

**Response to the Consultation on National Energy Policy Statements,  
February 2010**

**By Churches Together in Cumbria (CTiC) Social Responsibility Forum  
(Energy Task-Group)**

The Group has not met as a body to discuss this response; it has been compiled from members' individual contributions. There is a caveat to the section on nuclear power, EN-6, see the responses to Questions 16 and 26. We are commenting in detail on many aspects of the Consultation, but we particularly wish you to take note of the seriousness of our concerns under:

**Question 1** – our para 3, concerned with final decisions made by the IPC;  
**Box 2.1** – we were surprised that the summary of Government's energy policy did not include a reference to energy conservation and targeting wasteful practices;

**General:** we wish to emphasise the need to improve and modernise transport infrastructure, especially road and rail, within, and giving access to, the areas likely to see nuclear new build and windfarm developments.

**Throughout and Question 4:** it is important to distinguish between rated and net capacity of power installations, especially with respect to wind turbines, we feel that both should be quoted;

**2.1.18:** The ethical issue of importing resources for our needs from beyond our national limits when they might be more needed in the home country or elsewhere but by people unable to pay for them. See also comments 2.5.7.

**Throughout:** The IPC should be aware of the widespread concern about the deleterious effects on land- and sea-scapes of the various proposals for new developments, and the mitigation measures available.

**The Impact of new development on rural areas, eg Cumbria:** The IPC should remember that most of the power generated will be consumed in urban areas, but it is the more rural areas and communities, where the plants will be situated, that will have to bear the disruption of building development and longer term visual intrusion.

**Draft Overarching Energy Policy Statement**

***1. Do you think that the Government should formally approve ('designate') the draft Overarching Energy National Policy Statement?***

Overall we do not think the Government should formally approve the Overarching Energy NPS **as it stands**, as we have certain reservations and questions as stated below. However, we welcome the general concept of the NPS and IPC, in aiming to summarise the issues and to simplify the planning process by avoiding the repetition of generic items at each enquiry.

We welcome the onus placed on the developer to consult local communities prior to submitting an application to the IPC, and that promoters must also consult local authorities as to the best way in their area of further involving the public. But it is unclear whether the Local Authority, in making local comments, is excluded from considering the relative significance of national considerations in responding to IPC level applications.

We are not clear on the continuing right of people to object to applications submitted via the IPC process. The fact that these NPS consultations are apparently the final opportunity to object to policy issues, and that NPS will thereafter presumably pre-empt policy discussion in the context of specific applications, is not widely understood and should have been given a high media profile at the time of issuing the consultation papers. However we note the reference made to this in the second of the five commitments: 'Engagement', made at the IPC's launch event on Thursday 22nd October, by Sir Michael Pitt, IPC Chair. See our response to Question 7.

The public must have confidence not only in the IPC process, but also that the policies and energy technologies put forward in the NPS documents do in fact reflect widespread public support and opinion with respect to energy policy. This should be done by emphasising that what is proposed is underpinned by previous consultations, where people have had a chance to give their views.

***2. Does the draft Overarching Energy National Policy Statement provide the Infrastructure Planning Commission with the information it needs to reach a decision on whether or not to grant development consent?***

On a general point about planning, if an NPS is withdrawn as part of a review, what guidance will be used meanwhile?

It appears that offshore proposals in Welsh waters may be submitted either to the Welsh minister, or to the IPC. This sounds like a recipe for confusion and potential inconsistency. In the case of a transnational scheme, of course both authorities will need to be involved.

We agree with the overall strategy in the box in 2.1, but in the final bullet point would add 'infrastructure' to minimising negative impacts on the local environment'. This is because rail and road communications in the areas where large-scale projects tend to be sited are very poor – see our comments in EN6 related to Sellafield.

We were surprised that the summary of Government's energy policy did not include a reference to energy conservation.

**2.1.5** There is a need to consider wider adverse impacts not just a marginal decrease in C emissions.

**2.1.18** There is an ethical issue of importing resources for our needs from beyond our national limits when they might be more needed in the home country or elsewhere but by people unable to pay for them. See also our comments in EN6 about politically secure sources of uranium and the existence of large stockpiles of separated U and Pu at Sellafield which could be used as fuel in a new generation of nuclear power plants, question 18.

**2.1.21** It is debateable whether 'the framework set out in this NPS' takes full account of the achievement of sustainable development – economic development and a policy of continuous growth is not consistent with

sustainable development – true prosperity and happiness, however, are. This discussion fails to distinguish between need and demand. The history of economic growth that assumes demand = need, is probably the main contribution to the crisis that policy is now allegedly seeking to address. To repeat this fundamental fudge is potentially misleading. See also Sections 3.2.1 and 3.3.11

***3. Does the draft Overarching Energy National Policy Statement provide suitable information to the Infrastructure Planning Commission on the Government's energy and climate policy?***

No response made to this question.

***4. Does the draft Overarching Energy National Policy Statement provide suitable direction to the Infrastructure Planning Commission on the need and urgency for new energy infrastructure?***

We agree with the summary of need, although we distinguish elsewhere between 'need' and 'demand'.

There is a general point, especially related to renewables: it is essential to differentiate between installed/rated capacity and declared net capacity (DNC) when quoting how many megawatts an installation will deliver. For example a windfarm rated at 180MW may be as low as 45MW actual capacity when the load factor is taken into account. Both should be stated. We realise there is a footnote on page 15 about this, but think the point should be made more prominently.

Also is the '30% of generation' from wind in section 3.1 rated or DNC?

We agree with the 25GW filled by nuclear power in Section 3.3.25, although more may be needed if carbon capture and storage is not successful, and welcome the diversity principle.

In considering the urgency of the measures proposed, 3.3.11, we think that a distinction should be made between demand and need, and that the Government should encourage groups and individuals to reduce demand substantially by targetting the wasteful use of energy and resources. An example of this might be to insist that standby operation of domestic electrical devices is an option rather than the default position.

***5. Do the assessment principles in the draft Overarching Energy National Policy Statement provide suitable direction to the Infrastructure Planning Commission to inform its decision-making?***

**Section 4.1.1 iv** Existing and potential transport infrastructure need to be considered in relation to new developments. It is also essential to take into account whether existing railways and roads can cope with the additional demands placed on them by the new developments. Developers should ensure that they have considered this not only for the benefit of their proposed plant, but also for that of the wider community. This is of particular relevance to the

possible need to evacuate the vicinity of a nuclear site, and under normal, non-emergency conditions.

**6. Does the draft Overarching Energy National Policy Statement appropriately cover the generic impacts of new energy infrastructure and potential options to mitigate those impacts?**

**4.5.1** We hope this section does not imply the assumption that any aesthetically pleasing object can be sited anywhere without causing landscape or visual harm, this is clearly not the case. Furthermore, insofar as energy plant may not contribute to enhancement, it presumably is either neutral or detrimental in effect, depending on the particular case. If the latter, it will hopefully be so assessed by IPC as part of their balancing judgement between aesthetics and functionality, sections 4.5.2 and 4.24.12.

With respect to carbon capture requirements, it is not clear why the threshold is as high as 300MW. That is bigger than the power station at Roose in South West Cumbria. Why not 50 or 100MW?

**Bullet point 3:** the use of worked-out North Sea oil and gas reserves for storage is apparently looking promising for final disposal.

**Carbon Capture Readiness & Storage:** Will not additional power be required to store, transport and liquefy CO<sub>2</sub> emissions? How much power would be needed, and how much additional space is required? Section 4.7 is a very useful description of the state of CCS technology.

**4.9.3** The caveat at the end of this paragraph is unrealistic. Once IPC has given consent for the main generating capacity, applicants would seem to be able to argue that it would then be unreasonable to refuse an essential related proposal. All relevant elements from generating plant to grid connection need to be handled in parallel.

**4.23.5** How will applicant know there is a non-designated site to be taken into account unless there is a statutory duty to consult County Archaeologist or equivalent on every proposal?

**4.23.14** The principles set out are useful. Similar principles are needed e.g. for landscape.

**4.24.7** The actual generating [dnc] capacity of the individual proposal is a relevant factor in assessing this balance.

**4.24.9** What about the situation where a proposal on such land might affect the perception and appreciation of important views across or through the development *into* the designated landscape?

**4.24.10** This section also ignores the possibility of there being pockets of high quality landscape of equivalent value to national designations, but which continue to lie outside such designations. Notwithstanding the current review of some major anomalies in parts of Cumbria, this possibility may continue to exist, for instance in the Bewcastle Fells and the Farleton/Docker/Scout Hill areas in Cumbria to name but two, as well as elsewhere in places such as the South Pennines. Some mechanism equivalent to that for the historic environment is needed, (see 4.23.5)

**4.24.13** The decommissioning argument is very weak. It will be too easy to plead unreasonableness against a future refusal for a similar development on a site which has had an installation for 20 years.

**4.24.15** In Cumbrian experience, some kinds of coastal areas appear to have been less vulnerable to visual impact effects than most of the inland ridge-sited

projects. However the alternative interpretation of this is that coastal communities have been less inclined or able to object to such installations, for economic or cultural reasons.

**4.25.8** There is a fine line between effectively offering inducements in the form of facilities to sections of a local community [bribery] in order to sway their support, and 'taking the opportunity to provide new or additional' facilities. To the best of our understanding, the provision or otherwise of benefits unrelated to the technical requirements of the development are not a valid consideration in reaching a planning decision, ie technical suitability should always be paramount.

**4.25.15** We welcome this recognition of the importance of lower grade agricultural land in the uplands.

***7. Do you have any comments on any aspect of the draft Overarching Energy National Policy Statement not covered by the previous questions?***

We were impressed by the five commitments made at the IPC's launch event on Thursday 22nd October, by Sir Michael Pitt, IPC Chair. We think more should be made of these and they should be stated at the outset of any deliberations or decision by the IPC. The commitments are on: *Openness, Engagement, Sustainability, Independent Decisions and Concensus.*

The recent growth in climate change scepticism could lead some to challenge the whole basis of the Energy National Policy Statement, and produce a reduction in the public perception to move as fast as possible to a low carbon energy infrastructure

Even if anthropogenic climate change turns out to be less than some have predicted, it should be emphasised that reduction of carbon emissions is still desirable on other grounds, e.g to reduce further acidification of the oceans and to conserve irreplaceable resources likely to be needed by future generations

**Section 4.27** As this is essentially driven by a global climate and energy crisis, socio-economic implications of our national response through these NPS should consider the effects on other parts of global society and economy. For instance, the environmental and health effects in third world countries of our contributing to increased global demand for uranium.

**4.28.8** The priority given to 'cost effectiveness' in this paragraph reveals the basic flaw in all this advice. There is no way these challenges can be effectively met if short-term economic values and interests are put in the driving seat. Those values largely cause the problems. We suggest deleting 'where cost-effective', and replacing it with 'in all practicable cases'.

**Socio-economic effects:** There is a useful, if limited, section on tourism. We would add that the IPC should insist that applicants consider setting up, in conjunction with local authorities, visitor centres/ information points at new installations. Also consideration should be given to the effect on house prices and rights of way - eg the Cumbrian Coastal path in the vicinity of Sellafield is

already seriously compromised by existing developments and should not be made worse.

**Overall:** We must not lose sight of the fact that there will never be a completely safe alternative in energy production. The Second Law of Thermodynamics implies that when energy is converted there will always be losses which we at present can do nothing about. The IPC should take into account that the solution will therefore be a pragmatic one and extreme safety concerns may not in the end, be the most important part of the equation. Perfection does not come this side of heaven, even though, writing as Christians, members of this Group are called to be the best stewards of the earth.

## **Draft NPSs for Fossil Fuels, Renewables, Gas Supply and Gas and Oil Pipelines, and Electricity Networks (EN 2-5)**

### **We have only commented on the Renewables Section**

*8 Do you think The Government should formally approve ('designate') The draft National Policy Statement for Renewable Energy Infrastructure (EN-3)?*

Yes, subject to the comments in response to Questions 9-11. We repeat the general point that a distinction should be drawn between installed capacity and net output, This is especially relevant to wind turbines, bearing in mind that availability will be generally lower for land-based than for off-shore windfarms

We are of the of the opinion, as we stated in our submission to the Renewables Consultation in 2008, that we are generally in favour of renewable deployment, but that the majority in the group thinks this support should not exclude the low carbon technology of nuclear power<sup>\*\*\*</sup>. Indeed development of both to their optimum levels is essential if we are to meet targets relating to energy security and emissions reduction. We do not think current renewable technology will meet the energy demands of the UK or the ambitious targets set by the Government. Increasing use of electricity (and the power-hungry digital broadcasting) cannot be met without some fossil fuel or nuclear power generation.

*9. Do the following draft National Policy Statements provide the Infrastructure Planning Commission with the information it needs to reach a decision on whether or not to grant development consent: (b) Renewables:*

**2.5 generally:** it is important that the advantage of biomass as potentially not being subject to the drawback of intermittency should be noted as a positive factor in weighing up these schemes.

**2.5.2:** Although many people are opposed to incineration of waste, they would probably be more in favour if the recovery of energy as described in this paragraph were promoted. This should be strongly pursued.

**2.5.7:** The issue of competition with food production needs to be mentioned and included in guidance for IPC. We also have comments about food waste, see Question 11.

**2.5.10:** We question whether OFGEM really has the resources to monitor the accuracy and completeness of information supplied by the developer for every application? Especially in relation to overseas sourced fuel? Given the culture of expecting bribes for certificates etc in some countries, we would be reluctant to rely on developer only information checks.

**2.5.13:** The IPC needs to balance energy output against transport fuel use, road construction and emissions as part of the decision-making process, see also 2.5.24.

**2.5.29:** On flexibility parameters, we are not sure that developer is best person to attempt this objectively. Schemes requiring this degree of flexibility are not really ready for submission. These details should all be handled in an integrated process involving all consenting bodies.

**2.6.15:** The Government appears here to be witness and judge in its own interest. We are not sure this is sufficiently objective. Also the sentence beginning 'The Government concluded.....' doesn't really say anything: if significant adverse effects are prevented by mitigation measures, then there are bound to be no overriding environmental considerations.

**2.6.36-41:** If these matters remain unknown or uncertain at the time of the application, it is too early to submit it. They should all be sorted together.

**2.6.46:** Are extensions assumed to be included in original consent? If so this is not acceptable.

**2.6.210:** Offshore structures not visible from the shore may be clearly visible from coastal high ground. Change 'from the shore' to 'from the land'.

**2.6.212:** Limit of visual perception 'seaward from the land' would be better than 'from the coast.'

**General Points on Coastal Impacts:** The guidance does not seem to deal with the particular conditions relevant to estuaries, bays and firths, when a proposal may be backgrounded by another landscape, rather than a marine horizon. This needs to be considered also in the same kind of way as an onshore development. The importance of any adverse effect will be proportional to the significance and quality of the affected seascape or visual environment. This needs to be clarified.

**2.7:** When discussing generation capacity of wind energy, whether on or off shore, it is essential for the avoidance of creating false impressions, to quote dnc as well as rated/installed capacity, and to explain the difference.

**2.7.9:** Landscape and visual impact assessments should take into account the increasing heights of turbines in the latest designs, which we believe are up to 170 metres (527 ft) to the tip of the blade.

**2.7.12:** Grid capacity. This is relevant also to landscape issues, see relevant comments later.

**2.7.27:** Repowering may occur in at least two different ways.

- Where repowering is piecemeal, in response to differential wear of turbines on different parts of the site, there is a risk of a variety of differently configured machines gradually replacing

the original homogeneity. The larger the site, the more likely this would appear to be. This does not appear to have been considered in drafting the NPS. Where repowering is undertaken of only one or two turbines at a time, would this be expected to be referred to the IPC? Any consent should therefore specify that piecemeal replacement of turbines should be on the basis of like for like design.

- The current NPS paragraphs appear to assume only a blanket approach to repowering

***10. Do the following draft National Policy Statements appropriately cover the impacts of the specific types of new energy infrastructure covered in them, and potential options to mitigate those impacts:***

**Landscape Issues, mainly related to planning:**

**2.7.18; 19:** The effectiveness of time-limited conditions is questionable. It is difficult to envisage plausible reasons for refusal for essentially similar redevelopment of a site upon which turbines have stood for 25 years unless the technology as a whole has by then been found to have new adverse characteristics not yet apparent. We would therefore advise that the temporary nature of the development be not considered as a mitigating or easing factor in favour of consent. The main benefit of time limited conditions seems to be to enable enforcement of removal of worn out and run down plant which might otherwise be left to rot in situ in the event of generation ceasing. It may be relevant that where a time-limited condition has applied, it has not been enforced.

*See also comments above on repowering.*

**2.7.23, 24:** Where other kinds of uncertainty are to be allowed for, a formal two stage consent process should be used, similar to the traditional 'outline' and 'reserved matters' process.

**2.7.26:** Distance tolerances of this magnitude could breach safeguarding limits unless the latter were clearly specified as conditions in plan form as part of the consent. (e.g. noise separation and visual amenity distances. Since these will tend to vary with height and type of turbine, this procedure remains most unsatisfactory if there is also uncertainty about these factors at the application stage.)

**2.7.29:** The language of this paragraph implies that a new consent would only be required if there were a significantly altered site layout, even after the expiry of any time limited consent, which reinforces the dubiety of the argument about the 'temporary' nature of wind farm sites, mentioned above. (re 2.7.18; 19)

**2.7.45:** We hope this paragraph does not imply condoning deliberate habitat destruction, or the scaring away of species for whom it is important. This appears to be quite contrary to principles of sustainable development. 'What measures are envisaged' should be clarified.

**2.7.54:** The general guidance in EN-1 is not effectively supplemented by the scant paragraphs in the text of this section in relation to the landscape and visual issues relating to onshore wind energy development.

On shore wind energy development needs to be undertaken on the basis of a nationwide identification of areas of search and possibly also of 'no-go' areas.

The criteria for defining these areas should include as primary factors, wind resource; landscape capacity, character, quality and significance; visual amenity, [both to residents and as a tourism resource]; grid capacity and access.

Within the areas of search, the relevant considerations in respect of landscape and visual impacts including cumulative effects, biodiversity, heritage, noise etc etc, would still apply. Where acceptable areas of search were identified but grid capacity was inadequate, this should be a factor influencing the appropriate upgrading of the grid.

Onshore turbine height needs to be related in scale to the local scale of relief. There may be a need for further research into the thresholds relating relief to turbine size, perhaps developed from the early Danish work on 'roughness'. In general however, once a landscape moves from being flat or gently undulating to being hilly, dissected or mountainous, the presence of turbines becomes a significant feature affecting perceptions of landscape scale and the significance of relief features.

Turbine development should not be of such a scale as to diminish the perceived prominence of local hills or significant landmark features of other kinds. [In my view this threshold has already been breached in recent years, as turbine manufacture has responded to the potential of offshore generation, the larger machines appear to be being adapted for use onshore.] We suspect there needs to be a set of maximum blade-tip height guidelines for onshore machines related to identified search areas and the relevant landscape character areas defined by Natural England and its predecessors. There may also need to be further guidance about the acceptability of skylining in different landscape settings.

Cumulative effect is we believe now much better understood than was the case ten years ago. The key thresholds remain valid, of distinguishing a landscape with wind farms from a windfarm landscape, and all the intervening gradations. There will rarely be an area of search within which a windfarm landscape would be acceptable.

There should no longer be an open-ended approach to the development in England of onshore wind energy at the scale of commercial windfarms designed to serve national markets via the national grid. (Wales already has some of the elements mentioned we believe, and Scotland is a separate jurisdiction for these purposes.)

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**2.7.59:** If reduction is not feasible, this implies either, accept the proposal and its adverse consequences, or refuse the proposal. If the guidance intends this to be the real choice for IPC, it needs to say so more clearly. Contrast with the clearer wording in respect of noise in para 2.7.67.

**2.7.63:** The reputation of ETSU was excellent and its demise it to be regretted. However, noise is not just a matter of volume, but also of character. Thus, even a relatively low level noise of an alien character impinging on an area of

generally quite ambient background noise, will be more significant than the same additional noise level of a less alien type.

**2.7.72:** The phenomenon of glinting, where the moving blades appear to flash, sometimes over great distances, [eg, occasionally observed at 15 miles] when they reflect the light from the sun, also needs to be considered.

**2.7.79:** We note the reference to epilepsy, enquiry should also be made as to possible effects on migraine sufferers, and included if relevant.

Reflectivity of blades is not strictly relevant to **shadow** flicker, but to glinting

**2.7.84:** This is not just an engineering and safety matter, since in many cases the existing roads and bridges are an integral part of an historic landscape, and may include protected buildings and features.

**2.7.90:** Changes made to road layout or bridges are not temporary, as acknowledged in 2.7.92.

***11. Do you have any comments on any aspect of the following draft National Policy Statements not covered by the previous questions:***

We would like to see more emphasis placed on the recycling of food wastes as a source of energy, probably locally. Arrangements should be put in place by local authorities and backed up by national Government for the collection, handling and treatment of such wastes, as currently in Bristol.

Wherever a renewables scheme is proposed, the *net actual contribution of that scheme* to achieving national targets, for renewables generation and/or for carbon avoidance, must be a central factor in weighing up the case for or against the proposal in that particular location, otherwise the whole procedure is a nonsense, since these are the key reasons for having renewable energy policy at all. (This applies to all forms of renewables, not just wind, of course.)

**Draft Nuclear NPS (EN-6) and associated documents**

***16. Do you think that the Government should formally approve ('designate') the draft Nuclear National Policy Statement?***

Yes, we are pleased that the NPS document raises a wide range of issues and factors to be taken into account in arriving at a decision. We generally agree with the preamble in Sections 1-3, but have particular comments relating to the three Cumbrian sites.

There is no group consensus on the desirability of nuclear new build. Although a majority of those group members who have expressed a view are in favour of it, there is a broad spectrum of views on the issue of nuclear new build. We believe this range reflects the opinion of committed Christians in the churches of Cumbria which the CTiC seeks to represent.

***17. Does the draft Nuclear National Policy Statement provide the Infrastructure Planning Commission with the information it needs to reach a decision on whether or not to grant development consent?***

**4.4.8:** Where applicants have not demonstrated appropriate mitigation measures they should be required to do so before submitting the application. This would increase public confidence in and promote transparency of the system.

**4.6.8:** We agree with the importance of assessing cumulative effects in relation to Cumbria sites.

**4.7.8:** The carbon avoidance benefits for each specific proposal need to be weighed in the balance as part of the decision making process.

**4.7.9:** For the avoidance of unjustifiable bias, beware of giving any positive weight to developments not having any technical necessary relationship with the proposal, however popular! Although such local inducements will doubtless carry weight, technical and scientific suitability should be the prime criteria for the new developments.

**4.10.1:** Where a site was otherwise suitable it would seem silly to have to reject it because of grid capacity constraints, given the scale of the energy contribution. There should be a commitment to ensure grid capacity for sites that are otherwise acceptable. The nature of the necessary grid reinforcement should however then itself become a factor in determining site acceptability before final consent. [eg, major new overhead transmission towers over long distances of significant landscapes would be unwelcome.] This of course also applies to renewables, since the developments tend to be situated remote from population centres

***18. Does the draft Nuclear National Policy Statement provide suitable direction to the Infrastructure Planning Commission on the need and urgency for new nuclear power stations?***

**Section 2.5.4:** All ten sites would be needed if the Government target of 25GW were to be achieved using the APR1000 design, 1154 MW (net electrical) per reactor and two reactors per station, but only eight sites would be required if the EPR design, 1600 MW net, were built. We are presuming that at least two sites will not be developed, see below. More than two reactors could be built at one station to make up for this loss, given sufficient grid capacity and land availability.

**Section 2.3.3:** There is much debate and unease about the actual scale of uranium resources, with some groups maintaining there isn't much left, while others say that as demand increases more resources will be found. Political stability in some uranium-supplying countries with large ore reserves cannot be absolutely guaranteed, posing a possible risk to UK supplies. This also has implications for transport of fuel and whether or not reprocessing capability should be retained as an option in the UK, see below

It should be pointed out in EN-6 that enough recycled U/Pu is in safe storage at Sellafield to fuel at least one reactor for 60 years with MOX fuel. This probably was not mentioned because it justifies reprocessing, which is not part of the Government's recommendations for nuclear new build, see also Question 19.

***19. Do you agree with the Government's preliminary conclusion that effective arrangements will exist to manage and dispose of the waste that will be produced by new nuclear power stations in the UK?***

We agree with the conclusion, but are not sure that the public understands the distinction between the different kinds of waste streams.

- Reprocessing of spent fuel and dealing with 'legacy' wastes involve the handling of separated high and medium active components.
- The long-term storage of unprocessed spent fuel from new build – (unprocessed if EN-6 guidelines are followed), - in which case the entire spent fuel assemblies must be regarded as highly active.

If the Government is serious about nuclear new build, it must concentrate on educating public opinion about the current state of technology relating to nuclear waste/spent fuel handling, eg the vitrification of highly active waste, the long-term storage of fuel discharged from reactors and not reprocessed and deep geological disposal. The mistakes of the earlier NIREX exercise must not be repeated.

On the geological safety of waste disposal sites, we need clarity about what dangers are foreseen. Radiation from the waste once deposited *in situ* can be discounted barring geological upheaval or erosion of Ice Age dimensions, in which case it would be the least of resulting problems. Radioactivity from waste will in fact not eventually be as much as background (natural) levels. e.g. Radon gas from deep seated granite plutons. Eskdale? Shap? Leaching into ground water is a possibility considered in the safety case for a particular waste form, and it is unlikely that any consequent hazard would significantly increase that due to purely natural sources.

The chief risk appears to come from the transport of waste to the site, largely in terms of conventional accidents, and that should be considered as a factor in development of the infrastructure.

Where future generations are concerned, everything we do has some effect on them for good or ill.

The burden of waste management should be weighed against non-nuclear resources conserved; it will be least if the wastes are permanently and so far as possible irretrievably placed out of reach. So far as it is more than a ploy to keep the issue in contention, the argument that some better means may turn up is essentially one of procrastination since the real benefit of any improvement is unlikely to be substantial.

Assuming that West Cumbria is the only region to offer host communities for deep geological disposal, what fall-back measures does the Government have in mind should the geology of West Cumbria prove unsuitable? There are other regions where the geology could be better, but public acceptability worse.

It will need considerable effort if conclusion 3.8.20 is to be sustained.

**A point repeated from our response to DTI ‘Nuclear New-Build Consultation’, October 2006:** We are in agreement with the CORWM recommendation on the principle of deep geological disposal for nuclear wastes. The priority with regard to the location of such a store or stores should be public agreement that the sites are sufficiently safe geologically. The principle of ‘volunteerism’ by potential host communities is important, but secondary to the safety criteria above. Concern was expressed in the group that the future economic wellbeing and development of host communities could depend solely on their willingness to have a deep disposal facility in their area. This would be unacceptable. Such communities could be seen to be at the mercy of a national policy that seeks a convenient rather than safe location for a waste repository;

**A point repeated from our response to Question 10 of The ‘Our Energy Challenge Consultation’ held earlier:** We believe that although there is an ethical problem related to leaving future generations to ‘deal with our waste’, a rigorous policy of waste management and disposal in the light of today’s best science would minimise this burden, while providing for current needs. We cannot tell what technological developments will emerge from more advanced technologies in the future. We can only do our best now.

*20. Does the draft Nuclear National Policy Statement appropriately cover the impacts of new nuclear power stations and potential options to mitigate those impacts?*

With regard to uranium mining and supplies, we would like the Government to try to influence and ensure as far as possible the safety of workers in uranium mines especially in less developed countries.

**4.11:** We have significant reservations with regard to this section for the three proposed Cumbrian sites, in particular for Sellafield, but they would apply to Braystones and Kirksanton as well.

*21. Do you agree with the Government’s preliminary conclusion on the potential suitability of sites nominated into the Strategic Siting Assessment, as set out below? You can respond in general terms on the assessment as a whole, or against one or more specific sites.*

**General comments:** The group is generally supportive of nuclear new build (but see the rider in the response to Question 26) throughout the country as part of the future energy mix, but we do not feel qualified to express views on particular aspects relating to the non-Cumbrian sites. Our comments are therefore confined to Sellafield, Braystones and Kirksanton.

We doubt whether Cumbria could cope with both Sellafield and Braystones on that narrow coastal corridor. Kirksanton is also confined between the fells and the sea with limited routes in and out available in case of need for major evacuation, and transport of materials and people during construction and normal operation of the plant. Kirksanton does have the advantage though of being close to the existing Cumbrian Coastal Rail Line. We feel Cumbria could

really only cope with one of these sites, and that there are advantages in using the Sellafield site in terms of limiting the impacts.

In addition to the point about transport infrastructure we had detailed comments questioning the suitability of Braystones and Kirksanton relating to visual intrusion, proximity to the National Park, difficulties in grid provision and visual impact, flooding, disruption to the prison at Haverigg. The overall point is that developments at Kirksanton and Braystones would result in an even greater overdependence of the area on the nuclear industry, when it should be the Government 's policy to encourage diversification

Irrespective of nuclear new build, the Sellafield/West Cumbria area is grossly under-provided with roads. New build consent should be conditional on a major upgrade/dualling of the A595 south of the Sellafield site, and the funding of substantial expansion/upgrading of the rail service, rolling stock and infrastructure. The A595 between Calderbridge and Greenodd has recently been de-trunked, and this has already revealed itself in poorer quality repairs than was the case before de-trunking.

We ought to re-emphasise, at the risk of being repetitive, that there is no practical public alternative road to that between Gosforth and Calderbridge. An accident there during an emergency would seriously disrupt evacuation. The rail timetable has been improved at the end of 2008, but there remains room for improvement, we note the welcome, if rather limited, reference to rail in 4.28.8.

Many of the comments raised in the responses are equally relevant to all three sites in Cumbria. They are not always repeated in respect of the other sites, but where they relate to general matters of principle and procedure, they are usually of equal relevance to all sites

## **Sellafield**

**5.13.17:** The development would undoubtedly exacerbate the visual and landscape impacts of the existing Sellafield presence, however, this may be considered preferable to the creation of a totally new site that is not visually related to the existing plant, and which would create a second distinct alien presence in the landscape, at either Braystones or Kirksanton..

**5.13.80:** We generally agree that development at this site would be less disruptive visually and in terms of landscape impact, than new build elsewhere. However, it is roughly doubling the land take, and takes the combined site half a mile closer to the village at Gosforth and to the National Park boundary. The local effects are likely to be significant. Would there be any scope for improving the screening at the historic Sellafield site as part of the development?

**Overall** we judge that there will be sufficient local community and wider county acceptance of new build at Sellafield, and that there is enough space to be able to install more than two reactors to compensate for the likely decision not to proceed with the other two sites in Cumbria.

**22. Do you agree with the Government's preliminary conclusion that the three sites identified in the Alternative Sites Study, as listed below, are not potentially suitable for the deployment of new nuclear power stations by the end of 2025? You can respond in general terms on the sites identified in the Study as a whole, or against one or more specific sites**

- a) Druridge Bay**
- b) Kingdnorth**
- c) Owston Ferry**

No response made to this question.

**23. Do you agree with the findings from the Appraisal of Sustainability reports for the draft Nuclear National Policy Statement?**

No response made to this question.

**24. Do you think that any findings from the Appraisal of Sustainability reports for the draft Nuclear National Policy Statement have not been taken account of properly in the draft Nuclear National Policy Statement?**

No response made to this question.

**25. Do you have any comments on the Habitats Regulations Assessment reports for the draft Nuclear National Policy Statement?**

No response made to this question.

**26. Do you have any comments on any aspect of the draft Nuclear National Policy Statement or its associated documents not covered by the previous questions?**

No response made to this question.

**27. Do you have any comments on the Impact Assessment report for the draft energy National Policy Statements?**

No response made to this question.

**28. Does this package of draft energy National Policy Statements provide a useful reference for those wishing to engage in the process for development consent for nationally significant energy infrastructure, particularly for applicants?**

No response made to this question.

**29. Do you have any comments on any aspect of the draft energy National Policy Statements or their associated documents not covered by the previous questions?**

The Government has often stressed its willingness to engage with faith communities in social and public issues. We point out that such groups in Cumbria and elsewhere take their responsibility as Stewards of God's Creation seriously through environmental action and energy-related projects such as Eco-Congregation and Operation Noah. Churches Together in Cumbria has a very active and well respected Environment Group.

**Caveat:** *The Energy Task Group of Churches Together in Cumbria does not have a consensus on the principle of the desirability of new nuclear build, Most in the Group are in favour of further nuclear deployment as a low carbon technology, but this should not be taken as a blanket endorsement from all the members of the Group or of the Churches represented by Churches Together in Cumbria. We believe, however, that the comments on renewables would find much wider acceptance.*

*There is a wide spectrum of opinion both within the group and within the churches and society more generally.*

*However since this consultation was not principally designed to test the desirability of new build, but to deal with the relationship between The NPS and the IPC, we hope that the submission is a fair reflection of the views received.*