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18th April 2017

FAO Mr Andrew Self,
 Head of Electricity Network Charging
 By email: electricitynetworkcharging@ofgem.gov.uk

Octopus Energy Investments: Response to OFGEM's minded to decision and draft Impact Assessment of industry's proposals (CMP264 and CMP265) to change electricity transmission charging arrangements for Embedded Generators

Background

The Octopus Energy Group forms part of [Octopus Capital](#), 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in 2000 has built a growing asset base around a principle of fostering innovative solutions that help renovate outdated markets and deliver superior products for consumers.

Octopus Energy Group manages smart, clean energy assets worth £2bn - part of Octopus Capital's broader portfolio of £6.1bn of assets under management. We have a unique multi-dimensional view across energy supply, management and generation. We are the largest independent investor in solar PV in the UK, have significant investments in onshore wind, anaerobic digestion, landfill gas and biomass, and also work closely with Welsh Power Group, a leading energy company, with a portfolio of new flexible, efficient gas fired generating capacity. We have recently launched a new digital supplier, Octopus Energy (80,000 customers and growing) and are investing in energy management through our partnership with Reactive Technologies who specialise in bringing cutting-edge cloud-based solutions to the UK energy market, to support a smart grid and through superfast coordination of DSR, storage, and generation.

Macro view

We welcome the opportunity to respond to this consultation and recognise the need to review the way the transmission system is paid for. The current system was devised nearly two decades ago and since then, we have seen a large increase in allowed revenues for transmission operators to connect renewables and the EU cap on the share of the charges which transmission connected generation pay resulting in ever more cost being pushed into the demand residual. Through the evolution of the energy market, we have not only seen a reduction in the demand base, but an increase in distributed generation, falling costs of renewables and storage, a need for increasingly fast dispatch generation due to intermittent and less predictable renewables and the growth of sophisticated demand side response technologies. Because of this we believe there is a need for a broad scope Significant Code Review (SCR) that focuses on how both the distribution and transmission networks are paid for and that really benefits energy consumers in the UK over the long term. We welcome that OFGEM is currently consulting on whether one is needed.

The goal of the forthcoming SCR should be to focus on incentivising technologies and business models that deliver secure and affordable energy over the long term, wherever they are situated on the transmission or distribution network. Making the wrong decisions (and/or lack of signals) today risks continuing on a more expensive pathway that will be difficult, or even impossible, to escape from in the future. To do this we believe OFGEM will need to rely on a wider suite of modelling tools than those used for this current consultation, which allow for more sensitivity analysis to be undertaken on the benefits of locating generation closer to sources of demand, and can model the potential for avoided additional capacity that a distributed system can offer.

A crucial challenge for the SCR is to recognise the increased need for flexibility in the power generation market. We have moved from a system where dispatchable generation provided most of our baseload to one where renewables are playing an increasingly important role. Their lack of predictability is creating challenges for the System Operator but this should be looked at as an opportunity rather than a threat. If

Internal Only



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we are to truly reap the benefits of this new reality, then there is a need for new and different tools that encourage efficient balancing over shorter time periods.

Opening up and expanding the ancillary services markets could be another way of achieving this, so that aggregated distributed assets that are more agile than current transmission connected generation are able to provide back-up power in the moments when sources of supply deliver less than the System Operator was expecting. This is vital for delivering a truly level playing field where transmission and distribution assets compete on the basis of the real value they deliver to the system.

The current proposal

We are concerned that the current proposal is driven by an underestimation of the benefits of a smart distributed electricity system, which through a mix of intelligent demand management, storage and distributed generation, can reduce the need for additional generation capacity connected to the transmission system (Imperial College research estimates that a flexible energy system can save up to £40bn for the UK, with over 2/3 of these savings coming from not needing to invest in and operate additional generation capacity¹). We believe there is an unprecedented opportunity for the UK to develop a low cost low carbon energy system, but this requires incentives that encourage the lowest marginal cost technology over the long term.

We believe that the CUSC process is inappropriate for driving major change in industry charging arrangements because it is not representative of the whole energy generation market. We also contend that there was a lack of representation in general for distributed generation on the CUSC panel that delivered this proposal, and believe that this is something that should be rectified going forward. There is a danger that the process could be used by large organisations who know their way around the codes to initiate and push through changes that are in their own commercial self-interest. Octopus was only aware of the modifications once the defect had been accepted by the CUSC Panel and the proposed solution was put out to consultation. This left little opportunity for investors to engage directly in the process beyond drafting a consultation response.

We believe that the current WACM4 proposal² contains too quick an introduction for such a major change to project revenue streams. In the context of increasingly large short term price fluctuations in wholesale markets which are only expected to increase in the medium term as we move to the phasing out of coal by 2025, it does not make sense to severely undermine the business model of highly efficient reciprocating gas engines. This could lead to higher prices in both the capacity and wholesale markets, undermining the consumer benefits that you are seeking to deliver.

It will also drastically change the charging mechanism for renewable baseload generation that cannot participate in the capacity market and therefore cannot benefit from any compensating increase in CM clearing prices. This makes no sense given the broader goal of decarbonising the energy system and meeting the UK's climate change targets.

Whilst regulatory certainty is never guaranteed, removal of a long standing industry charging arrangement will produce a significant loss of investor confidence. Debt providers have lent against TRIAD revenues and were sufficiently comfortable that they would continue to be factored into debt sizing calculations. The industry needs any regulatory changes to be brought forward in a measured fashion, through an appropriate, properly consulted on process in order to avoid creating stranded assets and loan forfeiture.

¹ Imperial College – An analysis of electricity flexibility for Great Britain (2016):

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/568982/An_analysis_of_electricity_flexibility_for_Great_Britain.pdf

² That the level of TDR payment to smaller EG should be reduced to the level of avoided Grid Supply Point (GSP) costs, and introduction of the new arrangements should be phased over three years from 2018 to 2020



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Octopus Proposal

The CUSC process does not require the best solution for the energy system as a whole, only one which is incrementally better than the status quo. This is a poor basis of decision for a change which will redistribute hundreds of millions of pounds across the electricity generation industry. We agree that the current charging arrangements are not fit for purpose and that an ever escalating demand residual will create distortions to investment signals.

However, this calls for a holistic review of transmission charging in the round. In the meantime, OFGEM should accept an alternative modification (such as WACM 7) which freezes the TRIAD benefit to avoid a continued escalation of the benefit while an SCR is carried out.

We would be very happy to meet with OFGEM to discuss the issues raised in this letter. If we can be of any further assistance please contact Lisa Townsend on 020 3142 4095 or Lisa.Townsend@octopusgroup.com

Yours sincerely,

A handwritten signature in black ink, appearing to read "CR Hulatt".

Co-founder and CFO of Octopus Investments