

## Clarifying the regulatory framework for electricity storage: licensing

Collaborative response from academic staff and Postgraduate Research (PGR) students at the EPSRC Centre for Doctoral Training in Energy Storage and its Applications.

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**Question 1:** Do you agree that the form and content of the licence as proposed in this consultation will achieve the purpose and deliver what we committed to in the Smart Systems and Flexibility Plan?

*There isn't any clear statement on how aggregated energy storage might be handled. For this proposal to be of benefit to aggregated storage, it must be possible to obtain the benefits of a licensed generator (i.e. avoided Final Consumption Levies) from an aggregated collection of sub-50MW storage systems. This is particularly relevant for Vehicle to Grid systems where an aggregator could feasibly, in the future, deliver many hundreds of MW of power from individual vehicles each providing only a few kW. This may also be the case for other forms of distributed energy storage (such as home or small commercial systems) and is more relevant given the recent changes to TRIAD payments. [RL]*

**Question 2:** Do you have any views on whether we should include 'in a controllable manner' in the definition of electricity storage?

*The problem with adding 'in a controllable manner' is that it is not a well defined term. Controllable could be as simple as charging and discharging via a simple 'time-switch' or as sophisticated as providing sub-1s frequency control. [RL]*

**Question 3:** Do you think there are any risks or unintended consequences that could arise as a result of our proposal? If so, please provide an explanation.

*A risk of not allowing the aggregation of storage is that the full value of such storage cannot be accessed. This is likely to lead to more investment in larger storage/reserve power provision than might otherwise be necessary and is therefore a potentially more costly for consumers. [RL]*

*The condition that an energy storage facility not be used primarily for self consumption may discourage large industrial users from installing systems that could provide services to the grid in addition to internal operations. This in turn may hamper innovation in flexible industrial operations. One solution would be to allow the electrical storage facility owner to submit a rebate request based on metered export to the grid. [DR]*

*The stipulation of primarily not for self consumption may also exclude aggregated electric vehicle and other small scale aggregated services from participating as their primary role would be self consumption except when aggregated to provide services to the grid. The ability to therefore be defined as storage when aggregated and not as storage when being used for primary consumption hence needs to be considered. [HK]*

*The requirement that licensees ‘do not have self-consumption as the primary function’ is vague. A specific limit of percentage of capacity, energy supplied to grid or time availability (per hour, day, week, etc.) may offer greater certainty. This could allow more systems, and particularly aggregators, to benefit from the new licensing arrangements, expanding the storage market. [BS]*

*It needs to be made clear that it is just the levies that are being removed from the costs and not the total cost of energy used otherwise there is a danger that the legislation will be misinterpreted leading to the potential proliferation of low efficiency energy storage solutions in the future. [HK]*