



Andy Burgess  
Deputy Director  
Electricity Charging and Access  
Office of Gas and Electricity Markets  
10 S Colonnade  
Canary Wharf  
London – E14 4PU

Wednesday, 10 July 2019

RE: Future Charging and Access programme –consultation on supplementary information and analysis to November 2018 minded-to decision on the Targeted Charging Review

Dear Andy,

Please find Sembcorp's response to your open letter, dated 17<sup>th</sup> June 2019. Our response is not confidential.

#### Context of the letter

Sembcorp is an established industrial energy, utilities, and services provider to major process businesses based in the Teesside area. On the Wilton International Industrial site, Sembcorp owns and operates one of the largest and most efficient combined heat and power (CHP) plants in the United Kingdom. With 200MW of installed capacity, the plant supplies electricity and heat to on-site businesses via the private distribution systems that are owned and operated by Sembcorp.

Sembcorp, through its wholly-owned subsidiary UK Power Reserve, is also the leading provider of secure, flexible, low carbon electricity and services to the UK power market. With a contracted portfolio of over 1GW of decentralised thermal power generation and battery storage assets, we help keep the country's electricity system balanced and resilient. Our fast-ramping, low-cost and efficient assets are located across England and Wales, improving competition, contributing to security of supply, and delivering better value to consumers. Our assets are, and will continue to be, crucial to delivering a flexible energy system in which a greater proportion of energy is delivered by intermittent, low carbon generators.

#### 1. Capacity Market sensitivity analysis

The Frontier analysis assumes there will be no security of supply impacts with the continued absence of the Capacity Market. It therefore seems that underlying assumptions around investor confidence, or the responsiveness of the market, have been made such that security of supply is maintained in the long term. In the unlikely event that the Capacity Market is not restored, Sembcorp does not believe there will be the investor confidence in the GB market to support the new generation modelled, most of which is gas with associated carbon costs. We do not believe the assumption of a perfectly functioning energy only market (EOM), with fully bankable wholesale prices, to be realistic. Given the wider political landscape around the GB

energy market, including Brexit and the government decision to be carbon neutral by 2050<sup>1</sup>, it is not realistic that investors will have such a high-risk appetite. Frontier's analysis states that an imperfect EOM without bankable price spikes will be unable to endure without regulatory intervention. Ofgem must consider whether the Targeted Charging Reforms will make further intervention more likely, should the Capacity Market not restart.

Sembcorp therefore concludes that the benefit case created by Frontier is "best-case", optimistic scenario and that realised benefits are instead likely to be lower. In particular, system benefits will be lower, as Loss of Load Expectation (LOLE) and Expected Energy Unserved (EEU) are likely to increase with reduced security of supply, beyond the changes detailed by Frontier.

Sembcorp is also disappointed that the analysis did not separate out Residual Reform and TGR & BSUoS reform, as the original analysis did. Given the reduction in total benefits, it seems likely that the separate changes will place costs of either consumers or the system. The effect is only beneficial when all sets of changes are assumed to occur together. Given there is no principled reason for the Residual and Embedded Benefit changes to be linked, neither change is genuinely beneficial in the absence of the Capacity Market.

It is worth noting that the increase of distribution-connected gas peakers is in opposition to wider policy goals of lower carbon emissions and will hinder compliance with legal government targets in the future. Technologies to reduce carbon emission of existing plants are likely to cost consumers more in the long run than greater use of low-carbon generation, existing as well as new-build. Frontier's analysis suggests that large quantities of gas-fuelled generation will need to come online at the same time as net zero deadlines approach<sup>2</sup>.

## 2. Taking account of the Balancing Services Charges Task Force findings

As a member of the Balancing Services Task Force, Sembcorp naturally agrees with the findings for all three Deliverables but recognises the scope and timescale of the Task Force was extremely limited.

For a wider BSUoS reform, Ofgem should consider further principles that were not in scope of the Task Force, and therefore did not feature in the conclusions. Industry not currently being able to respond to BSUoS as a price signal does not mean that there will never be the opportunity. For example, the difficulties in forecasting BSUoS were identified in Deliverable 1 as a major barrier. In the future, as the energy industry becomes "presumed open", in line with the Energy Data Task Force recommendations<sup>3</sup> and more real-time information

---

<sup>1</sup> Climate Change Act 2008 (2050 Target Amendment) Order 2019

<sup>2</sup> Scotland is aiming for net-zero by 2045, on advice from the Committee on Climate Change; London intends to be carbon neutral by 2030 <https://www.london.gov.uk/press-releases/assembly/caroline-russell/plans-to-make-london-carbon-neutral-by-2030>, with a 60% reduction by 2025. Bristol intends to become carbon neutral by 2030 <https://www.theguardian.com/uk-news/2018/nov/14/bristol-plans-to-become-carbon-neutral-by-2030>; Nottingham intends to be carbon neutral by 2028 <http://www.publicsectorexecutive.com/Robot-News/nottingham-council-unveils-2028-target-to-become-uks-first-carbon-neutral-city>

<sup>3</sup> A Strategy for a Modern Digitalised Energy System <https://es.catapult.org.uk/news/energy-data-taskforce-report/>

becomes available, increased visibility of the separate elements of BSUoS will allow innovative parties to leverage available information to a commercial advantage, thus driving down costs and prices.

The complexity of BSUoS charges is due partly to their multiple elements, some of which can send contradictory price signals. Sembcorp therefore believes Ofgem should look at the individual elements separately, rather than keeping them as one “charge”. When examined separately, the application of principles of cost-reflectivity and transparency can be applied to different elements more strongly. For instance, National Grid Electricity System Operator (NGESO) internal costs – i.e. costs to run the ESO as a company – should be treated as a residual. This would allow a fixed charge to be aligned to the timing of the ESO financial reporting, clearly showing to consumers what the cost-recovery element is allocated to. Since ESO internal costs, including incentives under the Performance Scheme, are not incurred on a half hourly basis, attempting to recover them half-hourly will create distortion. It will also allow consumers to see more immediately how the ESO “makes money” and so increase governmental transparency. Other costs, such as energy balancing actions, are incurred on a half-hourly basis. Attempts to smear these costs over different timescales will increase complexity, not decrease it, and reduce transparency. The direction of travel across the industry is towards Half Hourly Settlement and so it seems counterintuitive to take a half-hourly cost and charge it non-half-hourly, when the half-hourly data exists. It will be less clear to users when the costs were incurred and so the charges applied across a wider timeframe could be regarded as unfair.

Another reason for the failure of BSUoS as currently structure to send a price signal identified as part of Deliverable 1 of the Balancing Services Charges Task Force was that charges apply to all users equally. Non-half-hourly costs, which should be treated as a residual, should follow the principles of the Targeted Charging Review and be placed on final demand only. Any elements which are intended to be cost-reflective, such as Balancing Mechanism costs, should be aimed at the parties most able to control their own balance position. The purpose of generation users is to create enough power for the transmission system – to create a balanced position, generators forecast market movements, which are largely dependent on demand. Where generators’ forecasts do not meet demand, the system is balanced through the Balancing Mechanism. Overall control of the market and amount of generation required therefore lies with demand users. Placing the financial result of this balancing on demand users would create a more economically efficient system, as well as addressing a market distortion between GB and European generators, as described in CMP308<sup>4</sup>. With the increase of interconnector volume, as described in the Targeted Charging Review Impact Assessment, which is currently not charged any BSUoS, this distortion will only increase.

Keeping a volumetric charge on final demand users (for appropriate elements) will allow consumers to control their exposure and act as an incentive for energy efficiency, keeping transmission demand down, reducing overall network costs for consumers in the medium to long term. With the development of new technologies, including greater domestic load-shifting engagement through EVs and DSO-level flexibility, a volumetric mechanism will allow consumers to realise cost avoidance and see the benefits immediately, rather than

---

<sup>4</sup> <https://www.nationalgrideso.com/codes/connection-and-use-system-code-cusc/modifications/cmp308-removal-bsuos-charges-generation>

through a cumbersome contracted system. Sufficient available information, as recommended by the Energy Data Task Force, would encourage efficient network use above and beyond wholesale market signals.

Sembcorp therefore believes keeping settlement period-specific elements of BSUoS to a volumetric, Time of Use mechanism on final demand would be most cost reflective and align with industry direction of travel, whilst minimising further disruptive change to networking charging.

Placing BSUoS (or parts of BSUoS) onto demand only would mean volatility risks are handled by suppliers. We believe this risk can be mitigated with a suitable implementation period involving dual-reporting from the ESO, to allow suppliers to see how a demand only charge would impact them. This charge, whilst as volatile, will also be smaller, as the internal fixed elements will be predictable, meaning the volatility risk can be assessed more directly.

The Balancing Task Force discussed on a number of occasions the need to reduce balancing costs overall, and it was generally agreed that the Balancing Mechanism is a key mechanism to do this. For the ESO to balance the system in the most cost-effective manner, it is vital parties remain true to their Final Physical Notification. The cash-out price therefore needs to be truly cost reflective of all the balancing actions the ESO is required to take, to ensure parties are incentivised correctly. We have raised a BSC Issue Group<sup>5</sup> to include some balancing costs that are currently not captured in the cash-out price. We are particularly keen for availability payments to be reflected in the imbalance price as we strongly believe that Option Fees and Utilisation payments should be targeted on participants who are out of energy balance. Specifically, with respect to Option Fees, Ofgem had in the past argued that since the holding of reserve enables the System Operator (SO) to call upon additional energy at short notice, it is appropriate to provide a signal to those participants who are out of balance as to the costs of ensuring reserve capacity is available.<sup>6</sup>

We believe this is a fundamental principle that Ofgem must be aware of as industry moves to much greater levels of BM access.

Industry has repeatedly expressed a desire for stabilisation of BSUoS prices – some elements of BSUoS, such as ESO incentives, would lead themselves naturally to an annualised figure. The ESO attempts to forecast BSUoS costs currently but with limited accuracy. Attempting to forecast half hourly BSUoS costs over a longer time period (for example: year t) will result in potentially very large corrective factors over year t+1 and interactions with settlement runs mean there could also be corrective factors for year t+2. This would create a market distortion between parties exiting and entering the market and so affect innovation and the speed at which the industry can respond to change. It would also create a charging system that sacrifices ease of execution and accuracy for initial simplicity. This would not be transparent and will prevent consumers from understanding how their consumption affects the network charges.

### 3. Updated carbon values

---

<sup>5</sup> BSC Issue Group 83 <https://www.elexon.co.uk/smg-issue/issue-83/>

<sup>6</sup> Ofgem, Correction of price spikes in the Balancing Mechanism, Decision Document, April 2001. Available here: <https://www.elexon.co.uk/wp-content/uploads/2012/02/p3decision.pdf>

In the original analysis, the case for system benefits was unclear, potentially costing up to £0.16 billion if generation through small scale renewables ramps up. It is worth noting that, although benefits to consumers are unchanged by using the correct carbon price, system benefits are lessened, therefore the reforms around Embedded Benefits are less beneficial than initially anticipated. With the range in benefits identified, Ofgem must be sure that these changes align with the long-term policies required to meet legal requirements around decarbonisation and will not irreparably damage investor confidence in new market entrants. Sembcorp recognises Ofgem does not have a direct obligation to consider decarbonisation but given the target of net-zero carbon by 2050 is now legally binding<sup>7</sup>, encouraging low-carbon investment now will be better value for future consumers at minimal immediate cost. Ofgem do have an obligation to consider the needs of future consumers,

If Ofgem believes that BSUOS, elements of BSUoS and/or the cost recovery will be applied to demand only in the future, Full Reform of BSUoS in the TCR seems counterintuitive and would not provide a clear direction of travel. Regulatory uncertainty generally is creating an atmosphere that frightens off investment – reversing a revenue stream into a charge and then removing the charge a few years later will make distributed generation, especially small scale renewables, profoundly unattractive. Small scale renewables will be needed in order to approach a low-emission whole energy system and achieve the legally binding commitment of being carbon neutral by 2050. With uncertainty on the future of the Capacity Market, renewables will be forced to depend on Private Purchase Agreements, which are economically less efficient than an open and fully competitive wholesale market. This would push the cost of becoming carbon neutral as a market up and potentially create market distortions between carbon-free and carbon-based power, interfering with existing and developing policies and interventions.

We have no comment on the clarification of line loss factor class and this does not affect our previous response.

If you would like to discuss any of the issues raised in this response further, please get in touch and we would be happy to meet.

Kind Regards,

Grace Smith  
Grace.Smith@sembcorp.com

---

<sup>7</sup> Climate Change Act 2008 (2050 Target Amendment) Order 2019