

Dr Jeffrey Hardy

20th May 2015

Ofgem

9 Millbank

London

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Dear Dr Hardy,

Tempus Energy Technology Ltd welcomes Ofgem's consultation about Non Traditional Business Models. Tempus is a technology innovation company that has designed a new business model for electricity suppliers and developed a technology to enable that business model. In March this year we entered the UK electricity supply market through our licenced supplier, Tempus Energy Supply Ltd. We believe new business models have the potential to deliver significant value both to individual customers and to UK PLC as a whole by creating a more efficient electricity system that delivers cost effective, clean energy in a secure and transparent manner. We welcome discussing our approach further and we would like to submit the following responses to the questions in the consultation for your consideration:

1. What is your view on our definition of non-traditional business models?

We believe the Ofgem definition is comprehensive and has creatively considered many alternatives.

2. • How we can engage with NTBMs more effectively in the future?

New business models are likely to be invented by smaller players who by the nature of their size have limited resources to engage with regulatory and industry consultations and processes. Ofgem needs to give consideration to how to efficiently engage with these organisations so their views can be sought in a time efficient manner. Perhaps holding telephone conference meetings where all participants are on the phone so there is no advantage in coming to the meeting in person would help to level the playing field.

3. • We would like to hear your views on the drivers for market entry. Do you think there are other important drivers?

We believe a lack of competitive landscape in both wholesale markets and delivery infrastructure offers opportunities to innovative players and this is driving interest in market entry. The incumbent players are characterised by slow pace of change, vertical integration creating disincentives to customer cost optimisation and bureaucratic processes that make organisational change difficult. Customers want transparent sale of energy and are more likely to believe innovation companies will share value with customers in a fair and transparent manner. Creating sharp price signals to incentivise behavioural change is hugely important for emerging, market-driven business models. The state of the market therefore offers real opportunities to innovators.

4. Have we accurately described the NTBM environment? Have we missed something?

Vertical integration without the need to sell generation transparently between companies within one group limits impetus for customer cost optimisation. This offers an opportunity for suppliers without fossil fuel generation assets who want to focus on delivering value to customers, to optimise all costs (wholesale, delivery and balancing) that reach the customer thereby reducing their bills. However, once market size of more than 5% is reached, lack of transparent sale of wholesale energy starts to impact new

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optimised business models. Further investigation of ways of increasing liquidity would be very helpful in this regard. Tempus believes all electricity commodity traded above 1MW should be traded or transparently settled on a traded exchange. We are open to meeting with Ofgem to discuss this further.

5. Our main focus in this paper is on regulatory issues arising from future energy market transformation, but we recognise that there are relevant issues within current regulation. Please let us know if there are any other issues?

In the current regulatory framework, entities that reduce demand at peak on distribution networks and therefore reduce or delay the need for costly network reinforcement have no means of extracting the value. Through the RII0 ED1 incentive programme, this value would pass directly to the distribution network. There are currently no means of sharing capacity that has been paid for by customers but is not being utilised and customers could enjoy cost reductions if they were able to trade this unused capacity.

In addition, as we have discussed with Ofgem previously, Tempus is challenging the European Commission's State aid approval of the UK Capacity Mechanism in the EU General Court. In Tempus' view, the policy design creates barriers to market entry for innovative new business models, whilst locking customers into long-term subsidies to prop up less cost-effective incumbents. The cost recovery methodology also dampens price signals, by smearing costs instead of incentivising new models for offering electricity supply to customers.

6. What are the benefits of different NTBMs to energy consumers?

Lower cost, lower carbon intensity in the grid mix and greater security of supply through use of more distributed means of balancing the electricity system. In the electricity supply market, it can also provide customers with a genuine alternative. The current state of the market is characterised by lack of diversity, tacit coordination and poor competition. Tempus strives to offer customers a completely different and exciting product. Customers will never be inspired to switch while no one is really offering anything different.

7. Are these benefits experienced by all energy consumers or only those directly receiving the NTBM?

All energy consumers benefit by a more cost efficient grid as the smeared costs of running the system are reduced. Lowering demand spikes by shifting load at peak times also reduces price volatility, which over time reduces the need for subsidies that are currently paid by energy customers to provide investor certainty to intermittent generators. Consumers that directly participate in NTBM benefit through additional cost reductions.

8. Are there additional wider benefits to the energy system and beyond it?

When a section of the electricity demand market chooses to reduce demand at peak this has a knock-on effect of reducing cost for all electricity customers both through lower delivery infrastructure cost and through reduced need for generation plant.

In addition, flexible customers facilitated by NTBM provide the System Operator with more cost effective ways for balancing the grid to avoid a frequency collapse. The cost of these actions are then smeared across customers through their electricity bill and since these costs are reduced the smeared amount is reduced. Moreover, customers who are genuinely flexible with demand reduce the need for dirty, polluting fossil fuel generation to be used at peak and for balancing services. When customers displace diesel generation not only are they reducing cost, reducing harmful carbon emission but they are also reducing diesel particulate emissions which are considered by the World Health Organisation to be carcinogenic and directly harmful to human health. Pretty compelling stuff!!

9. Which of these benefits should be taken account of in regulatory policy-making and decision-taking and why?

In Ofgem's role in protecting customers from unnecessary cost increases and ensuring the electricity system is managed in a cost effective manner, there is a direct responsibility to ensure innovative businesses can participate and innovate to a lower cost base. The cost base of the energy system has a direct impact on the competitiveness of UK PLC and in this regard all actions by Ofgem to reduce costs have a direct impact on the opportunities for businesses in Great Britain. Environmental and human health considerations should be taken into account in the wider policy making framework.

10. Are there energy system costs or risks from any of the NTBMs? How might these be addressed?

Customers have been helping National Grid keep the lights on since 2008. The technology required to make electricity customers flexible is proven and through aggregation of customer demand to rely on multiple customers, risks of failure to deliver at critical times is reduced. Tempus believes ensuring widespread flexibility is developed by customers will ensure a much more cost effective electricity system. The risk of not innovating and further pushing up costs in the energy system in GB is a clear and present danger. Innovation is the less risky alternative - in the current system upholding the status quo is the riskiest course of action.

11. How will NTBMs help to drive innovation within the energy system?

NTBM will change the electricity demand sector from one characterised by price inelasticity to one which will increasingly be characterised by price elasticity as customers obtain the means of moving flexible demand to lower price periods. This will fundamentally change the landscape for incumbent fossil fuel generation and offer intermittent renewable generation an opportunity to compete on price, without subsidies.

12. How could NTBMs potentially transform the energy market and what fundamental challenges to regulatory arrangements could this entail?

In GB the biggest challenge lies in the lack of liquidity in wholesale markets coupled with a sector that does not manage the cost of imbalance choosing instead to pass this risk directly to customers in the form of a higher risk premium and higher electricity cost. Lack of liquidity and imbalance risk reduces the price obtained by renewable generation in Power Purchase Agreements, increasing the cost of subsidies needed to enable renewables to compete. NTBM will increasingly highlight the size of the risk premium being charged by incumbents and the cost of a lack of liquidity and challenge Ofgem to take steps to remedy these points.

13. How could regulatory arrangements change to accommodate NTBMs?

Liquidity – ensure all wholesale trades above 1 MW are traded or settled on an exchange providing customers with greater liquidity and price transparency.

Separate out the ownership and management of delivery infrastructure by creating an entity that owns the asset and an entity that competitively manages the asset for cost optimisation purposes.

14. What role do NTBMs and other parties have in managing energy market transformation and regulatory change?

Change is unlikely to come from incumbents who are often reluctant to change and become entrenched in their existing business models. If we keep asking the dinosaurs to write the rules for the mammals we are less likely to arrive at a point where the mammals can outcompete the dinosaurs!

This also means that regulators, the System Operator and government need to actively seek views from the mammals and make sure consultations, secondment opportunities and working group processes are fit-for-purpose by taking into account the fact that the mammals are smaller.

Should you require any further clarification on any of the points above or if you would like to discuss these points in more detail please do not hesitate to contact me.

Warm regards

A handwritten signature in black ink that reads "Sara Bell".

Sara Bell

CEO