

# REVIEW OF ELECTRICITY MARKET ARRANGEMENTS

## A COMMON WEAL RESPONSE

### INTRODUCTION

Common Weal welcomes the consultation on Reform of Electricity Markets Arrangements (REMA) as the Present Market Arrangements are unsuited to a rapid and cost effective transition to a Net Zero energy system.

This problem has been highlighted this year by the enormous rise in the cost of gas and electricity which has forced the UK Government to place a cap on the retail and commercial price of both Gas and Electricity at significant cost to the exchequer. However, it would be wrong to place the overall blame on external factors such as the disruption to the gas supply to Europe caused by Russia's war with Ukraine. Many factors increasing instability have become built into the system for some time by political decisions.

As not all of these factors are being consulted in this or other consultations we feel it necessary to list them in this preface.

In no particular order of significance they are:

- The ban on permitting more On-Shore wind farms in England the cheapest form of renewables introduced by David Cameron in 2018 and only partially reversed in March 2022 by Boris Johnstone
- The sudden withdrawal of subsidies for solar energy in 2017 which resulted in the collapse of the amount installed by 83% at a time when the reduction in costs was having a real effect
- The lack of instruction to British Gas and Centrica to maintain a secure strategic supply of underground gas storage sites which made the UK much more vulnerable to a shortage of supply and or sharp rise in gas prices. Indeed the reversal of this policy this summer has come too late to ensure supply over the winter.
- The very limited action on home improvements in both Scotland and the rest of the UK which results in the continued use of gas as the main source of heating thereby adding to the amount of carbon dioxide emitted
- There is an urgent need to decide and implement pathways to the decarbonisation of heat, to ensure the country meets decarbonisation goals at least cost, without expensive stranded assets
- The sale of the British National Oil Corporation/Britoil which potentially prevented the build up of a sovereign wealth fund, eg like Norway's
- The privatisation of the nationalised Gas and Electricity companies under Thatcher which resulted in a lack of long term planning and strategic investment by Government
- The short sighted decision in early 2022 to allow the early shutdown of Hinkley B nuclear plant at a time when the supply

shortages as a result of Ukraine were imminent

Beyond these matters we agree with the consultation authors that the current market arrangements are not working and that they continue to reward fossil fuel consumption and disadvantage renewable production. The current marginal cost based approach to pricing is based on the physics of 20th century generation technology, where increasing output is associated with increasing cost.

Fixing these issues requires a comprehensive review of all the market mechanisms and a review in parallel of arrangements for gas and hydrogen storage are much needed.

We are concerned that the ownership of the electricity and gas network is not included in the review.

We also believe the effective price cap introduced until the next election should be maintained.

We also believe that the price of energy in the producer parts of the country, particularly Scotland, should be lower to reflect them being closer to low cost units of production and to reflect the lower use of transmission infrastructure.

## CHAPTER 1. CONTEXT, VISION, AND OBJECTIVES FOR ELECTRICITY MARKET DESIGN

### 1. Do you agree with the vision for the electricity system we have presented?

- Yes
- >  No
- Don't know
- No Opinion

We would add to the proposed vision statement:

“For an electricity system that serves all of society, and enables social, economic and environmental policy objectives.”

We are particularly relieved to see the key acknowledgement that “Electricity market arrangements cannot deliver this vision on their own. All elements of electricity and energy policy, including our refresh of our retail market strategy, will need to work together to achieve these outcomes. More broadly, we will need to make use of all the levers available to us across government, including fiscal policy, regulation and standards, public engagement, skills and training, in order to achieve net zero.”

Markets alone cannot solve everything, and this needs to be born in mind throughout the process.

We feel that further comment should be allowed once the nature and scope of the government’s latest wholesale-market policy interventions are known, later this year. The will last for at least a further 24 months, and it is hard to say currently what impact they have on the scope & effectiveness of this consultation.

While this is not current UK government policy, we feel that national ownership of parts of the system should be part of the vision. It will certainly be part of government policy over the period 2023-2035. E.g. The transmission companies are potentially a suitable case for nationalisation, under security concerns.

## 2. Do you agree with our objectives for electricity market reform (decarbonisation, security of supply, and cost-effectiveness)?

Yes

> No

Don't know

No Opinion

We wish to add the objectives of “Ensuring fair distribution of costs, to protecting those with

least ability to pay, and to support harnessing of energy for economic development.”

## CHAPTER 2. THE CASE FOR CHANGE

### 3. Do you agree with the future challenges for the electricity system we have identified? Are there further challenges we should consider? Please provide evidence for additional challenges.

> Yes

No

Don't know

No Opinion

Yes, we agree with the stated challenges.

An additional challenge is the deployment of technologies to support electricity system needs, maximise value from generation resources, expedite decarbonisation of other areas of the economy husband despatchable renewables for times where we currently would infill the generation curve with fossil-gas to meet demand store excess renewable energy from periods of high generation to wind to periods of low generation of wind, which can require storage for periods of several months address the export limits of the Transmission network at times of high generation / relatively low demand in the generating region, e.g. “power-to-gas”; preventing fossil-gas generating stations becoming stranded assets, e.g. particularly by converting to dual-fuel.

A further key challenge is addressing the long-term economics of using undersea/salt cavern gas stores at CO2 stores which have a one-off income stream, and an indefinite, effectively infinite service life, compared to say, use as a green hydrogen store, which provides multiple income events per year.

**4. Do you agree with our assessment of current market arrangements/that current market arrangements are not fit for purpose for delivering our 2035 objectives?**

> **Yes**

No

Don't know

No Opinion

We absolutely agree that current arrangements are not allowing fast enough energy transition, nor meeting social objectives of allowing the population at large to benefit from abundant and cheap home-produced electricity.

## CHAPTER 3: OUR APPROACH

**5. Are least cost, deliverability, investor confidence, whole-system flexibility and adaptability the right criteria against which to assess options?**

Yes

> **No**

Don't know

No Opinion

We do not believe that a “least cost” approach can deliver the best outcome for customers and the environment. Instead, we believe that a “best value” approach should be taken. Although more subjective, this type of approach is common in procurement contracts, where relevant criteria for value delivery are included in the assessment criteria for contract award. On its own, least-cost is too restrictive a criterion for value.

We would:

1. Emphasise that “deliverability” includes an element of urgency;
2. Add “total value to the system in the long run” as a further criterion (as distinct from investor confidence);
3. Emphasise the importance of “whole system flexibility” to include flexibility across energy vectors and uses.

**6. Do you agree with our organisation of the options for reform?**

Yes

No

Don't know

> **No Opinion**

No Answer Given.

**7. What should we consider when constructing and assessing packages of options?**

Particular outcomes

We should strive to ensure that:

- Excess production in a zone reduces cost to local consumers
- Market prices reflect the economic cost of production in a low-carbon environment
- Market arrangements transparently reflect an appropriate balance of remuneration between generator fixed and variable costs
- Market remuneration incentivises availability of production in relation to demand

- “Value” criteria are developed as a more appropriate assessment tool than “least cost”
- Maximisation of resource utilisation and associated storage development should be recognised as complementary factors in locational signalling, rather than marginal cost of transmission investment.
- Experience from other high-renewables markets is explicitly explored for suitability in GB

We note that OFGEM has a slightly schizophrenic perspective on locational signalling. On the one hand it adopts a resolutely “economic” approach to locational signalling within the GB system, but also notes that “interconnectors provide access to a wider pool of generation which means low cost renewable energy in one country can be exported to benefit the connecting country”

Benefits should also flow to the supplier country.

Retail customers in Regions supplying excess generation should not find themselves financially penalised for providing supplies to customers in other regions.

## CHAPTER 4: CROSS-CUTTING QUESTIONS

8. Have we identified the key cross-cutting questions and issues which would arise when considering options for electricity market reform?

Yes

> No

Don't know

No Opinion

An additional issue: how to square priorities for the individual local areas, regions, Home Nations, and GB-wide priorities.

We need to consider interconnector capacity, most particularly intra-GB HVDC capacity, and ownership structures for these key pieces of infrastructure, and the build-cycle-times.

Given that the risk of state-actors attacking energy transmission lines has now materialised as a live issue, we must bring physical security of the HVDC lines (and the gas interconnectors) - into consideration as new interconnectors are designed, and not left as an afterthought.

9. Do you agree with our assessment of the trade-offs between the different approaches to resolving these cross-cutting questions and issues?

Yes

No

> Don't know

No Opinion

No Answer Given.

10. What is the most effective way of delivering locational signals, to drive efficient investment and dispatch decisions of generators, demand users, and storage? Please provide evidence to support your response.

Regarding generators – renewable generators locate where the resource is suitable, largely irrespective of, or despite, locational signals (such as the considerable TNUoS charges which discourage location in Scotland); for near zero SRMC generation, locational signals are largely irrelevant to operation, too. Regarding demand users: there is no significant locational price signal for demand users. We believe this is inefficient and unfair. We would support any means of delivering a significant locational demand signal, which can reflect the usual abundance of electricity generation in Scotland.

Marginal pricing is correctly identified as becoming increasingly unhelpful in a renewable generation world. Finding a way to split market price formation between fossil and nonfossil components has the potential to provide significant benefit to consumers and should be an essential aspect of electricity market reform. If the solution is effective in the overall context of market reform. There is no reason why it should adversely affect investors' willingness to invest.

No evidence, but higher load factors delivered into a network with a fixed capacity will reduce the per kWh cost of providing that network capacity. Therefore, investment at locations offering higher capacity factors should generally be more valuable. Network infrastructure investment should seek to facilitate exploitation of available resources, which was the philosophy applied to the original development of the grid. In the same way that marginal cost is inappropriate for generation in a fixed production cost market, marginal network investment cost is an inappropriate locational signal in that it disincentivises resource exploitation in non-traditional locations.

**11. How responsive would market participants be to sharper locational signals? Please provide any evidence, including from other jurisdictions, in your response.**

No Answer Given.

**12. How do you think electricity demand reduction should be rewarded in existing or future electricity markets?**

If an enterprise invests time or capital in reducing its electrical demand without affecting its welfare – a situation we would welcome – we would expect to see a reduction in wholesale costs and potentially standing charges, where maximum demand (kW capacity, or capacity at times of system peak demand) were reduced. Clearly, other programmes of support may be necessary

to enable such changes. Conversely, we expect the country's decarbonisation journey to increase electricity consumption in many households and organisations; we would also wish to address fuel poverty and enable every household to attain reasonable access to energy. These measures taken together are likely to increase electricity consumption. We would not wish consumers to be penalised for such a situation, beyond the fair additional costs to the electricity system.

The concept of "NegaWatts" (an energy credit granted to consumers for making energy savings below a certain quota) have been used commercially in Texas. Their use should be explored in GB. E.g. <https://green-alliance.org.uk/wp-content/uploads/2021/11/The-power-of-negawatts.pdf>

## CHAPTER 5: A NET ZERO WHOLESALE MARKET

**13. Are we considering all the credible options for reform in the wholesale market chapter?**

Yes

> **No**

Don't know

No Opinion

The immediate answers are:

We need storage to be a primary actor in the network, whereas currently it is restricted to niches where short-term grid-price arbitrage is economic.

We need the grid to cope better with excess generation and potentially to improve transmission capacity.

We need storage to be encouraged commercially, especially systems where energy is stored for weeks at a time, rather than hours or a few days.

#### 14. Do you agree that we should continue to consider a split wholesale market?

Yes

No

> **Don't know**

No Opinion

Common Weal sees opportunities with such an approach, but also has serious concerns about possible consequences for domestic consumers, especially the fuel poor, the vulnerable, those least able to understand or respond to a more complex billing system, and those who simply do not want complex metering in their homes. We would be particularly concerned about low income people being priced out of “normal” behaviour such as being able to cook food at a regular and convenient meal time as the behavioural changes forced by split billing may become socially divisive or stigmatising.

Common Weal would also be concerned for businesses lacking the resources or ability (perhaps due to long ramp-down/ramp-up times) to respond to or even understand such a system.

If a split model was extended to households, there would need to be safeguards to ensure households could access a reasonable level of consumption (say, 5 or 10 kW, depending on whether electricity is used for heating) without exposure to unduly high prices.

Having said that, Common Weal could see possible value in a split market allowing businesses, and potentially also households, to access low-cost “non-firm” electricity some of the time. If a split market system could lower overall costs by reducing “less important demand” during times of generation scarcity (or raising revenue from informed and more affluent consumers who choose to run appliances at such

times), Common Weal may cautiously support the principle. There would need to be information about likely times and duration of “peak price” / energy scarcity periods – e.g. are they for an occasional hour or two, or for up to a few weeks? We would need to be convinced that costs of additional metering and other measures would be covered in reduced overall costs, and that consumers, overall, would benefit.

#### 15. How might the design issues raised above be overcome for: a) the split markets model, and b) the green power pool? Please consider the role flexible assets should play in a split market or green power pool – which markets should they participate in? – and how system costs could be passed on to green power pool participants.

No Answer Given.

#### 16. Do you agree that we should continue to consider both nodal and zonal market designs?

Yes

No

> **Don't know**

No Opinion

Common Weal sees opportunities and risks with such models. Re opportunities: we believe it would make sense for there to be a pricing differential across the English border; especially as this is a highly constrained boundary within the transmission system.

We would be open to the possibility of several zones within Scotland, where there are additional system constraints, and we would probably wish to define one or more island zones. (As a Scotland-based organisation, we leave it for

others to decide on possible zones south of the border.)

Having said this, we would support this approach only if the price differentials applied to consumers, as well as generators. We are not convinced that the additional complexity of nodal LMP would bring overall benefits.

As previously stated, renewables are limited in their choices of location, and sharper signals may have little or no effect. We realise that a likely result of introduction of LMP is that trading price of electricity would fall in Scotland relative to other parts of GB, much of the time, especially when it is windy (though during occasions of calm weather the opposite may be the case). Such a situation would initially deter investment in new wind generators (other than those with revenues protected by CfDs or FTRs), but we would see this situation as an opportunity to develop and roll out the use of electricity in other energy vectors.

One drawback is that LMP provides a trading-period price signal on dispatch efficiency, rather than saying anything about long-term economics e.g., a market designed for plant with a rising marginal cost curve (as at present) might find investment behind a constraint is discouraged, whereas a market designed around low/constant marginal cost (essentially recovery of variable operation and maintenance costs) and having a separate capacity component, would be fairly immune to locational signals. LMP outcomes are highly counter-intuitive, and the modelling is highly complex even for simple systems.

Network asset owners will like the LMP market need for anticipatory infrastructure investment (it boosts their regulatory asset value), but regulators don't like paying for future benefits that may not be realised for a number of years.

Most importantly, a decision on whether or not to bring in a change to the market design as major as this would need to be preceded by careful assessment of likely outcomes for all relevant stakeholders, under all foreseeable eventualities, and a full consultation once options become clearer.

## 17. How might the challenges and design issues we have identified with nodal and zonal market designs be overcome?

We could potentially be addressed by increasing the amount of storage, relative to generating capacity, and by increasing demand in some cases, e.g. data centres or electrochemical fertiliser production.

We could treat Gas/fossil generally, as a balancing/makeup cost (akin to BSUoS) and design the market for zero srmc with a capacity payment (obviously needs a bit of refinement and may not work too well in England where there is – as yet – less renewable generation.

## 18. Could nodal pricing be implemented at a distribution level?

Yes

> **No**

Don't know

No Opinion

We believe this would be extremely complex and not desirable.

## 19. Do you agree that we should continue to consider the local markets approach? Please consider the relative advantages and drawbacks, and local institutional requirements, of distribution led approaches.

> **Yes**

No

Don't know

No Opinion



Absolutely agree. Scotland's numerous islands and archipelagos are likely to be among (though not the only) initial test-beds e.g. Orkney, with its abundant energy resources and multiple ongoing energy pilots. Nevertheless, development of DSO functionality and sourcing the necessary ancillary services will require institutional development of the DNOs and partner organisations.

**20. Are there other approaches to developing local markets which we have not considered?**

Yes

No

Don't know

> **No Opinion**

No Answer Given

**21. Do you agree that we should continue to consider reforms that move away from marginal pricing?**

> **Yes**

No

Don't know

No Opinion

Yes - GB already has the CfD system and a wide range of pre-determined CfD tariffs per technology, and these sound a relatively sensible option. We must monitor outcomes to ensure that adverse outcomes and unintended consequences did not emerge, e.g. possible gaming of the system

**22. Do you agree that we should continue to consider amendments to the parameters of current wholesale market**

**arrangements, including to dispatch, settlement and gate closure?**

Yes

No

Don't know

> **No Opinion**

No Answer Given

**23. Are there any other changes to current wholesale market design and the Balancing Mechanism we should consider?**

Yes

No

Don't know

> **No Opinion**

No Answer Given

## CHAPTER 6: MASS LOW CARBON POWER

**24. Are we considering all the credible options for reform in the mass low carbon power chapter?**

Yes

No

Don't know

> **No Opinion**

No Answer Given

**25. How could electricity markets better value the low carbon and wider system benefits of small-scale, distributed renewables?**

Stronger carbon pricing would better value all renewables. e.g. carbon taxes could be raised as natural gas prices fall, ensuring consistent pricing signals against fossil-fuelled generation, of natural gas prices should retreat to the levels forecast by BEIS for the mid/late 2020s.

LMP would sharpen the price signal to incentivise deployment of generation forms other than wind in Scotland, (e.g. solar, hydro, tidal), as they would receive higher prices at times of low wind output.

**26. Do you agree that we should continue to consider supplier obligations?**

Yes

No

> **Don't know**

No Opinion

It is possible that suppliers could be an agent for greater change, and, if so, this would be worth doing. Suppliers in general would need enhanced capabilities to make this effective.

**27. How would the supplier landscape need to change, if at all, to make a supplier obligation model effective at bringing forward low carbon investment?**

Suppliers in general would need enhanced capabilities to make this effective. The supplier landscape is already very different to that of 24 months ago. Suppliers would require guidance

for the capacity building, and standards of capability and performance would need to be assessed and monitored.

**28. How could the financing and delivery risks of a supplier obligation model be overcome?**

No Answer Given

**29. Do you agree that we should continue to consider central contracts with payments based on output?**

> **Yes**

No

Don't know

No Opinion

We should certainly consider their use. Amendments to the system, supplemental systems and alternatives should also all be contemplated

We are awash with electrical generation at times of high output, and, we need to encourage generators to find useful things to do with their outputs e.g. ancillary services, storage.

**30. Are the benefits of increased market exposure under central contracts with payment based on output likely to outweigh the potential increase in financing cost?**

No Answer Given

**31. Do you have any evidence on the relative balance between capital cost and likely balancing costs under different scenarios and support mechanisms?**

No Answer Given

32. Do you agree we should continue to consider central contracts with payment decoupled from output?

- > Yes
- No
- Don't know
- No Opinion

No Answer Given

33. How could a revenue cap be designed to ensure value for money whilst continuing to incentivise valuable behaviour?

No Answer Given

34. How could deemed generation be calculated accurately, and opportunities for gaming be limited?

No Answer Given

## CHAPTER 7: FLEXIBILITY

35. Are we considering all the credible options for reform in the flexibility chapter?

- Yes
- No
- Don't know
- > No Opinion

No Answer Given

36. Can strong operational signals through reformed markets bring forward enough flexibility, or is additional support needed to de-risk investment to meet our 2035 commitment? Please consider if this differs between technology types.

Additional support is needed to accelerate and de-risk additional flexibility. A particular application in Scotland would be to utilise excess wind generation for "power-to-gas", in other types of storage, or in other energy vectors e.g. heat.

37. Do you agree that we should continue to consider a revenue cap and floor for flexible assets? How might your answer change under different wholesale market options considered in chapter 5 or other options considered in this chapter?

- > Yes
- No
- Don't know
- No Opinion

No Answer Given

38. How could a revenue cap and floor be designed to ensure value for money? For example, how could a cap be designed to ensure assets are incentivised to operate flexibly and remain available if they reach their cap?

No Answer Given

39. Can a revenue (cap and) floor be designed to ensure effective competition between flexible technologies, including small scale flexible assets?

No Answer Given

40. Do you agree that we should continue to consider each of these options (an optimised capacity market, running flexibility-specific auctions, and introducing multipliers to the clearing price for particular flexible attributes) for reforming the Capacity Market?

Yes

No

Don't know

> **No Opinion**

Remuneration of capacity is fundamental in any market where the market values output close to zero. Therefore, all options for capacity payment should remain available for discussion. It is likely that the correct decision will become clearer once other elements of the market design, relating to energy price, ancillary payments for flexibility etc, have been decided.

41. What characteristics of flexibility could be valued within a reformed Capacity Market with flexibility enhancements? How could these enhancements be designed to maximise the value of flexibility while avoiding unintended consequences?

No Answer Given

42. Do you agree that we should continue to consider a supplier obligation for flexibility?

Yes

No

Don't know

> **No Opinion**

No Answer Given. See Q29

43. Should suppliers have a responsibility to bring forward flexibility in the long term and how might the supplier landscape need to change, if at all?

No Answer Given. See Q29

44. For the Clean Peak Standard in particular, how could multipliers be set to value the whole-system benefits of flexible technologies? And how would peak periods be set?

No Answer Given.

## CHAPTER 8: CAPACITY ADEQUACY

5. Are we considering all the credible options for reform in the capacity adequacy chapter?

Yes

No

> **Don't know**

No Opinion

No Answer Given.

**46. Do you agree that we should continue to consider optimising the Capacity Market?**

> **Yes**

No

Don't know

No Opinion

The market should always be monitored for potential further amendment to improve its operations and outcomes.

**47. Which route for change – Separate Auctions, Multiple Clearing Prices, or another route we have not identified – do you feel would best meet our objectives and why?**

Separate Auctions

Multiple Clearing Prices

Another Route

Don't know

> **No Opinion**

No Answer Given.

**48. Do you consider that an optimised Capacity Market alone will be enough**

**for ensuring capacity adequacy in the future, or will additional measures be needed?**

We should ensure we maintain a strategic reserve.

We should ensure government or otherwise public ownership of the reserve.

**49. Are there any other major reforms we should consider to ensure that the Capacity Market meets our objectives?**

No Answer Given.

**50. Do you agree that we should continue to consider a strategic reserve?**

> **Yes**

No

Don't know

No Opinion

It would be prudent to have a strategic reserve alongside or potentially instead of CM, considering the increasing risks of capacity inadequacy, with changing patterns of generation and consumption

**51. What other options do you think would work best alongside a strategic reserve to meet flexibility and decarbonisation objectives?**

No Answer Given.

**52. Do you see any advantages of a strategic reserve under government ownership?**

> **Yes**

No

Don't know

No Opinion

Considering the difficulty of making peaking plants economically viable when they are only used occasionally, we believe that government ownership of such assets would be more secure and cost-effective than private sector, and would avoid the need for scarcity pricing.

The plant would not be required to attempt to cover its construction costs and reward investors in a few years through short durations of very high energy prices. The asset would, instead, be a long-term piece of public infrastructure, used to provide security to the electricity system and reduce price volatility.

### 53. Do you agree that we should continue to consider centralised reliability options?

Yes

No

Don't know

> **No Opinion**

No opinion.

### 54. Are there any advantages centralised reliability options could offer over the existing GB Capacity Market?

For example, cost effectiveness or security of supply benefits? Please evidence your answers as much as possible.

No opinion.

### 55. Which other options or market interventions do you consider would be needed alongside centralised reliability options, if any?

No opinion.

### 56. Do you agree that we should not continue to consider decentralised reliability options / obligations? Please explain your reasoning, whether you agree or disagree.

Yes

No

> **Don't know**

No Opinion

Our concern is that decentralised actors, e.g. supply companies, might not perform the necessary tasks effectively, or the generators they contract with might not deliver in full.

While they would be penalised for non-delivery, the costs may well end up socialised after the earlier profits had been taken privately

As with previous questions relating to suppliers: if we can be shown that the approach can transform our system for the good, we could support this proposal. But currently we have no expectation that this extension to supply company responsibilities would be within their competences.

Other actors (e.g. System Operator) may be better placed to do this.

### 57. Are there any benefits from decentralised reliability option models that we could isolate and integrate into one of our three preferred options (Optimised Capacity Market, Strategic Reserve, Centralised Reliability Option)?

If so, how do you envisage we could do this?

No Answer Given.

58. Do you agree that we should not continue to consider a capacity payment option? Please explain your reasoning, whether you agree or disagree.

Yes

> **No**

Don't know

No Opinion

Capacity payments that reflect the value of availability in every trading period. This is a short-term incentive to maximise availability of production capacity once the investment has been delivered.

As such it can assist with security of supply in the event of plant failure, to meet system peaks, or if wind speed drops. There is therefore a good case to continue to assume that a capacity payment will be part of the final market design.

59. Do you agree that we should not continue to consider a targeted capacity payment / targeted tender option? Please explain your reasoning, whether you agree or disagree.

Yes

No

Don't know

> **No Opinion**

60. Do you agree with our assessment of the cost effectiveness of a targeted capacity payment / targeted tender option, and the risk of overcompensation? If not, why not?

Yes

No

Don't know

> **No Opinion**

61. Are we considering all the credible options for reform in the operability chapter?

Yes

No

> **Don't know**

No Opinion

62. Do you think that existing policies, including those set out in the ESO's Markets Roadmap, are sufficient to ensure operability of the electricity system that meets our net zero commitments, as well as being cost effective and reliable?

Yes

> **No**

Don't know

No Opinion

We believe there is a need to accelerate deployment of new technologies, to maintain stability and operability throughout Scotland & the rest of UK, where there is high and rising non-synchronous penetration. We wish to see

harnessing of wind generation together with other technologies for services such as system restoration, synthetic/virtual inertia, fault current, and response and reserve. Use of existing hydro and PSH, and deployment of further assets such as potentially other large-scale storage, power-to-hydrogen-to-power, together with seeking demand-side services, are likely to be necessary. We think a step up in policies are necessary to make this happen.

We need to ensure that the existing natural-gas fired assets are considered for refurbishment/ conversion to dual-fuel use, with the ability to burn 100% green hydrogen. This will also preserve the assets as productive rather than potentially leave them stranded.

**63. Do you support any of the measures outlined for enhancing existing policies? Please state your reasons.**

- > **Yes**
- No
- Don't know
- No Opinion

**64. To what extent do you think that existing and planned coordination activity between ESO and DNOs ensures optimal operability?**

Coordination is very desirable. We are almost-entirely unclear as to how much "planned coordination" there is.

**65. What is the scope, if any, for distribution level institutions to play a greater role in maintaining operability and facilitating markets than what is already planned, and how could this be taken forward?**

No Answer Given.

**66. Do you think that the CfD in its current form discourages provision of ancillary services from assets participating in the scheme? If so, how could this be best addressed?**

- > **Yes**
- No
- Don't know
- No Opinion

Generators are rewarded for simply generating. Considering the growing need for more ancillary services from non-traditional providers, we support incentives for generators to provide system services, which may entail using energy for purposes other than the wholesale market, while some services could offered while generating. Furthermore, we would support the roll-out of storage / power-to-gas to complement wind generation (some of which would need initial support to get off the ground). Such assets may be better placed to deliver further ancillary services.

**67. Do you think it would be useful to modify the Capacity Market so that it requires or incentivises the provision of ancillary services? If so, how could this be achieved?**

- Yes
- No
- Don't know
- > **No Opinion**

No Answer Given.



68. Do you think that co-optimisation would be effective in the UK under a central dispatch model?

Yes

> No

Don't know

No Opinion

We do not believe the premise – that the same services could be used for wholesale market or the range of ancillary services – and they could all be procured on the same timescales.

## CHAPTER 10: OPTIONS ACROSS MULTIPLE MARKET ELEMENTS

69. Do you agree that we should not continue to consider a payment on carbon avoided for mass low carbon power?

Yes

No

> Don't know

No Opinion

This approach, the “Dutch subsidy”, would reward outputs based on how much lower (gCO<sub>2</sub> per MWh or similar) than business-as-usual alternative.

It sounds a decent scheme. However. Contracts for Difference (CfDs) are already operating here, and are only for low-carbon sources, so the argument to use this Dutch scheme isn't compelling. We believe it is unlikely that we need both schemes.

70. Do you agree that we should continue to consider a payment on carbon avoided subsidy for flexibility?

> Yes

No

Don't know

No Opinion

Many flexibility offerings are high carbon.

The use of the Dutch subsidy could be a useful tool to reduce carbon intensity of these services.

71. Could the Dutch Subsidy scheme be amended to send appropriate signals to both renewables and supply and demand side flexible assets?

No Answer Given.

72. Are there other advantages to the Dutch Subsidy scheme we have not identified?

> Yes

No

Don't know

No Opinion

It could be a useful tool to decarbonising the wider economy.

73. Do you agree that we should continue to consider an Equivalent Firm Power auction?

Yes

&gt; No

Don't know

No Opinion

Generators are probably not the best-placed actors to contract with flexibility providers. We would seek to avoid renewables generators themselves bearing the costs they put on the system – unless carbon pricing is used to ensure to more than offset those costs for the operator. We consider this could be done more cost-effectively if left to the system operator.

**74. How could the challenges identified with the Equivalent Firm Power auction be overcome? Please provide supporting evidence.**

No Answer Given.

**Do you have any other comments that might aid the consultation process as a whole?**

There should be a publication and an opportunity for further comment part-way through, due to the huge changes about to take place in a very short timescale due to the energy announcement of 8 Sep 2022 by the Prime Minister.