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Dear Frances

Please find attached Welsh Power's response to OFGEM's open letter of July 29th.

Background

Welsh Power Group is a privately-owned energy company with a strong track-record in the development, construction and operation of both conventional and renewable power generation projects. The company has owned large thermal generating plant, Uskmouth Power; developed and financed a new build 850MW CCGT, Severn Power; established a successful supply business, Haven Power; and constructed a small 50MW peaking portfolio which it sold to Alkane Energy in July 2014.

Since 2014 Welsh Power has been working in partnership with an investor to bring forward a portfolio of new flexible, efficient gas fired generating capacity to the UK market. Having participated in both the 2014 and 2015 Capacity Market auctions Welsh Power currently has over 250 MW of gas fired embedded generating capacity either operational or actively under construction.

The development, finance and build cycle of these plants is typically three years. The company is part way through the build out programme and is deeply concerned at the proposed changes to the treatment of embedded benefits following proposal CMP264 and CMP265 submitted to the CUSC Panel by Scottish Power and EDF respectively.

We are particularly surprised by the manner in which these fundamental changes to charging arrangements are being rushed through on an accelerated timescale with little time for cross industry engagement and proper analysis of the impact on generators, suppliers and consumers. It is clear that both of the proposed modifications are intended to increase the clearing price in the upcoming capacity market auction and to raise electricity prices. The proposers of CMP264 and CMP265 hypothecate that this will lead to more efficient investment decisions in the future which will lead to lower costs to consumer in the long run. Whilst it was generally accepted by the working group that the immediate impact of the proposals would be a clear increase in consumer costs no evidence was presented to the work group to justify how the anticipated reduction would materialise in the longer term. Purist economic arguments tabled by the proposers about efficient market signals and rational investment decisions ignore the facts of the UK energy market which has over the past decade relied increasingly on subsidy and regulatory intervention to bring forward new build capacity. The Capacity Market is the most recent and obvious example of intervention in the market to bring forward new capacity and compensate for market failures. It is nonsensical to argue that the removal of Triad benefits would lead to a more efficient

investment signal given the evidence of the past years.

OFGEM open letter

OFGEM's open letter of July 29 makes a number of assertions with regards to the distortions in the market resulting from embedded benefits. The letter states:

We are concerned that the size and increase of the TNUoS demand residual payments may now be distorting the market by:

- ☐ *leading to an inefficient mix of generation by encouraging investment in smaller distribution connected generation (which can take advantage of the embedded benefits revenue stream) over potentially more efficient larger transmission connected generators (TG) or over-100MW EG (which do not have that revenue stream);*
- ☐ *leading to TG exiting because it cannot compete;*
- ☐ *distorting dispatch by dampening prices at peak times when EG dispatch out of merit¹⁵ to generate in the triad periods;*
- ☐ *distorting the outcome of the capacity market (CM) by holding down prices since smaller EG can bid in at significantly lower prices than larger EG and TG; and*
- ☐ *distorting innovation in the market towards parties who can best capture this large payment.*

Taking each point in turn we would make the following observations.

1. '.....leading to an inefficient mix of generation by encouraging investment in smaller distribution connected generation (which can take advantage of the embedded benefits revenue stream) over potentially more efficient larger transmission connected generators (TG) or over-100MW EG (which do not have that revenue stream).'

The assertion that embedded benefits are leading to an inefficient mix of generation suggests that the Authority has a view of the optimum generation mix which presumably maintains a substantial contribution from large coal and gas fired power stations connected to the transmission system. We would question what evidence OFGEM has used to form this view. In a rapidly changing energy landscape it is clear that a more flexible mix of generating capacity is required to complement the growth in intermittent and inflexible low carbon generation.

Large gencos have not presented any evidence to directly link the reduction in transmission connected thermal generating capacity to embedded benefits. Instead they have pointed to the closure of ageing inefficient power stations as being sufficient evidence of the apparent distortion created by embedded benefits rather than an expected result of moving to a low carbon energy mix. Welsh Power in conjunction with its investor has commissioned a report from EnAppSys, attached to this letter, which demonstrates that thermal plants are closing as a direct result of the growth in low carbon generation reducing year round load factors as thermal plants are pushed out of merit.

The report also considers the relative efficiency of various technologies since large CCGT's rarely operate to a load factor that would deliver the optimum efficiency. Maintaining reliance on a fleet of ageing power plants which require several hours notice to start and have to be kept part loaded at high cost is clearly not an efficient way of managing the system when

compared with fast responding, purpose built flexible embedded plant.

2. '*... leading to TG exiting because it cannot compete;*'

TG is exiting the market as a desirable and predictable result of the move to a low carbon energy landscape. It is wrong to argue that a fleet of inefficient slow responding thermal plant should be kept on the system at all costs. TG plant is closing due to declining load factors not due to DG (unfair) competition. Evidence for this is provided in the attached report from EnAppSys.

3. '*.....distorting dispatch by dampening prices at peak times when EG dispatch out of merit to generate in the triad periods;*'

Given the recent mild winters and flat demand patterns observed over the winter months DG running to capture Triad revenues are operating regularly across the winter demand peak for up to 240 hours each winter. The Triad payment of £45/kw therefore equates to approximately £187.50/MWh and could be argued to be an effective hedge on consumer costs across the peak winter period. Given recent high prices observed in September 2016 we would caution the Authority from removing a signal to generate at peak times from a substantial DG community. It is clear in the evidence of the past year that in a tight electricity system TG will exploit their market power and charge as high a price as can be extorted from the system. There is no cost reflective reason for demanding £1000/MWh+ for generating during times of system stress and given the recent closures of a significant number of large plants these instances are likely to increase in frequency.

The Authority should carefully consider the impact of exposing consumers and new suppliers to extremely volatile peak prices and should consider the security of supply implications or reducing the signal to generate across the demand peak from 7-8GW of DG capacity.

4. '*...distorting the outcome of the capacity market (CM) by holding down prices since smaller EG can bid in at significantly lower prices than larger EG and TG.'*

New build EG connected plant was awarded approximately 1GW of capacity contracts in each of the 2014 and 2015 CM auctions. Even if this capacity had been prevented from participating or been forced to bid higher clearing prices this additional contract volume might have preserved one large TG. There is no evidence that TG plant is closing due to unfair competition from EG.

There is also no evidence that EG are able to bid significantly lower prices in the auction. The vast majority of EG plant prequalified for each of the 2014 and 2015 auctions withdrew from the auction above the eventual clearing price. The vast majority of contracts were awarded to existing TG capacity which it could be argued have a substantial bidding advantage in simply having to cover the fixed costs of maintaining the plant rather than generate a return on new investment.

5. '*...distorting innovation in the market towards parties who can best capture this large payment.'*

We would again question the evidence behind this assertion and would argue that the generation mix coming forward, flexible, low cost, gas fired power plant is exactly the right addition to the UK's energy mix. We would also argue that the Triad signal is the single largest driver of investment in flexibility, DSR and storage, all initiatives being promoted by

National Grid, BEIS and OFGEM.

Capacity Market

Any changes that would lead to an increase in Capacity Market clearing prices, the stated aim of the CUSC proposals, would lead to large windfall gains to owners of existing transmission connected generation. For every £1 increase in the Capacity Market auction clearing price an additional £53.8m will be paid by consumers for securing the targeted capacity in the 2016 auction. In the 2014 and 2015 auctions 94.3% and 90.6% of contracts respectively were awarded to existing generators suggesting that existing generators will receive a windfall gain of approximately £48m for each £1 increase in the Capacity Market clearing price resulting from an acceptance of the proposers modifications.

With over 10.5GW of capacity awarded contracts in the 2015 auction the proposers, Scottish Power and EDF stand to benefit by over £10m for every £1 increase in clearing prices as a direct result of their proposed modifications.

The single largest determinant of the clearing price of the Capacity Market auction is the volume of capacity which the Secretary of State decides to procure. The low clearing prices evident in the past two auctions were the result of setting the demand curve below the current installed capacity and therefore ensuring that the auction would clear below the price taker threshold. The award of Capacity Market contracts to distribution connected generators was little more than a rounding error in this context. It should be noted that much of the new build capacity awarded contracts in the 2014 and 2015 auctions are struggling to raise finance to build out their capacity obligations and also that the largest award of new build capacity was to a large transmission connected plant which felt able to outbid both new build distributed generation and existing transmission connected power plant.

CUSC process

Welsh Power has serious reservations about the governance of the CUSC process when large generators are permitted to use their membership of the CUSC to push through changes that are clearly in their own commercial self interest to the apparent detriment of smaller gencos and consumers who are not represented on the CUSC Panel.

It is important to note that, without direct membership of the CUSC, smaller gencos, the target of these proposed changes, are unable to raise CUSC modifications in their own right and are restricted to requesting representation on the working group and suggesting narrow alternatives to the changes proposed by CUSC members. This requires an acceptance of the defect raised by the proposers and only alternatives which address the same proposed defect can be brought forward. Welsh Power does not agree with the defect as identified by either proposer.

Both proposals identify the defect as a distortion to investment signals and both are targeted at generators planning to prequalify and bid into the 2016 Capacity Market auction. In different ways both proposals target a subset of embedded generators and seek to exclude them from receipt of Triad payments. In both cases the vast majority of distribution connected capacity will be unaffected by the changes:

- in the case of Scottish Power's modification, the change is prospective and grandfathers existing capacity;

- In the case of EDF's modification the changes will affect only those embedded generators participating in the Capacity Market.

Welsh Power has sympathy for the view that a continual escalation of the Triad benefit as a result of large annual increases in transmission allowed revenues compounded by a cap on charges to transmission connected power plants which results in a forecast cross subsidy from generation to demand of £670m in 2020/21, is likely to lead to a distortion of investment. However, neither proposal addresses the escalation in Triad payments and, with the exception of the subset of excluded generators, will leave the rise in Triad payments unchecked. It is important that the correct defect is addressed and that appropriate care and diligence is applied to the quantification of the true value of distributed generation. Once this exercise has been completed then appropriate changes to the charging methodology can and should be implemented. Consideration also needs to be given to security of supply, consumer impact, market access and the appropriate generation mix for the UK's future energy requirements.

Much of the discussion within the working group has centered around the value that embedded generators bring to the system and therefore the justification of the ongoing payment of an embedded benefit in the form of Triad payments. The proposers have argued that the true cost reflective benefit is the locational element only of the supplier TNUoS charge and that payment of the residual element of the supplier TNUoS is not justified. The assertion is that the residual element simply recovers the allowed revenues of the TSO's. In 2016/17 the residual element of the supplier TNUoS totalled £2257.6m, 83% of the total allowed revenue. In 2020/21 this is forecast to increase to 90%. Welsh Power believes that the concept of cost reflective charging that recovers only a small percentage of the cost of running the transmission system is a contradiction and that a wider review of the recovery of transmission costs is warranted.

Further, Welsh Power would argue that the growth in embedded generation has resulted in a smaller transmission system and has therefore reduced the total allowed revenue 'pot' that is to be recovered through transmission charging. In the absence of the 21GW of capacity connected to the distribution system the transmission system would be significantly larger and more costly. The benefit of this 21GW of distribution connected capacity is realised over the operating life of the distribution connected asset and is not given appropriate value in the forward looking locational charging model currently used to apportion the costs of the transmission system. This 'sunk' benefit of distribution connected generation needs to be quantified and appropriately valued. In its recently announced consultation on a mid period review to RIIO-T1, OFGEM¹ has proposed reducing the allowed revenue that can be recovered across National Grid's electricity transmission businesses by £38.1m. This reduction is due to the lower number of large new generating plants connecting to the transmission system and is largely due to the growth of distribution connected capacity replacing the need to invest and increase the size of the transmission system. This is a clear example of the benefit of embedded generation which will continue to be realised by consumers over the operating life of the distribution connected assets.

Yours faithfully



Matthew Tucker

¹https://www.ofgem.gov.uk/system/files/docs/2016/08/consultation_on_the_mid-period_review_mpr_of_riio-t1.pdf

