Tempus Energy Technology Ltd.
31 Oval Road
Camden NW1 7EA

Competition and Markets Authority
Victoria House
Southampton Row
London WC1B 4AD

18 April 2016

Dear Sir/Madam,

Re: Tempus Energy Technology Ltd ("Tempus") response to CMA Provisional Decision on Remedies

About Tempus Energy

Tempus Energy Technology ('Tempus') is a technology company that has developed the technology platform for the utility of the future. Tempus Energy Supply ('TES'), a wholly owned subsidiary of Tempus, is an innovative, new electricity retail supplier that uses this technology platform. Tempus was established to make energy systems more efficient through capturing the value of under-utilised assets using demand-side flexibility technology. Tempus has developed technology to shift real-time consumption patterns to optimise trading on the electricity market within each half-hour, leading to cheaper electricity prices for the company and its customers, while also helping to balance the overall electricity system. Importantly Tempus is demonstrating that through the use of demand-flexibility in liquid, transparent and competitive wholesale markets, where prices reflect actual scarcity and network stress, we can create a market-based approach to integrating more intermittent renewable energy onto the grid and therefore combat climate change through market-based solutions.

Response to CMA Provisional Decision on Remedies

Remedies

Tempus welcomes the CMA's provisional decision on remedies and the ongoing investigation being carried out in relation to the GB electricity market. The CMA's proposals on reforming the outdated retail market, particularly in removing the prescription (such as the four tariff rule) that is holding back innovation, are timely and Tempus would agree with the need to implement these proposals as soon as possible. Furthermore, Tempus fully agrees with the need to clarify the governance regime that has caused confusion between the remits of Ofgem and DECC resulting in at times an under-use of legal powers by the regulator for the benefit of consumers. Nevertheless Tempus would like to understand in greater detail what the CMA is proposing in relation to solving the current problem of governance and regulatory scrutiny.

Omissions

Despite the fact that the CMA identified several problematic areas around the retail market and the governance framework, Tempus believes that the CMA omitted to include in its provisional remedies, and neglected to properly investigate, key failures in the wholesale market.

The most significant failure in the wholesale market is the lack of liquidity and Tempus disagrees strongly with the CMA's findings that there is no liquidity problem in the GB wholesale electricity market. Tempus did raise this matter in its oral evidence in January 2015 but unfortunately these points did not find their way into the CMA's July Provisional Findings Report ("the Findings"). Since giving oral evidence however, TES as an independent supplier in the market has faced several barriers to accessing wholesale market products due to the lack of liquidity on the wholesale market, which has negatively impacted TES' business. Tempus considers the above to be a direct result of poor wholesale market liquidity and transparency (particularly in medium to long-term markets); vertical integration ("VI") between supply and generation; and market power being highly concentrated amongst incumbents with collective dominance.

TES' trading department is very responsive to price volatility and price signals due to the fact that we are constantly responding to fluctuations on the demand and supply side, and matching flexible demand with intermittent, renewable energy wherever possible. However, like all suppliers, (even more so given TES does not own generation, nor will the utility of the future), TES still needs to be able to hedge using longer-term trades. Accessing such products is imperative for our risk management and pricing strategy, so we can offer customers fixed term contracts with price certainty. Wholesale market products are not homogenous and different companies; particularly independent suppliers need products with different lead times.

It is an established fact (2014 Ofgem/OFT Joint Assessment Report) that the UK wholesale electricity market is illiquid, with the majority of trades taking place though closed, bilateral power purchase agreements within VI utilities and relatively little power is traded on an open and transparent platform. Although this problem is present across the range of products, the scarcity is particularly prevalent in the medium to longer-term trades. The lack of market price discovery is especially problematic for the seasons beyond the period known as the "Mandatory Market" making window, which is currently Summer 2018 (1st April 2018 – 30th September 2018) onwards. Even within month, our trading department does not see consistent liquidity, especially the week products, both for baseload and peak-time power.

The impact of poor liquidity has been veiled in the past by a generally upward curving price projection. This has incentivised VI generators to list prices over the longer term, in order to lock in a conservatively calculated high price. However, due to a number of factors, the current outlook depicts a downward price curve. This has triggered a cessation of published prices for longer-term products, as VI generators are not prepared to make open trades at these lower prices. Whilst the VI utilities always have a retail arm through which they can make trades behind closed doors, independent suppliers such as TES cannot. On some days there have actually been no prices published at all, which has prevented us from being able to accurately price out fixed term supply contracts. We would be happy to provide some specific examples on a confidential basis.

TES has been unable to bid for some major commercial supply contracts due to the fact that almost all industrial and commercial energy customers procure power through annual or multi-year fixed price supply contracts that are awarded through tender exercises. On such occasions, independent suppliers such as TES are caught in an unfavourable dilemma, which requires it to choose between bidding blind, with no means of hedging our prices, or stepping back and losing out on valuable customers and revenue. In our view, this clearly demonstrates that reliance on an upward price curve is no substitute for genuine market transparency and liquidity. It serves only to increase incumbent market power and freeze out new entrants. It is unsatisfactory to us to read in the Findings that there is no pressing need for action on liquidity (over and above the very limited impact of the 'Secure and Promote' licence condition), when we have been adversely impacted by this severe market failure on a daily basis.

An effective remedy to solving the lack of liquidity on the system would be to mandate all generation capacity over 1MW to be traded on the open market. In any case, Tempus is very disappointed to see that the CMA declared the GB wholesale market to be 'healthy' and that no remedies have been proposed.

The CMA mentions in its provisional decisions on remedies and in its earlier analysis that the wholesale price only accounts for less than 50% of the final customer retail bill. While this is indeed true, the market power that exists between the VI energy companies influences policy developments in other markets too such as the balancing and capacity market. For this reason, the energy market needs to be viewed holistically in terms of wholesale, retail, balancing and capacity markets while the interests behind each market actor need to be understood. To illustrate the importance of viewing the whole system holistically, one only needs to look at the recent 'black start' deal (balancing service) agreed between National Grid and SSE over a 2 GW coal fired power station that has impacted wholesale market price, to the detriment of other market participants (more detail below).

Capacity Market

Tempus considers that the Findings did not address the AECs evident within the design of the Capacity Market, and this has led to an absence of appropriate remedies. The Findings also contain factual inaccuracies, despite Tempus providing oral evidence on those specific points.

In paragraph 5.167 of the Findings, the CMA indicates that due to the Tempus State aid challenge it will not enter into a proper investigation of the capacity market arrangements. As the national competition authority, and particularly in the context of Ofgem's Market Investigation Reference, the CMA is the first point of contact for competition issues and it is incumbent on it to form an informed opinion in the context of the Energy Markets Investigation. In Tempus' view, it is not appropriate for the CMA to simply close its mind to the details and wait for the European Court's judgment. Conversely, the fact that an aggrieved party took legal action on competition grounds should have acted as a further impetus into investigating the Capacity Market design, which will evidently have a huge impact on the energy market as a whole.

It is not surprising that DECC did not find fault with its own policy when the CMA made enquiries last year, and Tempus had rather hoped that it would probe beyond this cursory level. Tempus notes, however, that even DECC has subsequently admitted that the Capacity Market has not had the desired effect and has instead resulted in over-compensation of existing diesel generation, which will do little to meet longer term security of supply and decarbonisation objectives (see below).

In addition to the above, the CMA has misunderstood the nature of the cost-recovery methodology under the capacity market as well as the TRIAD scheme through which transmission charges are recovered from end-users. Firstly, the initial capacity market proposal for cost-recovery (which Tempus supported) never said that the *existing* TRIAD scheme would be used to recover the costs, but rather a cost-recovery methodology *based* on a TRIAD-style or other very cost-reflective methodology (i.e. of recovering costs based on a limited number of winter peaks in order to stimulate demand reduction and hence procure less aid in the process) should be used. The objective of having a methodology which creates a sharp price signal for demand turn-down during critical peaks is to ensure that the global subsidy amount paid by customers for the Capacity Market (i.e. the total State aid awarded) is kept as low as possible. The potential benefit to customers of amending this policy has not been analysed by the CMA, despite evidence that this could save customers significant sums of money.

Nevertheless, even if TRIAD were used, the argument mentioned by the CMA that DSR providers would receive a double benefit still does not stand. Firstly, on top of the very high wholesale prices that *all* generators receive by generating during TRIAD periods many generators *also* receive an "uplift" for generating during TRIAD[1] periods. So the "double benefit" to the DSR argument is misconceived. Secondly, as the transmission network needs to be built to the highest peak (which if unmanaged will continue to grow due to electrification trends), any incentive to change behaviour in order to reduce these peaks will lower costs for all customers, even those that don't explicitly participate in load reduction programmes such as TRIAD management. For those who do participate in TRIAD avoidance, Tempus would argue that it is perfectly reasonable for customers to not have to

[1] Please see Appendix 1 (National Grid TRIAD charges 2015/16)

pay for costs they are not contributing to. Flexible customers ease tight capacity margins and are much more cost-effective than paying generators to remain in the market only for stand by. Further, as mentioned above by creating such a mechanism and design, not only are peak demand and energy bills reduced, but the total amount of State aid is also reduced, which when viewed in light of the EU State aid legal framework should be of paramount importance.

Tempus is very keen to discuss the above concerns again with the CMA prior to its final remedies report in order to rectify the lack of an investigation into the Capacity Market arrangements.

Latest market and policy developments

In order to produce a holistic and up to date investigation, Tempus believes it is also necessary to have regard to the latest Government proposals and recent market events. In March 2016 the Government published a consultation looking at changes to the Capacity Market. Among those proposals were two very detrimental proposals to the growing decentralised energy and DSR markets, i.e. removing the so called 'embedded benefits'[2] for renewables including CHP (which can provide low cost, low carbon behind-the-meter DSR) and prohibiting companies that have benefitted from EIS and VCT[3] funding from participating in the capacity market auctions.

While Tempus understands that the intention behind both the above proposals is to reduce the incentives for highly polluting diesel generation, their effect will also be to kill off new 'cleantech' companies such as CHP providers and Demand Response aggregators that are likely to have secured funding through EIS/VCT and 'benefit' from the so-called embedded benefits. The embedded benefits are in fact not benefits but rather allow companies that do not use the transmission network to not pay for it- a highly rational cost-reflective charging structure. Tempus therefore calls upon the CMA to properly investigate and scrutinise these proposals and to not to simply defer to its EU counterparts without comment.

Moreover, since the CMA published its March provisional remedies, National Grid has awarded two 'black start' contracts (ancillary services) through a potentially uncompetitive process and with no market warning (the contract went into effect the

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[2] 'Embedded Benefits' refer to the Transmission charging regime rule that states that small-scale generation connected to the distribution network rather than the transmission network (hence reducing the load on the transmission network) does not have to pay transmission charges. Many decentralized energy units such as CHP generators have entered the market due to this cost-reflective piece of regulation.

[3] The Enterprise Investment Scheme ('EIS') is a tax efficient government investment scheme to promote investment in small private companies. The Venture Capital Trusts (VCT) provide finance for small companies through tax-efficient investment. Both schemes are widely used by new, innovative technology companies in the energy sector, and if DECC were to go through with its proposals it would bar many DSR and decentralised energy companies from participating in the Capacity Market.

following day). This naturally had a huge impact on power prices. Tempus has two specific concerns with the above contracts that it would welcome an investigation into.

Firstly, Tempus is concerned that given the market power of the main six VI energy companies and given the fact that they own assets and interests on both the generation and supply markets, these companies may have access to information that the rest of the market does not have access to. Not only do they have access to more information but they also have the power and ability to affect pricing. The fact that VI energy companies can influence market prices with decisions on large physical assets requires greater scrutiny into their market behaviour. There is an obvious potential AEC here.

Secondly, it is highly likely to have an impact on the Capacity Market if certain generators are subsidised to stay 'warm' until the Capacity Market delivery year. The subsidy received by SSE was not factored into the initial pricing when they bid the relevant assets into the capacity market in the 2014 auction, and thus there has been a potential price distortion in the Capacity Market due to this double banking. SSE has now announced that it will not pull out of the Capacity Market and plans to bid in the next auction as a result of this extra subsidy, which was negotiated behind closed doors, with the commercials still unknown.

Given the above concerns in relation to the wholesale market and Capacity Market, Tempus has already raised an official complaint with Ofgem and are planning to raise a complaint with the CMA. Tempus has also made a Freedom of Information request to DECC to ask whether the subsidies have been notified as State aid under the 2014 Energy and Environmental Aid Guidelines.

Tempus welcomes the CMA's scrutiny of the above matters would be happy to discuss further. Please do not hesitate to contact me if we can be of any further assistance to you.

Yours sincerely

Sara Bell

CEO, Tempus Energy Technology Ltd.