

Draft National Policy Statements on Energy: Comments by the Dedham Vale Society

Executive summary

- A** DVS endorses the need to address climate change, which drives the energy NPSs.
- B** DVS endorses the need for a body such as the IPC.
- C** The energy policy assumptions and analysis underlying the NPSs, and the NPSs, should be reviewed from time to time.
- D** The social cost-benefit approach to resolving environmental questions, implied in the NPSs, should be strengthened (and see H below).
- E** The conditions for those opposing a specific application are excessively onerous.
- F** Provision should be made to encourage, not discourage, the identification of valid alternatives to an application.
- G** Provision should be made to encourage, not discourage, consideration of an application in its wider context eg reasonably anticipated future requirements.
- H** The IPC should develop and apply a willingness-to-pay approach to the major environmental issues, in particular, valuing alternatives to above-ground transmission lines.

The Dedham Vale Society

The Dedham Vale Society (DVS) exists to protect the peace and tranquillity of the Area of Outstanding Natural Beauty (AONB), known to all as Constable Country. The Dedham Vale stretches through undulating fields and along the water meadows of the River Stour in countryside famous for its great wool churches and picturesque villages like Flatford and Stoke by Nayland.

For seventy years the Society has worked to resist the excesses of developers, the utilities and individuals who would seek to damage the fragile landscape either wilfully, perhaps through ignorance, or just sheer opportunism.

It all began in 1938 when a proposal was made to demolish the coaching-arch at the Sun Inn in Dedham High Street to enable vehicles to have easier access to the car-park at the rear. Opposition was both vehement and widespread and the proposal was subsequently withdrawn. But the lesson had been learned and people realised that the heritage of the Dedham Vale and its villages needed protection and the Society came into being.

The Society's influence has been wide and many campaigns have been fought with much success. Bodies such as the water and electricity-generating companies, building-developers and, most recently, the Civil Aviation Authority have been persuaded - if necessary by legal action - that their proposals have not been in the interest of this tiny and fragile AONB.

Since the introduction of the AONB forty years ago, DVS has pressed for its extension up the Stour valley, to Bures and Lamarsh ("Gainsborough Country") and ideally beyond. This has very recently become a real possibility, following a meeting with the Chief Executive of Natural England, the government body which decides it. This is now being pursued by the governing body of the AONB.

DVS's interest in the NPSs

DVS's immediate interest in the Energy NPSs arises from the proposals by National Grid for a second 400 kv transmission line from Bramford, just west of Ipswich, to Twinstead, just south of Sudbury. Assuming an application to the IPC emerges from these proposals, they would be subject to the relevant NPSs. Two of the four "route corridors" proposed by NG pass through the existing AONB and all four through the prospective extension.

These NG proposals take account of prospective additional generating capacity up to and including Sizewell C. They do not take account of the prospective additional generating capacity in the Round 3 wind farms off East Anglia, which will require additional transmission at least equivalent to a 400 kv line. If adding to the transmission capacity along the route including Bramford - Twinstead is seen as economically attractive and environmentally acceptable now, it has to be possible that it would be seen so in 10 to 15 years time when the Round 3 wind farms need to be provided for. That is, the Dedham Vale and Stour Valley may face not just one more 400 kv line, but two.

Hence these comments focus on EN-5 and the aspects of EN-1 relevant to it. But DVS is also conscious of the influence on the Dedham Vale of possible port developments at Harwich and Felixstowe, which would come within the purview of the IPC.

Finally, DVS is mindful of the huge importance of the matters to be dealt with by the IPC, in terms of the environment as well as those of energy supply and cost. The concern of DVS and its members is not confined to the Dedham Vale.

The context of the NPSs

DVS accepts the need to address climate change, which drives the energy NPSs.

DVS endorses the need for a body such as the IPC. It is plainly inappropriate for the planning decisions on the issues in question to be taken by local planning authorities. It is wrong, in DVS' view, for individual decisions to be taken by Ministers. Government should lay down the framework, not take the specific decisions. It is desirable for the body which takes these decisions to be continuing, not created ad hoc for individual decisions.

DVS notes that underlying the NPSs is an energy policy, in the form of the 2009 Low Carbon Transition Plan. This energy policy is founded on a direct switch to a decarbonised electricity-based energy economy, based on nuclear and off-shore wind. It appears to ignore - perhaps because it is focussed on 2020 - the radical possibilities of an electricity-based energy economy, in particular the way in which electric cars would introduce very large electricity storage into the system. It appears to ignore the risks in committing to such an extent to off-shore wind, in terms of cost, unreliability and "unknown unknowns". It appears, in the other direction, to ignore the attractions of natural gas as a reliable, certain and relatively cheap transition fuel from coal and oil to renewables. Irrespective of the merits of these particular points, it appears to ignore the experience with previous energy policies, none of which remained valid for the period they were assumed to be.

Institutionally, the philosophy underlying the NPSs puts almost complete trust in (a) market forces; (b) the energy providers, virtually all of which are multi-national private companies. DVS believe the structure will not be able to sustain the weight put on it.

Therefore there should be provision for review, at suitable intervals and earlier if needed, of those energy policy assumptions and analysis, and of the NPSs.

Specific comments on the NPSs

EN-1, 2.1, bullet 3 This does not well capture the three roles of a “smart grid”: (1) to cope with the fluctuations, mainly unpredictable and uncontrollable, of renewable sources; (2) to cope with and benefit from more dispersed generation eg from local CHP and bio-energy plants as well as from local renewables; (3) to cope with and benefit from electrification of road vehicles, especially as providing large electricity storage capacity. It is not clear that in any material sense the fluctuations in supply and demand will be larger than now. Indeed, with electrification of road vehicles the fluctuations in demand could be much less.

EN-1, 2.1, bullet 4 Cost-effectiveness of energy infrastructure is a valid aim in its own right. Attaining it would not “eliminate fuel poverty and protect the vulnerable”. This requires measures to do with income distribution and energy-inefficient houses.

EN-1, 2.1, bullet 5 Suggest *delete “local” before “environment”*.

EN-1, 3.1, final sentence This sentence says, effectively, that if an applicant proposes technology A to meet a given need, within certain financial costs and environmental detriments, but technology B is available to meet the same need, with higher financial costs but lower environmental detriments, the IPC is precluded from considering technology B. That outcome (a) is irrational; (b) is inconsistent with the social cost-benefit approach to resolving questions of environmental impact proposed elsewhere in the NPSs (eg 4.1.1 below); (c) does not follow from the premise that there is a need for new major energy infrastructure. *The sentence (and any similar statements elsewhere in the NPSs) should be deleted.*

EN-1, 3.3.15 The NPS is silent on how the Government proposes to attain the Goldilocks scenario – not too hot, not too cold – ie that the private sector multi-national energy companies will bring forward applications, neither too much nor too little, neither too early nor too late. But DVS recognises this is not for the IPC.

EN-1, 3.3.20 This ignores the potential of electrification of road vehicles – see eg DJC MacKay, “Sustainable Energy – without the hot air”, chapter 26, pages 194 on.

EN-1, 4 The NPS is framed on the basis that each application is to be considered in isolation. This ignores the possibility that environmental detriment associated with a programme of investment over a period that would be judged unacceptable in total, comes about because the incremental detriment associated with each individual investment is considered acceptable. It also ignores the possibility that technology, or measures to avoid or reduce adverse impacts, which would be reasonable seen in the context of the whole programme, are considered excessive adjudged against each individual investment. It is not clear from 4.2.3 of EN-1 how far an Environmental Statement required under the EU Directive would overcome this.

EN-1, 4.1.1 This appears to lay down a social cost-benefit approach to the decision. We accept this, provided the same approach is adopted to assessing alternatives, avoidance and mitigation measures and compensation. We recommend this be made explicit (and see our comments on 4.24.7 below).

EN-1, 4.1.1, v & 4.1.5 4.1.1, v envisages compensation as well as avoidance or reduction of adverse impacts. 4.1.5 presumably refers to the vehicle for such compensation (s.106 obligations) and indicates the IPC will be able to require applicants to enter into such. But the condition that such obligations must be “directly related to the proposed development” (4.1.5) seems to restrict their use needlessly and so as to make more difficult outcomes commanding general support. Restrictive conditions are essential – DVS has in mind that compensation should not be used just to benefit the present generation when the

detriment giving rise to it lasts for many generations - but the option to compensate for a new environmental detriment by removing an old one seems a desirable one.

EN-1, 4.4 The NPS is drafted so as to strongly discourage the IPC considering alternatives. In effect, its philosophy is “The need is to be taken as demonstrated (eg 3.7.1, 3.8.10) - the need is urgent (eg 4.4.3, first two bullets) - the financial and technical viability is to be taken as given (4.1.6) - alternatives are not to be considered (4.4, passim) - kindly give approval.”

The conditions for those opposing a specific application are excessively onerous.

The “urgency of the need” is assumed (4.4.3, first two bullets) to apply in all cases.

The commercial viability of alternatives is put in doubt (4.4.3, 6th bullet), whereas in most cases IPC approval will trigger regulatory approval for cost recovery. No allowance is made for the relative resources of the parties in suggesting (4.4.3, final bullet) that it may be reasonable to require a third party to provide the evidence for an alternative and not to require the applicant to assess it. This is particularly objectionable when the applicant may have an effective monopoly of expertise and/or be able to prevent eg contractors from advising objectors. Instead, *the procedure should be, before an application is made, for objectors to propose alternatives, even if “vague or inchoate” (4.4.3, 7th bullet), and for the applicant to respond, in a proportionate manner, so as to enable potentially viable alternatives to be identified and worked up in suitable detail prior to the IPC hearing.*

The question of what constitutes an alternative is not examined. Taking the words literally, any amendment to an application is “an alternative” - any reduction of or compensation for adverse effect is “an alternative”. In its anxiety to minimise the possibility of applications not being approved, 4.4 is itself “vague or inchoate”.

EN-1, 4.24.7 This sets out the approach to granting consent for NPS developments in nationally designated landscapes including AONBs. The 1st bullet (need for the development) will in this context generally be a given. The 2nd bullet says that (given the need) the cost of avoiding developing in the nationally designated landscape is to be assessed. The 3rd bullet says that any net detrimental effect on the nationally designated landscape is to be assessed. Implicitly, a social cost-benefit approach is to be applied: the net detriment is to be weighed against the cost of avoiding it.

We consider that this should be made explicit. It will be rare that detriment can be expressed in the same terms as the cost of avoiding it (although we discuss one important possibility below). But explicit recognition of the nature of the choice is helpful. It clarifies choice as between options: for example, if mitigation option I is agreed to offer, relative to option II, double the reduction in detriment for materially less than double the cost, option I is to be preferred, other things being equal.

EN-1, 4.24.10 This states that “The fact that a proposed project will be visible from within a [nationally designated landscape] area should not in itself be a reason for refusing consent”. This is most objectionable. It will occur that a proposed project outside such an area will detract from the area, in precisely the same way, if not to the same degree, as if it was within the area. In the current example affecting DVS, the proposed pylon route through the Dedham Vale AONB, it is indefensible to say that a pylon 100 metres inside the AONB has a detrimental effect the IPC must take into account, and a pylon 100 metres outside has zero effect.

Plainly, the further the object in question, the less its visual effect, other things being equal. But to claim a step-change at the boundary is irrational.

DVS recommend the social cost-benefit approach: a row of pylons (to pursue this example) has detriment on a designated landscape according to the extent it is visible from within that landscape.

4.24.10 should be amended to read “*The fact that a proposed project will be visible from within a [nationally designated landscape] area should be taken into account in deciding whether to grant or refuse consent, according to the detrimental effect of being visible*”.

EN-1, 4.24.16 As written, this means that any existing example of similar infrastructure detrimental to the landscape legitimises any proposals for future such detriment. This ignores (a) cumulative effects; (b) the area having achieved nationally designated status since the existing development; (c) changing standards. *The NPS should note such qualifications. The criterion should be, as suggested above and as implied by other rubrics of the NPS: the net detriment is to be weighed against the cost of avoiding it.*

EN-5, 2.1.1, final sentence As in many other places, the NPS over-states the case on need. A general need for new generating capacity as at 3.3 is accepted. A consequential need for new transmission capacity follows, to some extent, and 3.8.7 sets out one scenario in some detail. But even if 3.8.7 is accepted, it is far from demonstrating the need for any particular project. *A qualification such as “generic” should be applied to “need” in the final sentence of 2.1.1.*

EN-5, 2.3.2 It is already clear that the hoped-for “holistic planning regime” will not apply to the transmission network. It is probably undesirable to attempt this.

EN-5, 2.3.3 DVS is concerned about applications which fail to take into account “reasonably anticipated future requirements” (2nd bullet). *The NPS should explicitly give the IPC power to require the applicant to take into account reasonably anticipated future requirements such as Round 3 wind farms.*

EN-5, 2.7.6 DVS accepts and welcomes the cost-benefit principle this sets out. 2.7.10 also sets out the cost-benefit principle, albeit in terms slanted against undergrounding.

EN-5, 2.7.7 On the basis of 2.7.6, 2.7.7 is at best redundant, at worst misleading and prejudicial. It is redundant because 2.7.6 tells the IPC to take the costs of undergrounding into account. It is misleading and prejudicial because the ratio of costs is not the criterion: it is the ratio of costs to benefits.

EN-5, 2.7.7 - 2.7.9 These paragraphs convey scepticism, even hostility, to undergrounding. This tone is inappropriate to the NPS: it should be sufficient to leave the decision to the cost-benefit approach. Particularly if the arguments are as overwhelming as the authors of the NPS seem to believe.

A generic approach to undergrounding of transmission lines

DVS agrees with the NPS authors to this extent, that it considers that this issue needs to be resolved generically, so far as possible. First, the environmental detriment issues are quite general: the environmental detriment differences between a 400 kv line in one AONB as against a similar line in another AONB are unlikely to be material. Second, the costs of avoidance or mitigation measures will fall on electricity consumers generally.

In the past, the cost of undergrounding high-voltage transmission lines has been judged excessive in the vast majority of cases, even in nationally designated landscapes. The one exception - which raises interesting questions of equity as between different groups, the reverse of those generally assumed to apply - is major conurbations, where the cost of land and the large numbers of people directly affected complicate the decision. It might therefore

be thought that this general rejection of undergrounding of high-voltage transmission lines amounts to “settled law”.

DVS submits that this should be reviewed by the IPC at an early stage, for the following reasons:

The place of new technology, especially high-voltage direct current undersea transmission, needs to be established. Using financial criteria alone, HVDC is recognised as economic (a) between asynchronous electricity systems (so, typically, internationally); (b) over long distances. The economics improve when the electricity source is off-shore. As an environmentally preferable alternative to above-ground AC transmission lines, the environmental benefit needs to be brought into the process of deciding eg the break-even distance between the alternatives. If HVDC breaks even with HVAC at 100 miles on conventional financial criteria, what is the distance when environmental considerations are taken into account? 90 miles? 50 miles?

In the past, the decision was a matter of judgement by one or a few individuals. Social cost-benefit methods have been developed, to provide a better way of taking such decisions. The correct test is whether the people of Britain are willing to pay the cost of undergrounding in landscapes of different degrees of sensitivity. This is a relatively clear-cut issue, of wide interest. It is therefore amenable to research into people’s willingness-to-pay of the sort that has been done with success, and applied to real decisions, in areas, such as the value of preventing fatal accidents (cf <http://www.dft.gov.uk/webtag/documents/expert/unit3.4.php#02>) or of prolonging life (cf <http://www.nice.org.uk/media/B52/A7/TAMethodsGuideUpdatedJune2008.pdf>), of even greater sensitivity than landscape value.

DVS submits that a willingness-to-pay-based approach is superior in several ways to the previous approach of public inquiry or litigation. It is based on evidence about the values of those who have to pay the cost of the outcome. It is quantitative, so adaptable to different circumstances and applicable to the design of other measures such as mitigation and compensation. It has an objectivity inevitably not available to the traditional process, where a decision involving values of aesthetics and heritage is taken by one or a few individuals. It therefore potentially avoids the need to repeat the process for every application, on the basis that this time the tribunal might give a different answer.

DVS recommends this new approach. It enables DVS to deflect the suggestion that it is concerned solely to safeguard its own patch at the expense of others. More important, it feels that, while the cost of undergrounding (or alternative ways of avoiding the environmental detriment, such as under-sea) is huge, so also is the resentment of many people at these monstrous structures dominating sensitive landscapes, a resentment not confined to those who currently live there. The processes used in the past – and the language used in EN-5, 2.7.7 – 2.7.9 – are liable to give the impression of over-emphasising the former and under-valuing the latter.