Minsmere Levels Stakeholders Group,

Stop Sizewell C and

Theberton and Eastbridge Parish Council

Issue Specific Hearing 7 (Parts 1 & 2)

Oral Contribution by Cllr. Paul Collins

Biodiversity and Ecology

Please note any text highlighted with bold and italic emphasis in the following submission represents additional information not conveyed in the oral submission.

2. Terrestrial ecology

a) **Duties under ss.28G and 28I of the Wildlife and Countryside Act 1981 and the effects of s.28P**
    - No comments on this issue

b) **The Sizewell Marshes SSSI**

    i. **the SSSI crossing**
        - I would echo what the previous speakers have said about the three-span bridge, we've always felt that that was the most appropriate option for a bridge across the SSSI. It has the least impact, and it would seem to have the least land take.
        - The other issue that we have with the with the current design, and to an even bigger extent with the previous narrow culvert, is the fact that this is completely surrounded by sheet pile, and also then strengthened within it. The potential damage to groundwater movement through that part of the SSSI could be quite substantial.
        - I know that some of the experts that we have been working with, through Suffolk Coastal Friends of the Earth, have said one of the things they were concerned about is not that water can get held up, it could actually speed up drainage beneath the culvert and start to dry out the SSSI.
        - So that is the other concern that the groundwater effects are not as straightforward as they might seem to be. I would defer then to Dr Rob Lowe and Suffolk Coastal Friends of the Earth who lead on that particular set of assessments.
        - With respect to the conversation with the applicant, about why they could not construct the three-span bridge early, when they have the DCO approval but have not got the financial investment decision in place.
        - From our perspective, if the applicant had the DCO but then failed to get their FID and they had already constructed the crossing, then that would be another environmental disaster from a bridge or a culvert to nowhere and it would damage the SSSI and the designated habitats.
        - ***EDF are on record stating that they cannot build Sizewell C on their books, as is the case at Hinkley Point, and are***

reliant on government finding a way to provide a practical and risk minimised mechanism to seek investors from the market. That is the Regulated Asset Base discussion that is on-going with the government. However, success is not a foregone conclusion, whether or not the required legislative framework is put in place, as we have had several large pension scheme infrastructure investors stating clearly that they have no intention of investing in nuclear projects.

- Should no FID be forthcoming, this would be the second such unnecessary damage at Sizewell as we have already had one of these pre-emptive building projects called the Sizewell B Facilities Relocation.
- ***This was justified as necessary for the continued running of the Sizewell B power station but is clearly referenced in the DCO document which says it is vital to have that relocation for Sizewell C. Indeed the land that Sizewell B buildings and facilities currently occupy are vital if Sizewell C is ever to be built. Should Sizewell C not get it's DCO approval and FID, then had those facilities been left where they were, then Sizewell B would have continued to operate as it does now before those unnecessary changes are complete.***
- If Sizewell C can't be built despite an approved DCO for whatever reason, we've already had one set of damages to this environment, including the destruction of a 100 year old wood without any reason. The last thing we need is another folly courtesy of the applicant. So that is our concern

ii. fen meadow replacement, mitigation, monitoring and fallback

- ***The Halesworth , Benhall and Pakenham fen meadow compensation sites are referred to in the draft DCO as temporary acquisitions. There is also a suggestion that at the end of the construction/compensation development period at Pakenham an exit assessment and maintenance plan will be created before passing the plan back to ESC/SCC for long term execution. How is a temporary acquisition of the sites consistent with long term compensation (REP2-015) dDCO Article 37, Schedule 17?***

iii. wet woodland and other flora and fauna by reason of which it is of special interest

- No comments on this issue

iv. Water level monitoring

- The applicant's statement that Sizewell Marsh was unusually wet during the last winter and into the period of the accompanied site visits because of tide-locking at the Minsmere Sluice was erroneous. There has been an issue with the Leiston Drain in the southern Minsmere Levels needing to be cleared out. Leiston Drain is the responsibility of the EA. An agreement between EA, IDB and RSPB has now been reached to have the blockages cleared during autumn 2021.

c) **Minsmere – the marsh harrier, including the proposed HRA Compensatory Measures for the marsh harrier qualifying feature of the Minsmere-Walberswick SPA/Ramsar, and discussion of the proposed CM at Upper Abbey Farm (including proposed wetland habitat as detailed in REP2-119 and proposed management and monitoring measures), together with the Westleton compensatory habitat.**
    - I erroneously referred to compensation habitats and temporary acquisition in this section in my oral presentation when it should have only applied to the fen meadow compensation habitats at 2 (b) ii above. I have now added that question and point to the section above.

d) **HRA**
    - **i. Progress update on status of the Water Industry National Environment Programme (WINEP) study being undertaken by Essex and Suffolk Water**
        - No comments on this issue
    - **ii. To understand the differences between Interested Parties (IPs) and the Applicant on the Applicant's conclusion of no adverse effects on integrity (as presented in the Shadow HRA Report and addendums) for the following matters**
        Disturbance/displacement effects on breeding and non-breeding waterbirds using functionally-linked land to MinsmereWalberswick SPA/Ramsar due to noise and visual disturbance
        - No comments on this issue
    - **iii. To understand the differences between IPs and the Applicant on the effects of recreational pressure on European sites and to discuss the monitoring, mitigation and management proposed to conclude no adverse effects on integrity**
        - No comments on this issue
    - **iv. Progress on written agreement to maintain access for the RSPB to the southern side of Minsmere Reserve.**
        - No comments on this issue
    - **v. 'collision risk' - concerns raised by NE re lack of collision risk assessment for new pylons**
        - No comments on this issue
    - **vi. Position update on air quality effects due to NOx and acid deposition'**
        - No comments on this issue

e) **Protected species – moved to examination questions 2 ExQ2**

f) **Other designated sites – written submissions D5**

g) **Ancient woodland, veteran trees and the route of the Two-Village Bypass**
    - No comments on this issue

h) **The Sizewell Link Road – mitigation for loss of watercourses, mammal and invertebrate surveys**
    - No comments on this issue

i) **Duties under ss. 40 and 41 Natural Environment and Rural Communities Act 2006 – Heard Friday 16th July**
    - Whilst the SoS will eventually have to take note of the impacts on biodiversity with a view to increasing biodiversity though the Natural

Environment and Rural Communities Act 2006 (40 and 41) and Planning Act 2008 (10). We also know that as the government's recognition of the importance of biodiversity increase that further requirements upon developers to conserve and increase biodiversity will likely be present in the new Environment Bill which should come into force late this year.

- But for the present, I am specifically concerned by the statements from the applicant (REP1-004) that they have calculated that an ~19% increase in biodiversity ***(Executive Summary p7)*** will be achieved as a result of this project plan is a somewhat over simplified view of what will actually happen on site for both the period during the development of the power station and then the inevitable time that it will take to realise a biodiversity increase for a variety of reasons, such as it taking years to decades to re-establish mature areas of woodland, lowland heath or acid grassland etc.
- Recently Adam Rowlands RSPB referred to a proposed development near Colchester, where he indicated that from the RSPB's experience in establishing acid grassland habitats, *"It is an intensive and lengthy process that can easily take a decade to be successful."*
- I don't think I need to talk about how long trees and functioning woodland habitats take to establish from saplings or even 5-10 year old trees such have already been planted on EDF Estate close to the sluice path in the Minsmere Valley.
- We are also aware that some of the planting that has been established at Pillbox Field as mitigation in the SZB facilities relocation have already failed and will require additional mitigation planting at that site.
- ***How long does it take to replace a 100-year-old wood (from a biodiversity standpoint), even if it is in "poor condition"?***
- That sets the context into which the applicant's calculations of biodiversity increase should be assessed.
- ***All the following analysis is based on REP1-004 and the various tables and calculations evidenced by the applicant. A summary of the calculation results can be found in the Summary chapter at an image 8.1.1. It should be noted that I have not included Hedgerow units in any of the calculations below as they are the whole minor and should not be summed with the main area calculations.***
- The applicant's evaluation of the main site with its offsite areas are evaluated at "baseline" and "post intervention" to calculate the Biodiversity Net Gain (BNG). There are issues with EDF's inclusion of some compensation sites within the post intervention calculation, as well as existing issues of lack of habitat maintenance to produce "good" results, which have been pointed out by Suffolk Coast Friends of the Earth in their written representations REP2-455 and REP2-456 and Pillbox Field I referred to earlier.
- In many other development situations biodiversity net gain analysis will be applied to interventions that are made to the land with no or little other activity on the land once its starting state has been determined and the enhancement/intervention is started to drive forward the biodiversity net gain.
- This is not the case at SZC.

- For SZC, what these simple calculations and claims fail to achieve is to recognise the time element of these changes and cumulative loss of biodiversity at the site over the period of the development.
- The SZC construction project lasts ~12 years and removal of the various areas/habitats, existing uses and the biodiversity contributions of those areas is a significant negative impact over the timeframe of the development which needs to be recognised and assessed.
- Whilst some off-site habitats are already in place (but of disputed value), when it comes to the main site, on day1, of the first year of development, the main site will start to be cleared and fairly rapidly its contributions to biodiversity units (the measure being used in these assessments) ceases. This area will provide no biodiversity contribution for a minimum of 12 years and then, as I discussed earlier, it will take significant lengths of time to establish the post intervention landscape and habitats on this site.
- ***This also applies to the associated development sites which I address later.***
- **So, we should look at the impact on biodiversity at this development over time, as there is undisputed damage to the environment by the construction site works. In many ways the analysis which follows is analogous to the Lifecycle Assessment for CO2 REP2-110 Appendix 9A that is still disputed in its own right.**
- In terms of those biodiversity units, which are the currency of BNG calculations, **the onsite loss over 12 years is 1,244.45 * 12 or 14,933 biodiversity year units**.
- The off-site areas are already established, and whilst I agree with SCFOE that they are not in good condition and thus are certainly not contributing as many units as claimed in EDF's calculations, I have accepted, for the purposes of this discussion only, that I will use EDFs figures even though they are likely to be overestimates given the condition of these areas. **So, over the same 12-year period they will produce a positive contribution of 6,603 (550.28 * 12) biodiversity year units** as a result of their existing improved post intervention score over baseline.
- **So, subtracting that from the main site 12-year total loss we are still left with a deficit of 8,330 (14,933 – 6,603) biodiversity year units.**
- **At 12 years the post intervention condition of the main site is worse than its baseline by 326 biodiversity units (918.51 c.f. 1,244.45)**. As a result**, the annual positive contribution of the off-site areas originally at 550 units is reduced to 224 units for years 13 and beyond**.
- Those 224 biodiversity units now have to pay back the 12-year deficit of 8,330 biodiversity year units. **If we divide 8,330 by 224, the payback comes out at 37.2 years, over halfway through the operational lifetime of the generating station**.
- According to EDF the Biodiversity net gain for just this portion of the construction area is 18.03% which is clearly ridiculous and completely

ignores the damage of 12 years of construction to the biodiversity of this area.

- I have referred to the issues of inclusion of reptile mitigation areas within the post intervention scores for the off-site areas already via Suffolk Coastal Friends of the Earth representations, so that will necessarily further reduce the compensation from the off-site areas to the main site and extend the payback period.
- There are other issues that cannot be accounted for in these calculations and perhaps the main one is that SSSI sites and other designations are excluded from the calculations for now as it is recognised that their special characteristics cannot be accommodated within the current framework.
- So, all the losses within the SSSI, for example fen meadow, wet woodland and reed bed cannot be accounted for as losses in the above calculation.
- EDF have as a result excluded the Aldhurst Farm reed bed from the off-site calculation although the other landscapes there, are included.
- It is widely accepted that the urban setting of that reed bed cannot really replicate and compensate fully for the remote reed bed within Sizewell Marsh SSSI which reinforces the fact that SSSI and other designated habitats cannot currently be included in these evaluations.
- EDF have assessed Two villages bypass, Sizewell Link Road and Yoxford Roundabout with surprising results for SLR with a 45.6% positive contribution to BNG compared to the other two giving negative results.
- No assessments have been made for the two Park & Ride sites or the Freight Management Facility which are all sites where arable land will be converted to car park and mainly hard surface, once again removing the majority of biodiversity units for the period of their existence, before being returned to original use and thus with no net gain, once again further deepening the negative impact and lengthening any payback period.
- On a final note of reflection of a well-used but perhaps not fully appreciated phrase by many people, including myself, I think what the above represents is that this project is an “unmitigated disaster” and in reality an unmitigable disaster whether you look at the environmental, ecological or biodiversity aspects of its impacts. Thank you.

Additional assessments of Associated Developments not included in the oral presentation or any written representation

- *Further to the above analysis if we include Sizewell Link Road, Yoxford Roundabout, Two Villages Bypass, Sizewell B Relocation, both Park & Ride Sites and the Freight Management Facility* ***there is an increase in permanent loss of ~2,503 biodiversity year units and biodiversity net gain of 95.55 biodiversity units per annum.***
- ***Combining those assessments with the main site analysis above, the picture improves a little with the payback period reducing to a little under 36 years.***

	Area in hectares	On-site Baseline	On-site post intervention	BNG	Years in construction / construction use	Biodiversity permanent loss
Sizewell Link Road	N/A	240.96	350.88	109.92	2	481.92
Yoxford Roundabout	N/A	5.84	4.76	-1.08	1	5.84
Two Villages Bypass	N/A	160.61	147.32	-13.29	2	321.22
Northern Park & Ride*	27.8	60.47	60.47	0	12	725.58
Southern Park & Ride*	26.1	56.77	56.77	0	12	681.21
Freight Management Facility*	11	23.93	23.93	0	12	287.10
SZB Relocation	N/A	98.86	118.25	19.39	4	395.44
Main site area	N/A	1244.45	918.51	-325.94	12	14933.40
Off Site areas	N/A	429.99	980.27	550.28	-12	-5159.88
Totals	**64.9**	**2321.87**	**2661.1475**	**339.28**		**12189.91**
Arable units /ha*	**2.175**		1.146123756		**Payback Years**	**35.93**
* Average Baseline units for Arable : Table 8						

Values for the Park and Ride and Freight Management Facility calculations use an average value for biodiversity units per hectare taken from REP1-004 Table 8 where two values are given with respect to such areas on the main site. Off-site areas have a negative value for years in construction as they are already established at year 1, day 1.

- *This payback period really underlines the fact that this project is enormously destructive overall.*
- *Additionally, the fact that the main site area, which splits the Area of Outstanding Natural Beauty and effectively separates Minsmere and Walberswick Marsh and Heaths from Sizewell Marsh SSSI, is* ***permanently damaged reducing from 1,244.5 to 918.5 biodiversity units (a 26% loss)*** *and it most be borne in mind that* ***these calculations do not include any SSSI damage, much of which is also permanent****, further supports the case for rejecting this development.*
- *With a biodiversity crisis alongside the climate crisis, trashing such a unique and biodiverse space that also contributes to sequestering CO2 in its marsh, peat and wet woodland, it is beyond belief that this can be considered in any way as sustainable or have a BNG value of 19%.*
- ***It is time that we think again about proposed developments such as this as it is the wrong project at the wrong time and in the wrong place.***

j) The position in relation to Letters of no impediment and any Environment Agency comfort letters

- No comments on this issue

3. Marine ecology

- No direct comments on this issue but support for TASC and Dr Peter Henderson's submissions on fish impacts

a. HRA, European and other designated sites

i. Marine Mammals

ii. Fish, including migratory fish

iii. Birds - Disturbance/displacement of the red-throated diver qualifying feature of the Outer Thames Estuary SPA due to vessel movements/traffic

iv. Birds – collision risk

b. Cooling water system, acoustic fish deterrents,

c. The securing mechanisms to control impacts on marine water quality;

d. Fisheries, fish stocks, equivalent adult values, sabellaria spinosa;