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26 June 2025

Dear Sirs

Planning application 25/0407– land at the former Uskmouth Power Station, Newport

We refer to the above application for 'removal of stored pulverized fuel ash (PFA) and the installation of a new battery energy storage system (BESS) with all associated drainage, infrastructure, engineering works and associated utilities connections' ('the application').

We are the operators of the Severn Power combined cycle gas turbine (CCGT) power station on the site immediately to the north of the land.

We wish to raise the concerns set out below in connection with the application and voice our strong objection to the Lithium-ion battery energy storage system (BESS) being built adjacent to Severn Power Station.

Risks from a BESS facility in this location

This application is in addition to two approved BESS facilities which already have planning permission. The first of these is situated to the southeast of the CCGT power station (planning permission 22/0823) and is nearing completion and the second is currently in progress and to the east (planning permission 23/0949).

The application therefore represents the third such facility and it is notably closer to the CCGT power station.

Fire and explosion risk

- BESS facilities, and especially those storing lithium-ion batteries, are at a known risk of thermal runaway. The battery cells spontaneously overheat in storage leading to fires and potential explosive events. Globally there have been documented catastrophic fires at BESS sites, and in the UK the most recent explosion at Ørsted's Battery Energy Storage System site in Carnegie Road, Liverpool, Merseyside in 2020 caused toxic vapours to be released into the air and fires so large they were difficult to extinguish. Other international examples include: McMicken, Arizona, 2019; Dahongmen, Beijing, 2021; Warwick, New York State, 2023; Moss Landing, California, 2025. Each of these were associated with thermal runaway, and common features included the existence of fire and explosion risk, dangerous vapours, loss of power supply and environmental contamination. In the most recent California example, the evacuation of up to 1500 residents and the closure of nearby roads and infrastructure was necessary.
- We are concerned that the proximity to the CCGT power station, which also must be considered cumulatively with the two BESS facilities already approved, presents an unacceptable risk to human life and endangering the surrounding environment. This site would run parallel to the gas pipes coming in from under the river Usk and feeding into the power station. These pipes carry high pressure gas to fuel the power station. The devastation caused by a fire at the BESS storage site next

to this gas line is unimaginable. A major incident event at the power station itself would also cause a knock-on event at the BESS facility.

The immediate proximity of the CCGT power station, less than 40 metres to the north, presents an unacceptable risk in the event that such thermal runaway or overheating occurs.

Toxic Chemicals

- When the location for the BESS facility is assessed alongside the above considerations, taking into account that the CCGT power station has an output of almost a gigawatt, it could result in a catastrophic scenario should significant thermal runaway or overheating occur. Hydrofluoric acid vapours and associated debris could cause a significant contaminant risk to the river Usk, the various ponds in close proximity on the power station peninsula, and to the wider environment around Newport. There would be a very real risk to human life both at the CCGT power station and in the near environment given the presence of the Newport Uskmouth Sailing Club only a couple of hundred metres away.
- Such an occurrence would cause very significant issues with the power supply. Damage to the switch area could lead to the majority of Wales losing power, an entirely unacceptable scenario. In the event of an explosion or similar serious incident, the power station would likely be closed, or at worst, destroyed. The high-pressure gas pipes run directly next to the switch yard which would be affected should a major incident occur. The introduced risk of damaging and disabling the power station would result in widespread power outage for homes, hospitals, and businesses which would jeopardise lives, the local economy and undermine public trust at a time when energy bills are at their highest. Power outages would also place a higher risk on people should this occur in bad weather, a time when reliable energy is most required.
- We have reviewed the Online Battery Safety Management Plan submitted with the application. In our view it fails to consider the proximity of the above features to the proposed BESS facility and is only a generic assessment of battery safety development. It is therefore not adequate to address our safety concerns.

Infrastructure at Severn Power Station

- There are 34 full time employees working at the CCGT power station. There are occasions when the presence on site increases to approximately 180 persons, with 60 persons working during the night. The number of persons present means that safety has to be paramount.
- Given the number of persons on site, we are concerned the proposed BESS facility would interfere with safety precautions in the case of an emergency event. There is only one access and egress to the CCGT power station (being West Nash Road). The presence of the BESS facility will mean the power station is surrounded by BESS facilities on all accessible sides. This severely limits accessibility and escape routes for both employees and for emergency services. The compact nature of the Uskmouth peninsula also is a cause for concern, as even now there are limited escape routes available in the event of emergency.
- There is a high-pressure gas pipeline which runs underground from the river Usk in the west to the western side of the CCGT power station. This pipe abuts the boundary where the proposed BESS facility is to be situated. It also runs next to a 10-metre sheeted cladded wall which separates the CCGT power station from the BESS facility. If the BESS facility is delivered as proposed, there will not be anything to separate it from the gas pipe, which we regard as a considerable risk in the event of overheating and thermal runaway.

- In addition, there are transformers adjacent to the application site with underground cables that run to the switch area to the west of the CCGT power station (the switch area is marked as 'substation' on figure 2 of the Planning Statement'). This includes the presence of 275kV overhead cables, and pylons. We understand that hydrofluoric acid and associated vapours can be produced as a result of lithium-ion batteries overheating or experiencing thermal runaway, with the resultant risk that it encounters both the CCGT power station and the switch area equipment.
- There is also a large diesel generator adjacent to the proposed BESS facility which is located at the southernmost point of the CCGT power station and where the transformers for the site are housed.

Construction risks associated with the BESS facility

- A disused railway line runs between the CCGT power station and the proposed BESS facility location. This could be used to bring in hardcore and associated materials for the purposes of construction. The proposed BESS site would separate this railway line from the land owned by the power station and would hinder its own development of that land. If the power station required the railway line to be utilised in the future there needs to be consideration given to an adequate distance between the railway line and the BESS site to minimise noise, vibration and risk of fire and explosion.
- There are a number of ponds in the peninsula area. To the west of the CCGT power station a rainwater pond pumps water through the power station and discharges it at a northerly point into the river Usk. Construction of the BESS facility could result in dust and contamination of this pond and others and the river Usk, with potentially wider harmful effects.
- The pulverised fuel ash also presents an environmental risk. The proposed site of the BESS facility is presently a fuel ash yard from the time when the Uskmouth power station was coal-fired, with fuel ash being a by-product. If this land is to be dug out, as the fuel ash is interfered with and removed it presents a risk that the underlying ground and groundwater beneath could become contaminated.
- Furthermore, the removal of fuel ash and site construction generally will push the fuel ash into the air with a detrimental effect on air quality. The turbine units at the southernmost area of the CCGT power station contain two filters fitted to the site – these are approximately £150,000 to change each time, with new filters planned to be installed in October 2025. The presence of fuel ash in the air will be sucked into the filters, necessitating their replacement. General construction dust will also have the same effect. Should the filters become blocked and require replacement, this would result in forced outage time and loss of income to the power station. The lost generation costs could run into millions of pounds.
- The construction period would also cause excessive traffic movements. The Transport Assessment estimates up to 18 movements a day Monday – Friday, with additional movements on Saturdays. The single route in and out along West Nash Road means an emergency event would potentially be exacerbated were construction traffic in place at any given time.

Operational effect on CCGT power station

- If the BESS facility were to be granted planning permission, it would have a significant operational effect on the CCGT power station.
- Our protocol for major accidents would need to be entirely reassessed and re-implemented, at significant cost. All of the above issues would need to be considered, with new emergency plans

put in place to protect employees at the site and other persons in the vicinity. By way of example, we currently lease the land to the south of the proposed BESS facility, visible as a semicircular area of tree line. The presence of the BESS facility would restrict direct access to that area, resulting instead in a one kilometre walk from the CCGT power station, effectively cutting it off as a safe assembly point in the case of an emergency.

- It would also constrain our ability to deliver future development on the Uskmouth peninsula associated with the CCGT power station. This could range from development of the power station itself, to other more routine needs such as providing additional parking areas for the proposed increase in employees. The proposed BESS facility will constrain any such activities if it is delivered in the proposed location.
- Due to the high level of risk incurred should the BESS facility be constructed, Severn Power Limited would, through no fault of their own, be expected to pay increased insurance premiums. The power station would need new evacuation plans and procedures in place, and to readdress its Major Accident and Prevention documents. This would be at vast expense to Severn Power.

We understand the importance of renewable energy and grid stabilisation; however we are deeply concerned about the location and suitability of the application for the reasons stated in this letter.

As the application currently stands, we see nothing which mitigates our concerns as set out above. We therefore object to the application.

We note that the site notice for the application allows representations to be made up to 21 days from the date of the notice (being 6 June 2025). Should further representations be received from other parties which impact on the representations we have made in this letter, we reserve the right to make further representations accordingly. Similarly, given the significance of the potential effect of the BESS on the CCGT power station, we reserve the right to submit further comments in relation to any other documents which are received or prepared, including any officer and committee reports.

Yours sincerely,

A dark, textured handwritten signature, likely of Craig Scott, in black ink.

Craig Scott
Plant Manager
Severn Power Limited