

# Design evolution

## Grid connection

The grid network operators are currently upgrading the grid infrastructure in the country and RES will be required to pay transmission connection charges to National Grid during operation of the wind farm for the grid connection. We have accepted a grid offer from the Transmission Owner (TO), in this case Scottish Hydro Electric Transmission (SHE-T).

RES has been advised by the TO that the proposed wind farm will connect to the National Grid via a 132kV connection into Tomatin substation.

The grid route is subject to a separate planning application from the wind farm – and will be submitted as a separate Section 37 planning application under the Electricity Act by the TO once they have finalised their design. Once the planning application for the grid route is submitted, there will be a consultation period undertaken by the TO during which details of the grid route and method will be available for the public to provide comment to the TO as part of the planning process.

## Battery Energy Storage System (BESS)

The proposed battery energy storage system (BESS) is anticipated to have a storage capacity of 100MW. The maximum size of the BESS compound would be up to 100m by 130m. Further details of the scale and dimensions and a full assessment of the impacts and effects and all proposed mitigation will be included in the Environmental Impact Assessment Report (EIAR) which will accompany the planning application.

The proposed BESS location can be seen on the previous exhibition board.

The risk of fire at a BESS is low and the BESS will be developed to address and mitigate against the risk of fire ignition and propagation, in a number of ways. Unlike electric cars and scooters, for example, RES-managed battery energy storage systems are constantly monitored from our 24/7/365 control centre in Glasgow. Some controls can also be safely operated remotely from our control centre, such as the shutting down of an individual battery rack or the entire battery energy storage system, if required.

All batteries must be tested and certified to an industry standard (UL9540A) demonstrating resistance to thermal runaway, and which ensures there is no likelihood of explosion, with any fire contained within the affected battery rack.

The BESS will be optimised with appropriate container spacing to minimise the risk of fire spreading across the facility in the unlikely event of a fire.

Each Battery Storage Enclosure (BSE) will also have a dedicated fire protection system, comprising flammable gas detection and venting, fire detection and alarm, and an automatic fire suppression system. All battery enclosures will be accessed via external doors only.



**Clune Wind Farm - updated proposal**

[www.clune-windfarm.co.uk](http://www.clune-windfarm.co.uk)

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