

**MINUTES OF ASSESSMENT MEETING ACP-2023-079  
SCOTTISHPOWER RENEWABLES (UK) LTD EAST ANGLIA HUB WINDFARMS MITIGATION  
HELD ON MICROSOFT TEAMS ON THE 16 JANUARY 2024**

16 January 2024

<b>Present</b>	<b>Appointment</b>	<b>Representing</b>
[REDACTED]	Airspace Change Account Manager	CAA
	Airspace Change Account Manager	CAA
	Airspace Regulator (Technical)	CAA
	(Economic)	CAA
	(Engagement and Consultation)	CAA
	(Environmental Lead for this ACP)	CAA
	(Environmental)	CAA
	Senior Aviation Analyst	SPR
Osprey CSL Senior Consultant	SPR	
	Project Manager	SPR

**CAA Assessment Meeting Opening Statement**

The CAA noted that the following ACP-2023-079 Stage 1 Assessment Meeting slides were received in advance of the Assessment Meeting and confirmed that the documents must be published by the Sponsor, together with minutes of the meeting, on the Airspace Change Portal page. The CAA explained the purpose of the meeting and confirmed that the meeting was an Assessment Meeting and not a Gateway. The CAA reinforced that the Sponsor was required to provide a broad description of their proposed approach to meeting the CAA’s CAP 1616 requirements, but the CAA was not deciding whether the proposed approach met the detailed requirements of the CAA’s process at this stage. The purpose of the Assessment Meeting (set out in detail in CAP 1616) was broadly:

- for the Sponsor to present and discuss their Statement of Need,
- to enable the CAA to consider whether the proposal concerned falls within the scope of the formal airspace change process, including determining whether the proposal falls within the scope of a pre-scaled ACP process/Level 3,
- to enable the CAA to consider the appropriate provisional Level to assign to the change proposal.

Additionally, the Sponsor was required to provide information on how it intended to proceed to fulfil the requirements of the airspace change process and to provide information on timescales. Lastly, the Sponsor was required to provide information on how it intended to meet the engagement requirements of the various stages of the airspace change process.

	<b>ACTION</b>
<p><b>Item 1 – Introduction</b></p> <ul style="list-style-type: none"> <li>• [REDACTED] welcomed everyone to the call and asked if all could provide an introduction, also confirmed a list of all CAA representatives will be shared after the meeting.</li> <li>• [REDACTED] confirmed the format of the meeting and ran through the formal opening statement (as provided above). [REDACTED] handed the meeting over to [REDACTED] for the SPR presentation slide, stating we can pause for any questions, if able or she may interject to ask her colleagues if they have any.</li> </ul>	

<p><b>Item 2 – Statement of Need (discussion and review)</b></p> <ul style="list-style-type: none"> <li> <p>█ stated SPR are seeking to engage the CAA in this airspace change process (CAP1616) for a solution to mitigate the NATS Cromer Radar impact from East Anglia Hub windfarms. █ states that the contents page from the presentation mirror the standard CAA Agenda items, and that SPR will work through the various sections.</p> </li> <li> <p>█ delivered the presentation which covered the purpose, why it has arisen, and described the current situation. █ stated some opportunities have been identified and have been reviewed in line with the new version of CAP1616 (Version 5).</p> </li> <li> <p>█ confirmed that the scope of this ACP includes the SPR development for three offshore windfarms; East Anglia Three (EA3), East Anglia One North (EA1N) and East Anglia Two (EA2), collectively called the East Anglia Hub (EAHub). The EAHub complex is in the South North Sea, East of the Norfolk coastline.</p> </li> <li> <p>█ informed the attendees that the singular purpose for driving this ACP engagement is to address NATS’ objection concerning the adverse effects the EAHub wind turbines may present to Cromer Radar. To mitigate this, a solution is required so the windfarm can operate without impact to the aviation operations and ANSPs. It was highlighted by SPR that many of the offshore windfarms, including the EAHub, are classified as critical to the UK National Infrastructure. EAHub is one of the projects that contributes to the UK Government’s Energy Strategy, and a major part of the UK’s Energy Security.</p> </li> <li> <p>█ confirmed that the Statement of Need (SoN) was published on the CAA portal, and the presentation highlights several of the key statements.</p> </li> <li> <p>█ stated to the attendees that all wind turbines from the EAHub windfarm sites will be visible to the NATS Cromer Radar, and that some form of radar impact mitigation will be required. The SPR team stated that they have a good understanding of the airspace surrounding the windfarm sites (Ref: Presentation Situational Awareness (Aviation) Map), and further stated that work has already begun to identify key stakeholders who will need to be re-engaged with at various stages of the airspace change process.</p> </li> </ul>	
<p><b>Item 3 – Issues or opportunities arising from proposed change.</b></p> <ul style="list-style-type: none"> <li> <p>█ expressed to the attendees that SPR are seeking a Transponder Mandatory Zone (TMZ) solution, in line with NATS’ recommendation.</p> </li> <li> <p>█ acknowledged that due to previous exposure of similar onshore projects, SPR are cognisant that the General Aviation (GA) community and identified stakeholders hold some concerns on the establishment of TMZs and the expanding usage of these zones across the UK. He further commented that due to a TMZ’s requirements for air users to transpond when transiting through a TMZ, the GA community, a known non-transponding air user community, may see this as a further restriction of airspace. SPR see this as a legitimate issue, which will be addressed at the appropriate stage of the ACP.</p> </li> <li> <p>█ informed the attendees that a further parallel workstream programme is being conducted to specifically address the MOD air defence radar objections. The Offshore Wind Industry Council (OWIC) an Aviation Task Force (OWATF), to which █ (SPR) is a contributing member, is tasked with addressing these issues outside of civil airspace processes. The Task</p> </li> </ul>	

<p>Force are managing a broader programme to review the impacts of a wider TMZ issue, so are aware of this work.</p> <ul style="list-style-type: none"> <li> <p>█ commented that EA3 is very close to Vattenfall (VF) Norfolk projects, particularly the Vanguard project, they already have an airspace change approved (23 June 2021), but not yet implemented (Norfolk Vanguard &amp; Norfolk Boreas Windfarms - ACP-2018-03) for Norfolk developments, consideration should be given for a joint ACP alongside VF Vanguard.</p> </li> <li> <p>█ asked the CAA team if there were any questions at this stage, which there weren't.</p> </li> </ul>	
<p><b>Item 4 – Options to exploit opportunities or address issues identified.</b></p> <ul style="list-style-type: none"> <li> <p>█ raised the point that Energy security for the UK has come into focus with the war in Ukraine, and various other global issues, as well as the climate emergency on carbon fuels. The need and demand for renewables is accelerating and brings methodology and practice for wind and aviation to collaboratively coexist.</p> </li> <li> <p>█ commented that SPR are looking to take a more strategic approach to the EAHub ACP. Taking into consideration the CAA's capacity at present, SPR see one ACP to cover multiple windfarms presents a great opportunity to demonstrate and manage a complex Level 3 ACP under a single ACP.</p> </li> <li> <p>█ referred to the Vattenfall Windfarm ACP and commented that SPR have already reached out to the VF Change Sponsor to find ways of future collaboration and develop the two ACPs.</p> </li> <li> <p>█ highlighted the overarching piece, conscious of aviation modernisation strategy, electronic growth, this fits very well with modernisation.</p> </li> <li> <p>█ highlighted that communication and engagement are key to the process, planning, and early engagement with stakeholders, providing design principles, rationale, capturing and addressing any issues. JW acknowledged that keeping CAA updated on progress is key, seeking advice and providing frequent updates at all stages, as the process progresses.</p> </li> <li> <p>█ stated that the Aviation Task Force, MOD and NATS are key stakeholders, SPR want to help these programmes, sharing information to get these processes right. Collaboration with Vattenfall and the CAA to achieve the best solution.</p> </li> <li> <p>█ asked the team if there were any questions at this stage. No Questions raised.</p> </li> </ul>	
<p><b>Item 5 – Provisional indication of the scale level and process requirements*</b></p> <ul style="list-style-type: none"> <li> <p>█ confirmed the project team have reviewed the new version of the CAP1616 (Version 5) process. Having reviewed in detail and taking into consideration the airspace structure, likely air users, aerodrome operations, SPR believe this ACP pre-scaling criteria meets the requirements for CAP1616H Annex B – Establishment of Transponder Mandatory Zones for Offshore Wind Farms.</p> </li> </ul> <p><b>Timelines (slide 9 within initial assessment slide pack)</b></p> <ul style="list-style-type: none"> <li> <p>█ provided the indicative operational timelines for the projects: EA3 expecting to go live Q1 2026, and EA2 &amp; EA1N expecting to be 2028 Q1 And Q4 respectively.</p> </li> </ul>	

- [REDACTED] stated that to plan for project timelines, and acknowledging that pre-scaling and the new CAP1616 processes may affect the timeline, an anticipating double **AIRAC Q2 2025 deadline** was identified (worse-case scenario), to meet EA3 timelines based on CAP1616-H Annex B. It was also reiterated that the timescale factors may also be expedited should a successful EA3/Vattenfall collaboration be achieved. Once the outcome of the level has been confirmed a new detailed timeline will be provided.
- [REDACTED] commented that in terms of starting the ACP in Q1 the 2025 doesn't seem like a tight timescale. [REDACTED] further commented that quite often CAA are asked to decide well in advance of the projects (18 Months).
- [REDACTED] contributed that the target date for the ACP would then be July/August 2025 in terms of submission. [REDACTED] also reminded the SPR team that there is a requirement for HRA assessment and that SPR should allow for a few weeks to review that as well as 4-week consultation period.
- [REDACTED] further stated that due to timelines the project is slightly behind in requesting the ACP for EA3.
- [REDACTED] asked SPR as to what analysis has already been conducted and to what level. [REDACTED] stated that an initial airspace assessment has been conducted of the ACP area, along with reviews of similar ACPs documentation such as Berwick Bank and Vanguard. SPR concluded that this ACP will be of a minimal impact.
- [REDACTED] asked SPR as to what aircraft data has been reviewed, is the aim of the ACP to combine all wind farm sites within one TMZ, [REDACTED] replied by stating flight level data has been reviewed, nothing major has been identified through these initial checks (HEMs, operators, etc).
- [REDACTED] added that a qualitative assessment had been carried out by Seagreen (TMZ) concerning the GA community operations in the North Sea, and their analysis indicated very little activity. Due to the extreme location of the EA Hub sites, the Change Sponsor will be looking to provide a similar approach to justifying a non-quantitative assessment, supported by similar geographic precedence.
- [REDACTED] also commented that further precedence has been set for relating to a TMZ dimensions encompassing multiple wind farms, such as the Greater Wash area. This approach will also be considered to assist when identifying future options.

#### **Stakeholders (Slide 10 within initial assessment slide pack)**

[REDACTED] highlighted the key stakeholders as the following, referring to the NATMAC list.

- NATS as the main ANSP providing services in the airspace.
- MOD as a major operator and provider of services in the airspace (In conjunction with OWIC)
- Norwich and Southend airports although none of their procedures are close to the windfarms.
- GA operators and airfields
- HEMS operators
- Offshore helicopter operators

[REDACTED] commented that SPR intend to Engage stakeholder via virtual meetings for this ACP and set up strategic groups, 1-2-1s and direct engagement via email communications (via Tractivity & Citizen Space).

<p>■ advised that when using the NATMAC list, sponsor should ensure they engage with all relevant members of NATMAC giving a rational for non-engagement with any specific members in the engagement strategy.</p> <p>■ added that an up-to-date version of the NATMAC can be provided closer to the time.</p> <p><i>* When the sponsor submits their gateway materials for each Gateway at the agreed submission deadline, the period between this and the gateway decision will be an analysis by the CAA Airspace Regulatory team (Airspace Regulation) of the documentation submitted, for the purposes of making a recommendation to the CAA Gateway decision maker(s). In conducting the gateway assessment, the CAA is assessing the process employed and its compliance with the guidance stipulated within CAP 1616. It is not an assessment of the merits of the submission itself, which is reviewed at Stage 5 - Decision. We may request documentation from the sponsor that is referred to in the gateway submission but has not been provided as part of the Gateway submission materials. We may also request the sponsor to provide information by way of clarification relating to statements or assumptions made in the submission. Any further information sought by Airspace Regulation at this stage is for clarificatory purposes and is only for determining compliance with the CAP 1616 process.</i></p> <p><i>In any instance where a sponsor has not met the requirements of the process, we will inform them after the gateway decision and advise of next steps.</i></p> <p><i>Please note that <u>this text does not apply to airspace change proposals involving the sole implementation of RNP Instrument Approach Procedures (IAPs) without an Approach Control</u>, as Gateway Assessments are not required. Therefore, this text can be removed from the Assessment Meeting minutes.</i></p>	
<p><b>Item 6 – Provisional process timescales*</b></p> <ul style="list-style-type: none"> <li>● ■ stated that an email attachment containing a template for provisional timeline submission will be sent on post meeting washup, return these with provisional dates to be included when uploading the minutes.</li> <li>● ■ directed the attendees to the MAP (slide 12) of the slide pack to highlight that, due to the EAHub proximity to the Flight Information Region (FIR) boundary, the Dutch Civil Aviation Authority will also be engaged as a primary stakeholder.</li> <li>● ■ raised a point that there is a potential option to use a single TMZ covering all EAHub sites. However, looking at buffers (e.g. 2nm safety buffer added to a wind farm boundary to define the lateral limits of a TMZ) there will be an overlap with Vanguard and there may be consideration given to expanding the Vanguard TMZ application to address the EA3 site. ■ further commented that it is likely that the EA1N &amp; EA2 option will be separated from any EA3 option and be independent of any overlap with Vanguard.</li> <li>● ■ commented on the logical approach and assumptions presented by SPR. TBL stated that EA1N &amp; EA2 site proximity represents a shorter distance than that between the Greater Wash windfarm sites. It was further acknowledged that a single TMZ solution may not be a suitable geographical option for this ACP, primarily due to the CAP 1616 principle of utilising the least amount of airspace. This is further supported in providing a good balance between TMZ airspace allocation (to meet EAHub mitigation requirements) and the GA communities transitional access from the Norfolk coastline into Dutch airspace.</li> <li>● ■ supported this approach stating that to meet ANO requirements CAA need to meet the possibility of GA use, so to have a gap between a combined EA1N/EA2 and EA3 (once buffers have been applied) could allow that crossing to be made available if required.</li> <li>● ■ asked if there was potential for ATM service provision to allow access to the TMZ(s) for non-transponder equipped aircraft. ■ replied and stated that SPR will raise this with NATS.</li> </ul>	

<ul style="list-style-type: none"> <li>• [REDACTED] asked SPR whether, due to their geographic location, they see any benefits of having 1 continuous shaped TMZ structure over Vanguard and EA3? [REDACTED] responded that SPR are still awaiting the Vanguard TMZ Lateral limits to provide further analysis.</li> <li>• To address [REDACTED] query concerning map representation of EA Hub, the map shall be updated by SPR to depict the windfarm perimeters only. [REDACTED] confirmed that the awareness map shows no representation of proposed airspace options.</li> <li>• When asked by the CAA, [REDACTED] confirmed that EA3 windfarm is geographically within the UK FIR boundary, and that SPR can provide more detailed turbine layouts if required.</li> </ul> <p><i>* The timeline agreed may become subject to change by the CAA. As outlined in CAP 2541 it is not the CAA's intent to conduct a re-prioritisation of all ACPs currently in progress, but only to prioritise when we believe this is required. Such prioritisation will be conducted on a case-by-case basis and in accordance with the principles outlined in CAP 2541. Should it be considered necessary to reprioritise an ACP a member of the Airspace Regulation team will contact the sponsor directly.</i></p>	
<p><b>Item 7 – Next steps (Highlighted on slide 13)</b></p> <ul style="list-style-type: none"> <li>• Confirm CAA decision on pre-scaling ACP level (provisional). (Received: 16/01/24 – Confirmation of pre-scale Level 3 ACP)</li> <li>• Produce minutes from assessment meeting.</li> <li>• Send minutes to CAA for review.</li> <li>• Upload redacted minutes and presentation to airspace portal.</li> <li>• Upload ACP timescale to airspace portal.</li> <li>• Update Statement of Need (SoN) if applicable.</li> <li>• Produce 'current-day scenario' document (in-line with ACP timescale) and upload to airspace portal.</li> <li>• [REDACTED] invited the CAA team to confirm they were content to allocate as level 3. The CAA team agreed.</li> <li>• [REDACTED] requested that if one TMZ is being considered, the data on the impact analysis (considering Track miles, CO2 emissions) should be shared as it could change the provisional ACP level and any associated considerations.</li> <li>• [REDACTED] asked for the draft minutes to be shared for review. MC further confirmed with the team that SPR covered in the presentation.</li> <li>• [REDACTED] requested the Situational Awareness Map (Aviation) be updated to denote wind Farms boundaries. MC added that once amendments have been made to the map, the CAA ACP presentation can be uploaded to the Airspace Portal.</li> <li>• [REDACTED] confirmed no changes to the Statement of Need (SoN) were required.</li> <li>• [REDACTED] stated that the Current-day Scenario document is a requirement for SPR to complete and will also be included in the stage 4 assessment. [REDACTED] added that for the Current-day Scenario a description of the impact is included and sufficient information relevant to the current flight behaviours, current airspace users, type of aircrafts, frequency/number of movements, typical altitudes, estimate of aircraft transponding in the airspace using radar and other relevant information that will help the CAA understand the situation, and the level of impact due to the change. [REDACTED] added a clarifying point on the Current-day scenario query, it's reasonable to expect that this document mirrors the requirements of baseline scenario from the previous CAP 1616 process.</li> </ul>	

- [REDACTED] raised a further point stating that the MOD have confirmed that they have accepted that this ACP process will be the part solution (along with Radar Range and Azimuth Gating (known as RAG Blanking)) to resolve NATS's objection but highlights their concern over the number of TMZs. [REDACTED] highlighted to SPR that the terminology used should be accurate: the TMZ is used to mitigate the impact of applying RAG Blanking to the PSR; it is the RAG Blanking that is used to mitigate the potential for the wind turbine generators to cause radar clutter. Moving forward this should be adequately explained to stakeholders, some of whom may not be familiar with aviation, and correctly referenced in all future communications within the ACP.
- [REDACTED] advised that at stage 3 engagement should be undertaken with nearby aerodrome operators, air navigation service providers, the MOD, and any other potentially impacted airspace users. An engagement strategy should be produced setting out:
  - which stakeholders the sponsor plans to engage with and how they were identified.
  - how the sponsor plans to engage with those stakeholders
  - what materials the sponsor will be using to support the engagement activities
  - the timescale over which they intend to engage and the rationale for duration.
  - The engagement material should include as a minimum: all design options proposed, a qualitative assessment of the impacts of each option and a description of any options that have been considered but are not being proposed and the reasons why they are not being proposed.
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  - At stage 4 when submitting the final proposal, the sponsor must produce and submit an engagement summary report which sets out a summary of the feedback received through the engagement activities as well as a description of how this has affected the final design if it has.
  - Engagement records must be maintained as will be used to judge the validity of engagement activity.
- [REDACTED] – pointed out next stages.
  - There is no requirement to develop a list of design options beyond what is practically achievable and no requirement to conduct a full design principle evaluation; however, the Sponsor must demonstrate how the airspace change proposal meets or does not meet the mandatory design principles.
  - The Sponsor is required to analyse the potential impacts of the TMZ on non-transponding aircraft that operate in the local airspace for the future baseline scenarios without the airspace change proposal and the design option with the proposed change and subsequently the greenhouse gas emissions resulting from the change. Based on the analysis, if the Sponsor believes a quantitative assessment of greenhouse gas emissions will result in no difference in the outputs then a qualitative assessment of the impact may be used instead. However, the Sponsor must present a robust rationale supported with appropriate evidence.
  - There is a requirement to complete the Habitats Regulation Assessment - Early Screening Criteria form, as given in CAP1616i to determine if the airspace change proposal is likely to have a significant effect on a European site. To identify European sites the Sponsor can look at the Environment Agency repository (Magic Map website). No further assessment will be required if the airspace change proposal is unlikely to have a significant effect on a European site.

**Item 8 – Any other business**

- [REDACTED] stated that if there are no further points the meeting will close and [REDACTED] will be followed up with an email summary of the personal and appropriate actions to all attendees.



**ACTIONS ARISING FROM SCOTTISHPOWER RENEWABLES (UK) LTD EAST ANGLIA HUB  
WINDFARMS MITIGATION ASSESSMENT MEETING**

<b>Subject</b>	<b>Name</b>	<b>Action</b>	<b>Deadline</b>
Update Situational Mapping	SPR	Update Situation Map with wind farm boundary notation. Add to presentation and upload onto airspace portal	19 <sup>th</sup> Jan 24
CAA Assessment Meeting Minutes	SPR	Provide CAA with a copy of the draft minutes	23 <sup>rd</sup> Jan 24
	SPR	On Approval from the CAA upload a redacted version of the CAA Assessment Meeting Minutes on the airspace portal.	By no Later than 30 <sup>th</sup> Jan 24.
Timescale	SPR	SPR to submit ACP timescales	26 Jan 24 (midday)

  
ACP Sponsor