

Energy Systems Integration Team
Office of Gas and Electricity Markets
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12th January 2017

Origami Energy welcomes the opportunity to respond to the call for evidence which asks questions on a number of areas key to our business.

At Origami Energy we are working to unlock all asset flexibility and intelligently manage a network of many thousands of diverse generating, demand and storage assets to deliver multiple valuable services and peer-to-peer interaction in real time. Whilst most companies are focused on today's system (e.g. the aggregators delivering specific services to National Grid), we are focused on the future and what will be necessary to ensure a sustainable secure and affordable energy supply. As a result, the strategic and policy decisions taken by Government and Ofgem today are of great interest and importance to us.

Whilst we believe some progress has been made recently by both Government and wider industry, we still believe much more can be done in the short term to help realise the benefits that flexibility can offer to the energy system. Actions and decisions taken now will be critical to the success of new market entrants, like ourselves, and Government/Ofgem have an important role to play in ensuring the future energy system is able to benefit from the new technology, providers and solutions emerging today.

Alongside a full response with our answers to the questions posed in the consultation document, we have reiterated our main points below;

Removing policy and regulatory barriers

- We firmly believe that a transition to a low carbon electricity system can only be achieved in the most cost effective manner if flexibility is given full access to all markets. This includes ancillary services, the balancing mechanism, wholesale markets and capacity markets.
- We believe National Grid has an opportunity to improve the current suite of ancillary services by creating standardised products. This would be a significant step in the right direction in creating an efficient, fair and accessible marketplace for flexibility.
- Improved market transparency is also a must if we are to see a growth in both flexibility 'users' and 'providers' in the future. For a marketplace to

truly succeed access to relevant information must be equal amongst all parties involved.

- We believe a Significant Code Review of system wide charging, alongside clear strategic direction from Ofgem and BEIS, is now required to design a network charging regime fit for a flexible system. It is our belief that the system should move towards a more cost-reflective approach to charging overall, whereby users pay/are rewarded for the costs they impose on the system.
- We firmly believe that industry incumbent self-governance is presently reducing the accessible value of flexibility which appears at odds with the Government's and Ofgem's policy intent.

Enablers required to provide price signals for flexibility

- We believe the following need to be achieved to enable the true system-value of flexibility to be signalled to the market;
 - a. Introduction of standardised flexibility products (as above).
 - b. Clearer locational price signals that reflect the cost of network constraints.
 - c. More near real-time allocation of resources to enable flexibility providers to offer their flexibility to multiple buyers in the market.
 - i. Note we recognise that in the short term storage is in need of support. This could be addressed in the short to medium term by offering access to longer term ancillary service contracts.
 - d. More work to bring forward higher levels of DSR and storage in the Capacity Market.
 - e. Address the current set of misaligned incentives between demand and generation customers.
 - f. Clearer incentives on DNOs to utilise flexibility solutions as BAU (as part of the transition to DSOs).

The roles of different parties in system and network operation

- We believe that the current lack of regulatory obligation on DNOs to balance the system locally needs to be addressed urgently. Without this obligation and the correct incentives, moving DNOs to the role of DSO before 2023 will be challenging.
- There is a need for better coordination and information sharing between all parties (DNOs, TOs, SO). We believe the best way to achieve this is through a market approach, involving all the necessary parties and not just the network operators.



We'd welcome the opportunity to discuss any of the points above, or any of the detail/evidence included in our response to the consultation questions, further in person if necessary.

Yours faithfully,

A handwritten signature in black ink that reads 'Peter Bance'.

Peter Bance
CEO
Origami Energy Limited





About Origami Energy:

At Origami Energy we want to unlock all asset flexibility and intelligently manage a network of many thousands of diverse generating, demand and storage assets to deliver multiple valuable services and peer-to-peer interaction in real time.

Origami software, analytics and hardware solutions focus on the management and optimisation of power flexibility across all spectrums of the UK energy system. To date, we have been focusing on linking flexibility buyers (such as National Grid) to flexibility providers (asset owners) with our core differentiator the ability to interface securely with any asset class across all relevant flexibility incentives. Managing load and demand in real-time against criteria set by generators and users of energy enables an optimum financial position to be established for both parties. This is further enhanced by 'stacking' multiple flexibility services, increasing revenue opportunities ensuring future services to be deployed, we are currently working with multiple partners to deliver the roll-out of this peer-to-peer solution.

Origami also has benefits from an in-house energy storage development capability, which has deep domain expertise to assess storage business model feasibility, provide design and deployment services for projects that contribute reliable flexibility to this edge of grid market place. To date we have been working with I&C site and land owners, investors and the evolving storage supply chain to originate projects, provide technology-neutral advisory, development and we are developing a pipeline of storage assets from kW-scale behind-the-meter projects, through to grid-scale and co-located projects.

