

# Energy UK high-level views on the Review of Electricity Market Arrangements

February 2023

## Executive summary

Delivering a fully decarbonised power system by 2035 will require a rapid expansion of low-carbon domestic generation capacity to meet increasing electricity demand and displace fossil generation, while ensuring security of supply. The transition to Net Zero calls for a significant amount of investment in electricity generation, the majority of which will come from the private sector. The Climate Change Committee puts this at an additional £20 billion a year by 2030.

This level of investment will only be brought forward under a clear, stable and predictable policy framework. The Review of Electricity Market Arrangements (REMA) therefore presents an opportunity to deliver electricity market arrangements that can effectively align the investment needed to meet our Net Zero and generation capacity targets.

The 2022 REMA consultation explored a wide range of potential reforms to electricity market arrangements. This summary document captures key points of consensus and areas of concern in Energy UK's response to the consultation.

Part 1 of the document, **Guiding principles**, outlines concerns and calls for clarification which appeared throughout our answers to different consultation chapters, emphasising the importance of maintaining investor confidence and avoiding changes that would cause an investment hiatus or increase the cost of capital.

Energy UK firmly believes therefore that the Government should explore and exhaust incremental and/or shorter-term reforms to market design ahead of more fundamental or longer-term changes wherever possible. It's also worth noting that market reform should not be a substitute for finding solutions to key problems (e.g. planning delays, inadequate network investment and issues acquiring grid connections) which will still need addressing regardless of chosen future market design.

Part 2 of the summary outlines **Energy UK's specific positions on options for reform** including:

- a) The need to ensure that the low costs of renewable energy are felt more directly by consumers, whilst also ensuring that care be taken in considering any move away from marginal pricing, such as through a **split to the market**.
- b) Our concerns with proposals for **Locational Marginal Pricing** and the evidence required to prove its benefits over incremental reforms.
- c) Why **Contracts for Difference** based on deemed generation should be explored to encourage large scale investment in low-carbon generation.
- d) The mechanisms required to encourage investment in **flexible technologies**.
- e) **Security of supply** and the phase out of gas-fired generation.

## 1. Guiding principles

Creating a power sector that produces only clean electricity by 2035, subject to security of supply, will require significant private sector investment in both generation and network infrastructure. Energy UK believes that REMA's main opportunity is to deliver market

arrangements that can add pace and focus to market developments, remove barriers and deliver the benefits of a cleaner energy system to consumers more quickly.

While we agree with the objectives for electricity market reform outlined in the consultation, it is of the utmost importance that any reform programme does not weaken investor confidence, causing an investment hiatus, increasing the cost of capital or stalling the development of projects already underway.

Throughout our response to REMA, we asked the Government to consider whether the proposed reforms are appropriate solutions to the problems identified in the consultation:

- What are problems that can be solved by incremental or nearer-term changes, and what are those which require fundamental or longer-term reform?
- What are long-term barriers to the 2035 target, what are short-/medium-term barriers that are best addressed through existing processes?

2035 will come around quickly. Given the timeframe for planning and delivering the significant infrastructure needed to deliver a Net Zero power system, appropriate investment decisions are necessary over the next five years. To achieve this, uncertainty and lengthy disruption need to be minimised. That's why Energy UK strongly feels that, wherever possible, an incremental approach to reforming the market should be explored and exhausted first.

Our preference for this approach must not be interpreted as a lack of ambition. It is informed by industry's collective knowledge and understanding of what is required to build and operate a power system which runs on low-carbon electricity alone. The last decade has shown us what works and what requires improvement. We don't need to tear up the rule book to create more opportunities for investment in home-grown, low-carbon technologies. Indeed, enhancing existing structures that made the UK a world leader in offshore wind is the surest way to unleash the Government's ambition for a clean and secure power sector.

Any radical change to existing arrangements runs the risk of derailing or increasing the cost of investment at a time when it is most needed. Well-defined, certain and evolutionary – rather than revolutionary – change is the best way to maintain investor confidence in the GB power market and avoid unintended consequences. Capital has a choice of location, therefore meeting Net Zero will require the UK to remain a desirable place for investment. This is an increasing issue, as other markets (such as the US) are becoming more attractive.

To that end, we believe that REMA must give further thought to:

- a) How implementation timescales are aligned with Net Zero objectives and enable the delivery of investment at scale and at pace.
- b) Interactions with other energy policy streams (including retail, hydrogen and CCUS).
- c) Impacts on liquidity in wholesale/ forward markets.

The reform options proposed by REMA are only at a conceptual stage; industry and other stakeholders are still getting to grips with their potential effects on the energy system. Any potential reform should therefore be subject to in-depth impact assessments and comprehensive cost-benefit analysis. The Government should consider trade-offs more extensively and holistically, as they were not adequately drawn out in last summer's consultation.

## 2. Energy UK positions on specific options for reform<sup>1</sup>

### a) Splitting the market

As outlined above, it is important to distinguish between and prioritise problems requiring solutions in the near term, those that must be resolved to meet the 2035 objective and those which may be more significant beyond 2035. This is most relevant when it comes to REMA's proposals for splitting the wholesale market.

We recognise that one of the consequences of marginal pricing is current high energy bills driven by international gas prices and war, making the cost-of-living crisis for people across the country more acute than it would have otherwise been. We fully support ensuring that consumers can more directly benefit from the low cost of renewables, which could be enabled by the expansion of the Contracts for Difference (CfD) scheme. By de-risking investment in renewable generation, CfDs have reduced the cost and increased the pace of investment in sources of clean and cheap domestic electricity. We should capitalise on the success of this scheme to relieve pressures on consumer bills, for example through Energy UK's proposal for voluntary CfDs, which if implemented could decouple the cost of low-carbon generation accounting for up to 40 per cent of electricity production from the price of gas, bringing significant benefits to consumers.

REMA must keep its focus on delivering a clean power system by the middle of the next decade. Therefore, care must be taken when considering a move away from marginal pricing and scarcity pricing and should only be explored over a few years to avoid unintended consequences (or potentially finding a solution to a problem that may not exist by the time this solution is implemented). Any shift to decouple electricity prices from gas prices could jeopardise the future revenues needed to encourage the investment needed to achieve Net Zero targets and to recoup the investments that have already been made.

### b) Locational Marginal Pricing

As already mentioned, we do not think that trade-offs between options for reform have been adequately drawn out in REMA. Where splitting the market would blunt investment signals, Locational Marginal Pricing (LMP) would sharpen them. The Government should consider this inherent contradiction more fully.

Introducing LMP would represent a radical and fundamental change to the market. Energy UK believes that a strong evidence base proving that LMP would deliver greater net-system benefits than incremental reforms does not yet exist. Any case for LMP must:

- Clearly prove that high balancing costs are largely being driven by locational constraints and a lack of locational price signals.
- Establish that an LMP market design would effectively mitigate (and not shift) the high balancing system costs, and that locational signals to do this could not be achieved by other means (e.g. locational BSUoS, signals in the Balancing Mechanism (BM)).
- Determine that the issue of locational constraints is not better solved by incremental changes to existing market arrangements, connection reform, greater investment in transmission infrastructure and/or other mechanisms.

---

<sup>1</sup> As some reforms could happen in conjunction with others, options with clear benefits should be implemented as a priority regardless of whether a more enduring solution is needed.

- Assess that the implementation of LMP would not adversely impact the Government's commitment to a Net Zero electricity system by 2035 or its Carbon Budget commitments.

Any further consideration of LMP by the REMA programme must assess in greater detail:

- The wide variety of impacts and challenges associated with any delineation of pricing and the effect it could have on generators, market access, investment, competition levels, and market liquidity, alongside the uncertainty of a significant change process.
- Trade-offs between efficacy and fairness, not only for consumers but for existing producers under 'connect and manage' arrangements.
- The level and cost of grandfathering which would be needed and the administrative burdens associated with the establishment of a central body to enable central dispatch.

Overall, there needs to be greater clarity around the costs and the benefits of LMP.

Energy UK believes that policymakers should first consider how incremental change could achieve the desired outcomes of LMP through a whole-system approach. For example, this could include reforming CfDs, the Capacity Market (CM), the BM, and Transmission Network Use of System charging, or other interventions. This approach would enable changes to pre-existing frameworks and policies that could be achieved relatively quickly, without prejudging whether more fundamental reforms are needed.

This would provide much needed clarity for industry given the Climate Change Committee's estimate that there must be an additional £20 billion a year invested in the electricity generation sector by 2030 to meet Net Zero. Such short- and medium-term changes would ensure that the private sector can continue to work towards bolstering our domestic power infrastructure, to meet both our energy security and Net Zero targets. In the longer term however, once incremental reforms have been implemented, we acknowledge that there may be merit in considering whether to introduce more appropriate locational signals in the market.

### **c) Mass low-carbon power**

CfDs have worked extremely well at de-risking investment in renewable technologies and should remain the key mechanism for delivering the bulk of the capacity needed for a Net Zero power system by 2035. We recognise, however, the challenges that emerge from limited market exposure for supported generators. While the fixed strike price has improved revenue certainty, reduced the cost of capital and protected consumers from high wholesale prices, it has also limited generators from receiving signals to change behaviour based on the fluctuating value (e.g. within a day) of the power they are generating.

The key question is therefore about whether future CfD contracts should expose winning generators to greater risk in exchange for system benefits. Any change considered would require a balance to be struck between incentivising efficient behaviour based on the needs of the system and providing sufficient revenue certainty to facilitate lower financing costs, key to securing low auction strike prices for consumers.

Energy UK members believe that moving from payments based on output to paying on deemed generation (i.e. availability) is a reform option worth considering to enable the greater market exposure described. We believe this could incentivise more efficient market behaviour without materially increasing risk to investors and therefore increasing the cost of capital. CfDs

based on deemed generation would also likely bring down constraints costs, lowering overall system costs and benefitting consumers.

It is our view that CfDs on deemed generation could encourage innovation and incentivise better participation in balancing and ancillary services where possible. Further work would be required to ensure the mechanism limits opportunities for gaming.

#### **d) Flexibility**

Achieving a Net Zero power system by 2035 will require more than just building more low-carbon capacity. We also need to create a smarter and more flexible system that is fit to manage intermittent generation and variable demand patterns. REMA presents an opportunity to address the UK's decreasing flexible generation problem by reforming market structures to encourage investment in innovative and flexible technologies.

Energy UK believes that incremental reforms<sup>2</sup> to wholesale and balancing markets may be sufficient to support investment required in short- and medium- term flexibility. There is, however, a 'missing money' problem for long duration storage and these assets will require different support mechanisms. Alongside support and market signals, change is also needed (regarding, for example, the planning regime, connection management and network planning) to ensure adequate supporting infrastructure is in place. Without these changes, market signals will not be sufficient to unlock investment.

A revenue cap and floor should be considered for service provision areas where the investment case is proving challenging. Some technologies such as CCUS and hydrogen will need specific support before transitioning to general support. We note that a revenue cap and floor may not be suitable for small scale assets and would be difficult to implement under nodal pricing. Optimising the CM could also create a route to market for certain flexible technologies.

We would also urge the Government and the Electricity System Operator to establish a process that would give clarity on the likely needs of the future system – both for energy flexibility and system stability.

#### **e) Security of Supply**

The Government must consider the phaseout of gas generation more fully in the next phase of the REMA programme. Energy UK's membership is committed to a Net Zero power system, but we recognise the critical challenges of phasing out gas, which is currently our key source of flexibility when intermittent renewables are not able to provide sufficient energy. Low-carbon sources of flexibility will be crucial in this transition. We believe that the best way to ensure an orderly phaseout of gas generation will be by addressing the market failures that make it challenging for the deployment of low-carbon alternatives.

We therefore support optimising the CM as this could provide support for low-carbon flexible technologies, but emphasise that CfDs should remain the primary mechanism for bringing forward investment in mass low-carbon power.

---

<sup>2</sup> For example: enhancing market signals, widening participation to markets and creating level playing fields, and encouraging co-location.