From: [redacted]
To: Norfolk Boreas
Subject: Deadline 4 - Fire and Terrorism risks
Date: 21 December 2019 09:25:13

I would like to respond to the applicant's answers to this concerned resident of Ivy Todd.

REP2-101 expresses concern over the implications of the cumulative effect of the National Grid substation and 2 extensions plus Dudgeon, Vanguard, and Boreas all in the same site, with regard to the probability and magnitude of a hazardous incident occurring on the National Grid and onshore project substation sites as a whole. REP2-101 expresses the opinion that the Applicant does not appear to have provided an adequate assessment of the potential impacts arising from nor mitigation measures to prevent accidental, engineering (equipment / system failure) or terrorism related incidents from taking place.

The applicant's answer:
The detailed design of the onshore project substation and National Grid substation extension will take full account of industry standard design approaches with respect to the necessary siting and separation of equipment to constrain the impact of any fault of an asset, to not have a further impact on other assets. This may include the use of industry standard blast wall designs around equipment such as transformers to further contain any asset failure risks. Both the onshore project substation and National Grid substation extension will be secured through perimeter fencing and other security measures to prevent unauthorised access. No terrorism attack has ever occurred to a substation on UK soil and, on this basis, it is reasonable to say that the risk of terrorism is low. Beyond this, the design and operation of substations are regulated and controlled to the highest health and safety standards; and operators are required to develop emergency response plans and crisis management procedures as part of that regulatory process.

The developer is supposed to always show 'worst case scenarios', so could they please show it in this case?

In respect to the risk of terrorism and fire, the applicant is surprisingly blasé and dishonest. We bring the following to the Planning Inspectorates notice.

I demonstrate my point with reported substation fires in just ***ONE month (****July) in 2019. I think this proves the lie that substations do not have high fire risk.*

4th July 2019: https://www.bbc.co.uk/news/uk-scotland-edinburgh-east-fife-48867884 An electrical substation caught fire at 12:35 at Slater's Steps, off Holyrood Road, near the Scottish parliament. There were no reported casualties, but thick black plumes of smoke and the sound of explosions caused alarm before fire crews dealt with the blaze.

7th July 2019: https://www.pressandjournal.co.uk/fp/news/aberdeen/1790993/fire-at-electrical-substation-leaves-nearly-850-aberdeen-homes-without-power/ Nearly 850 properties in Aberdeen were left without power this morning after a fire at

an electrical substation. A fire in Caiesdykes Crescent in Kincorth caused the outage, reported to SSE and the fire serivce shortly before 11am.

24th July 2019*: https://www.london-fire.gov.uk/incidents/2019/july/electrical-substation-fire-plaistow/*

Four fire engines and around 25 firefighters were called to a fire at an electrical substation in New City Road in Plaistow. A single storey electrical substation was destroyed by fire. Firefighters prevented the fire from spreading to an adjacent primary school and classroom building. The Brigade was called at 2204 and the fire was under control at 0051. Fire crews from East Ham, Plaistow, Stratford and Poplar fire stations attended the scene. The cause of the fire is believed to be accidental and due to a failure within a transformer in the substation.

25th July: https://www.bbc.co.uk/news/uk-england-london-49106976 A primary school has caught fire following a blaze at an electrical substation in east London. The fire in New City Road, Plaistow, began shortly after 22:00 BST on Wednesday and "destroyed" the substation but there are no reports of injuries, London Fire Brigade said. People living near to New City School reported on social media that they have been left without power. Posts included pictures and footage of people in the streets near the school. Turns out to be the electrical substation that's gone up spectacularly due to heatwave.

25th July: https://www.cheshirefire.gov.uk/news-events/incidents/ongoing-electrical-substation-fire-in-ellesmere-port

Shortly before 3pm firefighters were called to a report of an electrical substation fire at Whitby High School in Sycamore Drive, Ellesmere Port. On arrival crews discovered that no-one had been hurt as a result of the fire in the brick and concrete substation measuring approximately three metres by three metres. A covering jet was set up and firefighters conducted a 360-degree inspection of the electrical substation. After liaising with Scottish Power representatives, two firefighers wearing breathing apparatus have used dry powder extinguishers to contain the fire.

25th July 2019: https://www.glasgowtimes.co.uk/news/17795920.power-outage-across-glasgow-forecasters-predict-hottest-night-year/ **Homes across Glasgow have been plunged into darkness after a fire at a southside substation caused a power outage across city.** Those living in the Southside, particularly Govanhill, Mount Florida and Shawlands have been affected.

Emergency services were called to Battlefield Road earlier this evening, with two fire appliances attending a fire at a substation. Engineers from Scottish Power are investigating the fault, but say power will not be restored until at least 11.30pm.

https://allsaveduk.com/news/fire-risk-in-electricity-substations **What are the fire risks in electricity substations?** Where there are high concentrations of energy, heightened risks are inevitable. Malfunctions in substations can occur for a number of reasons, such as power surge, component failure, thunderstorms, damage caused by a rodent, or malicious attack. Any kind of damage or fault inside a substation can lead to sparks or an increase in temperature that can easily ignite a fire. And because of the high levels of energy, once fire takes hold in a substation, it has the potential to cause a huge amount of damage, even travelling along cables and causing secondary fires at nearby substations. Neighbouring residential and commercial properties are under threat if the fire cannot be contained, and smoke can cause breathing difficulties across a wide area,

especially for those with existing respiratory conditions.

The fact of either disaster having low risk or not, is not the point. Even if there is a 1% chance of a fire or a terrorist attack, the residents nearby want to know what will happen if there IS an event. The developer is supposed to always show 'worst case scenarios', so could they please show it in this case? What is the worst case scenario of a major fire or terrorist attack (for instance a bomb delivered by drone)? In a worst case scenario is it not a distinct possibility that underground cables could spread the fires from Boreas to Vanguard, and Vanguard to Dudgeon? Most importantly what is the worst case scenario that could happen to residents of Ivy Todd, Necton, Fransham, Holme Hale, Little Dunham, Westend etc if an event occurred?

Jenny Smedley