

**Chris Wheeler**

## **Alternative Solution**

I would like to suggest an alternative approach to the Applicant's projects which uses existing technology but which could be more efficient, economic and coordinated, and substantially reduce environmental impact.

For East Anglia 1 the Applicants used two cable trenches with a total of six conductors, and about 10 acres of substation land at Bramford, to land 700MW of power using HVAC, this after gaining non-material change approval to downsize their original 1.2GW HVDC project.

But with their East Anglia 3 project the Applicants are showing that by using HVDC technology they can land 1.4GW of power at Bramford, double that of East Anglia 1, using just one cable trench with three conductors and the same substation area. That's an efficiency improvement of four times for the cabling and trenching and two times for the substation footprint.

So why are we now discussing the need for four cable trenches with twelve conductors and two wind farm substations plus a brand new National Grid substation together covering 30 acres of land at Friston? And this at a site where by my estimation some 100 acres of land would be rendered unfit for human habitation because of the potential noise levels. And all this to deliver just 20% more power than East Anglia 3.

My proposal is that by linking the outputs of the proposed East Anglia 1 North and East Anglia 2 projects the combined power could reasonably be delivered with HVDC using just one cable trench with three conductors and one converter station. And given the long distance capability of HVDC that converter station, which might be 24m high, could be sited on brownfield land, for example at Bradwell or perhaps Bramford, where a suitable site is almost certainly available. And the Applicant may even have residual consent under their East Anglia 1 DCO for a cable route to Bramford.

And further, the CION analysis which found a Grid Connection at Bramford to not be the most economic for these new projects must have been made on the basis of HVAC using four trenches with twelve conductors as previously explained. But if the two projects had been linked as I have proposed, and HVDC used, then only a quarter of the cable trenches and conductors would have been required.

In that case an alternative financial conclusion could well be reached showing a Grid Connection at Bramford to be the most economic, which was in any case what the Applicants had originally expected, and scored most highly by National Grid on a non-financial basis.

And in addition the CION analysis clearly states that the major project risk to National Grid in allowing a connection at Bramford would be NIL.

I request that this alternative approach receive serious consideration for the reasons that I have given and that the current proposals be decisively rejected.