



West Mersea
Town Council

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FAO: Bradwell B team

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Stage One - Questionnaire. A response from West Mersea Town Council (WMTC)

Q1. Bradwell B proposals: overall

The initial reaction to seeing the consultation documents is one of huge concern for the scale of the proposal. This was immediately followed by surprise at the sight of the two cooling towers at the northernmost part of the development.

Q2. The power station: design and environment

The cooling towers will have a substantial impact on both the visual environment and marine ecology.

Having concluded that the Blackwater Estuary is too shallow to employ direct cooling and having abandoned the option for direct cooling via lengthy tunnels to deeper water the decision (para 3.3.20) has been to proceed with indirect cooling utilising a hybrid cooling tower system.

The documentation has major shortfalls in supporting this conclusion.

- 1) The comparison of thermal plumes from direct cooling versus indirect cooling have ONLY been shown in the estuary (Figure 3.16). This is despite the acknowledgement that direct cooling from the estuary has been ruled out. There is no indication of the thermal plume temperature gradient impact should direct cooling from the long intake and outfall pipes be employed.
- 2) None of the diagrams and artist impressions give any sense of the water vapour that is claimed to only be visible on 18 days of the year, a claim only supported by modelling and not a real world example.
- 3) All the marine impacts are vague. This is a huge concern for this locality bearing in mind the many residents directly involved and supporting the fishing and oyster businesses.
- 4) The illustrations of visual impact from Coast Road West Mersea are misleading in their scale and camera lens settings (Figure 3.26 VP-03).

An illustration of the relative size of the Hybrid Cooling Towers to the former Bradwell Power Station taken from a similar point on Coast Road as image VP-03:



The **Environment Agency document (A)** that gives guidance and direction in choosing cooling water options indicates there are areas where concerns will exceed those indicated in the Stage One Consultation documentation.

The design issues to be considered in deciding the number of cooling towers and the type of tower include:

- visual impact of towers and plumes
- noise made by water passing through the towers
- additional noise made by the plant for mechanical draught towers
- spray nuisance in the lee of towers
- fog nuisance produced downwind of mechanical draught towers
- land requirement
- construction and operating costs

(A:p53)

The proposals in the consultation suggest the preferred option is twin hybrid cooling towers. It should be noted, therefore, that points made above and in the executive summary (A) will cause noise pollution around the station and especially across the estuary so directly impacting the quality of life of the residents of Mersea and visitors. This will be accentuated in prevailing wind conditions from the SW along with the fog nuisance.

Furthermore there are questions about reliability. This would include icing, build up of biota and marine 'sediment' plus the need for constant power to drive the fans. The latter is typically 1-1.2% of the power output ~ 250MW (B:In section: Recirculating or indirect wet cooling)

With the rate of water abstraction being 9 m³/s versus the discharge of 7 m³/s will mean that the loss to the atmosphere is 2 m³/s. Therefore every 21 minutes this loss will equate to an Olympic sized swimming pool.

The Consultation document talks about the need to 'purge' biota and salt build-up. Please advise what processes would be utilised to dispose of this waste and if this would entail a discharge of high salinity water back to the estuary?

- A) https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/291077/scho0610bsot-e-e.pdf
- B) <https://www.world-nuclear.org/information-library/current-and-future-generation/cooling-power-plants.aspx>

Environmental Designations

Despite the claimed intentions of EDF/CGN to be responsive to concerns already expressed, particularly around environmental issues, the devastation will be irreparable. The area on which this development and wider construction site is situated includes the following:

- Sites of Special Scientific Interest (SSSI)
- National Nature Reserves (NNR)
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- RAMSAR

What assurances are there to ensure these sites will remain fully protected?

Light Pollution

With such a vast industrial installation with an unobscured view from Mersea Island it is inevitable that there will be excessive light pollution both during construction and operation.

Q3. People and jobs

The claims made in this section are imaginative. Of course local employment opportunities sound desirable yet examining the scant details raises further concerns:

- 1) Historically where multiple contracts are awarded to multiple suppliers of this highly technical nature the process is one where both the supplier and their already trained and approved sub-contractors are employed on-site to ensure a validated installation is carried out.
- 2) Local businesses with skills in the construction industry will suffer a skills drain.
- 3) With the claims made by the same EDF/CGN that Sizewell C can be built at a lower cost than Hinkley Point C and that skilled workers can move from one site to another it is clear that the same would happen at Bradwell B, so little advantage accruing to local businesses.
- 4) Any economic 'boom' would only be temporary. After construction local businesses that may have invested in expansion will find their trade diminish rapidly.
- 5) The classification of a workforce being considered 'local' is derisory when up to a 90 minute journey is involved (para 5.5.2).

Q4. Accommodation: overall approach

The documentation explains an expectation that up to 4,500 of the workforce will need to be accommodated near the site during the building phase. WMTC appreciates that BRB seeks to provide accommodation this close to enable workers to cycle and walk onto the site.

With Mersea Island just within the 90 minute car journey to the development site there is concern that there would be issues of increased traffic of temporary workers during the build period, WMTC wishes to receive details of the modelling predictions for this scenario.

Q5. Accommodation: temporary campus and caravan site

Scenario 1 - inappropriate

Scenario 2 - inappropriate

Providing this temporary campus type accommodation in some ways is a desirable initiative from an environmental perspective with fewer car journeys on and off site. However, this also demonstrates how much upheaval there will be within the two hamlets of Bradwell-on-Sea and Bradwell Waterside with a total population 863 (2011 census). For some considerable time this will completely disrupt the rural dynamic and tranquillity of these villages. Thereafter the corresponding disappearance of the temporary increased trade will damage the existing local economy.

Q6. Transport: overall approach

There is an uncomfortable prospect that if both Sizewell C and Bradwell B were to be given permission by the Secretary of State within 2 or 3 years of one another that the main traffic corridors could be overwhelmed. This would lead to particularly the A12 east and westbound becoming grid locked in both directions.

Clearly the impact of the suggested HGV route to the development site (orange route - page 18 summary document) would be greatest for Mersea residents. Regardless the documentation indicates the volume of HGV traffic will be substantial so the proposed return HGV route to the Rettendon Turnpike junction will also impact Mersea residents.

It should also be noted that the roads beyond Maldon are both labeled as minor roads and are unsuitable for the levels of HGV traffic this development would necessitate.

Therefore detailed data of the traffic modelling utilised needs to be provided to enable an informed response.

Q7. Moving freight: sea transport

Much more clarification is needed to determine the ratio of road to sea transport. Suffice to say any substantial increase in sea transport will have a detrimental effect on the local marine, water based leisure and tourism businesses.

Mersea has a number of world renown Oyster businesses that supply nationally and export internationally and WMTC has major concerns that the development would irreparably damage these businesses.

The area is within the largest Marine Conservation Zone (MCZ) in England and within it is the Essex Native Oyster Restoration Initiative (ENORI). ENORI has implemented a 200ha 'Blackwater Restoration Box' 500m south of West Mersea specifically to recover native oyster beds.

This whole scheme to protect the indigenous species would be put in jeopardy should Bradwell B go ahead, thereby threatening the livelihood of many local businesses and the wider associated trade.

The proposed jetties would all present navigational issues for all users of the estuary whether they be involved in sport (racing) or movement of commercial vessels traversing the area to or from docking upriver. Even if **Option 1: Beach Landing Facility** was the only jetty this would cause navigational restrictions as delivery barges would need to moor until sufficient tide permitted access to come alongside the jetty.

More detailed information must be provided with relevant statistics and data.

Q8. Road transport: Strategic Route 1

Please see the comment below in Q11 regarding the Bradwell section of the Strategic Route.

Q9. Road transport: Strategic Route 2 west

It would not be appropriate for WMTC to comment on this.

Q10. Road transport: Strategic Route 2 east

Please see the comment below in Q11 regarding the Bradwell section of the Strategic Route.

Q11. Road transport: Strategic Route 1 and 2 Bradwell section

The approach in this Stage One consultation is to indicate the option for a new road in the Strategic Route East which would actually traverse private (domestic) land. Prior to the public exhibition events in Steeple, Maldon and Bradwell there was no prior notification to residents that would be affected. This is totally inconsistent with the very notion of the rationale behind any consultation.

Whilst the selection of a Strategic Route has relatively low impact directly on Mersea residents, their relatives and friends living in the areas affected have been deeply distressed by the cavalier attitude by staff at those handful of public events that took place.

Q12. Transport: freight management facility

Option 3 in the area of the Rettendon Turnpike will have the most impact for Mersea residents being a regular waypoint for both business and leisure journeys.

Q13. Transport: park and ride

In respect of the optional park and ride sites the most impact to residents of Mersea Island would be at locations 2, 3a and 4. Many residents use the current public park and ride at Sandon to access Chelmsford, therefore the impact of selecting Option 2 would be the most significant. Both 3a and 4 would also have an impact on journeys to/from Mersea.

Q14. Consultation process

An overriding concern is that WMTC residents have not been given a substantial enough opportunity to gain reasonable insight into the proposal to be able to form a response to the BRB questionnaire.

West Mersea has an older demographic with the highest percentage of over 75 year olds in Colchester Borough. Further to this 15% of the population do not own a car. Many do not have their own internet access and can only do so at public libraries (all closed for public access once the consultation public events were abandoned). Furthermore a significant number of elderly residents suffer from a range of disabilities which makes responding next to impossible.

Clearly the overarching issue of the current government and health restrictions under the COVID-19 pandemic prohibited further face to face public exhibitions from mid March 2020 on with no prospect of reversing by the revised closing date of 1st July 2020 for questionnaire submissions. West Mersea Town Council respected the decision to cancel remaining public events once the restrictions were in force.

As far as the telephone engagements that were conducted it was not appropriate for BRB to insist on asking for full caller personal details before they would concede to enter into discussion. Whereas when attending a public exhibition event to request to provide personal contact details was optional. This therefore illustrates another restriction imposed.

It is clear that a high proportion of this community was unable to engage with your team fully. They stress that a face to face interaction is essential for them to understand the extent of the proposals before being able to respond to the questionnaire. Therefore we maintain this Stage One Consultation is insufficient.

Therefore West Mersea Town Council reserves the option to return to the Stage One questions further down the line as the pandemic restrictions prevent us from ensuring a complete response.

WMTC also wishes to make the point that this Consultation and associated documentation does not convey that it was designed primarily to engage with the public that would be affected by this development. Instead it promotes an illusion that decisions have already been taken by the government that are 'definite' rather than 'potential'.

Yours sincerely

Petra Palfreyman

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