ENERGY MARKET INVESTIGATION

Summary of hearing with Tempus Energy on 23 January 2015

Background

1. Unlike the vertically integrated energy firms that generated their own energy for their supply businesses, Tempus Energy (Tempus), without its own generating assets, purchased energy on the open market.

2. Tempus offered a business model that rewarded customers who were flexible in their energy usage with cheaper energy bills. Unlike the vertically integrated energy firms whose generation business wanted to sell generation at peak demand to get the best price to cover the costs of generation and their generation assets, Tempus utilised technology to manage its customers' energy usage into lower-priced periods. Tempus wanted to move its customer demand as far as was possible into those periods when energy was cheaper to purchase, distribute and use.

3. Tempus wanted customers to benefit from its knowledge of the supply-side and renewable (intermittent) generation. Tempus sought customers who were flexible in their energy usage and it utilised technology to provide bespoke solutions for a customer's energy needs. For example, for those domestic customers that had electric storage heating, Tempus' technology could utilise onshore wind to heat people's water tanks in the middle of the night at a very low cost.

4. Tempus ensured that its customers' flexibility was rewarded with the cheapest and greenest price periods for usage. Tempus' tariff structure ensured that the more flexible a customer's usage was, the more Tempus was able to cost-optimise across the supply-chain, passing on savings to customers. In the future, it was hoped people would be incentivised to invest in smart technology that facilitated flexible usage.

5. To ensure that it only used the energy it had purchased, and that customers remained within agreed usage parameters, Tempus undertook minute-by-minute monitoring of its larger customers. This enabled Tempus to know its customers' consumption in real time and amend aggregate, customer consumption profiles.

6. [✂]

7. Tempus wanted to move energy usage away from periods of peak demand to periods when cheaper, renewable generation was available. Usage during the cheapest and greenest price period also addressed the wider market failure of imbalance risks introduced by intermittent energy. This was increasingly a problem for both suppliers and for independent, renewable generators seeking investment.

8. Demand-side flexibility would be a game changer for generators and renewable energy. It would provide a true market price for generators and lead to reduced subsidies for renewable energy, with cheaper bills for customers.

9. Tempus customers were incentivised via a reward scheme to maximise their flexibility, but tariffs were predicated on an assumption that customers would not always be able to maximise their flexibility. Domestic and small business customers would not be penalised for using energy during peak demand and Tempus sought to reduce energy costs by getting a number of people to adopt flexible usage.

10. Tempus was concerned that the appropriate mechanisms were unavailable to customers to increase or decrease their demand when generation was plentiful or scarce. Customers were also faced with the unfair position of, on the one hand, paying subsidies for renewable energy, while also paying for fossil fuel generation to manage renewable energy.

Cash-out rules

11. Tempus believed the changes to the cash-out rules were very positive. Price-reflective cash-out would create the incentive for the demand side to engage more actively, though for consumers to benefit, they would need to be with a supplier who settled on a half-hourly basis.

12. Tempus believed that the energy supplier was best placed to manage the customer load and move consumption away from peak demand. But because suppliers in the UK owned, at great expense, the generating assets, they could not bring themselves to disaggregate their generation business.

13. Tempus believed it would do very well under the current payment mechanisms, but it was concerned about the lack of transparency in the capacity market. Tempus' growth could be affected by the lack of transparency regarding transactions and their pricing and it had already looked at overseas energy markets in an attempt to overcome this.

14. Tempus said that greater transparency existed in markets such as Scandinavia, where more than 70% of energy trades took place on an exchange.

15. The 'big six' controlled a large number of customers and there was little competition on price.

16. Tempus did not want to rely on the 'big six' to purchase its energy. It wanted to source energy from independents, but for independents to grow and for there to be sufficient numbers to match the 'big six', there needed to be sufficient liquidity in supply and generation. Purchasing from independents would help achieve this, but Tempus was unable to utilise independent community energy projects as, to get project financing, they were tied to long-term power purchase agreements with utility companies.

17. Tempus did not believe that mandatory market-making obligations were a substitute for genuinely open and transparent trading with price transparency. It also did not believe that Secure and Promote and the obligation it gave the 'big six' to trade on fair terms was an adequate substitute for the level of liquidity, and genuinely competitive approach, that existed in Scandinavian markets.

18. [✂]

19. Tempus was of the firm opinion that energy generators were very concerned about the effect on the business models of renewable generation and customers being in control of their energy usage.

20. Tempus explained that within profile classes five to eight, around 85% of customers had meters that were enabled for half-hourly settlement, but which were not utilised. For these customers, Tempus would undertake a 'change-of metering-class', which would move customer to a half-hourly settlement. For customers in profile classes one to four, Tempus would install smart meters that would enable half-hourly settlement.

21. The move to half-hourly settlement incurred no additional costs via the settlement system as long as customers' use was optimised outside the red zone of the Distribution Use of System **(**DUoS**),** when wholesale costs were most expensive.

22. [✂]

23. [✂]

24. [✂]

25. Tempus would install for free the automated kit that allowed it to manage its customers' energy use.

Capacity market

26. Tempus said that a capacity market should be offered on a non-discriminatory basis and the policy objective should be security of supply at the lowest cost to customers. The current mechanism that offered lengths of contract of one or 15 years was unfair and anti-competitive and prioritised fossil fuels over demand-side options.

27. Tempus had lodged a complaint about the contract-length and other concerns over the capacity market with the General Court of the European Union. A number of other companies also agreed with Tempus' stance, but some were unable to do so publicly for fear of compromising working relationships within the energy sector.

28. Tempus said it was unfair to offer what was in effect 15 year subsidies for new generation when uncertainty existed with regard to developments in storage and flexible innovations which could change the market long before this period was over. Tempus believed that its demand-side solutions was the most cost-effective method of delivering security of supply and the cheapest option should be prioritised.

29. One year contracts were too short to justify reorganising consumption habits and investing in the technology needed to manage demand flexibly. A year by year contract offered Tempus no incentive or assurance to invest in installing storage heaters or heat pumps. Tempus believed that the contracts offered should be of the same duration, as was the practice in the US. These markets were very successful in both bringing forward capacity and ensuring that customers paid the best price possible.

30. Tempus could not compete fairly in the capacity auctions as it believed true competitive price discovery did not exist and the different length of contracts meant that it competed on different terms to the larger suppliers.

31. Generators justified a 15 year contract as a way of recovering generation costs, but Tempus did not believe that contract lengths were a good way of factoring in capital investment, particularly if customers paid for the investment.

32. Tempus was disappointed that the original methodology put forward with regard to paying the £1 billion costs of the latest capacity auction had not been retained. The original policy saw costs reclaimed via a triad based

system or via the three highest annual peaks. Charging suppliers on this basis would enable them to offer an incentive scheme by which customers would be rewarded by avoiding energy use during the three highest peaks.

33. The eventual policy of smearing costs between 4pm and 7pm every weekday in winter prevented innovation. Suppliers were prevented from offering an incentive scheme offering cheaper bills if customers were flexible three times a year. Instead, suppliers had to operate within the smeared level and were unable to smear costs across the whole of the year.

34. The smeared methodology ensured over-procurement of energy because the customer did not have a choice. The smeared methodology also ensured that Energy UK, the representative body of the ‘big six’, was able to align their supply and generator businesses. Generators were in fact paid for capacity that was not needed.

35. [✂]

36. Tempus agreed that it was the generators that benefitted from the smear-based policy. The fact that the generators also controlled a large amount of supply gave them a disproportionate weight in the way in which the capacity market rules and policy were determined.

Innovation

37. Tempus believed that locking customers into subsidising generating stations via 15-year contracts did not create an incentive structure for innovation.

Market governance

38. Tempus said it had concerns as to the influence secondees from the energy sector could exert when working at government departments involved in energy regulation and policy. As a commercial exercise, Tempus did not feel that a company would offer an employee for free unless it felt it was getting something in return and it believed secondees from energy companies may have been involved in policy developments for the capacity market.