United Nations Educational, Scientific and Cultural Organization

Dorset and East Devon Coast inscribed on the World Heritage List in 2001

JURASSIC COAST TRUST

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21st September 2021

F.A.O Minerals and Waste Planning Team

Re: WP/20/00692/DCC, Portland Port, Castletown, Portland DT5 1PP
Construction of an energy recovery facility with ancillary buildings and works including administrative facilities, gatehouse and weighbridge, parking and circulation areas, cable routes to ship berths and existing off-site electrical sub-station, with site access through Portland Port from Castletown.

Jurassic Coast Trust final comments

Thank you for your email highlighting the additional information that has been submitted to complete the Environmental Statement on this application. Having reviewed this information, we would like to make the following comments;

As stated in our previous response submitted in October 2020, this development will negatively impact the setting of the World Heritage Site. The Jurassic Coast Trust does not have the technical expertise to fully assess an application of this nature, we therefore rely on Dorset Council to determine whether the applicant has indeed shown appropriate levels of mitigation against negative impacts on the setting of the WHS in line with policy IM3 in the Jurassic Coast Partnership Plan 2020-2025;

IM3: Proposals for aggregate or mineral extraction, oil or gas exploration and exploitation, and renewable energy developments outside of the inscribed area of the WHS, but which could have an impact on it, should consider potential harm to the OUV and/or setting of the Site during the earliest stages of planning and take measures to ensure that harm is avoided.

- The best mitigation is to build the facility at an alternative site. Considering the highest level of protection afforded WHSs in NPPF, has the right amount of work been done to rule out alternative sites?
- Does the design of the building represent the best possible option in terms of reducing its visual and operational impacts?
- Do the visualisations and supporting analysis of the 'worst case scenario' plume conform to industry best practice?

For further information about our concerns relating to the operation of the ERF please refer to our response to the Environmental Permit Consultation, which we have appended to this document.

Assessing impacts on the setting of the Dorset and East Devon WHS

At the national level, Historic England provide DCMS with technical expertise relating to delivery of the Operational Guidelines for the Implementation of the World Heritage convention. Standing advice to us, from Historic England, is that the experiential setting of the Jurassic Coast is not a feature in and of itself. Instead, it relates to experiences that enable an understanding of or appreciation for the geological elements of the WHS that underpin its attributes and Outstanding Universal Value (OUV). In this way, potential negative impacts on the setting of the WHS are not equivalent to impacts on wider landscape character and quality, and are in fact far more constrained. It should be noted however that general landscape quality forms an important *context* for experiences linked to the OUV of the WHS.

Table 1 sets out the specific elements of the environment around the proposed development that constitute Attributes of the WHS. For a more detailed account of the role of Attributes in WHS conservation, see the Jurassic Coast Partnership Plan 2020-2025.

Table 1: Features in the environment of Portland that can be considered attributes of the WHS.	
Stratigraphy and structure	Exposures of; • Kimmeridge Clay formation • Portland Group • Basal Purbeck Group • Corallian Group
Palaeontological record	Jurassic-Cretaceous reptilia
Geomorphological features and processes	Mass movement at Blacknor, Portland Chesil Beach
Ongoing scientific investigation and educational use, and role in the history of science	• Exposure of fresh fossils along the coast of Portland and along parts of Portland Harbour Shore • Ongoing research at coastal rock exposures and in working quarries • Historic fossil collections housed in museums
Underlying geomorphological processes in the setting of the Site	• Relates to the expression of underlying geology as part of landscape character • Relates to changes in drainage / groundwater regime that could affect mass movement or developments that could alter wave energy and patterns

Due to its position, the proposed ERF will have no direct impact on the stratigraphic, palaeontological or active geomorphological elements identified, and therefore no meaningful impact on ongoing scientific research or educational activities. The key sensitivities that arise relate to views into and out of the WHS, specifically regarding how these localised WHS Attributes find an experiential presence within the setting of the WHS;

- Visibility of relevant stratigraphy
- Visibility of evidence of mass movement
- Visibility of how the underlying geology is expressed as part of landscape character

The current Local Plan and Dorset Landscape and Seascape Assessment can be used to help connect these experiential elements to local landscape character, which in turn is protected by local policy. See Table 2.

Table 2: Features in the environment of Portland that can be considered attributes of the WHS.		
Dorset landscape and seascape assessment	**Connection with WHS locations and attributes**	**Impact caused by proposed ERF**
LCT 1f: limestone peninsula – p.99 KEY CHARACTERISTICS	Isle of Portland	
A dramatic and distinctive wedge shaped limestone peninsula at the end of Chesil Beach with prominent cliffs;	Wedge shape expresses the stratigraphy, structure and geomorphological processes and features associated with the geology of Portland therefore the OUV of this part of the WHS	Some disruption to the profile of Portland and therefore to the wider link between underlying geology and landscape character
A unique coastal landmark with sweeping views along the coast;	Views provide context for Portland within the wider WHS	Scale of development may distract from appreciation of wider coastline and disrupt the perception of its natural qualities
The pale grey Portland limestone rock dominates the natural and built landscape;	Visible aspect of key upper Jurassic stratigraphy	Views of exposures of Portland Group not meaningfully affected
Exposed, windswept and rocky landscape;	Expresses natural processes that underpin conservation of the WHS	Views into WHS and the active processes that shape it not meaningfully affected
Quarrying and military activity has and continues to significantly impact on the islands character;	Active and disused quarries add to and bolster the geological interests exposed on the coast, within the WHS	Inland quarries unaffected
Little tree cover and a historic pattern of small fields separated by low stonewalls;	N/A	
A disjoined, untidy and neglected feel;	N/A	
An open skyline dominated by manmade structures and features;	Skyline in this part of the setting incorporates manmade structures	Urban elements part of the context of the WHS
Many key nature conservation sites of importance; and	Coastal and inland SSSIs and other designations protect geological interests that directly support or are related to the OUV of the WHS	SSSIs that provide statutory protection for the WHS unaffected

Portland Bill and the lighthouse are key landscape features.		
SCT 2B: Shingle Beaches and Spits – p.135 KEY CHARACTERISTICS	Chesil Beach, Portland Harbour Shore	
Large, often raised shingle beaches and spits, formed by longshore drift with predominance of shingle forming beach substrate;	Representing active geomorphological processes and features that support the OUV of the WHS and also express active geomorphological processes within the setting of the WHS	Views into WHS and the active processes that shape it not meaningfully affected
Size of shingle varies from very fine to large shingle and sometimes mixed with sand;	Representing active geomorphological processes and features that support the OUV of the WHS	unaffected
Often important for protection of cliff bases; and	Representing active geomorphological processes and features that support the OUV of the WHS	unaffected
Chesil Beach is an impressive example of the type due to its height and extent and is a unique feature on the Dorset coast.	Representing active geomorphological processes and features that support the OUV of the WHS	Views of and along Chesil beach are unaffected, although its wider context may feel more industrialised
SCT 2C: Slumped cliffs – p.141 KEY CHARACTERISTICS	Portland Harbour, parts of Isle of Portland	
Softer rock cliffs, susceptible to erosion and landslips although may be stable for long periods;	Expresses bedrock geology and geomorphological processes within the WHS and its setting. Also represents geomorphological features that underpins the OUV of the WHS	Characteristic of parts of Portland Coast and Portland Harbour Shore. Views into WHS that express these elements are not meaningfully affected
Softer substrate provides habitat for colonisation of cliffs with vegetation over time;	Expresses active geomorphological processes within the WHS and its setting	Unaffected. The coastal slopes adjacent to the development include important habitats, but are not associated with active coastal processes and are outside the WHS.
Beaches, usually shingle, protect cliff bases;	Representing active geomorphological processes and features that support the OUV of the WHS	Views into WHS and the active processes that shape it not meaningfully affected

Significant fossils often present; and	Represents the palaeontological interests on the coast that support the OUV of the WHS	Unaffected. Possible benefit to the WHS if investment made by developer to support the ongoing conservation of important public fossil collections accessible within local museums.
Important cliff type within the internationally protected Jurassic Coast WHS.	Often incorporated within the WHS where cliff base is free of coastal defences and other development	Geomorphological features within WHS unaffected. Views into the site of active geomorphological features not meaningfully affected.
SCT 2D: Hard Rock Cliffs – p.147 KEY CHARACTERISTICS	Isle of Portland	
Hard cliffs generally of sandstone, chalk and limestone with vertical or near vertical faces and ledges, often dramatic, with pinnacles and pillars.	expresses the stratigraphy, structure and geomorphological processes and features associated with the geology of Portland therefore the OUV of this part of the WHS	Views of exposures of Portland Group geology not meaningfully affected
Often highly visible from long distances due to height and colour;	Key visible landmark in the wider geography of the WHS	Prominence of visible stratigraphy within its wider landscape context could be disrupted by the scale of the ERF development.
Clifftops provide significant panoramic views especially when associated with high points;	Key opportunity for views into and out of the WHS	Scale of development may distract from appreciation of wider coastline and disrupt the perception of its natural qualities
Generally un-vegetated but may support some vegetation;	N/A	
Any ledges provide important habitat for nesting seabirds;	N/A	
Generally relatively stable and resistant to erosion; and	Expresses underlying geomorphological processes in the WHS and its setting	Geomorphological features within WHS unaffected. Views into the site of active geomorphological features not meaningfully affected.

Important cliff type within the internationally protected Dorset and East Devon World Heritage Site.	Often incorporated within the WHS where cliff base is free of coastal defences and other development	
SCT 3C: Active Coastal waters – p.173 KEY CHARACTERISTICS	Waters surrounding Portland	
Coastal shallow waters of mainly 0-30 metres deep;	N/A	
Sheltered coastal waters;	N/A	
Underlain by complexity of superficial sediments over bedrock;	Can include sediments associated with coastal processes e.g. the parts of Chesil beach that extends underwater	Unaffected
High importance for marine biodiversity;	N/A	
High level of activity, often seasonal, from recreational sailing and other watersports;	N/A	
Valuable fishing activity - includes potting, shellfish and mussel beds – generally small boats, both recreational and commercial;	N/A	
Dredging deposition areas;	Can occur within areas linked to ongoing marine-based geomorphological processes	Unaffected
Mineral deposits – hydrocarbons;	Likely to be linked to the stratigraphic record exposed within the WHS	Unaffected
Strong visual relationship with the coastline and urban areas;	Forms an important part of the wider landscape and seascape context for the WHS	Scale of development may distract from appreciation of wider coastline and disrupt the perception of its natural qualities
Often associated with important recreational beaches close to main centres of population;	Forms an important part of the wider landscape and seascape context for the WHS	Scale of development may distract from appreciation of wider coastline and disrupt the perception of its natural qualities

Coastal interface largely urban or populated; and	Forms an important part of the wider landscape and seascape context for the WHS	Scale of development may increase prominence of urban aspects and disrupt the perception of the connectivity of this part of the WHS to the wider, more natural coastline
Generally less tranquil with higher levels of light pollution from adjacent urban areas.	Forms an important part of the wider landscape and seascape context for the WHS	Scale of development may increase prominence of urban aspects and disrupt the perception of the connectivity of this part of the WHS to the wider, more natural coastline
SCT 3a: Man-Made Harbour – p,159 KEY CHARACTERISTICS	Portland Harbour	
Large area of deep water enclosed by man-made sea wall;	Important geomorphological and local landscape context for Portland Harbour shore section of WHS	Unaffected
Important habitats and biodiversity;	N/A	
High intensity of port activities including commercial shipping, naval vessels, cruise ships;	Important local landscape and seascape context for Portland Harbour shore section of WHS	Scale of development may increase prominence of urban aspects and disrupt the perception of the connectivity of this part of the WHS to the wider, more natural coastline
High intensity of water-based recreational activities including watersports, sailing and diving;	Important local landscape and seascape context for Portland Harbour shore section of WHS	Unaffected
Important shellfish fisheries;	N/A	
Very large protected and sheltered expanse of water;	Important context for active geomorphological processes along Portland Harbour Shore section of WHS, where sea walls create low energy environment and inhibits natural coastal processes	Unaffected
Associated extensive land based activities and industries; and	Important local landscape and seascape context for Portland Harbour shore section of WHS	Scale of development may increase prominence of urban aspects and disrupt the perception of the

		connectivity of this part of the WHS to the wider, more natural coastline
Important setting for Portland and Weymouth	Important local landscape and seascape context for Portland Harbour shore section of WHS	Scale of development may increase prominence of urban aspects and disrupt the perception of the connectivity of this part of the WHS to the wider, more natural coastline

Summary of Key observations from table 2

- Views of exposed stratigraphy and geomorphological features within the WHS are not directly disrupted to any significant degree
- Views of and along Chesil beach, allowing for an appreciation of its scale and position, are not directly disrupted to any significant degree, although its wider context may be
- Urban elements around Portland and Weymouth form part of the context of the WHS, however
- The scale of development may increase prominence of urban aspects and disrupt the perception of the connectivity of this part of the WHS to the wider, more natural coastline, also
- The scale of development may distract from the appreciation of wider coastline and disrupt the perception of its natural qualities including the prominence and distinctiveness of exposed stratigraphy within the landscape
- The mass and height of the development causes some disruption to the distinctive profile of Portland and therefore may negatively affect the visible association between underlying geology and landscape character from certain viewpoints within the WHS and from certain viewpoints that present the WHS on Portland within the overall context of the Island.

Protection for the setting of the WHS

Key policy and guidance context for the protection of the setting of the WHS comes from NPPF, NPPG and the Jurassic Coast Partnership Plan and was set out in our response dated October 2020. The key policy mechanism locally is the Local Plan, which in regard to the environment states;

STRATEGIC APPROACH
Development should protect and enhance the natural environment - its landscape, seascapes and geological conservation interests, its wildlife and habitats and important local green spaces - by directing development away from sensitive areas that cannot accommodate change. Where development is needed and harm cannot be avoided, appropriate mitigation to off-set any adverse impact to the landscape, wildlife and green infrastructure network will be required.

This is supported in policy, specifically ENV1, which recognises the need to prevent ham to *"characteristic landscape quality and diversity, uninterrupted panoramic views"* and that *"Development should be located and designed so that it does not detract from and, where reasonable, enhances the local landscape character.".* It also emphasises that *"Appropriate measures will be required to moderate the adverse effects of development on the landscape and seascape.".*

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Final comments

The nature of the likely impacts on the setting of the WHS caused by this proposal are mainly associated with changes to the wider landscape character and the prominence of WHS attributes within it. We regard these changes to be negative, but we do not have the technical expertise to determine their extent or severity. On the basis of national and local policy, and the nature of the likely impacts on the setting of the WHS, our remaining questions are;

- Can this sensitive coastline accommodate the change imposed by this proposed development whilst maintaining the overall quality and character of the landscape?
- Are the mitigations against negative landscape and environmental impacts included in the application appropriate? Are they effective enough to guarantee the protection set out in local plan policy?

The overall scale of this proposal, in a central and highly visible part of the WHS remains a concern. The protection of the setting of the WHS comes under the 'protection and management' pillar supporting the OUV of the WHS. The purpose of this pillar is to assure the future of a given WHS, and UNESCO advise that *"properties must be protected from all threats or inconsistent uses. These developments can often take place beyond the boundaries of a property."*.

This case will set a precedent for the future of the Jurassic Coast and add to our collective understanding of what constitutes a threat or inconsistent use of this globally important site. Dorset Council must make certain that their final decision considers this thoroughly and with great care.

Kind regards

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The Jurassic Coast Trust

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Appendix 1:

RE: DT5 1PP, Powerfuel Portland Limited, EPR/AP3304SZ/A001: environmental permit consultation

The following comments are submitted by the Jurassic Coast Trust in respect to issues relating to the Dorset and East Devon Coast World Heritage Site, otherwise known as the Jurassic Coast.

The proposed Energy Reclamation Facility (ERF) lies within the setting of the Dorset and East Devon Coast World Heritage Site (WHS), inscribed in 2001 for its internationally significant geology, palaeontology and geomorphology. These comments are made on behalf of the Jurassic Coast Trust, the independent charity with delegated authority for the protection of the WHS. Conservation and protection of WHSs is an international commitment made at government level through the World Heritage Convention. World Heritage Status, by definition, is the highest designation afforded to natural and cultural heritage worldwide and is awarded to sites considered to possess unique Outstanding Universal Value (OUV). Article 4 of the World Heritage Convention outlines the duty of State Parties of *"ensuring the identification, protection, conservation, **presentation** and transmission to future generations"* of World Heritage Sites. Presentation is highlighted here as the key issue in relation to the proposed ERF on Portland.

Although the World Heritage Convention has been ratified by the UK Government, World Heritage designation is not recognised in statute in this country. The Dorset and East Devon Coast WHS, as with all other WHSs in the UK, is protected by existing UK planning and conservation laws and by specific guidance on World Heritage Sites within NPPF and NPPG.

NPPF defines World Heritage Sites as designated heritage assets and relevant detail in respect of their protection can be found in NPPF paragraphs 11, 184, 185, 189, 190, 193, 194, 200, 201 and 205. Paragraph 184 is key in that it identifies World Heritage Sites as being of the highest significance and therefore the designated heritage assets of the greatest importance. Paragraph 193 states that *'When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation (and the more important the asset, the greater the weight should be)'* and paragraph 194 states *'Any harm to, or loss of, the significance of a designated heritage asset (from its alteration or destruction, or from development within its setting), should require clear and convincing justification'.*

The proposed Portland ERF is outside of the boundaries of the Dorset and East Devon Coast WHS meaning that any impacts from it will occur on the Site's setting. NPPF, supported by NPPG, both emphasise the need to protect a WHS and its setting.

The Jurassic Coast Partnership Plan 2020-2025 defines the setting Dorset and East Devon Coast World Heritage Site in the following ways;

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Experiential setting	**Functional setting**
The setting should be regarded as the surrounding landscape and seascape, and concerns the quality of the cultural and sensory experience surrounding the exposed coasts and beaches. Although the Coast was not inscribed on the World Heritage list for its natural beauty, UNESCO recognised its value with respect to this criterion as 'nationally important', justified further by the UK Government's decades-long designation of the East Devon and Dorset Areas of Outstanding Natural Beauty (AONB), which cover more than 80% of the WHS area. An assessment of landscape and seascape character provides a starting point for evaluation of the impact of change in the setting. The special qualities of the AONBs, such as tranquillity and undeveloped character of coast and seascapes, are important for helping to determine how people experience and enjoy the setting of the WHS.	In the context of a moving boundary that keeps pace with erosion, the setting is important because development and activity within it may sooner or later impact on the World Heritage Site itself. The development of housing, for instance, may lead to a need for future coastal defences. In order to maintain OUV, the cliffs need to be allowed to erode into a natural setting. Secondly, the Site, most notably the coastal landforms and processes, are defined and explained by past and present geomorphological and hydrological systems that extend landward and seaward. Developments that impact on these systems may well have a resulting impact within the Site itself.

The operation of the proposed Portland ERF will not have an impact on functional setting, but will impact the ways people experience the WHS. The following comments are made in the context of the Jurassic Coast Partnership Plan 2020 - 2025, in particular the following policies:

> **R4**: Those elements of landscape character, seascape, seabedscape, natural beauty, biodiversity and cultural heritage that constitute the WHS's functional or experiential setting are protected from inappropriate development.
>
> **IM3:** Proposals for aggregate or mineral extraction, oil or gas exploration and exploitation, and renewable energy developments outside of the inscribed area of the WHS, but which could have an impact on it, should consider potential harm to the OUV and/or setting of the Site during the earliest stages of planning and take measures to ensure that harm is avoided.

Our concerns relate to two issues;

1) The impact of the operational ERF, especially the emissions, on the setting of the WHS.

2) The ability of the facility to maintain operations to the highest standards in the future

1) The impact of the operational ERF, especially the emissions, on the setting of the WHS.

The ongoing operation of the ERF, and the emissions that it produces, will potentially have a much greater impact on the experiential setting of the WHS than the building itself will. In our response to the planning application we said *"The impacts of the structure itself on setting are not considered significant, but I question whether this reflects the ways in which an operational ERF might change how people perceive its surroundings as a natural or industrialised landscape".* The Dorset and East Devon Coast is a natural WHS with ongoing dynamic natural processes recognised within its statement of Outstanding Universal Value (SOUV) and attributes (see Jurassic Coast Partnership Plan 2020 – 2025). The perception of the Site as a natural coastline is key to people's understanding of and appreciation for its OUV. A change away from that towards a more industrialised sense of place could diminish the connectivity between people and the natural coastline.

In 2014, a similar change was noted in the concerns expressed by IUCN in relation to the proposed Navitus Bay Wind Park, an offshore wind farm that would have seen the marine horizon dominated by industrial structures.

"IUCN considers that the Project will have a significant impact on the natural setting of the property… This is likely to significantly impact on visitors' experience and appreciation of the property in its wider natural setting… Specifically, the property will change from being located in a natural setting that is largely free from man-made structures to one where its setting is dominated by man-made structures."

Whilst the source of impacts in this case relates to the operation of the development rather than the structure itself the same principle applies. Specifically, we have concerns relating to the presence of a plume that could be visible for a far larger area that the ERF structure itself, the effect of lighting of the ERF on the surrounding landscape and the extent to which emissions could otherwise negatively affect people's experience and enjoyment of the WHS far beyond the visual impact of the ERF structure (e.g. smell / public concern for health risks associated with the emissions. Even if concerns are unfounded they will represent a negative perception) Therefore, we emphasise the following points for consideration;

- The Dorset and East Devon Coast, as a natural WHS, should be afforded the highest possible protection from negative impacts.

- The specific sensitivity of the WHS relates to how the operation of the plant negatively affects people's experience of and appreciation for the natural coastline.

- The impacts of the operations of the ERF have the potential to be far wider and more substantial than the impacts of the structure itself, creating a strong industrial presence within a sensitive and highly designated natural environment.

- The Dorset AONB is one of the key statutory designations used to protect the WHS and its setting. Their comments within this consultation should be considered to carry weight in relation to the WHS as well as the AONB itself. However, it should also be noted that the development site is, at closest, approximately 7.5km from the AONB boundary. This also the closest area of overlap between the World Heritage Site and the AONB.

2) The ability of the facility to maintain operations to the highest standards in the future

We have concerns about the future adaptation of the plant in the context of a highly designated area and the long term protection of the WHS. In the context of the sensitive and highly designated natural environment of the proposed ERF, continual improvement of operational standards should be the requirement. We therefore raise the following questions for careful consideration;

- How will general operational management of the site and the Environmental Management System proposed to control environmental risks be reviewed on an ongoing basis? Will it be subject to regular inspection to ensure it meets the highest standards of operation?
- Following the EU Withdrawal Act 2018, the Industrial Emissions Directive (IED) is subject to potential change during the life span of the proposed ERF. If emissions limits were to be relaxed in the future, and the operation of the ERF adapted accordingly, then any negative impacts on the sensitive natural environment surrounding the plant could be heightened. How will this possibility be accounted for during the permit assessment process?
- Similarly, if the standards set out in the IED rise, will the ERF be required to adapt in order to continue to operate?
- In regards to the control of emissions, including particulate emissions, odour, dust, noise and other forms of pollution, does the design of the plan allow for continued improvement as technology improves?

Summary

In the context of its highly sensitive surroundings, and in the certainty that relevant technologies will continue to improve, the environmental permit for this development, if granted, should be conditional on the plant constantly improving the reduction of its emissions and overall reducing its impacts on the environment. Are there appropriate legislative and legal mechanisms to secure this condition and future accountability? If not, then we would suggest that the proposed development is inappropriate at this location.

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