

## Suggestions for responses objecting to the proposals in the BRB Pre-Application Stage 1 Public Consultation

### ACTIONS

*It would be very useful if you would please take the following actions:*

- *please copy your responses to your MP and Parish, Town, Borough/District and County Councillors;*
- *please request publication of all the consultation responses on the BRB website (see item 1(c) below);*
- *please request that the independent research being undertaken by Essex University and being funded by BRB is carefully monitored and peer-reviewed to ensure it is independent (see item 4(c) below);*
- *please request that a Social Impact Assessment is undertaken of the effects on the economy, psychology and wellbeing of the communities surrounding the Blackwater estuary arising from a new nuclear power station and request that this assessment should be subject to consultation (see end of item 4(i) below).*

### Introduction

In the Foreword on p. 3 of the *Summary Consultation Document*, it is stated that BRB (the partnership of CGN and EDF planning to develop Bradwell B) is 'committed to working with you to understand the potential impacts of Bradwell B'.

### Comments

- The physical impacts of the proposals are obvious: this tranquil, quiet, beautiful and historic part of the Essex coast will be irreversibly and detrimentally transformed if the plans go ahead for the massive and potentially dangerous, new nuclear power station, together with its long-term highly radioactive waste stores.
- But, what might not be immediately obvious among the ideas for design, transport, landscaping, etc., are the social and economic impacts that will arise from the distorting presence of such a massive piece of national infrastructure.

*(Note: BRB uses the comforting term 'temporary' when describing what will be an intensely disruptive 9 – 12 years construction period that will seem to some more like a lifetime. Similarly, BRB uses the term 'interim' to describe the on-site storage of spent fuel and other highly radioactive wastes until towards the end of the 22<sup>nd</sup> century.)*

### 1. The consultation process itself

**(a) You may wish to comment on the consultation process itself. Here are suggestions:**

- this consultation is being conducted during a national emergency which has meant that ten out of the planned fifteen face-to-face BRB exhibitions (around which the consultation was structured in order for the public to meet and question the Bradwell B team) have had to be cancelled;
- communities at the locations where these will now not take place will, therefore, be disadvantaged;
- among the exhibitions cancelled are those at the only three locations on the north side of the estuary (Mersea Island, Brightlingsea and Tollesbury);
- libraries and other civic buildings where the consultation documents are made available are currently closed because of the Covid-19 emergency and members

of the public without access to a computer will, therefore, be unable either to access the consultation documents or to respond;

- BRB says the consultation must continue now and that means without the exhibitions because there is an **urgent** need for new nuclear energy;
- this reason does not stand up to scrutiny: Bradwell B could not be operating until the mid – late 2030s and a few months of delay so that the consultation could be re-run would make no difference over such a long timescale.

**(b) *The consultation is premature:***

- The consultation is taking place before key issues have been resolved;
- Step 4 of the Generic Design Assessment (GDA) will not be completed until at least 2021; there are still issues that remain to be resolved from previous steps;
- the Government is still to make a decision on the revised National Policy Statement (NPS) on Nuclear Energy concerning the suitability of the site;
- the Government's long-awaited Energy Review is still awaited; this will
- examine whether expensive, nuclear energy is needed, given the increasing availability and lower costs of renewable sources for generating electricity.

**(c) *Transparency and openness of feedback:***

BRB wants the public's views on its proposals and says that it will take these into account. BRB intends to analyse and summarise the feedback received and to detail it in a Consultation Report, which it says will be a key document 'submitted **in support** of its application for development consent' (Item 8.3, BRB Statement of Community Consultation).

**BANNG believes that, in the interests of transparency and openness, all responses to the consultation should be published on the BRB Website, so that the public can see the feedback that is received.**

**2. Scope and balance of the consultation**

Again, you may wish to make comments. If so, here are some of the issues.

**(a) *Scope:***

The Consultation Summary Document states (p. 4) that 'the principle of the need for new nuclear power stations and the choice of Bradwell as a potentially suitable site is a matter for Government policy and outside the scope of this consultation'.

***Comments:***

- the scope of the consultation is narrow and the public is being steered by BRB into making comments on the details of the proposals, e.g. transport, accommodation, jobs, etc.;
- it may be that this is being done to convey the impression that Bradwell B is already agreed and will go ahead and it is, therefore, only possible for the public to comment on the details of the project even at this very early stage;
- **Bradwell B is not a 'done deal' and it still at an early stage of the planning process.**

***No Need for Bradwell B:***

- it could not come into operation until the mid - late 2030s by which time alternative, safe, renewable sources of electricity will be available;
- any new nuclear power station would displace cheaper, renewable energy alternatives.

***Choice of Bradwell as a potentially suitable site for nuclear deployment :***

- sites ‘potentially suitable’ for the deployment of new nuclear power stations by 2025, including Bradwell B, were designated by the Government in 2011;
- only one of the original 8 sites, Hinkley Point C, has met that requirement;
- Bradwell B could not be deployed until the mid – late 2030s at the earliest;
- the Government is reviewing sites for new nuclear power stations that could be deployed by 2035;
- no formal decision has yet been taken on this (but it is likely that Bradwell will be designated).

***(b) Balance:***

- the majority of the content of the consultation relates to matters such as the proposed cooling system, transport, ‘potential’ new roads and bypasses, park and ride facilities, accommodation, port development and landscaping;
- little is said about issues of serious concern: the massive, physical size of the project; on-site, long-term management of highly radioactive wastes; ecology; environmental and historical legacy; and the fundamental impacts on the economy and wellbeing of the communities of the Bradwell area.

**3. SUGGESTED OBJECTIONS TO THE CONSULTATION - OVERALL**

***(a) Suitability of the Bradwell site:***

- the Bradwell site is low-lying and vulnerable and this vulnerability will become more problematic as the impacts of climate change intensify;
- over the next century and beyond, climate change will impact on sea-level rise, storm surges and other coastal processes, including the flooding of vulnerable coastal areas;
- impacts during operations of Bradwell B could well be severe and beyond 2100 conditions are unknowable;
- it will prove difficult and costly to defend the site until the end of the century and it is not known if defence can be achieved thereafter;
- the proposals suggest that Bradwell B would become a nuclear island fortress against the encroaching sea;
- future generations would be left with the expensive problem of trying to defend structures that would be both dangerous and unviable.

***(b) Bradwell is an insecure site - evacuation of communities in the event of an accident/incident:***

- around half a million people live within a 30 km radius;
- in the event of an accident/incident, it would be almost impossible to evacuate local communities and to defend the area;
- there is virtually no information about evacuation plans, other than to say that BRB will work with local authorities ‘to ensure there would be appropriate off-site emergency plans’;
- affected communities, that will have to live with the potential dangers posed by Bradwell B, deserve to know a lot more about evacuation plans even at this early stage.

***(c) The project is unacceptable:***

- its scale is horrendous and it would completely transform the whole of the Dengie peninsula and the Blackwater estuary into a major industrial zone;

- during a construction period spanning 9 – 12 years, there would be an immense amount of disruption including from: building works; light pollution; hundreds of daily movements of HGVs and other traffic; ships entering, fouling and polluting the estuary; and the influx of thousands of workers into the Dengie Peninsula area;
- the impacts on local communities would be massive; life-changing for some.

#### 4. SUGGESTED OBJECTIONS TO THE SPECIFIC DETAIL IN THE CONSULTATION

##### (a) *Management of radioactive waste:*

- very little is said in the consultation documents about this extremely worrying aspect of the proposed, new nuclear power station;
- when Bradwell B, if built, ceases generating, the spent fuel and other highly radioactive wastes it produces during its lifetime will remain stored on the site up until the end of the next century, or indefinitely, in deteriorating conditions;
- during this time the site is likely to become unmanageable, even if a national nuclear waste repository eventually becomes available to take the wastes; at present neither a socially acceptable site nor a sufficiently robust scientific concept for a repository have been found and agreed -

*[Note: The highly radioactive spent fuel would require to remain on the site for at least 50 years just to cool down before it could be removed. It is proposed that Bradwell B would operate for 60 years from the mid – late 2030s which means it would cease operations in the mid – late 2090s, and, therefore, that, as things stand, spent fuel and other wastes would require to be stored on the site until the mid – late 22nd century]*

- the Bradwell B site, if built, will become a long-term nuclear waste facility;
- Bradwell A is already a nuclear waste facility with its stores of Intermediate-Level Waste and the graphite reactor cores in passive storage in the reactor buildings, all of which will remain on the site until at least the end of the century (or indefinitely, if no national repository becomes available);
- if Bradwell B goes ahead, there will, therefore, be two nuclear waste facilities located at the mouth of the Blackwater estuary;
- contrary to BRB's hopes of Bradwell B delivering 'a positive legacy', the station's real legacy will be highly dangerous and toxic wastes left on a deteriorating site until the mid-to late 22<sup>nd</sup> century – another terrible problem with which future generations will have to have deal.

##### (b) *Cooling infrastructure:*

BANNG has long pointed out that there would not be sufficient water in the Blackwater estuary to cool the two gigantic reactors, with a generating capacity of 1.1GW each, proposed for Bradwell B and that obtaining sufficient water from the sea would require extremely long tunnels to be constructed for 11km out into the North Sea - a dangerous and expensive undertaking. *(Note: each of the two Bradwell A reactors had a generating capacity of 0.25GW.)*

- in order to avoid taking vast quantities of water out of the estuary, it is proposed to take a lower volume but to have a hybrid cooling system with gigantic cooling towers and two intake and outfall tunnels in the estuary, i.e. the worst of both worlds;
- the cooling towers (120 – 165 m in diameter and 50 – 60m tall) would be very prominent features in the low-lying environment of the Blackwater;
- the impacts from this hybrid cooling system on the marine ecology of the estuary are not known but any heating of the estuary as a result of water discharged from the outfall tunnel could have a severe impact on the delicate Colchester Native Oyster;

- this would make a mockery of both the Marine Conservation Zone (MCZ) designation and of the projects currently being undertaken to ensure the recovery and survival of the oyster;
- it is inevitable that the operations of the intake and outfall tunnels would kill many thousands of fish and other marine life during the 60 year life of the station.

**(c) *BRB funding of research at the University of Essex to look at the likelihood of any effects of the cooling system on the Native Oyster or other wildlife: :***

- to demonstrate any possible effects of the proposed cooling water system on the Blackwater estuary, BRB is funding independent research at the University of Essex.

**BANNG believes that this research needs to be carefully monitored and peer-reviewed to ensure it is independent.**

**(d) *Development of port and beach landing facilities:***

- building these would involve piling which would disturb the seabed, once again causing problems for the estuary and its marine life;
- and the estuary and its marine life could also be detrimentally affected by fouling and pollution as a result of the ships and other marine transportation using these facilities.

**(e) *Amenity damage:***

- the power station complex of reactors, turbine halls, radioactive waste facilities and other buildings would be highly visible and a blot on the low-lying rural and estuarine landscape;
- the proposed cooling towers would add to the considerable amenity damage within the overall scene from various viewpoints;
- it is hard to believe that the Bradwell B industrial complex could be integrated into the landscape; rather it would destroy the landscape;
- the amenity of the historical environment would also suffer with fragile historical assets on the site facing destruction;
- the 8<sup>th</sup> century St. Peter's Chapel, still a place of pilgrimage, would be compromised, lying as it does just outwith the Bradwell B site boundary.

**(f) *Impacts on the ecology of the Blackwater and its environment:***

- the Blackwater and its environment has many designations protecting wildlife, marine life and flora;
- many species would be endangered by the construction of Bradwell B;
- it is difficult to imagine how adequate protection could be afforded to this fabulously rich and precious complex of ecosystems (salt marshes, reedbeds, ancient grazing marshes and deciduous woodlands) against the insertion into its midst of a huge industrial complex and all the disruption it would entail;
- this is also true for the many species for which this complex provides an abundant environment (native and migratory birds, other wildlife, fauna and invertebrates); for example, 7% of the world's overwintering Brent Geese are supported by the saltmarshes.

(You might be interested in the comprehensive list of the species covered by international designations, compiled by Shelley Stevens - included as Appendix 1.)

- (g) *Creating new opportunities and lasting benefits – what about the disbenefits?:***
- the emphasis in the consultation is almost entirely on the benefits that would arise from Bradwell B and very little is said about any disbenefits; but these would be profound in terms of their social and economic effects;
  - the introduction of a major development with a very significant employment growth in the Maldon/Dengie area would have a distorting effect on housing, inequalities, services and environment;
  - the balanced local economy, that is currently based on services, tourism and small and medium-sized industries, would be replaced by an economy that could become unhealthily dependent on one employer;
  - other areas of employment could suffer including the fishing and oyster industries, agriculture and tourism.
- (h) *People and jobs:***
- the influx of thousands of workers into the Dengie Peninsula area would bring a massive inflation in employment with significant consequences for job and housing markets;
  - during construction, workers are likely to be young, semi-skilled, predominantly male and from a variety of regional and ethnic backgrounds;
  - this raises questions of social integration.
- (i) *Accommodation:***
- it is obvious that the advent of thousands of workers coming into the Dengie Peninsula area to work on the construction of the power station would have an overwhelming impact on some Dengie communities, e.g. 4,500 would be accommodated close to Bradwell Waterside and Bradwell Village;
  - the population in the immediate vicinity of Bradwell would increase by 700%;
  - the proximity of workers' accommodation so close to peaceful villages, would alter the demographics fundamentally and could have a deleterious effect on the wellbeing of the community;
  - local services and facilities would be severely impacted.

**BANNG believes that before the proposals for a new nuclear power station at Bradwell proceed further, a Social Impact Assessment should be undertaken on its possible effects on the economy, psychology and wellbeing of the communities surrounding the Blackwater estuary. The assessment should also be subject to consultation.**

- (j) *Transport:***
- BRB realises that road and sea transport are major issues and these receive a lot of coverage in the consultation;
  - the public is asked which proposals for Strategic Routes, etc. would be most acceptable; the answer surely has to be none given their proposed use;
  - the plans for road transport of workers and construction materials, even with mitigation, must be devastating for many of those who live in areas that would be affected;
  - BRB is considering using sea transportation for about half of the construction materials but if this proposal does not materialise, the already incredible number of what is initially assessed to be 500 – 700 daily, two-way HGV movements, at peak, would increase;
  - no mitigation by way of 'potential' new stretches of road, junctions, bypasses, park and ride facilities, etc. could possibly ease the immense, life-changing disruption, particularly

during construction, that will be caused to those living in many parts of the Dengie Peninsula and the harm to its environment.

**BRB's Mission (Consultation Document p. 75)**

The mission is 'to ensure that the Bradwell B power station is designed, built and operated in a way that we can all be proud of'. It is unclear who 'we' are.

This would seem to be a reprise of BRB's attempt in its Newsletters to manufacture a 'Bradwell B community' and community feeling to make the advent of a new nuclear power station appear like a friendly, neighbourhood event worthy of celebration.

The truth is that if Bradwell B goes ahead, all that the so-called 'Bradwell B community' can look forward to is a long and disruptive period of construction, the potential dangers arising from a nuclear power station, the impacts of radioactivity on environments and health and the long-term, on-site storage of highly radioactive wastes. The fragile and tranquil environment of the Blackwater estuary would, sadly, be changed forever.

**Prepared on behalf of the Blackwater Against New Nuclear Group (BANNG) by,**

**Varrie Blowers,  
Secretary**

**June, 2020**

**Appendix 1 - Internationally designated sites around the proposed  
Bradwell B Site (compiled by Shelley Stevens)**

There are internationally designated sites all around the proposed plant, with water intake and outlets within these highly important marine conservation area:

- Essex Estuaries SAC - immediately adjacent to the site
- **Dengie SPA/Ramsar (Mid-Essex Coast Phase 1) - this has an important internationally recognised wetland designation from UNESCO which will lie immediately adjacent to the site and within their proposed marine infrastructure zone.**
- Outer Thames Estuary SPA - within 1 km of the site
- Colne Estuary SPA/Ramsar (Mid-Essex Coast Phase 2) - approximately 5km to the north of the site
- Crouch and Roach Estuaries SPA/Ramsar (Mid-Essex Coast Phase 3) - approximately 13 km to the south of the site
- Blackwater Estuary SPA/Ramsar (Mid-Essex Coast Phase 4) - immediately adjacent to the site
- Foulness SPA/Ramsar (Mid-Essex Coast Phase 5) - approximately 12.5 km to the south east of the site
- Abberton Reservoir SPA/Ramsar Site - approximately 8km to the north west of the site
- Dengie SSSI - immediately adjacent to the site
- Blackwater Estuary SSSI - immediately adjacent to the site

- Sandbeach Meadows SSSI - approximately 4 km to the south east of the site

Habitats within the designated sites that will be damaged:

- Estuaries
- Mudflats and sandflats
- Salt meadows
- Scrub
- Sandbanks/sandbanks covered slightly by sea water all the time
- Shell, sand and shingle pits
- Vegetated shingle
- Brackish dykes and pools
- Swamp
- Sea Walls
- Coastal grazing marsh
- Reedbeds
- Saline lagoons

Species that would be harmed:

- Bats (various species)
- Great crested newt
- Water vole
- Otter
- Badger
- Reptile (various species)
- Wetland birds - for example Curlew, Red Knot (this year thousands), Whimbrel, Brent Geese, Shelduck, Oyster Catchers, various species of ducks, swans, and many other waders.
- Other breeding birds - for example Merlin, Sparrowhawks, Marsh Harrier, Barn Owl, Spotted Flycatcher, Pied Flycatcher and many others
- Rare/uncommon plants
- Nationally important invertebrate species
- Rare native British oyster

The area has had been allowed to turn back into salt marshes as they were 400-500 years ago. This environment supports an extraordinary amount of species.

Where marine landing platforms and cooling water infrastructure may be built, loss, damage or fragmentation of these important habitats and the subsequent disturbance to protected species will take place. Also the cooling water infrastructure and marine platform could also impact on the water quality through re-suspension of sediment, smothering of important habitats and the associated plant/invertebrate communities to their detriment. The site will also have to be elevated from 3 to 7 meters in order to avoid flooding. This will involve placement of soil material to build up the site level. This could lead to increased sedimentation within aquatic habitats from runoff. The elevation of the site would need soil, the obvious source is marine. If this happens there would be an impact of saline water on freshwater bodies such as ditches/ponds, as well as groundwater. If groundwater abstractions or drainage of land is required this may affect other areas of valuable habitat which are dependent on water such as coastal grazing marsh.