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Targeted charging review: minded to decision and draft impact assessment - Consultation

Introduction to Octopus

Octopus is an investment group that since its establishment in 2000 has built a growing asset base around a principle of fostering innovative solutions that help renovate outdated markets and deliver superior products for consumers.

Managing smart, clean energy assets worth £2.7bn - part of the Octopus group's broader portfolio of over £8.3bn of assets under management (up from £0.6bn in 2008) - as an integrated energy investment business Octopus Energy Investments has a unique multi-dimensional view across energy supply, management and generation. We invest at scale in strategically important sources of clean energy generation. Octopus is the largest independent investor in solar PV in the UK, and has significant investments in onshore wind, anaerobic digestion, landfill gas and biomass.

Alongside our investment business, Octopus has launched Octopus Energy, a digital energy supplier that entered the market in 2016 and has already grown to more than 400,000 customers. Octopus Energy focuses on developing trusted relationships with consumers and providing fair, affordable tariffs, through a transparent and user-friendly online platform.

Octopus Energy uses technology to be highly efficient – empowering customers with a full digital experience, and then using the same systems to provide the highest standards of support to its customers by phone, email and chat. Octopus's technology allows it to challenge normal energy models, with no "tease and squeeze" pricing, offering good value to new and loyal customers, and maximising price transparency.

Finally, through our partnership with Reactive Technologies, Octopus is bringing cutting-edge cloud-based solutions to the UK energy market, empowering grid operators, renewable generators and businesses to access all available energy opportunities as part of the transition to a lower carbon future, ranging from advanced grid data measurement and analysis, enhanced power purchase agreements, access to balancing services and holistic energy optimisation.

Summary of response

The GB energy market continues to transition from a traditional system reliant on fossil fuels and centralised generation to large-scale integration of renewable generation and the incorporation of new demand-management and energy storage technologies. Octopus supports the evolution of market structures and seeks to unlock technology agnostic innovation, in order to facilitate the transition to a more flexible energy market while keeping costs to consumers as low as possible.

The transition to the future energy system will require significant private investment in generation, flexibility provision and other infrastructure. To obtain this investment in the most cost-effective way for consumers will require careful consideration of the impact on existing investors in the energy system. Changes which are detrimental to existing investors without giving them access to increased opportunities will damage confidence in the UK legislative and regulatory framework, increasing the cost or even limiting the availability of future investments.

With that investment perspective in mind we have grave concerns with the proposals for reform of embedded benefits in particular. Ofgem's own analysis acknowledges that the changes make no difference to the cost of running the system, or to efficiency, and they make no positive contribution to government energy policy. Therefore Ofgem justify the changes by reference to broad economic principles around removal of distortions, and purported savings for consumers. However the proposals ignore other distortions which persist or are worsened as a result of the changes. The savings which are claimed are being directly paid for by investors in existing generators, principally renewable generators which are unable to recover any value from other parts of the energy markets.

This is a straight redistribution of wealth. Ofgem are forcing investors in existing renewable generators (many of whom are UK pension funds and local authorities) to write off significant value from their investments in order to get a headline about cutting electricity bills. Such a move would be highly questionable even if carried out by government. It is certainly outside the remit of the regulator, and conflicts with Ofgem's statutory duty to ensure its regulatory activities are transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed.

The situation is worse in that the quantitative analysis carried out by Frontier Economics and referred to throughout the consultation and impact assessment is based on flawed assumptions, so the consumer savings are illusory. Frontier have assumed that whatever changes are made, future build-out of renewables remains the same as it would have done before the changes. Their justification for this is that additional CfD or Capacity Market revenues will fill the gap created by the 5-10% haircut in revenues resulting from the proposed reforms to BSUoS.

Therefore Ofgem's minded to decision, if implemented, would force government to choose between extending subsidy for renewable generation which otherwise wouldn't have needed it, or forgoing that renewable capacity and failing to meet legally binding targets. Either way consumers pay, through policy costs on bills, general taxation or by having to procure more expensive (and dirtier) generation instead. As a result the savings Frontier point to and Ofgem rely upon in the impact assessment would vanish.

The reforms proposed by Ofgem directly work against the Government's Smart Systems and Flexibility Plan and the Clean Growth Strategy, and Ofgem's own analysis shows they will increase the carbon intensity of our electricity system. If that were not reason enough to re-think the reforms, the damage they will do to investor confidence in a time of significant uncertainty around Brexit could be the 'straw which breaks the camels back' for investment in UK energy infrastructure. We, like many of our peers, see an attractive pipeline of investment opportunities in various territories across the globe, and changes such as those proposed render UK opportunities less attractive than those in more stable political and regulatory landscapes, or where regulation and policy has less of a direct impact on returns.

With that in mind, and considering recent setbacks to the UK's nuclear program, changes such as those proposed risk bringing security of supply back as a live concern, and taking the UK back years to the world of the energy trilemma just when it seemed we were moving beyond this to a world of reliable, affordable, low carbon energy.

The above arguments and further detailed responses to the consultation questions below clearly demonstrate that there is no justification in reforming embedded benefits until the holistic review of network charging envisaged by the BSUoS Task Force and the Network Access and Forward Looking Charges SCR has concluded. Only then, with a broader view of the wider distortions which persist between embedded and transmission connected generation, and with significantly improved quantitative analysis to support the proportionality of any reforms and consider the impact on future investment in renewable generation, should any decision on reform be made.

Submission

1. Do you agree that residual charges should be levied on final demand only?

Our response is focused primarily on the reform to embedded benefits, rather than the proposals in relation to residual charges. We do agree with the broad logic of levying residual charges on final demand only. We would note however that when considering making any changes to a complex system of charges, which also have heavy interdependencies with power markets, the Capacity Market, the Balancing Mechanism and other markets, Ofgem should consider the proportionality of the changes and the timing to ensure that dogmatic adherence to economic principles is not creating system or consumer detriment by damaging particular users of the networks or creating a negative impact on investor confidence.

2. Do you agree with how we have assessed the impacts of the changes we have considered against the principles? If you disagree with our assessment, please provide evidence for your reasoning.

We do not have any comments in relation to the proposed changes to residual charging. We do not consider the proposed changes to embedded benefits to be consistent with the principles, in that they create potentially harmful distortions without clearly demonstrating that any existing distortions are causing harm, and they are clearly unfair and disproportionate. More detail on this is set out in our response to question 11 below.

3. For each user, residual charges are currently based on the costs of the voltage level of the network to which a user is connected and the higher voltage levels of the network, but not from lower voltage levels below the user's connection. At this stage, we are not proposing changes to this aspect of the current arrangements. Are there other approaches that would better meet our TCR principles reducing harmful distortions, fairness and proportionality and practical considerations?

We do not have any comments in relation to this question.

4. As explained in paragraphs 4.41, 4.43, 4.46, 4.49, 4.80, we think we should prioritise equality within charging segments and equity across all segments. Do you agree that it is fair for all users in the same segment to pay the same charge, and the manner in which we have set the segments? If not, do you know of another approach with available data which would address this issue? Please provide evidence to support your answer.

We do not have any comments in relation to this question.

5. Do you agree that similar customers with and without on-site generation should pay the same residual charges? Should both types of users face the same residual charge for their Line Loss Factor Class (LLFC)?

We do not have any comments in relation to this question.

6. Do you know of any reasons why the expected consumer benefits from our leading options might not materialise?

We do not have any comments in relation to this question, so far as it relates to residual charging. We do not believe the expected consumer benefits from proposed changes to Embedded Benefits will materialise. Our reasons for this are set out in our response to question 13 below.

7. Do you agree that our leading options will be more practical to implement than other options?

We do not have any comments in relation to this question.

8. Do you agree with the approaches set out for banding (either LLFC or demanding for agreed capacity)? If not please provide evidence as why different approaches to banding would better facilitate the TCR principles.

We do not have any comments in relation to this question.

9. Do you agree that LLFCs are a sensible way to segment residual charges? If not, are there other existing classifications that should be considered in more detail?

We do not have any comments in relation to this question.

10. Do you agree with the conclusions we have drawn from our assessment of the following?

- a) distributional modelling
- b) the distributional impacts of the options
- c) our wider system modelling
- d) how we have interpreted the wider system modelling?

Please be specific which assessment you agree/disagree with.

We do not have any comments in relation to this question.

11. Do you agree with our proposed approach to the reform of the remaining non-locational Embedded Benefits?

No.

Distortions

The focus on distortions misses the point that the overwhelming majority of embedded generation is non-dispatchable and ineligible for the Capacity Market. Even if changes to the Capacity Market allow future solar and onshore wind plant to participate, de-rating factors proposed by National Grid are such that this plant is highly unlikely to have a material effect on clearing prices. As such distortions to dispatch and Capacity Market are not relevant to solar and wind generation. This can be seen in the impact assessment and analysis from Frontier which shows that the proposed changes do not give rise to system savings which would be expected from beneficial removal of distortion due to more efficient dispatch and investment decisions. Rather the consumer savings arise directly from cost increases and/or revenue reductions imposed upon existing renewable generation which is not expected to change its behavior as a result. This is not therefore removal of a harmful distortion, it is a transfer of value from existing investors to consumers. Such a transfer is not within the remit of Ofgem.

Furthermore the approach to considering distortions fails to consider other, significant differences between distribution connected and transmission connected generators, such as the limited rights associated with grid connection agreements at distribution level, the inability to participate in the balancing mechanism and lack of access to industry governance bodies such as BSC panel and CUSC panel. Attempting to 'level the playing field' between generators without taking account of these differences is merely creating a new set of distortions to replace those which are being removed. It is also deeply concerning that messaging on potential future changes such as those mooted in sections 1.9 and 1.10 of Annex 5 look only in one direction, i.e. they consider the potential limited use of the transmission network by some distribution connected generators, but completely ignore the fact that transmission connected generators are required to make use of the distribution network to reach most of the demand they satisfy, without contributing anything towards its costs.

Fairness

We do not agree with the way the fairness principle is being applied in the context of Embedded Benefit reform. To consider only fairness between different consumer groups misses the point that those who will be hurt, and hurt significantly by these proposals will be existing investors in embedded generators, many of whom will be consumers, UK taxpayers, UK pension funds or local authorities. If it is not within Ofgem's remit to consider fairness to and between such groups, then Ofgem should not be empowered to make changes which create such unfair impacts.

Proportionality

There are significant flaws in the analysis carried out by Frontier. Without corrections to these flaws it is not possible to conclude that the proportionality test has been met. More details on these flaws are set out in our response to question 13 below.

12. Do you agree with our proposal not to address any other remaining Embedded Benefits at this stage? Which of the embedded benefits do you think should be removed as outlined in xx? Please state your reasoning and provide evidence to support your answer.

It is not clear which section is intended to be referred to here. We have assumed that the other remaining Embedded Benefits referred to are those listed in section 6.8 of the main Consultation document and described in more detail in section 1.7 of Annex 5 to the Consultation document. We agree that no changes are needed to the Transmission Losses, AAHEDC and RCRC Embedded Benefits. These are very small in size, and as such any changes would not be compatible with the proportionality principle.

13. Are there any reasons we have not included that mean that the remaining Embedded Benefits should be maintained?

Yes.

We have assumed this question applies to all remaining Embedded Benefits including BSUoS. We believe there are a number of reasons which mean that the BSUoS Embedded Benefit (and BSUoS charging arrangements) should remain unchanged, at the very least until more work has been carried out on wider reform to network charging and until government has formally opined on the impact of the proposed reforms on its policy objectives. These reasons are summarised below.

Flaws in qualitative reasoning

As noted above in our response to question 11, the consideration of whether or not distortions are harmful fails to account either for the real world behaviour of most distribution connected generation. The policy objective noted in the draft impact assessment to “promote a level playing field for generation” fails to consider this, or the wider distortions between distribution and transmission connected generators.

Flaws in underlying quantitative analysis

Frontier’s analysis assumes that whatever changes are made to charging arrangements, future build-out of renewables remains the same as it would have done before the changes. Their justification for this is that additional CfD or Capacity Market revenues will fill the gap created by the 5-10% haircut in net revenues resulting from the proposed reforms to BSUoS.

This assumption is simply unrealistic in a political environment where government has made it clear that no form of support is expected to be available for onshore wind or solar, and the funding available for offshore wind is capped. A more realistic analysis would consider the change in expected renewables deployment as a result of the proposed changes. Our analysis shows that renewables deployment could be reduced by c.10GW, resulting in lost generation of 20-30TWh per annum, by 2025. This gap would need to be filled by more expensive generation, eroding the cost savings for consumers identified in the draft impact assessment and supporting Frontier analysis.

Failure to adequately consider wider impacts

The draft impact assessment notes that there are environmental disbenefits associated with the proposals, however these are dismissed on the basis of carbon accounting inconsistencies. This fails to consider the point above that in reality the change in generation mix towards fossil fuel generation is likely to be far greater than assumed by Frontier, given the unavailability of increased policy support for the potential future renewable generation which would otherwise have been built. As such the carbon impacts of the changes are likely to be substantial, and risk compromising the UK’s progress against legally binding carbon targets and negating the ambitions of the Clean Growth Strategy and the Smart Systems and Flexibility Plan.

Need to understand cost drivers more deeply

We do not understand how Ofgem have reached a minded to decision on BSUoS given the fundamental questions around the nature of these costs yet to be considered by the Balancing Services Charges Task Force. Given the limited analysis on BSUoS carried out during the more than 15 months since launch of the TCR, and the less than 4 months allowed to the Task Force to conclude on potential BSUoS reforms, we would expect that further consultation and evidence gathering from industry on BSUoS will be needed before a robust decision can be made. This work should consider whether some form of Embedded Benefit in relation to BSUoS remains appropriate given e.g. apparent correlation between periods of high solar generation and periods of lower than average BSUoS cost.

14. Do you agree with our proposed approach to transitional arrangements for reforms to: a) transmission and distribution residual charges b) non-locational Embedded Benefits? Please provide evidence to indicate why different arrangements would be more appropriate.

No.

We do not agree that it makes sense to implement (or even decide on) reform to residual elements of charges prior to implementation of reform to the forward looking charges. This is partly for reasons of fairness and impact on investors, given that the reforms to residual are on the whole damaging to existing investment in favour of consumers. It is also because to attempt to implement a system that prevents avoidance of residual charges without having defined the core charging arrangements increases the risk of incompatible arrangements or other unintended consequences.

In relation to the changes to Embedded Benefits in particular, accelerated implementation vs other changes leads to greater distortions, which is contrary to the TCR principles.

There are also significant practical difficulties with the implementation timelines proposed given that substantial volumes of power have already been traded (taking into account the *status quo* charging arrangements) for the 2020/21 delivery year and beyond. Accelerated implementation for any elements (such as by 1 April 2020) would increase the risk of more suppliers (especially smaller or newer suppliers) finding themselves in financial difficulties due to mismatches in the way they have procured power, the way they have charged customers, and their liabilities under the proposed reforms.

15. Do you agree with our minded to decision set out? If not please state your reasoning and provide evidence to support your answer.

No.

As set out in the summary of our response above and in the detailed responses to questions 11 and 13 in particular, we do not believe that the minded to decision in relation to other Embedded Benefits properly considers the TCR principles, we do not believe the TCR principles are sensibly defined in this context, and we believe the analysis (both qualitative and quantitative) supporting the decision is fundamentally flawed. As a result the conclusions cannot be relied upon and the minded to decision may have significant unintended negative consequences for the system and consumers. The minded to decision proposed achieves little more than wealth redistribution from existing investors in generation to consumers, and as such should be a matter for government rather than Ofgem.

16. For our preferred option do you think there are practical consideration or difficulties that we have not taken account of? Please provide evidence to support your answer.

Our main concerns are summarised in the responses to previous questions. We would also note that in general engagement with key stakeholders on the progress of the TCR, particularly via the Charging Futures Forum, has been excellent and made a complex subject reasonably accessible. It is therefore particularly disappointing that throughout the entire process Embedded Benefits reform has been reduced to a footnote in most communications, and excluded from discussion in Charging Futures events and in webinars, even when raised in Q&A. It is only through bilateral conversations that we have been able to gain any insight into Ofgem's thinking on the Embedded Benefit subject, and the process and analysis has been carried out far less transparently than the wider work on residual charging. This has led to many key

stakeholders, especially those in the investment community who do not have long standing familiarity with network charging and in many cases will not have been affected by CMP 264/265, being taken completely by surprise by the minded to decision. This failure of process will only amplify the negative effects on investor sentiment caused by the proposed changes, in an already challenging market.

We would be very happy to meet with Ofgem to discuss the issues raised in this response. If we can be of any further assistance please contact David Bird on 020 7131 3210 or DBird@octopusinvestments.com

Yours sincerely

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