for market arrangements – "Equivalent Firm Power" and "Auctions by Cost of Carbon Abatement".

Members may be particularly interested in:

- Locational/nodal pricing options (Chapter 5) explored as part of wholesale market reform.
- Capacity adequacy – payments and reliability options (Chapter 8)
- Low-carbon investment incentivisation (Chapters 5 – 7 in particular)
- Options for improving investment signals for flexibility (Chapter 7). This is really the only aspect of supporting flexibility which is looked at in depth.
- Operability (Chapter 9) – the future role of DNOs.

REA's REMA Working Group will be carefully reviewing and considering the consultation's implications for industry and how REA should respond. There are more than 70 questions asked as part of the consultation. The deadline to respond is 10 October 2022.

High-level overview and analysis of each chapter

Chapter 1 – Context, Vision and Objectives for Market Design

This chapter analyses current market arrangements and how these need to be adapted to deliver a fully decarbonised and cost-effective system by 2035. All technologies are within scope - to the extent at they currently do, or potentially could participate in electricity markets – but the consultation will not consider how best to support innovative projects. The chapter describes how this is being done in tandem with a retail market reform work programme. It confirms that non-electricity markets (carbon, gas and hydrogen) are out of the scope of the review but will be considered in light of how the systems work together.

Chapter 2 – The Case for Change

Analyses the barriers to realising the levels of investment required to reach Net Zero and the need to ensure a reliable supply and cost-effective route to Net Zero. This means that there is a case for

changing our current electricity market arrangements and that we should consider the full range of options for reform.

Chapter 3 – Our Approach

This chapter outlines an intention of determining the reforms in 2022/23 and then to establish a delivery plan from the mid-2020s onwards.

It confirms options for reforms to electricity markets is organised around five focus areas: a Net Zero wholesale market; mass low-carbon power; flexibility; capacity adequacy; and operability.

It also outlines how options are assessed against categories: least cost, deliverability, investor confidence, whole-system flexibility, and adaptability, and packages of reform against our overall policy objectives, as well as wider considerations around statutory obligations, coherence and comprehensiveness.

Chapter 4 – Cross-cutting Questions

This chapter sets out how the review will gather stakeholder views on the role of the wholesale market and barriers to competition. The chapter considers, at a high-level, the role of marginal pricing and getting more accurate price signals to consumers.

Chapter 5 – A Net Zero Wholesale Market

This section outlines a wide range of approaches to wholesale market design, some of which are relatively theoretical. These include: splitting the market, introducing locational pricing, establishing distribution-level markets, and changing the parameters of the status quo.

The main approaches include:

- Splitting the market into separate markets for variable and firm power;
- Introducing localisation pricing, either zonal or nodal;
- Reorienting the market towards the distribution network (‘local markets’);
- Moving to pay-as-bid rather than pay-as-clear pricing; and
- Maintaining the fundamentals of the status quo, with incremental reforms of parameters such as gate closure.

Chapter 6 – Mass Low-Carbon Power

This chapter looks at options for considering long-term contracts with the Government. It includes considerations around the revenue cap and floors and a range of variants on the CfD scheme. All options would be aimed at increasing the role of market in delivering low-carbon generation.

Chapter 7 – Flexibility

The Government expresses keenness to drive up flexibility through market signals, but recognises that challenges around market certainty may mean that more focused support is required to de-risk investments. Options under consideration include a reformed Capacity Market, a multi-technology cap-and-floor mechanism, and a supplier obligation system – including a “Clean Peak Standard”.

Chapter 8 – Capacity Adequacy

The core options under consideration take a centralised approach to procuring capacity adequacy. These include reforming the Capacity Market to better support firm low-carbon technologies, a centralist reliability option scheme, and a strategic reserve.

The Government is not minded to pursue a decentralised approach to ensuring capacity adequacy, because it is a system outcome that the Government will always value more highly than any individual market participant.

Chapter 9 – Operability

This chapter considers whether current grid arrangements are appropriate or whether more substantial changes to current arrangements are needed, such as giving DNOs and local markets a greater role, co-optimising frequency and reserve under a central dispatch model, making changes to the CfD or Capacity Market reform.

Chapter 10 – Options across Multiple Market Elements

This chapter considers two options, with each covering multiple market elements. These are "Equivalent Firm Power" and "Auctions by Cost of Carbon Abatement".

Equivalent Firm Power (EFP) Auctions are single, unified auctions for procuring system capacity. This mechanism would be an 'evolution' of the Capacity Market and CfD systems. The EFP of a generator is based on its 'equivalent' firmness in security of supply relevant periods. This would include capacity contracts with penalties for non-delivery, to incentivise generators to improve the de-rating factor. A central authority would determine the de-rating factor for different technologies and systems. The initial auction would not take into account the value of decarbonisation, however it is possible that a carbon constraint could be designed for a second-stage level. The consultation document notes three particular drawbacks around cost-effectiveness, investor risk and technology neutrality.

The Government states that an auction by cost of carbon abatement scheme could be based on the Dutch 'SDE++' scheme. This focuses on the deployment of large-scale technologies for renewable energy production and carbon emissions reduction technologies, including industrial decarbonisation technologies. The system uses technology-specific ceiling prices. The contract auctions are based on cost-effectiveness of different technologies, with a set budget for each auction. The Government notes that it is minded not to pursue this option for mass deployment of low-carbon power, because it does not see considerable benefits over the CfD scheme, however it intends to explore this option for flexibility.

REA will continue t keep members updated on the REMA workstream and as we develop the response to the consultation. With any questions please contact power@r-e-a.net

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