

Recommendations Electricity Storage & Fire Safety Electricity Storage Network Sustainability, Safety and Supply Chain Working Group

The Electricity Storage Network (ESN) welcomes BEIS decision to remove the planning threshold for storage sites. As an industry, we are working together to prevent and mitigate fire incidents as site capacity, energy density, and megawatts deployed increase.

Battery fires are extremely rare however, the ESN recommends the measures below to be implemented without delay to prevent the risk of explosion and injuries, particularly for firefighters, when responding to incidents. The measures will help to protect the environment and biodiversity.

Key points below could be a 'quick win' for the industry and were identified as a priority by stakeholders, including the fire brigade.

1. Liaising with the relevant fire brigade

The relevant fire brigade should be informed of new storage sites ideally before installation. We understand this is currently not a requirement. Details of the site and fire response should include the points below.

2. Registers and database

a) Site Register: An easy to access and mandatory register for the use of the fire brigades, which includes the key points below.

b) Incident Register and Studies: Mandatory incidents register to allow the industry to learn from mistakes promptly.

Databases on storage fires could be used to produce reports and studies, allowing the industry to prevent future incidents by providing recommendations to reduce risks. *The Fire and Solar PV Systems – Recommendations for the Fire and Rescue Services* report carried out by members of the Building Research Establishment on behalf of BEIS is a good example. This information should be available to all stakeholders.

3. Operations & Maintenance (O&M) Emergency Contact

Battery storage sites over X MW should provide a 24h emergency number or live information on the state of charge of the battery. A battery with a state of charge of 95 % or 3 % does not present the same risk of explosion. The O&M can provide additional crucial information to the first responders/fire brigades.

4. Gas detectors

When gas has escaped, the type of gas and the amount are crucial when assessing the risk of explosion or site contamination.

5. Training

Ensuring appropriate and regular training, including for installers, developers, O&M, first responders, fire brigades and firefighter volunteers.

6. Signalling and Instructions

Should be visible and located at the site entrance, including fire response procedure, O&M contact and a single line diagram. The chemistry should be specified; Firefighters can't guess the chemistry inside the container. A Single Line Diagram should be displayed at the site and provided in advance to fire brigades and first responders.

7. Retrofits

Existing sites should comply with new regulations.

ESN Sustainability, Safety and Supply Chain Working Group

This working group is a space to discuss many important aspects of the investment, development and operation of storage sites in the UK. The focus is on creating a sustainable industry that can aid the transition to net-zero, with the core principle of adhering to environmental, social and corporate governance (ESG) criteria

The Electricity Storage Network

The ESN was established in 2008 as the UK industry group dedicated to electricity storage. It includes a broad range of electricity storage technologies and members, such as electricity storage manufacturers and suppliers, project developers, users, electricity network operators, consultants, academic institutions, and research organisations. The ESN is managed by Regen.

Regen

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