

THE ELECTRICITY STORAGE NETWORK

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regen
transforming energy

European National Energy Storage Associations

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- Black out
 - Capacity Market
 - Definition of storage
 - Tax

- A lightning strike cause 2 key power stations to trip – 1 gas and 1 offshore wind (**1.8 GW**)
 - This in turn caused several small Dx connected generation to trip (**350 MW**)
- System frequency dropped to **48.8Hz** and was brought back up to the minimum standard by **frequency response** over the next 10+ minutes – nearly **500 MW batteries** called upon
- **1.1m** customers (approx. 1 GW) left without power
- All power restored within 40 minutes, but major issues with the rail network (occurred during Friday rush-hour...)

- Security standards being reviewed – this could result in new frequency response services
- Renewed interest in a National Grid tender for a ‘stability’ service – providing real or synthetic inertia to the grid.

- Currently suspended, pending EC judgement – expected October
- No payments able to be made at present, but Units are expected to deliver during an event
- Suspension has constrained the changes that the government have been able to make through their current five-year review
- CM emissions limit (from EU) – UK government have implemented with the following ‘loophole’
 - Limit of 550 gCO₂e/kWh, but higher emitters could operate under limited running hours with no more than 350 kgCO₂e/kWe per year
 - Are other countries interpreting in this way?

- ESN have long discussed a possible new asset class for storage – creating a separate licence solely for storage
- Government position is to officially define storage as a **subset of generation**
- The regulator has recently stated its intention to define storage in the Electricity Generation Licence
 - Debate rekindled in the ESN regarding the merits of a separate asset class

Benefits of a separate asset class could include:

- Would prompt a **thorough and valuable debate** about how storage should be treated in the electricity system
- Creating new rules that are specific to storage could lead to **new markets** and **increased deployment** of storage into services that benefit the system and aid decarbonisation
- Having a separate licence may make it easier to **design and implement** future changes

- No subsidies for storage in UK, beyond Capacity Market
- **VAT:** domestic storage benefitted from a 5% VAT rate, when installed with solar. Recently raised to full 20%.
- **Business rates** for larger scale storage are currently very high, calculated using methods which are generalised across the country and don't take into account regional variation (land costs, grid connection costs)
 - The ESN is considering lobbying for storage to be exempt from VAT and business rates

Policy and regulatory measures to enable investment in renewables and flexibility

- a clearer remit for the regulator on decarbonisation
- any new policy (from any department) should pass a decarbonisation cost benefit analysis.
- The need for strong, granular and dynamic “time of use” and “location of use” price signals
- Open source modelling of the future energy system and flexibility needs would help with clarity and investment cases.

Measures to de-risk investment in established renewables:

- Introduce a revenue stabilisation measure for established renewable technologies, suggested mechanisms include a floor price or other stabilisation mechanism and ways to make REGOs more effective at incentivising new projects.
- Address recent changes that have led to high business rates and VAT tax rates for renewables project

A level playing field for decentralised energy in markets for system services operated by National Grid System Operator and DSOs:

- **Recognise the value of sub second response to the system.** National Grid ESO should release a new Fast Acting Response product/or other mechanism to recognise this value.
- **Clarity on how the balancing mechanism is likely to be reformed;** this is a major source of revenue for batteries but widely accepted to be under increasing strain and need of structural changes.