

## Councillor Field

### East Anglia GREEN Consultation Response submitted to Cabinet 6 June 2022

Note: I did not readout the highlighted lines

The small rural village of Flowton is within my Blakenham ward. It has suffered the presence of the existing 400kV grid connection from Norwich and towards Twinstead Tee, a single pylon line, since the grid connection point at Bullen Lane 1.7km east of the village was constructed. It has also tolerated the twin line that connects Sizewell A and now Sizewell B and perhaps Sizewell C to the grid. Grid connections and other power assets have multiplied recently and the Bramford sub station on Bullen Lane will host the EA one and EA Three conversion and connection points. The village recognises that these assets are of benefit to the country at large but there is a limit to its tolerance. East Anglia Green exceeds that tolerance.

It is also proposed that it hosts connections to three local Solar Farms and major grid scale power storage batteries. The EA One and Three connections are underground but with large sheds to hold the conversion and switching equipment. The Twinstead line is currently single but to become a twin line.

The village itself is at present largely isolated from this intrusive infrastructure but not from the proposed Solar Farms in the area or from these proposals for the East Anglia Green 400kV line. This will blite this small community and there must be a limit to what they are asked to tolerate.

East Anglia Green, is intended to allow some 6GW power from North Sea wind and other sources to transit Suffolk as it heads for the centres of population.

The proposed route effects many communities but in Flowton is between the Church, which is on the southern edge of the village, and Gate Farm a gap of only 500 metres. It goes over Valley Farm, Mousehall Barn and Flowton Hall towards the Bullen Lane Sub Station.

This really is a step too far. Should we expect the Flowton community to live with a another major degradation of their environment. I believe not!

Is there any alternative? In fact there are three: to improve building insulation and provide local power generation and storage, to place the 400kV lines underground or to route power directly from the point of generation down the north sea to the capital. We are told that the last two options have been considered but rejected, largely on grounds of cost.

Underground lines we are told are 3 to ten times the cost of pylon lines, perhaps three times in rural areas and 10 in a city? We don't know but the option should be explored in detail and the estimates made public. The technology is not revolutionary but well known and deployed in areas such as the AONB's. The impact electricity bills across the country of this necessary grid reinforcement should be identified and be a penalty for all who will benefit to share. It should not be

hidden behind assurances that National Grid have examined the possibilities and find them too costly.

The more attractive option would be to route connection directly from north sea assets using DC technology to the areas of need. The converter station to achieve this are required wherever the power is landed with increased cost limited to that of the additional cable length. The technology involved is known and the cable laying process does not involve the trenching and duct work burial on land requires. We are informed that the power capacity required would involve multiple cables which is true but it is directly comparable to the combined capacity of the five existing links the oldest of which has existed since 1986. The 720 km Norwegian link suggests that the length of connection required would not be a problem. National Grid's statements on cost of that link at 4 million working hour perhaps indicates what could be expected.

The only estimate of the cost of the grid I could find was 0.2p per kW delivered. If we multiplied that entire cost by four duplicating the entire grid at the lower of the underground cost estimates we would add 0.8p to the 32.10 p/kWh I am currently paying, about 2.5% not welcome but a tolerable amount to limit damage to Suffolk.

#### Conclusion

I certainly support the proposal that the district advocates, an undersea link.

I also believe it would be appropriate for Suffolk to employ an expert capable of evaluating the proposals and providing an assessment of estimates to ensure we get what we want.