



**BANNG**  
Blackwater Against New Nuclear Group



**CONSULTATION ON THE SITING CRITERIA AND PROCESS  
FOR A NEW NATIONAL POLICY STATEMENT FOR NUCLEAR  
POWER WITH SINGLE REACTOR CAPACITY OVER 1  
GIGAWATT BEYOND 2025**

**RESPONSE OF THE BLACKWATER AGAINST NEW NUCLEAR  
GROUP (BANNG) SUPPORTED BY COLCHESTER BOROUGH  
COUNCIL**

**BANNG PAPER NO. 34**

*Background to the Present Consultation*

It is now exactly ten years since BANNG was founded as a citizens' based organisation (CBO) formed to oppose new nuclear build at Bradwell on the Blackwater estuary in Essex. During the ensuing years BANNG has carried out a wide range of activities including: raising public consciousness through media, protests, lobbying, newsletters and meetings; organising a face-to-face petition which gathered over 10,000 signatures; discussions with politicians, government, regulators and local councils; and publishing a series of papers, mainly responses to consultations of which this is the 34<sup>th</sup>. Our first consultation response (Paper No. 1 Annex 1 refers) was on 'The Strategic Siting Assessment Criteria for New Nuclear Power Stations in the UK'. Thus, the wheel has come full circle and, for us, there is a sense of *déjà vu* as we seem to begin the process of the last ten years all over again.

This sense of repetition is conveyed by the considerable similarity between the consultation papers of 2008 and 2018. Indeed, it is hard to distinguish any substantial difference between them. This is, perhaps, not surprising since their purpose, though separated by a decade, remains essentially the same, namely, to facilitate the development of new nuclear power stations on existing nuclear sites. Ten years ago this pragmatic approach was veiled by an elaborate attempt to justify and rationalise the identification of eleven sites, eventually reduced to eight, where new

nuclear stations were potentially deployable by 2025. The implication, then, was there were only eight sites available.

As it has turned out on none of these sites will a new nuclear power station be generating electricity by 2025 and only one station, the ill-starred Hinkley Point C, is likely to operate by 2027, and, even now its future remains uncertain. As for the other seven sites, economic, technical, safety and siting issues make it inconceivable that many of them will be deployed let alone producing power before 2030 and, by then, large nuclear power stations will be outmoded. **In the context that no further new nuclear power stations are likely to be deployed BANNG considers this exercise in site selection unnecessary and should be abandoned.**

In this response we shall address the consultation questions. However, we consider these are unduly restrictive and there are broader issues concerning strategic siting that must be taken into consideration. We address these in the section that follows which also provides our consideration of the first question: *Do you agree that the proposed exclusionary and discretionary criteria are appropriate for the assessment of a site's suitability at a strategic level?*

### ***1. Changing Circumstances, Unchanging Proposals***

The underlying premise of the consultation is that essentially the basic premises on which the original strategic siting assessment was based remain essentially the same, ten years later. In para. 1.18 the Government's view is that:

‘the exclusionary and discretionary criteria by which the sites for the new NPS should be chosen should remain substantially the Government's preliminary view is that the sites listed in EN-6 are likely to be those which can deploy the soonest and are the only sites capable of deploying a nuclear power station by 2035’.

In other words, ten years on and scarcely any further forward in implementing the nuclear policy, the Government claims the circumstances are broadly the same and there are still only the same sites available that were identified in EN-6.

We regard this line of argument as tendentious, disingenuous and deceptive on three counts:

a) *The issue of need.* First, and most obvious, are the changes in energy supply which have removed any justification for nuclear energy based on need. This is not the place to discuss the changing energy mix in detail but we would refer to analyses prepared for the BEIS/NGO Nuclear Forum<sup>i</sup> and for the NFLA<sup>ii</sup> which provide a comprehensive set of arguments that undermine the Government's claim in para.1.7 that 'the need for new nuclear power remains significant'. The energy scene has undergone a massive transformation during the past decade with the upsurge in renewables contribution, the development of distributed energy systems and the development of lower carbon gas supplies. The need for massive, inflexible and dangerous nuclear plant has all but disappeared and will certainly have done so by the time existing stations are decommissioned and whether or not Hinkley Point materialises.

Despite these fundamental changes the Government perversely sticks to the view that EN-1, which sets out the framework of energy policy, 'remains valuable and continues to be relevant'. EN-1 was inadequate when it was first published; today, it is utterly irrelevant and delusional, putting forward a case for new nuclear power that was unjustified in the first place but which is now utterly erroneous and irresponsible. EN-1 makes almost comic reading today when it talks of the urgency for new nuclear power which is economically competitive, secure, clean and affordable. That sense of urgency has not been translated into a new fleet of nuclear power stations and it is doubtful whether this renewed effort will be any more successful in that respect. We are concerned that Government is 'confident that both EN-1 and EN-6 incorporate information, assessments and statements which will continue to be important and relevant' (1.23). To the contrary we consider that:

**In view of the changes in the energy mix that have occurred during the last decade EN-1 and EN-6 should be thoroughly reviewed and revised to take into account the vastly different circumstances prevailing today.**

b) *Availability of Sites.* EN-6 identified sites 'potentially suitable' for deployment of new nuclear stations by the end of 2025. For this consultation Government states that 'Sites listed in EN-6 on which a new nuclear power station is anticipated to deploy after 2025 will continue to be considered appropriate sites and retain strong Government support during the designation of the new NPS' (1.22). It is intended to have a new site window in the 2020s 'once the sites listed in the new NPS have progressed further towards deployment' (4.1). In other words, the only sites considered potentially suitable by 2025 are the still the only sites

potentially suitable for 2035. Failure to deploy has meant a carrying forward of sites and deferring any further site selection. This consultation is revealed as an instrumental device to legitimate a restricted selection of sites, imposing a burden on the selected local communities and relieving communities elsewhere of any prospect of a nuclear power station. It seems clear that Government recognises that nuclear power stations are unwanted land uses likely to be strongly resisted by local communities (as BANNG has found) rather than embraced as desirable wealth generating development.

The purpose of this strategic siting assessment is to ensure that sites which have already been earmarked for development will continue to be available to the developers who are working up projects. It supports a policy more concerned with leveraging foreign investment than any concerns about impacts on communities now and in the future who will have to pay the costs and deal with the burdens of the nuclear legacy. In that context it is highly unlikely that Government would be prepared to risk these sites not being redesignated when their time runs out in 2025. Hence, the operators developing these sites will continue the development process assured that the sites will remain.

**BANNG believes the strategic siting criteria and process are structured to ensure the continuing designation of those sites where operators are undertaking investment and where new nuclear projects are already at various stages in the development process.**

**We consider the strategic siting criteria must be designed to give greater emphasis to environmental and safety considerations and less to overriding economic imperatives.**

**In the light of changing economic, technical and environmental circumstances we urge the Government to withdraw all the sites before further investment is sunk into unnecessary, unacceptable and possibly abortive projects.**

c) *Acceptability of Sites*. The purpose of strategic siting criteria is ‘to act as an initial and high-level sift to ensure sites are broadly suitable from a safety, environmental and operational perspective’ (2.2). The criteria proposed are very little different from those used to select the sites in EN-6 in 2009. As a result of applying the criteria, one site, Dungeness, was removed from the list leaving eight designated sites. The list has now been reduced to seven by the removal of Hinkley Point which has already received its Development Consent Order (DCO). It must be recognised

that since these seven sites have already survived the strategic siting process, with basically the same criteria being used, they are highly likely to be redesignated. Thus, this restricted but nevertheless elaborate process is little more than a shallow reaffirmation of the status quo. If the first process of site identification was an exercise in premature legitimisation then this present consultation could be considered a *post hoc* rationalisation.

During the past decade concerns about the vulnerability of these coastal sites has increased. Most of the sites, and Bradwell in particular, will be subject to the impacts of climate change in sea level rise, coastal processes and flooding. Data on sea level and climatic change have tended to point towards an increasing risk. At the same time it has been realised that nuclear activity, including decommissioning and waste management, will be present on these sites well into the next century and possibly indefinitely. The combination of deteriorating coasts and increasing time-scales severely strains the credibility of claims of mitigation and management. Indeed, it would be fair to say that the legacy remaining on these sites in the far future will be unmanageable.

We consider the criteria for strategic siting to be deficient. They are too vague, permissive and constrained. The exclusionary category indicates categorical exclusion of a site but there are very few in this criterion. Discretionary criteria account for the majority and most of them set a low threshold for compliance and are often open to interpretation. Considerable scope is allowed for mitigation.

We are strongly of the view that the application of Imperative Reasons of Overriding Public Interest (IROPI) should not be applied. Its purpose seems to be allow for nuclear development even where a site fails on the application of the siting criteria. This privileges the claimed need for nuclear power over all other considerations. The criteria are, in our view, sufficiently restrictive and should be quite sufficient without the need for an all encompassing fail-safe to facilitate nuclear development on an unacceptable site. In any event we have argued that nuclear energy is no longer needed therefore it is *not* in the national interest to override all other considerations.

**BANNG is disappointed that the strategic siting criteria remain substantially unchanged. We consider that in principle:**

**The criteria should be tightened to reflect changing circumstances, notably the impact of climate change and the long time-scales that nuclear activities will be present on sites;**

**The exclusionary criteria should be more widely applied and, in particular, to those areas where mitigation is not practicable;**

**The concept of IROPI should be withdrawn as it is neither necessary nor defensible.**

## ***2. Strategic Siting Criteria – the need for change***

We have already argued that this exercise in setting strategic siting criteria is unnecessary as there is no need for further nuclear power stations. However, we recognise that the Government has not, yet, concluded that nuclear energy is irrelevant to future energy strategy and intends to press ahead with its misguided attempt to secure the handful of sites where, for the time being, some interest in nuclear development still persists. On siting criteria alone we consider these coastal sites unacceptable. We believe that the siting criteria, suitably specified and strengthened to reflect environmental, safety, security and public health concerns properly applied, will rule out these sites for further consideration.

In this section we shall address the first two consultation questions:

*Do you agree that the proposed exclusionary and discretionary criteria are appropriate for the assessment of a site's suitability at a strategic level?*

*If not, how should the criteria be changed to achieve this objective and, specifically, are there any additional criteria that should also be used?*

### ***Assessment of site by developer and withdrawal of sites by Government***

It is intended to invite developers on those sites which have not applied for a DCO to indicate whether they wish the sites to be considered for inclusion in the new NPS. This provides an opportunity for sites to be withdrawn from further consideration. Developers should be informed that the strategic criteria are being updated and that data sets underpinning the assessment of the strategic criteria may change between assessment and the planning and licensing stages. **Before the new NPS is published, developers should specifically be asked to state whether**

**they are sufficiently confident that they can meet the criteria and they are willing to proceed to assessment. If they are not then at this point they should be invited to withdraw from the process and, consequently, from any further interest in the site.** In particular they must be able to indicate that it is their view that they will be able to operate and manage nuclear facilities, including the storage of spent fuel and other wastes, over the lifetime of the site which at a minimum is likely to be for a period of more than a hundred years from the commencement of operations until final site closure. By the same token Government must consider whether they are confident that the information supplied by the developer is sufficiently robust to enable the site to proceed to assessment and potential designation.

**Before assessment of sites proceeds developers must be able to state that they are confident they will be able to continue to meet the siting assessment criteria for a period until the site is decommissioned and closed. Similarly, Government must be convinced that the site can remain viable over that period. If neither the developer nor Government is able to demonstrate that the site can potentially meet the siting criteria over the long term, then the site should not be considered further for inclusion in the National Policy Statement.**

### *Response to Proposed Criteria*

#### *Flooding, tsunami and storm surge*

**We consider this criterion should be exclusionary.** Where a site is liable to be inundated within the period that the power station is operating or being decommissioned then, in our view, it must be excluded. This must certainly apply to sites, like Bradwell, which are substantially in Flood Zone 3 where Sequential and Exception Tests have demonstrated this is the only available site. The time-scale from the beginning of operations, through generation, decommissioning and waste management, will extend well into the next century. Given uncertainties about future control and management of sites and methods of waste management it is, perhaps, realistic to conclude that these sites will remain as nuclear waste stores and decommissioning facilities for the indefinite future. We think it is unlikely that developers will be able ‘to confirm that they can protect the site against flood risk throughout the lifetime of the site, including the potential effects of climate change without increasing flood risk elsewhere’ (para. 2.18a).

Predictions of sea level rise resulting from climate change and consequential storm surges make low-lying coastal sites increasingly vulnerable. Even in current conditions it will be difficult to protect against flooding. In the case of the Bradwell, two-thirds of the site is located on the tidal floodplain of the Blackwater estuary and, undefended, would be flooded at high tide. With current sea defences there is a level of risk of flooding if defences fail or if there is an extreme event. The Flood Risk Assessment indicates flooding to more than 3m. could occur with an Annual Exceedence Probability of 0.5% with a defence breach event. Therefore, should there be a breach the consequences are likely to be severe.

The probability of severe flooding in the event of a breach or overtopping becomes far higher if calculated for the much longer term. This assumes the contemporary situation projected forwards. However, the situation is far from predictable and will inevitably worsen as the impacts of climate change impose sea level rise, storm surges, coastal processes and erosion on fragile coastlines. It is clear that projections of sea level rise will continue to increase. The current UK Climate Projections which in 2009 indicated a relative sea level rise of 1.9m. by 2100 will likely be revised upwards by 20-30% when superseded by the UK Climate Projections 2018 (UKCP18). And all the indications are that the trends will continue upwards. The situation beyond 2100 is indeterminate but it is likely that during the next century the nuclear facilities, including wastes, remaining on several coastal sites will be severely threatened with inundation and coastal change. It will be impossible to demonstrate with any confidence that these sites will be resilient against changes of the magnitude that are likely.

**There can be no case for developing sites which are subject to the risk of flooding now or in the future. All projection indicate that the risks will continue to increase. The future situation is unknowable and there can be no grounds for deploying hazardous radioactive facilities on vulnerable sites for such long and indeterminate time-scales. Consequently the flooding, tsunami and storm surge criterion must be exclusionary and, therefore, if breached exclude a site from further consideration.**

### *Coastal processes*

Several of the existing nominated sites are exposed to erosion, landscape change and other impacts from coastal processes. The East Anglian coast, in particular, is low lying and subject to changes caused by erosion from

sea level rise and storm surges. These processes can be long-term and predictable or short-term unpredictable events. A notorious example was the Great Tide experienced on the East Coast on the night of 31 Jan/1 Feb. 1953, recorded by Hilda Grieve<sup>iii</sup>. This caused great damage, extensive flooding and considerable loss of life. The possibility of such damaging storm surges increases with climate change and sea level rise and coastal nuclear power stations and surrounding areas are clearly vulnerable. Research has shown that Bradwell is at risk in the short- and long-term and Sizewell is on a coast subject to rapid erosion which would increase with higher sea levels and more frequent and powerful storm surges. Several stretches of the East Coast demonstrate the vulnerability and impermanence of what might once have seemed impregnable, hard sea defences. Necessary mitigation to protect nuclear power stations on coastal sites may well have serious, if not devastating, consequences for surrounding areas. More detailed, independent research on individual sites will be necessary to determine the possible outcomes under worst case scenarios of climate change. Meanwhile, we urge that the most recent forecasts and future scenarios of sea level rise and coastal change are used in assessing the potential impact of coastal processes.

**We conclude that the coastal processes criterion should be exclusionary and therefore rule out development of a nuclear power plant in circumstances where coastal processes would cause unacceptable damage to nuclear plant and surrounding areas.**

#### *Proximity to hazardous industrial facilities and operations*

It is accepted that existing nuclear power stations or sites undergoing decommissioning may be major hazard sites. Such facilities require strict security and safety measures, including delimitation of consultation areas and emergency planning zones. The scale of these protective zones varies and is an area of some controversy. The proposed criterion is indefinite in that 'proximity' and 'hazardous' are relative terms. A new nuclear power station near to an existing or decommissioned one adds risk to an already risky site. And the risk persists where long-lived highly radioactive waste stores remain on site. Siting next to an existing and continuing hazard should be avoided. It is to be noted that all seven sites under consideration are near to existing nuclear operations.

**We consider this criterion requires to be specified more precisely in terms of what is meant by 'proximity', 'hazardous' and 'risk'. Further guidance on this is required to add strength and precision to this criterion. The criterion should state that, in principle, new**

**nuclear power stations should not be located close to sites neighbouring existing nuclear facilities.**

*Proximity to civil aircraft movements*

In our previous response we stated the following with regard to this criterion:

‘This criterion is vaguely defined. The potential dangers from aircraft attacking nuclear facilities have been well publicised and are matters of public anxiety. While we regard the danger as low probability, the consequences could be very high. We consider this criterion should be discretionary but we would advocate a clearer expression of the circumstances in which it might be applied. By way of illustration, Bradwell is under flight paths to London airports and within the proposed stacking area for London City Airport. Aircraft are frequently routed via the Clacton Beacon on a flight path which goes straight up the Blackwater estuary. In such circumstances it might be imprudent to develop a dangerous facility such as a nuclear power station in such proximity to extremely busy flight paths.’

Since this was written drones have become a potential hazard and we suggest the criterion should require an assessment whether it is reasonable to conclude that a power station on the nominated site can be protected against drone movements.

*Demographics*

This criterion is broadly the same as that put forward in the original SSA. It was confusing and obscure then, and it remains so now. The derivation and justification is unclear and the calculations unfathomable. This is unacceptable in a public consultation. Moreover, it seems contradictory and the notion of ‘semi-urban’ is spurious. It is claimed that the risks of an accident involving the spread of nuclear materials beyond the site boundary is sufficiently low to allow the application of the semi-urban criterion. How can this be? What is sufficiently low? If there is a risk, however low, sites should be in remote places. On the other hand, if the risk is regarded as acceptably low, then there seems no reason to rule out an urban location. ‘Sufficiently low’ is relative and could be interpreted as acceptable in a remote location or in an urban one. What is not acceptable, it seems, is a ‘semi-urban’ location which is neither fish nor fowl, a mere sop to assuage public anxiety.

In any case the application of weighting factors, distance and cumulative weighting population is difficult to comprehend and its justification is obscure. What seems to be the case is that, even under a semi-urban criterion very substantial populations would be put at risk within relatively short distances, even if only the 30 degree sector is used in the calculation. In the empirical world of the Bradwell site Mersea Island with a population of 8000, doubling in summer, is within 4km. and, further afield, at a distance of 20km. major towns such as Colchester, Chelmsford and Southend-on-Sea are within range. It would be better to present the demographic criterion in cartographic or diagrammatic terms which the public can understand.

We note that the nominators for the sites should give a high-level description of the practicality of developing appropriate emergency planning arrangements. Such a description will need to consider public information and advice, constraints to movement, measures of alerting and organising evacuation and the feasibility of providing adequate public protection. This must be applied to the specific topographic, population and environmental conditions of individual sites.

**We agree that the demographic criterion should be exclusionary. We do not agree with the concept of ‘semi-urban’ which is an unnecessary and false compromise. As currently expressed this criterion is confusing, unclear and unacceptable and should be redrafted in a form that may be applied to specific sites.**

**We consider there should be a requirement that appropriate and practicable emergency procedures can be put in place and that the affected public will be fully informed and understand what actions they should take in the event of an emergency.**

#### *Proximity to military facilities*

We agree with the exclusionary and discretionary criteria proposed while noting that nuclear power stations are a potential military target and a source for diversion of radioactive materials.

#### *Internationally Designated Sites of Ecological Importance*

This criterion is inadequate for three reasons. First, it is discretionary. Internationally designated sites represent significant and, in context, unique environments which it is essential to protect, conserve and sustain. This requires minimising impacts that will potentially disrupt, destroy or

degrade. Adverse effects should not be contemplated and, therefore, it follows that under an exclusionary criterion measures of mitigation or alternative sites cannot apply.

Secondly, the criterion is permissive. It is difficult to conceive of a situation where it 'would be reasonable to conclude, at a strategic level, that the plan would not have an adverse effect on the integrity of designated sites'. The case of the Bradwell site illustrates the complexity and integrity of the designated SAC, SPA and RAMSAR sites which, together with National Nature reserves and SSSIs is a fabulously rich and precious complex of ecosystems, including salt marshes, reedbeds, ancient grazing marshes and deciduous woodlands and provides an abundant environment for native and migratory birds, fauna and invertebrates. The saltmarshes alone contain 'outstanding assemblages' of rare flora and the area supports nearly 7% of the world's overwintering brent geese. In addition the Blackwater estuary, a recently designated MCZ, is an important marine environment which is irreplaceable.

Thirdly, the criterion suggests that where alternative solutions for delivering the plan are not available, the device of Imperative Reasons of Overriding National Interest might be invoked to carry out the project regardless of the need to protect these designated areas. The original EN-6 Appendix 1 was at pains to set out the need for nuclear energy as an overriding consideration. In short, it argued that nuclear power stations were needed at all costs (and those costs are very high both economically and environmentally). The justification was rather weak at the time and it is preposterous that it should still be used in the circumstances where the need for nuclear energy is far less pressing, if indeed, there is a need at all (see our earlier argument and that of many commentators). Rather, it might be argued that the need to sustain environments that are protected by international designations is an IROPI and that, therefore, nuclear power stations should not be contemplated on sites where deleterious impacts are unavoidable.

**This criterion should be exclusionary. It is difficult to conceive of any circumstances in which the development of a nuclear power station, associated spent fuel and waste stores and other related infrastructures would not disrupt, destroy or damage the integrity and uniqueness of Internationally Designated Sites of Ecological Importance. It is not possible to avoid, mitigate or minimise these effects. The need for nuclear energy cannot be justified as an overriding national interest compared to the national interest in the protection of these sites. Therefore, IROPI must be withdrawn.**

### *Nationally Designated Sites of Ecological Importance*

Our comments above on Internationally designated sites apply also to Nationally Designated Sites. In particular, we wish to note the significance of Marine Conservation Zones in respect of the protection of unique species (e.g. Colchester Native Oyster). MCZs have been designated since the previous siting assessment and, in specific cases, are a further and exclusive constraint on nuclear development.

**This criterion should be exclusionary. In particular, adverse impacts to Marine Conservation Zones should automatically rule out nuclear development.**

### *Cultural Heritage*

The importance of cultural and historical heritage must not be underestimated. Heritage assets by their nature are unique features set in a surrounding environment. The site and its setting are likely to be seriously jeopardised by the bulk, scale and impact of a massive industrial facility such as a power station. While a building might be preserved, its cultural importance will be much diminished if its setting is disturbed. The seventh century chapel and remains of the Roman Fort of Othona at Bradwell are a case in point. We conclude:

**There should be a presumption against development which will adversely affect cultural heritage sites and surrounding area.**

### *Areas of amenity and landscape value*

The consultation paper argues that significant adverse impact on areas of landscape value and amenity is undesirable. We concur and would emphasise that a nuclear power station will inevitably damage amenity and be a detrimental intrusion on landscape that cannot reasonably be avoided, minimised or mitigated.

Put in the context of the proposed new nuclear station at Bradwell the impact of the proposed development on the landscape would be devastating. Destruction of fragile heritage assets within the site would be almost impossible to avoid. The impact of a massive, industrial complex on a rural, tranquil, low lying, understated landscape would be transformative. It would be impossible to conserve and the loss would be irrecoverable. The wild, spiritual isolation and modest scale of the area

outside the site boundary containing the 7<sup>th</sup> century St Peter's Chapel would be juxtaposed with the jarring and discordant mass of the nuclear station.

The seven sites under consideration for designation are all in relatively exposed coastal or estuarial locations and new power stations will have a detrimental and unavoidable impact on a wide surrounding area.

Therefore:

**There should be a presumption against development which would adversely affect landscape and amenity of the surrounding area.**

#### *Size of site to accommodate operation*

There are two comments to make on this criterion. The first is that the criterion should be more specific in terms of the size of site relative to the scale of the project in terms of number of reactors, cooling towers, waste stores, etc. The second is the need to provide provision for safe and secure storage of all the spent fuel and intermediate level waste produced through operation and decommissioning. This is a matter of the nature as well as the size of the site. It should be explicitly stated that the period for safe storage may be well over 100 years (the lifetime of the power station, say 60 years, plus at least fifty years for cooling before emplacement in a repository if one is available at that time) and, on most of the sites under consideration, site conditions will become severely compromised to the extent that safe and secure storage is not feasible.

**In BANNG's view it is not possible to demonstrate that wastes can be safely and securely managed indefinitely at designated sites in deteriorating conditions and increasing uncertainty. We regard this as a key reason why the new nuclear programme must be abandoned.**

#### *Access to suitable sources of cooling*

Cooling water is a critical issue in terms of availability, source, amenity damage and environmental impacts. The following aspects must be considered: whether there is sufficient availability of cooling water for the number of reactors proposed; what are the potential impacts on the marine environment; whether cooling towers are proposed and what their impact will be. Again, the Bradwell site is illustrative of the problems. The estuary is shallow with a slow refresh rate so that it is doubtful sufficient water is available for reactors with far larger generating

capacity than the previous station. The marine environment is delicate, highly protected and a source of fish and Colchester oysters. Access to sea for cooling would seem an improbable proposition and cooling towers would be immensely intrusive on a flat landscape. It is considered that the problems of access to a sufficient and suitable cooling water supply is likely to rule this site out.

**We strongly believe that access to cooling water should be an exclusionary criterion. Development of new nuclear power stations must be ruled out in conditions where:**

**There is insufficient volume of water, for example, in estuarial locations;**

**There is a severe risk of detrimental impact on marine life and environment;**

**Access to cooling water is technically difficult to achieve, for example, by long pipelines to the sea;**

**Cooling towers would totally destroy the landscape and amenity.**

*Matters flagged for detailed consideration by PINS, ONR and EA*

Most of our comments relevant to matters for detailed consideration have already been covered under the national criteria, e.g. proximity to civil aircraft movements, emergency planning, size of site. We recognise there will be further opportunity to comment at the site designation stage later this year. We do have comments on some of these matters.

We believe it is important for public consultation that proposals are clearly specified and matters such as scale and impact spelled out well before the planning and licensing stage. For example, it is important to know how many reactors will be built, the method of cooling and the nature, volume and radioactivity of the radioactive wastes that will be stored on site far beyond the operational lifetime of the plant. Greater detail on associated infrastructures such as ship terminals, roads, railways, transmission lines and security arrangements are also required if the proposals are to be fully understood.

**As much detail as possible on the scale, facilities, layout and impact of the proposed power station and associated infrastructures should be made publicly available as early as possible to encourage informed public participation and engagement in the siting process.**

On the matters of seismic risk and capable faulting we note these are matters for the licensing stage and that they are unlikely to prove a barrier to the selection of sites.

### *Designating sites – a flawed process*

*Do you have any comments on the process to designate potentially suitable sites in the new NPS for nuclear set out in paragraphs 3.1- 3.14.*

We have addressed this question at various points in this response, most notably in the Introduction and Section 1. In brief we consider the process flawed for the following reasons:

1. its analysis is based on conditions no longer pertaining. The need for nuclear energy is no longer pressing, if it ever was. The refusal to revise EN-1 is perverse and unjustified.
2. the original sites were identified as the only sites capable of deployment by 2025. The same sites (less one) are now carried forward as the only sites capable of deployment by 2035. In the interim no attempt has been made to identify other sites, an exercise that has been postponed until the 2020s. Thus the seven sites are the only ones available because no others are available – a tautological analysis.
3. the seven sites include five where developers are at various stages of project design and development. But, the sites are only available for deployment by 2025. It does not take much imagination to recognise that the process of designation is merely an exercise in supporting those developers willing to invest in nuclear energy in this country. This puts considerable pressure on regulators, BEIS and PINS to facilitate the redesignation of these sites.
4. the criteria are sufficiently vague, conditional and permissive to enable the sites to be designated without difficulty. The key criteria are discretionary and have not changed in any fundamental way since the last exercise in site selection. It would be very surprising if, on the basis of the original energy policy defined in EN-I and the original criteria defined in EN-6, the sites that were acceptable then are not the same sites acceptable now.

Although we have persevered in responding to this consultation we are fearful that it is a charade and simply a necessary but flawed process to ensure the legitimisation of those sites already under development. Therefore, we reiterate our concern that **the process for designating**

**potential sites for new nuclear power stations is deeply flawed, unjustified and inadequate.**

*No need to open windows*

*Do you have any comments on the process for future site nominations set out in paragraphs 4.4 – 4.18?*

It is difficult to take the idea of a future process for site nominations seriously. It is clear that any such sites would be follow on ‘once the sites initially listed in the new NPS have progressed further towards deployment’ (4.2). It is highly unlikely, even under present energy policy, that all the existing sites, assuming they are redesignated, will actually proceed, if, indeed, any do so. Therefore the need for further sites is a mirage hovering in the distant future beyond the point when nuclear power will cease to be part of the energy mix.

Consequently we reiterate the comment made at the beginning of this response:

**In the context that no further new nuclear power stations are likely to be deployed, BANNG considers the process for future site nominations unnecessary and should be abandoned.**

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Co-Chair of BEIS/NGO Nuclear Forum  
On behalf of BANNG and supported by Colchester Borough Council**

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- <sup>i</sup> ‘Nuclear Energy Policy – NGOs Issues of Concern’, Discussion Document, BEIS/NGO Nuclear Forum, 17 July 2017; ‘Civil Nuclear Energy Policy – An Alternative Perspective’, BEIS/NGO Nuclear Forum, January, 2018.
- <sup>ii</sup> ‘UK Government Updated National Policy Statement for New Nuclear above 1GW post 2025: Siting Criteria and Process’, NFLA Nuclear Monitor Policy Briefing, Edition No. 52, 2018.
- <sup>iii</sup> *The Great Tide: the Story of the 1953 flood disaster in Essex*, County Council of Essex, 1959.