



## SIR BERNARD JENKIN MP



(As a point of fact, neither Pylons East Anglia nor the Offset Group of MPs has ever proposed DC undergrounding for the Dedham Vale alone, with converter stations to the north and south of the Special Landscape area, NG appears to believe.)

It will be immediately apparent that this would make a significant reduction in the cost of the DC alternatives, which NG say they have considered. The reduction in the number of cables and converter stations would also reduce the harms associated with land take, including farmland, hedgerows and trees lost, if an HVDC solution were to be delivered.

### **Evidence from National Grid's Own Documentation**

The following paragraphs from National Grid's Eastern Green Link 3 & 4 Strategic Optioneering document, which are directly relevant to the appraisal of alternatives in this case:

*"5.0.1 The largest capacity AC technology option that can be used on NGET's transmission system consists of two 3,465 MW transmission circuits that are supported on a single set of towers (6930 MW double circuit capacity). The largest HVDC capacity systems that can currently be accommodated on our transmission system are 2,000 MW HVDC cables.*

*5.0.2 Power flows on AC transmission system circuits cannot be controlled to the same extent as can be achieved using HVDC connections. This lower level of controllability can result in higher power flows particularly during transmission system fault conditions. Taking account of the potential for higher power flows that could be expected, therefore to provide the potential equivalent capacity, the AC option would need to consist of a high capacity (6,930MW) double circuit route to meet any high loading during fault conditions.*

*5.0.3 The required capacity HVDC links over the proposed distance have comparable capital costs, but much lower lifetime costs than the alternative onshore AC option in this case. It is also recognised that delivery of an onshore solution with a long route length, carries much higher delivery risk than the HVDC reinforcement proposals (EGL3 and EGL4) that are currently being progressed. The use of overhead lines is not considered to be feasible because they cannot be delivered by the required 2030 timescale."*

The source document is available at:

<https://www.nationalgrid.com/document/151426/download>

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The principles set out in these paragraphs are directly applicable to the Norwich to Tilbury project in that they have not been adequately addressed in the Applicant's alternatives assessment. The panel is respectfully asked to require the Applicant to demonstrate why a comparable HVDC approach has been rejected, particularly given the significant reduction in harm and cost that such an approach may offer.

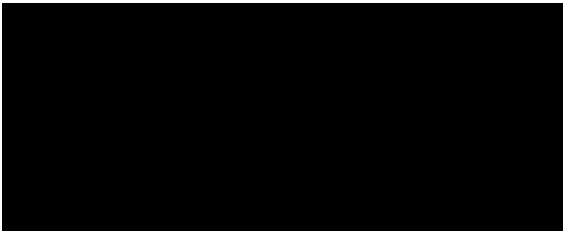
### **Advanced Conductor Technology**

In addition, Pylons East Anglia has made me aware that a submission has been provided by TS Conductor to the panel. I would like to enquire what the Applicant has done to assess the options for upgrading the existing grid using conductors of this type before building costly and damaging new infrastructure. This appears to be a most relevant alternative that warrants proper consideration, and I therefore request that the Applicant be required to provide a clear and detailed response to that submission.

I urge the Examining Authority to ensure that all alternatives are subject to rigorous, consistent and fair appraisal before any conclusions are drawn as to the need for the proposed scheme in its current form.

Best Wishes

Yours



**Sir Bernard Jenkin MP**  
Harwich and North Essex

**WORKING FOR HARWICH & NORTH ESSEX**

