



Portland  
energy recovery  
facility

Planning supporting statement  
September 2020



**PORTLAND ENERGY RECOVERY FACILITY (ERF)**  
PLANNING SUPPORTING STATEMENT  
POWERFUEL PORTLAND LIMITED  
AUGUST 2020



## Contents

### Summary

1. Introduction
2. Site and Surroundings
3. The Proposed Development
4. Need
5. Policy Framework
6. Planning Assessment
7. Consultation
8. Planning Conditions and Obligations
9. Conclusions and Planning Balance

### Appendices

- Appendix A: Pollution Control Statement
- Appendix B: Waste Planning Statement
- Appendix C: Rights of Way Statement
- Appendix D: Draft Planning Conditions
- Appendix E: Community Liaison Panel Draft Terms of Reference
- Appendix F: Relevant NPPF extracts
- Appendix G: Relevant Extracts from No Time to Waste (2020)
- Appendix H: Youth Training and Employment Policy

## SUMMARY

### Introduction

- S1. This Planning Supporting Statement (PSS) accompanies a planning application, submitted to Dorset Council (the council), by Powerfuel Portland Limited (the applicant) for full planning permission for the construction and operation of an Energy Recovery Facility (ERF) on previously developed land within Portland Port, Castletown, Portland, adjacent to Balaclava Bay.
- S2. The proposed Portland ERF would enable Dorset's residual waste to be managed in a more sustainable way in accordance with the waste hierarchy, with residual waste managed within the county and close to where it is produced (in line with the self-sufficiency and proximity principles), with renewable/low carbon energy recovered for a range of local benefits, including meeting all of the electricity that Portland uses, and some heating.
- S3. Whilst Dorset has a good record of recycling, which the applicant fully supports all residual waste materials that cannot be practicably re-used or recycled, are either sent to landfill for disposal, (the least sustainable method of waste treatment), or sent to energy from waste facilities located outside of Dorset, or converted to refuse derived fuel (RDF) and exported to Europe.
- S4. Local waste authorities typically enter into contracts with waste management companies to manage residual waste arisings. Dorset's residual waste is currently managed through various short term contracts which will expire over the next few years. The Portland ERF will operate as a merchant facility and will be well placed to bid for and secure future contracts (directly or in partnership with others) to manage Dorset's residual waste over the long term. The Portland ERF has arrangements in place that would enable it, when it is operational, to receive RDF from Panda at Canford Magna, currently produced pursuant to a Dorset Council residual waste contract.
- S5. The Portland ERF will treat RDF, derived from municipal and commercial and industrial residual wastes, from its catchment area (based on a 3 hour HGV drive time), which covers Dorset, east Devon, south Somerset, south Wiltshire and west Hampshire. Furthermore, because of its port location, the ERF will also be able to secure residual wastes (delivered as baled and wrapped RDF) from other locations within the UK and elsewhere by ship.
- S6. Despite considering the wider local catchment, there is clearly ample residual waste arising in Dorset alone (both LACW and C&I after taking account of waste that is recycled, composted or reused) that could potentially be available as feedstock for the proposed ERF
- S7. The management of waste is a significant cost burden on those responsible for its management but waste is also a valuable resource and is subject to a competitive market for re-use, recycling and energy recovery. The Portland ERF will only attract residual wastes from which no higher market value can be derived (as recyclable materials generally have a higher market value than residual waste), and only from locations where it is commercially viable.

- S8. Portland has constrained electricity infrastructure, that whilst sufficient to meet existing domestic and commercial requirements, cannot practicably meet future energy demands expected to arise from the future growth of commercial activities at Portland Port, including the need to power ships docked at the Port, or on Portland itself, without a significant upgrade. The proposed Portland ERF would reinforce the local energy network, providing a decentralised source of heat and power, that can provide efficiency and support the port through the economic provision of shore power.
- S9. The ERF has been designed to provide combined heat and power (CHP) and will be 'CHP ready' from the outset. This will facilitate the provision of a shore power facility at Portland Port, with the majority of the electricity sent to the distribution network. The ERF would also be capable of supplying heat to local consumers by means of a future local heat network.
- S10. A proportion of the energy generation from the ERF is classified as renewable energy, and it would be one of the biggest baseload generators in the county. The project would therefore make a significant contribution to the security of supply, the production of renewable energy and the decarbonisation targets of the local authority area.
- S11. The ERF will be capable of achieving more sustainable treatment of Dorset's residual waste and delivering local benefits through the supply of low carbon energy and reducing carbon. The ERF is predicted to lead to a net reduction in greenhouse gas emissions of approximately 30,000 tonnes of CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) per annum when exporting heat to a district heating scheme and power to ships moored in the Port, against the current baseline. In future years the net reduction will likely be less on an annual basis, given changes in the wider regulatory context and possible societal behaviour shifts towards greater circularity, but over the full lifetime, the expectation is that the ERF will still be net positive. In periods where the plant is net negative in operations it will offset the net emissions as described below as part of its net zero carbon pledge.
- S12. In order to create certainty on the long term net carbon position, the applicant commits that the Portland ERF will operate as a net-zero carbon infrastructure asset for its operational life. It is believed that this would be the first such facility in the UK to commit to achieving net-zero carbon. This means that all process derived greenhouse gas (GHG) emissions from the combustion of the fossil-fuel derived component of the residual waste RDF, in excess of emissions from the counterfactual baseline, would be off-set by other measures and activities avoiding the emission of or removing an equivalent amount of GHG from the atmosphere. The applicant is committed to funding additional carbon off-setting measures in each year that the ERF reduces GHG emissions (compared to baseline), and in each year that the ERF increases GHG emissions (compared to the baseline) will compensate for this by purchasing carbon offsets. This means the ERF will reduce GHG emissions over its lifetime and will achieve carbon neutrality, or better in every operating year. A minimum financial contribution of £100,000 per annum will be available for offsetting activity, aggregating to £2.5m over the expected operational life.
- S13. The proposed ERF will also provide economic benefits for Portland and Dorset. The construction of the facility is expected to create around 300 jobs and once complete there will be between 30-35 new jobs. A further 62 indirect jobs would

be created, some of which would benefit the Weymouth and Portland and wider Dorset area. It is predicted that the loss of cruise business as a result of shore power not being provided at the port (which will be delivered by the ERF) would lead to an average decrease in spending in the Weymouth and Portland and wider Dorset area of £2.38 million per year, with an associated loss of approximately 45 jobs in related sectors.

- S14. The application comprises a comprehensive suite of drawings and documents, providing extensive information on a range of social, economic and environmental subjects to explain and support the proposals. This document summarises the main elements of the application.

### **Primary considerations**

- S15. The application for the proposed ERF should be considered in the context of the following primary considerations:

- there is currently no landfill capacity in Dorset for residual waste and no new landfill sites are proposed.
- there are currently no significant waste management facilities for the treatment and recovery of energy from residual waste arising within the Dorset area.
- Dorset is reliant upon the export of its residual waste for treatment at facilities located elsewhere within the UK or in Europe, which is not sustainable in the future. Existing ERF's in neighbouring areas are now at capacity and other options are becoming increasingly uncertain.
- the ERF will be capable of addressing the current and predicted future shortfall in Dorset's recovery capacity and will use local residual waste to generate low carbon energy.
- Dorset is heavily reliant upon the import of power and energy for the majority of its power and energy need. The ERF will make a material contribution to efforts to create greater energy self-sufficiency, and a greener mix of energy supply.
- supply of a shore power facility at Portland Port, that will deliver wider environmental benefits from reduced shipping related emissions, whilst supporting the port's existing commercial operations and unlocking future regeneration potential.
- the ERF will have the capability to supply low carbon heat, via a potential new local heat network, to existing heat users on Portland making efficient use of energy from residual waste.
- the ERF fully accords with national policies for the sustainable management of waste and the generation and distribution of renewable / low carbon energy
- the ERF will deliver a range of economic benefits, including job creation, and training/apprenticeships, and will support the regeneration of the Portland economy through investment in key target sectors (such as renewable and

low carbon energy), helping to raise local living standards and tackle pockets of social deprivation.

- the proposal fully accords with the provisions of the Dorset Waste Plan. The ERF site has specific advantages over allocated sites, has an extant consent for an 'energy plant' using waste materials, and has previously been identified by the Dorset Waste Partnership as a potential location for a strategic waste management facility.
- the proposal fully accords with the provisions of all relevant applicable plan policies relating to carbon and energy at all levels from national level through to Portland Town Council.
- the proposal is also consistent with the drive to deliver a 'Green Recovery' designed to boost the economy post Covid-19, the environment has been pushed to the front of the political agenda and displayed as a tool through which economic, social and environmental aims can be combined and achieved.
- a comprehensive environmental impact assessment (EIA) has been undertaken and the results of this are presented in the Environmental Statement (ES). The ES concludes that with appropriate mitigation, the impact of the development on interests of acknowledged importance are acceptable.

S16. In conclusion, the proposed Portland ERF, fully accords with national and local policies and is supported by other significant material considerations. Planning permission should therefore be granted.

## 1. INTRODUCTION

1.2 This Planning Supporting Statement (PSS) is part of a suite of documents in support of a planning application submitted to Dorset Council (the Council), by Powerfuel Portland Limited (the applicant), for full planning permission for the construction and operation of an Energy Recovery Facility (ERF) on previously developed land located adjacent to Balaclava Bay, Portland Port, Castletown, Dorset.

1.3 The applicant has undertaken pre-application consultation with Dorset Council. In addition, dialogue has been held with a number of stakeholders and the local Portland community. The feedback received from these discussions has informed the scope and content of the application and related documents. A Pre-Application Consultation (PAC) report is submitted with the application which sets out the consultation undertaken and summarises the feedback that was received.

### **This document**

1.4 This document specifically:

- describes the reasons for the planning application
- summarises the main elements of the proposed ERF, and
- establishes the need case for the proposals and provides Dorset Council, as the Waste Planning Authority (WPA) and Local Planning Authority (LPA), with an assessment of how the proposal complies the development plan and other material considerations

1.5 Much of the detail required by Dorset Council is contained in the accompanying Environmental Statement (ES) and Transport Assessment (TA), or other supporting documents. Duplication of information between documents has been minimised. Consequently, this document should be read in conjunction with these supporting documents.

### **The Applicant**

1.6 Powerfuel Portland Limited is a local company with an office in Dorset, whose Directors have extensive experience of planning and delivering large-scale renewable energy facilities.

1.7 The company's core values are to deliver new waste management infrastructure, and other potential related and complementary projects, in Portland that can deliver more sustainable forms of residual waste management and maximise opportunities for low carbon energy generation. It also adopts an open and transparent approach to project development and consultation engaging with host local communities to explain its proposals.

1.8 The applicant believes that more needs to be done to help Dorset and the region to take responsibility for its waste and energy requirements and deliver a more sustainable waste management system. The present reliance on the export of



residual waste to landfill or to other ERF located outside of the county (and also the country) is unsustainable and is becoming increasingly costly for the council.

- 1.9 The proposed ERF can help to address Dorset's shortfall in recovery capacity for residual waste and harness the opportunity to utilise local waste to generate low carbon energy for local use.

### **Environmental impact assessment**

- 1.10 The proposed development falls within Schedule 1 of the EIA Regulations and the application is accompanied by an Environmental Statement (ES). This provides detailed information about the proposals, the site and potential environmental effects.
- 1.11 The applicant has appointed a team of specialist consultants to undertake this work, who can demonstrate the necessary professional experience and competence, as required under the EIA regulations. Many of the technical appendices to the ES comprise detailed reports from these specialist consultants. The ES identifies various mitigating measures to reduce environmental effects.

### **Environmental permit**

- 1.12 Whilst positive determination of this planning application will enable construction of the proposed ERF to proceed, before it can be operated it will require authorisation from the Environment Agency under the terms of the Environmental Permitting Regulations 2010. This authorisation will set out environmental standards for the operation of the plant, in particular relating to control of emissions to the atmosphere.
- 1.13 An application for an environmental permit will be made to the Environment Agency shortly after the submission of this planning application. Pre-application consultation has begun.
- 1.14 Since the planning and environmental permit applications are submitted under separate regulations, the granting of one permission is not dependent upon the granting of the other.

### **The planning application**

- 1.15 This is a planning application for full planning permission, which comprises the plans, drawings and documents listed below, taking account of the Minerals and Waste Local Validation Requirements document (February 2019) adopted by Dorset Council from 1 April 2019, Dorset Council's 2019 formal pre-application advice letter and EIA scoping response, and subsequent discussion with Dorset Council officers.

#### ***i) Application documents***

- 1.16 The following documents constitute the formal planning application for which approval is sought.
- completed application form including ownership/ agricultural holdings certificate and notice

- planning application drawings, including a site location plan and other plans necessary to properly describe the development (floor plans, elevations and sections)

## **ii) Environmental Statement**

1.17 The following documents form part of the mandatory EIA and the associated ES reporting on its findings.

- Environmental Statement (see detail below)

### *Non-technical summary*

<i>Chapter 1</i>	<i>Introduction</i>
<i>Chapter 2</i>	<i>Site description and development proposals</i>
<i>Chapter 3</i>	<i>Environmental issues and methodology</i>
<i>Chapter 4</i>	<i>Air quality</i>
<i>Chapter 5</i>	<i>Carbon balance and greenhouse gas emissions</i>
<i>Chapter 6</i>	<i>Community, health and economic effects</i>
<i>Chapter 7</i>	<i>Cultural heritage</i>
<i>Chapter 8</i>	<i>Ground conditions and water quality</i>
<i>Chapter 9</i>	<i>Landscape and visual effects</i>
<i>Chapter 10</i>	<i>Natural heritage</i>
<i>Chapter 11</i>	<i>Traffic and transport</i>
<i>Chapter 12</i>	<i>Waste</i>
<i>Chapter 13</i>	<i>World heritage site</i>
<i>Chapter 14</i>	<i>Summary tables</i>
<i>Glossary</i>	

<i>Technical Appendix A</i>	<i>EIA Scoping</i>
<i>Technical Appendix B</i>	<i>Competent experts involved in the preparation of the ES</i>
<i>Technical Appendix C</i>	<i>Framework construction environmental management plan</i>
<i>Technical Appendix D</i>	<i>Air quality</i>
<i>Technical Appendix E</i>	<i>Carbon assessment</i>
<i>Technical Appendix F</i>	<i>Economic effects</i>
<i>Technical Appendix G</i>	<i>Health risk assessment and health impact assessment</i>
<i>Technical Appendix H</i>	<i>Cultural heritage</i>
<i>Technical Appendix I</i>	<i>Ground conditions and water quality (including geo-technical and land stability)</i>
<i>Technical Appendix J</i>	<i>Landscape and visual effects</i>
<i>Technical Appendix K</i>	<i>Natural heritage</i>
<i>Technical Appendix L</i>	<i>Traffic and transport</i>
<i>Technical Appendix M</i>	<i>Dorset and East Devon world heritage site</i>

***iii) Supporting application documents***

- Planning Supporting Statement (covering conditions and planning obligations, waste pollution statement, waste planning statement and rights of way statement)
- Assessment of Waste Local Plan Allocated Sites
- Waste Need Statement
- Energy Need Statement
- Design and Access Statement
- CHP Heat Plan (including R1)
- Shore Power Strategy Report
- Noise Impact Assessment
- Lighting Statement
- Utilities Assessment
- Transport Assessment and Framework Travel Plan
- Flood Risk Assessment / Sustainable Drainage Strategy (including foul drainage)
- Pre-Application Consultation Report
- Framework Site Waste Management Plan
- Shadow Appropriate Assessment
- Achieving Carbon Neutrality Report
- Pollution Control Statement (see Appendix A)
- Waste Planning Statement (see Appendix B)
- Rights of Way Statement (see Appendix C)

## 2. SITE AND SURROUNDINGS

### Introduction

- 2.1 This chapter provides a summary description of the application site, surrounding area and its planning history. A full description is provided in chapter 2 of the ES.

### The application site

- 2.2 The 6.29 ha site lies on the north eastern coast of the Isle of Portland, within Portland Port, approximately 600 m east of the villages of Fortuneswell and Castletown (refer to ES figure 1.1). The application site comprises two elements: the 2.14 ha site for the ERF building and 4.15 ha of cable routes to the electricity substation off Lerret Road and to the berths at Queens Pier and Coaling Pier.
- 2.3 The main part of the site is roughly triangular in shape and is largely covered with hardstanding. It has been vacant for several years, although there is a weighbridge towards the western point and vehicles are sometimes parked on parts of the land. It is relatively flat and approximately 5 m AOD. As the site lies within the port, it is not publicly accessible. Vehicular access is from the west, through the main Portland harbour complex, via Castletown, Castle Road, Lerret Road and the A354.
- 2.4 The main part of the site is bordered to the south west by Incline Road, which is a private road within the port that is actively used by port traffic, and a former railway embankment.
- 2.5 Cliffs supporting grassland, scrub and woodland habitats lie to the south west of the embankment and rise steeply to approximately 125 m AOD. HM Prison The Verne is approximately 430 m to the south west of the site. The eastern site boundary is formed by the shingle shoreline and overland fuel pipes from Portland Bunkers, which are fuel bunkers in the nearby cliffs used for marine bunker fuel supply. Beyond these lies Balaclava Bay.
- 2.6 The site formerly comprised buildings associated with HM Underwater Detection Establishment (HMUDE). This was an Admiralty research establishment located within the HM Naval Base Portland, overlooking the inner breakwater and Balaclava Bay. Known as the ASDIC Research and Development Unit (ARDU) of HMS Osprey from 1927 to 1940, it later became HM Underwater Detection Establishment in 1947. The research facility suffered significant fire damage during WWII but this was repaired and the complex expanded with additional storeys and loft space added to the North Block and a new South Block constructed in 1952. The HM Underwater Detection Establishment was eventually incorporated into the Admiralty Underwater Weapons Establishment in 1960 and remained operational until the base closure in 1995<sup>1</sup>.

---

<sup>1</sup> Information on the history of ARDU/HMUDE sourced from the Encyclopaedia of Portland History ([www.portlandhistory.co.uk](http://www.portlandhistory.co.uk))

- 2.7 After privatisation, the buildings on the application site were progressively demolished to create cargo storage space when they were not used by tenants. The north and south buildings were demolished in 2005, with others also removed between 2005 and 2009. The vacated buildings, used by UMC, Portland Shellfish and Permavent, were demolished in 2014 and 2017. This included Buildings 214 and 228.
- 2.8 In 2016/17, the main road leading to Incline Hill was realigned along the base of the hill / scree, creating the open development area on site. The last of the demolition rubble was cleared from the site in 2018. The site now comprises an area of concrete hard standing associated with the former research establishment complex and is vacant.

### **Portland Port in context**

- 2.9 The original naval port at Portland was constructed between 1837 and 1890 to provide a Harbour of Refuge and coaling station for the steam navy. Portland and its harbour were designated as HM Naval Base Portland in 1923 and the base played prominent roles in both World Wars and the Cold War. From 1958, Portland was home to Flag Officer Sea Training. During this time, the site area was dominated by a weapons research establishment building in the south east, with other buildings dedicated to mechanical repair facilities for military vehicles. The naval base and two major weapons research establishments were closed in 1995/96.
- 2.10 Under the Portland Harbour Revision Order 1997, Portland Port Group assumed the role of statutory harbour authority for Portland harbour in 1998, replacing the former Queens harbour master. In 2004, Portland Harbour Authority Ltd became the statutory harbour authority, whilst Portland Port Ltd became the port operator. Portland Port Ltd has since overseen the transformation of the harbour into a successful commercial port, which now hosts a diverse mix of commercial activities.
- 2.11 In addition to the provision of marine services to the Royal Navy, the port provides a range of marine related services including specialist diving, repairs and maintenance and fuel bunkering. The port also host a range of naval and commercial shipping.
- 2.12 In 2010 the Portland Harbour Revision Order made provision for further infrastructure improvements, including new berths and additional operational areas of hardstanding to accommodate increased commercial activity and growth over the coming decades. The 2010 Harbour Revision Order relates to specified development areas within the port, including the Britannia terminal area, north of the Coaling Pier Island, Camber Quay and the floating dry dock at Queen's Pier.
- 2.13 The port hosts an increasing number of cruise ships that bring visitors to the area, providing a starting point for tourist excursions to Weymouth, Portland, Dorset and the wider region. The number of cruise liners visiting the port has increased and an extension was added to the cruise berth, on the Outer Coaling Pier, which was opened in 2017.

## Planning history

- 2.14 More detail information relating to the site's history is provided in chapter 2 of the ES. However, the most **relevant** planning history to this planning application is set out in table 2.1 below:

*Table 2.1: Relevant planning history*

Ref	Description	Decision	Date
96/00432/COU	Change of use to a commercial port and commercial and leisure estate (including uses within Classes B1, B2, B8 and leisure and marina uses).	Approved	Nov 1996
09/00440/FULES	Construction of energy plant adjoining Balaclava Bay	Refused	Sept 2009
09/00451/LBC	Construction of energy plant adjoining Balaclava Bay (Listed Building Application)	Refused	Sept 2009
09/00646/FULES	Construction of energy plant adjoining Balaclava Bay	Approved	Jan 2010
09/00648/LBC	Construction of energy plant adjoining Balaclava Bay (Listed Building Application)	Approved	Jan 2010
WP/13/00262/VOC	Variation of condition 2 of planning approval ref 09/00646/FULES to allow for the use of rubber crumb (recycled rubber from tyres) in addition to vegetable oil in its power oil production and power generation plant	Approved	July 2013
12/00622/CMPC	Request for confirmation of compliance with planning conditions 3,5 and 11 of planning approval reference 09/00646/FULES	Approved	Oct 2012
12/00849/CMPC	Request for confirmation of compliance with planning conditions 6 and 10 of planning approval reference 09/00646/FULES	Approved	Dec 2012
WP/13/00262/VOC	Variation of condition 2 of planning approval ref 09/00646/FULES to allow for the use of rubber crumb (recycled rubber from tyres) in addition to vegetable oil in its power oil production and power generation plant	Approved	July 2013
WP/19/00565/CLE	Demolition of building 214 within the site of planning permissions 09/00646/FULES - Certificate of lawful use or development	Issued	Oct 2019

- 2.15 Of particular relevance to this application is the former Weymouth and Portland Borough Council's decision to grant full planning permission in early 2010 to develop land within Portland Port for an energy plant (application reference: 09/00646/FULES and 09/00648/LBC).
- 2.16 That 2010 scheme comprised 1,337 m<sup>2</sup> of new built development (1,154 m<sup>2</sup> industrial space and 183 m<sup>2</sup> of office space). The process essentially involved the pre-treatment of imported vegetable oils in order to create a fuel, by means of a power oil production plant, which would then be combusted using two 8.9MWe engines. The approved plant had a designed output capacity of 17.8MW, which would have been exported to the National Grid. The exhaust gases produced by

the power generation plant would be discharged via two 27 m tall stacks. The approved plant included a:

- 'power' oil production facility capable of processing up to 40,000 tpa of vegetable oil which would be converted into 30,000 tpa of 'power' oil to be used in a power plant;
- power plant comprising two 9.8MW modified marine diesel engines;
- tank farm for the storage of up to 10,000 tonnes of vegetable oils; and
- step up transformer to allow an electrical connection to the local grid.

- 2.17 By means of planning condition the approved energy plant was to be fuelled by "vegetable oil" whilst the description in various application documents clarified this included "waste oils". Whilst the proposal was to bring all vegetable oils into the site by sea, no planning restrictions were placed on the approved scheme in respect to the amount of oils that could be brought to the site and used to fuel the facility.
- 2.18 In 2013, the conditions of planning permission 09/00646/FULES were varied through a section 73 application to enable waste rubber crumb from end-of-life tyres to be used as an alternative fuel source under application 13/00262/VOC. The rubber crumb was to undergo thermal treatment similar to pyrolysis in an advanced conversion technology, rather than being directly combusted, producing oil, gas and carbon black. The oil and gas were intended to be combusted in generators for power generation. The originally consented development includes two 8.9 MWe engines and two 27 m high stacks, while the revised consent added four smaller generators with a total capacity of 6 MW. The 2010 and 2013 permissions were not mutually exclusive and were not restricted so as to be phased.
- 2.19 The original full application (reference 09/00646/FULES) was subject to environmental impact assessment (EIA) and accompanied by an environmental statement (ES), which was updated in 2013 to support the section 73 application (13/00262/VOC).
- 2.20 In 2019, PPL (the applicant) applied for a certificate of lawful use or development in relation to the demolition of building 214 within the site of planning permissions 09/00646/FULES - for the construction of an energy plant and WP/13/00262/VOC - for the variation of condition 2 of planning approval ref 09/00646/FULES to allow for the use of rubber crumb (recycled rubber from tyres) in addition to vegetable oil in its power oil production and power generation plant.
- 2.21 In October 2019, Dorset Council issued a Certificate of Lawful Use or Development confirming that the 2010 planning permission granted for the construction of an energy plant had been lawfully implemented and that the consent remained extant (09/00646/FULES).
- 2.22 The applicant considers that both the 2010 and 2013 consents have been lawfully implemented and remain extant such that it would be possible to fully implement either consent.

- 2.23 The planning history confirms that the construction and operation of a large scale industrial energy generation facility, capable of using oils (including waste oils) and/or waste rubber material as a fuel to produce power has previously been acceptable, in the context of Portland Port and the site subject of this planning application, for a similar activity.

### **Planning and environmental designations**

- 2.24 The site, and much of the surrounding Port land is designated in the West Dorset, Weymouth and Portland Local Plan (2015) as a key protected employment site, suitable for B1 (light industrial), B2 (general industrial), B8 (storage and distribution) and other similar uses.

- 2.25 The site lies within a regionally important geological and geomorphological site (RIGGS), which covers the whole of the Isle of Portland. There are no national or international environmental designations within the site itself, but several in close proximity (refer to ES figure 2.2). These are:

- Isle of Portland to Studland Cliffs Special Area of Conservation (SAC) and Isle of Portland Site of Special Scientific Interest (SSSI) located to the immediate south west of the site
- Nicodemus Heights SSSI located 590 m to the south
- Chesil and The Fleet SAC and SSSI and Chesil Beach and Stennis Ledges Marine Conservation Zone (MCZ) located 1.3 km to the west
- Studland to Portland SAC located 1.5 km to the south west.
- several locally designated sites of nature conservation interest (SNCI) to the south and south west of the site

- 2.26 The Dorset and East Devon Coast World Heritage Site (WHS) wraps around most of the Isle of Portland, but excludes the area of coast in the vicinity of the site (refer to ES figure 2.2). Chesil Beach to the north west of the island is also locally designated as heritage coast.

- 2.27 There are several scheduled monuments in the vicinity of the site. These include:

- a battery 135 m away
- the Verne Citadel 340 m away,
- the RAF Portland Rotor early warning radar station 570 m away,
- a heavy anti-aircraft battery 930 m away, and
- Portland Castle approximately 990 m to the north west.

- 2.28 The nearest listed buildings / structures to the site are:

- the grade II listed breakwater adjacent to the north eastern boundary



- the Dockyard offices to the north west, and
  - East Weare batteries to the south west and other batteries to the south.
- 2.29 There are several other listed buildings / structures in the vicinity, including a cluster at the prison. The Underhill conservation area is approximately 600 m to the west of the site which contains a large number of grade II listed buildings.
- 2.30 The cliffs to the west and south of the site are designated as land of local landscape importance.
- 2.31 The nearest nationally designated landscape is the Dorset Area of Outstanding Natural Beauty, 7.3 km to the north.

### 3. THE PROPOSED DEVELOPMENT

#### Introduction

- 3.1 This chapter outlines the development proposals, including the energy recovery process, the operation of the facility and also provides construction and post-construction information.
- 3.2 The main objectives of the proposal are to develop an ERF that:
- addresses the current and predicted shortfall in recovery capacity in Dorset
  - utilises local residual waste to generate low carbon power and heat
  - offers a sustainable (net-zero carbon) solution for the management of Dorset's residual waste
  - can deliver a shore power facility at the port to deliver wider environmental benefits and safeguard the ports future by helping to unlock its growth potential
  - is commercially viable and comprises a safe, proven and reliable technology
  - is future proofed and flexible enough to accommodate a range of waste types and sources
  - comprises an educational resource that can be used by the local community, schools and other groups

#### Proposed buildings and structures

- 2.32 The layout of the proposed ERF is shown in ES figure 2.3. It has been designed to treat approximately 183,000 tonnes of refuse derived fuel (RDF) per year, with circa. 10% design tolerance to treat up to 202,000 tonnes should this be necessary in response to changes in calorific value, in order to maintain the efficiency of the plant in operation. It should be noted that, for this reason, while the nominal capacity is around 183,000 tonnes per year, the EIA undertaken has been based on a maximum throughput of 202,000 tonnes per year. The permitted waste that could be accepted at the ERF must meet stringent criteria for RDF, and can be based on treated municipal waste (MSW) and commercial and industrial waste (C&I). All waste received at the ERF would be classed as 'residual waste' having been subject to pre-treatment. This will not include nuclear, clinical or hazardous wastes.
- 2.33 The main components of the proposed buildings and structures are described in full detail in chapter 2 of the ES. The main ERF building, with a maximum height of 45m, would comprise the waste reception and RDF storage area, fuel delivery, boiler, flue gas treatment, flue stack, residue handling systems, steam turbine, heat take-off for district heating, primary substation and ancillary equipment. The RDF storage area roof, will be fitted with 3,389 m<sup>2</sup> of photovoltaic panels for generation of electricity. The 80 m high stack will be situated approximately 10 m

to the north of the building. Floor plans of the proposed building are shown in figures 2.4a-c, elevations are shown in figures ES 2.5a-b and longitudinal sections are provided in figures ES 2.6a-b.

2.34 In addition to the main building described above, there would also be a range of ancillary infrastructure including:

- office building;
- transformer compound;
- access and circulation roads;
- weighbridges;
- car parking and enclosed cycle store;
- electrical cables and substations;
- surface water drainage;
- waste water collection tanks;
- potable / mains water supply.
- security – site fencing, gates and CCTV;
- lighting to walkways, roads, the service yard and car parking areas;
- new areas of landscaping to create a range of habitats.

### **The energy recovery process**

3.3 The main inputs and outputs for the ERF are shown in ES figure 2.11 and a generic flow diagram of the energy recovery process is provided in ES figure 2.12. Furthermore, a detailed description of the energy recovery process is provided in chapter 2 of the ES, covering:

- RDF delivery and storage
- combustion
- energy recovery
- flue gas treatment
- residues and ashes
- emissions monitoring
- raw materials handling and storage

## Operations

- 3.4 The ERF will operate 24 hours a day, seven days a week, with deliveries at any time, although there will be periods of annual maintenance when RDF processing is reduced. It is estimated the ERF will operate for an average of 8,000 hours per year over the operational lifetime of the facility. A total of 30-35 staff will be employed directly on site and the ERF will operate in a three-shift pattern of eight-hour shifts.
- 3.5 The plant will require an average of 548 tonnes of RDF per day for continuous operation, when processing 22.83 tonnes per hour, although this will vary according to the calorific content of the RDF. If all the waste was delivered by road, 23 deliveries of RDF would need to occur per day, with a further nine HGVs removing ash and one HGV providing consumables, giving a total of 33 HGV trips each way (66 HGV movements in total) if all of the RDF was delivered by road. To allow for variations in the total amount of RDF required per day, and therefore ensure a realistic worst-case assessment, the EIA has been based on a total of 40 HGV trips each way (80 HGV movements in total). There will also be an estimated 19 staff vehicle trips each way per day (38 vehicle movements in total).
- 3.6 All HGVs travelling to and from the site will use the A35(T), the A354 Weymouth Relief Road, the A354 Weymouth Way, the A354 Portland Road, the A354 Portland Beach Road, Lerret Road and Castletown.
- 3.7 It is envisaged that RDF delivered to the site by sea will be transported in ships with a 2,500-tonne payload. If all the waste was delivered by sea, in the worst-case assessment scenario of potential shipping impacts, 81 deliveries by ship would be required per year. The estimated maximum increase of up to 81 ships associated with the proposed development represents approximately 10% of the total number of ships that used the port last year and equates to fewer than two additional ships per week, which the port has the capacity to accommodate.
- 3.8 The ERF will operate a detailed maintenance programme to ensure systems and equipment operate safely, effectively and reliably. There will be a single shut down period per year. The length of shut down will vary, depending on the extent of maintenance required that year, but it is expected that there will be a four to eight week shut down per year.
- 3.9 A community liaison panel will be established, which will meet on a regular basis to discuss the operation of the ERF and any potential issues or queries from members of the local community. It will provide a forum for community stakeholders to be informed and consulted regarding site operations and procedures. Liaison panel members will include local residents and representatives from Portland Town Council, Dorset Council, the Environment Agency, and other stakeholders as appropriate. Draft terms of reference are provided in Appendix E.
- 3.10 Access to the ERF will be encouraged for managed groups, such as educational trips from local schools and youth groups. Space will be provided within the facility to host education based activities.

## **Construction**

- 3.11 A construction contractor will be appointed to design and build the ERF. The total site preparation and construction programme is expected to last for approximately 30 months (early to mid-2021 to late 2023), with 24 months of construction and six months for cold and hot commissioning. The standard working hours for construction activities will be from 07:00 to 19:00 Mondays to Fridays and 08:00 to 13:00 on Saturdays.
- 3.12 The number of people employed on site at any one time during construction will vary considerably but, based on experience of similar projects elsewhere, it is estimated that up to 300 people will be employed on site during the construction process.
- 3.13 Based on experience of similar projects elsewhere and the construction activities discussed above, it is predicted that up to 37 HGV deliveries a day will be required to the site during construction (74 HGV movements in total). In addition, it is anticipated that there will be up to 22 construction staff traffic movements each way per day during the peak construction period (44 movements in total). Details of the calculations behind this figure are set out in the transport assessment in Technical Appendix L. Materials delivered by ship will be unloaded and stored within the port until required, in accordance with the port's existing procedures.

## **Climate change adaptation and greenhouse gas emissions**

- 3.14 The proposed ERF includes the following measures to reduce its greenhouse gas emissions and minimise its vulnerability to climate change:
- the ERF will generate energy through the combustion of RDF and effectively represents a low carbon energy source. The generation of low carbon energy can assist in the reduction of greenhouse gas emissions by displacing more carbon-intensive energy sources such as coal and natural gas (only gas is used in the technical carbon balance analysis)
  - the provision of low carbon electricity to ships berthed at the port will also replace the use of more carbon-intensive marine fuel oil while ships are docked in port
  - the ERF will have the capacity to export heat, in the form of steam or hot water, to identified local heat customers by means of a potential local heat network
  - the roof of the ERF building, above the RDF storage area, will be fitted with 3,389 m<sup>2</sup> of photovoltaic panels, which will make a further contribution to renewable energy generation at the site (yearly export to grid of 764 MWh)
  - 10% of the proposed car parking spaces will be fitted with electric charging points to encourage the uptake of electric vehicles, and the remaining spaces will be fitted with ducting to facilitate future installation of cabling and charging units as required
  - the ERF will use LED lighting, which will reduce electricity use

- Incinerator bottom ash (IBA) will be taken to specialist processing facilities and used to make aggregates suitable for construction and road projects, while the air pollution control residue (APCr) will be recycled into carbon negative aggregate that will be used to make carbon negative building blocks, resulting in reduced use of primary resources for aggregate production
- the applicant is committed to using verified carbon offsets to ensure that the process operations are 'net zero' over the lifetime of the plant
- the site is in flood zone 1 and is largely at very low risk of surface water flooding, although there is small area of low risk in the north west. The surface water drainage strategy will accommodate the 1-in-100 year storm event and incorporates a 40% allowance for climate change. These measures will ensure that the proposed development will not be at increased risk of flooding as a result of climate change

3.15 Further information on the proposed ERF's greenhouse gas emissions is provided in ES Chapter 5.

## 4. NEED

### Introduction

- 4.1 The NPPW (para 7) only requires applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities, where proposals are not consistent with an up to date local plan. Waste planning authorities are required to consider the extent to which the capacity of existing operational facilities would satisfy any identified need. As explained in chapter 6 of this statement, the Waste Plan identifies a shortfall in residual waste recovery capacity. There are no existing waste management facilities in Dorset that can meet this shortfall the provision new infrastructure is required to meet this need.
- 4.2 Furthermore, the Waste Plan adopts a flexible approach to the provision of new waste infrastructure in recognition that the allocated sites for residual waste management are subject to constraints and that some, or all, of the allocated site may not come forward to provide the required additional capacity for various reasons. It therefore permits new waste management facilities to come forward on unallocated sites (under Policy 4), provided relevant criteria are met. As explained within Chapter 6, the proposed Portland ERF is compliant with those criteria.
- 4.3 For these reasons it is considered that the proposed ERF is consistent with an up to date local plan, and that there is no policy requirement to demonstrate that a quantitative or market need exists. Nonetheless, the applicant considers that it is best practice to demonstrate need through the planning application process. The need for a particular scheme is also a material consideration that weighs heavily in its favour in the planning balance.
- 4.4 The ERF essentially comprises a power station for the recovery of energy generated from residual waste (in the form of RDF). This section sets out how there is a clear and demonstrable need for the ERF in terms of the proposed location at Portland in Dorset, the type of technology to be used and the treatment capacity (scale) to be provided.
- 4.5 The need for (and benefit of) the ERF is multifaceted and encompasses the following key aspects:
- the need to manage residual waste arisings in a more sustainable way
  - the need to promote wider sustainability objectives such as addressing climate change, through the generation of lower carbon heat and power
  - the need to promote sustainable economic growth, by tackling areas of socio-economic deprivation through job creation and unlocking potential.
- 4.6 The need case applies at the local, regional, national and European scale and at all levels of policy and decision making. The remainder of this section provides a summary of the need case in respect to waste, energy and socio economics at the Dorset, regional and national levels.

## **The assessment of need**

### ***Waste management***

- 4.7 The Portland ERF will treat residual household waste (in the form of refuse derived fuel or RDF), which has been subject to reprocessing to remove all practicably recyclable materials. Therefore, whilst attention is focused on the need to treat residual household waste, the facility will also be capable of treating business wastes (commercial and industrial (C&I)), with a similar composition to household waste derived materials.
- 4.8 The Waste Need Statement has considered relevant waste management legislation and policy and evidence from waste data published by DEFRA, which provides statistics at the national, regional and local waste authority levels. This is supplemented by data from other sources including the Environment Agency Waste Interrogator, Dorset Council, the 2019 adopted Dorset waste local plan (and its associated evidence base documents) and commissioned waste market analysis reports.
- 4.9 While the proposed ERF would operate as a 'merchant plant', it is intended that the residual waste to be treated would be secured by a series of contracts with a number of companies, with the waste including municipal (MSW) and commercial and industrial (C&I). Residual waste can only be dealt with through thermal treatment and energy recovery or disposal to landfill. As landfill is at the bottom of the waste hierarchy, disposal through thermal treatment and recovery as proposed by the Portland ERF is clearly preferable.

### **Dorset waste**

- 4.10 In assessing need in the context of managing Dorset's waste, there are three separate but inter-related matters to be considered:
- the landfill capacity within the county,
  - the availability/capacity of other residual waste treatment facilities within the county, and
  - the possible levels of future waste arisings.
- 4.11 These parameters set the broad local need context. Together they provide a picture of the degree of urgency that is required in making the switch to a more sustainable means of managing waste, by means of landfill diversion and resource recovery, and to meet existing and future predicted need.

### **Existing waste arisings**

- 4.12 In 2018/19, a total of 395,108 tonnes of waste was collected by local waste authorities in Dorset, encompassing Dorset Waste Partnership, Bournemouth Borough Council and Poole Borough Council. Of this 339,595 tonnes was household waste (excluding rejects of 17,217 tonnes) and 38,295 was non-household waste.



- 4.13 Of the total waste collected, 52% (203,972 tonnes) was sent for recycling, composting or reuse, 46% (173,919 tonnes) was not sent to recycling and 4% (17,217 tonnes) was estimated rejects. Accordingly for:
- the Dorset Waste Partnership, 123,278 tonnes was sent for recycling, composting or reuse (58%) and 91,096 tonnes was not sent for recycling (42%);
  - Bournemouth Borough Council, 42,039 tonnes was sent for recycling, composting or reuse (49%) and 43,147 tonnes was not sent for recycling (51%); and
  - Poole Borough Council, 38,655 tonnes was sent for recycling, composting or reuse (49%) and 39,676 tonnes was not sent for recycling (51%).
- 4.14 The total quantity of collected waste that was 'managed in Dorset in 2018/19 was 380,415<sup>2</sup> tonnes, encompassing the Dorset Waste Partnership, Bournemouth Borough Council and Poole Borough Council. Of this, 203,972 tonnes was recycled/composted, 109,984 tonnes was incinerated with energy recovery and 51,344 tonnes was landfilled.
- 4.15 Statistics for C&I waste have always been more difficult to obtain because of the number of premises producing waste and the greater number of contracts and other arrangements that exist for recycling or disposing of C&I waste. However, according to the technical evidence base for the Dorset waste local plan, it was estimated that around 447,000 tonnes of C&I wastes were generated in 2015/16. Whilst a high proportion of this C&I waste was treated at facilities in Dorset a significant proportion of this (80,329 tonnes) was estimated to have been sent to landfill in Dorset and a further 12,229 tonnes went to landfill outside of the county.
- 4.16 Analysis undertaken by ERM, provided as appendix 1 to the Waste Need Statement, has considered the potential amount of residual waste arising in Dorset (both LACW and C&I) that could potentially be available as feedstock for the proposed ERF. Based on a total Dorset waste arisings figure of 842,108 tonnes (comprising 395,108 tonnes of LACW and 447,000 tonnes of C&I), when taking account of waste that is recycled, composted or reused together with waste that is transferred, stockpiled or sent to energy from waste, some 208,025 tonnes of feedstock is potentially available to the Portland ERF. However, the residual waste that is currently transferred, stockpiled or sent to other EFW facilities could also potentially be made available to the Portland ERF, increasing the potentially available feedstock for the ERF to 320,924 tonnes.
- 4.17 ERM's analysis is in accordance with the 2017 South West Waste Technical Advisory Board's projected quantities of residual waste (requiring energy recovery or landfill) that are expected to be generated in the south west region for the period 2018/19 through to 2027/28. For 2021/22, they projected around 320,000 tonnes.

---

<sup>2</sup> This figure does not match that quoted above for total local authority collected waste, due to the stockpiling of waste between reporting periods.

- 4.18 The amount of residual waste arisings in Dorset alone, that is potentially available as feedstock for the Portland ERF, would significantly exceed the proposed nominal capacity of 183,000 tonnes. The headroom is so significant that any realistic, reasonably foreseeable changes in waste characteristics, such as greater levels of recycling of certain waste or substitutes of others, or a major societal shift towards waste minimisation are still likely to be such that sufficient source material for Dorset derived RDF is available and will require a management solution.

### **Remaining landfill capacity**

- 4.19 Turning to the question of remaining landfill capacity, all of the existing landfill sites in Dorset have now closed and there are no proposals to extend the existing sites or open new ones at the present time.
- 4.20 The Waste Plan states (para 7.69) that all remaining local authority collected residual wastes are sent to landfill (which is assumed to be correct at that time). There are only two permitted non-hazardous waste landfill sites in Dorset, with both being non-operational at present. The Trigon landfill site at Wareham has extant consent to 2027, whilst the Beacon Hill landfill site, Corfe Mullen was consented to 2019 (the latter is now assumed to have expired).
- 4.21 Whilst these landfill sites have been safeguarded in the Waste Plan for potential future use, neither are expected to re-open and have not been counted towards landfill capacity.
- 4.22 As a result, all of Dorset's residual waste, that is not sent for energy recovery, is sent to the Blue Haze landfill, Ringwood, Hampshire and Walpole landfill in Bridgwater, Somerset. The Waste Plan anticipates that small volumes of waste are expected to continue to be sent to these locations over the waste plan period.
- 4.23 Given that Dorset has no remaining operational landfill capacity, there is a need to minimise the amount of waste sent to landfill, both now and in the future, given that the county is now reliant upon the transportation of waste to landfill outside of its waste plan area.

### **Future waste arisings in Dorset**

- 4.24 The total waste arising figures for LACW and C&I waste in Dorset are predicted in the Dorset Waste Plan to continue to increase over the coming years reaching 453,000 tonnes for LACW and 572,000 tonnes for C&I wastes (1,025,000 tonnes in total) by the end of the Waste Plan period 2033.
- 4.25 The Waste Plan states, (in table 7), that Dorset's projected arisings/need for non-hazardous residual waste treatment will increase further to 320,000 tonnes in 2023, with an identified shortfall of 137,000 tonnes of treatment capacity. The projected arisings/need figures rise further by 2028 to 339,000 tonnes with an identified shortfall of 214,000 tonnes, and again by the end of the plan period in 2033 to 359,000 tonnes, with an identified shortfall of 234,000 tonnes of residual waste treatment capacity.

## **The export of Dorset's residual waste**

- 4.26 In the absence of any landfill capacity and dedicated waste management facilities for the treatment of residual waste and recovery of energy within the county, the main method of treatment for residual waste is export to landfill or energy recovery facilities elsewhere in the UK, or to energy recovery facilities in continental Europe.
- 4.27 Residual waste arisings in the Waste Plan area are currently managed through a combination of transfer stations, recovery facilities and landfill (disposal) sites. There is only one operational recovery facility in Dorset, the Canford Magna MBT which is co-located with a MRF and an inert recycling facility. Dorset, Bournemouth and Poole have been sending residual waste to this facility. Whilst the Canford Magana MBT facility is capable of pre-treating some of Dorset's waste it also produces an RDF material, which is then exported to Europe for use as a fuel. Following recent procurement success of residual waste contracts, some RDF produced at Canford Magana is reportedly destined for a new ERF in Bridgewater, and the applicant has arranged with the operator of that facility that should the Portland ERF become operational then that RDF would come to Portland instead to be treated in Dorset.
- 4.28 The majority of residual waste, not sent to the Canford Magna MBT facility, is exported out of the county for disposal at landfill sites in Somerset and Hampshire, or sent for treatment at the Marchwood EfW facility in Hampshire and the Lakeside EfW facility in Slough. Both of these plants are currently operating at full capacity. In the case of the Marchwood EfW, a condition of the planning permission requires priority to be given to the management of Hampshire's residual waste.
- 4.29 The evidence base to the Dorset Waste Plan states that Dorset is a net waste exporter, exporting more than it imports. A position that has arisen partly because of the closure of the county's landfill sites.
- 4.30 In the absence of any immediate change the continued export of waste is likely to continue to involve transportation, in some cases over long distances. To say the least, this is very costly and high risk in terms of the reliance on capacity being available in the future at a reasonable price. It also raises issues of sustainability in respect to transporting waste over long distances for treatment and runs counter to waste being treated close to where it arises (proximity principle) and the aim for Dorset to become more self sufficient.
- 4.31 The recent patterns of residual waste management in Dorset, which is not dissimilar to the performance of other regions, demonstrates that the proximity principle can be met whilst transporting large volumes of waste of considerable distances, across county and country borders, by road, train and ship.

## **Proposals for new waste management facilities on allocated sites**

- 4.32 The Dorset waste planning authorities have, through recent waste local plans and waste management strategies, supported a shift away from reliance on landfill towards more sustainable methods of waste management. In doing so, they have identified both sites and preferred waste management technologies, for achieving this objective and for managing expected needs for additional waste treatment capacity in Dorset.

- 4.33 However, despite previous waste plans predicting shortfalls in capacity and identifying sites, little capacity has been delivered in the way of residual waste treatment, with the exception being the MBT plant located at Canford Magna, Poole. Whilst planning permissions were granted for advanced thermal treatment facilities at Winfrith in 2010 and Canford Magna in 2013, neither were viable and they were never built. This pattern is repeated across the UK where a number of advanced thermal treatment facilities (which often attract substantial taxpayer subsidy) have been consented and not delivered or worse, delivered but failed to operate, so much so that they are widely considered to be un-bankable for complicated waste streams.
- 4.34 As a consequence of its reliance on delivering alternative waste management technologies, Dorset has managed to increase its recycling rate, but has failed to deliver any meaningful residual waste treatment capacity in Dorset to meet need. The result is that Dorset is now reliant upon the export of residual wastes that cannot be recycled or re-used, following the removal of recyclates, to appropriate installations outside of Dorset and the UK, these typically being energy from waste facilities or landfill.
- 4.35 The 2019 Waste Plan identifies a number of sites for waste management facilities. These are not technology specific but theoretically could include incineration with energy recovery. However, no planning applications have yet been made in respect of the allocated sites and there are concerns as to the availability, viability and deliverability of these sites. There appears to be little prospect of emerging proposals coming forward in the near future and even if they do, given the significant planning and environmental constraints, there is no certainty that planning permission would be secured for an ERF (see separate Comparative Assessment Against Waste Plan Allocated Sites report).
- 4.36 The continued practice of exporting large quantities of Dorset's untreated residual wastes, or pre-treated RDF materials, to facilities located elsewhere in other counties and in continental Europe, is arguably less strongly aligned with the proximity principle than would the use of Portland ERF and does not enable Dorset to be self-sufficient in respect to the treatment of its own residual wastes.
- 4.37 In these circumstances there is an urgent and compelling need for new residual waste treatment infrastructure, of the type proposed at Portland Port, which is a proven, reliable and bankable technology that is both deliverable and capable of managing Dorset's residual waste in a sustainable way (with the recovery of heat and power).

#### **Future proofing and value for money**

- 4.38 In order to meet Dorset's existing and projected increase in residual waste, it will be necessary to adopt an approach that is sufficiently flexible to adjust to changing waste market conditions, future proofing. Dorset has achieved a good recycling record and aims to further improve the amount of waste that is recycled and re-used.
- 4.39 Unlike facilities delivered under PFI/PPP to serve a single local authority waste contract for 25-30 years, with strong contracted commitments to maintain supply of waste at particular levels, the proposed merchant ERF will be commercially robust being capable of adapting to future changes, such as more recycling and

varying waste composition. Any future contracts that may be entered into with Dorset Council or contractors to them can be negotiated to ensure that there are no perverse incentives to maintain level of production of waste to satisfy contractual demands. This should assuage the concern expressed in relation to some waste projects that an EfW or ERF could dissuade higher rates of recycling.

- 4.40 The cost of exporting waste is relatively high compared to managing waste more locally. These costs are likely to increase further as demand for external residual waste treatment capacity outside of Dorset (landfill or energy recovery) increases and available capacity decreases. Furthermore, the costs associated with exporting waste to Europe, as a result of import taxes on residual waste, are likely to be passed onto waste exporters. These factors combined reinforce the need for Dorset to secure new residual waste management infrastructure to safeguard against significant future increases in waste management costs, and ensure that local tax payers are receiving maximum value for their money. In doing so local authorities can also divert resources for other important purposes such as social care.
- 4.41 The on-going Covid-19 pandemic has placed additional financial and resource burdens on local authorities, as a consequence of the lockdown and associated local economic impact. It is entirely reasonable for waste disposal authorities to review potential options as existing contracts expire to reduce waste management and disposal costs.

### **Conclusions on Dorset waste need**

- 4.42 Based on Dorset's current and predicted future residual waste arisings and its approach to waste management, the following conclusions can be drawn in respect to the need for the Portland ERF:
- As a merchant plant capable of sourcing waste from the waste market, the proposed ERF is well placed to meet Dorset's residual waste treatment needs. Whilst Dorset has a relatively high recycling rate, around 46% of its collected waste is not recycled. Dorset currently landfills around 14% of its residual waste. There is a need to divert more of this waste away from landfill, the least sustainable option, and further up the waste hierarchy via energy recovery.
  - In addition to local authority collected wastes, significant volumes of C&I wastes are generated in the county, with significant volumes being exported to landfill. This is not sustainable and a significant proportion of this waste stream is deemed to be suitable for energy recovery. A need exists for an ERF in Dorset that would be capable of diverting some of this C&I waste away from landfill to recovery energy and reduce waste exports, supporting the self-sufficiency and proximity principles.
  - There are no ERFs in Dorset to manage its residual waste and most of this is exported out of the county to landfill, or energy from waste plants, in neighbouring authority areas, and in the case of RDF is exported out of the country to Europe. There is a need for Dorset to reduce its reliance on the export of residual waste, become more self-sufficient and treat more of its residual waste in Dorset closer to where it arises, in accordance with the proximity principle

- Little new residual waste management infrastructure has been delivered over recent years in Dorset and proposals for advanced thermal treatment facilities have proven not to be viable. The county is now heavily reliant upon the export of its residual waste out of county and out of the country. There is a need for a proven, reliable and bankable ERF that is deliverable and capable of meeting Dorset's needs in the long term.
- Without any action taken there will be an increasing shortfall in residual waste treatment capacity in Dorset reaching 234,000 tonnes by 2033. There is an urgent need for new waste management infrastructure to meet this significant projected shortfall.
- Four sites have been identified in the waste plan for new residual waste treatment capacity, with a combined assessed capacity of 385,000 tonnes. Whilst the Waste Local Plan accepts that not all of these sites will be needed, their significant planning and environmental constraints mean that they are either unlikely to come forward and deliver any capacity, or alternatively could only accommodate small scale facilities that are less likely to be viable and deliverable. A need exists for a large-scale ERF facility as proposed at the application site, which is viable and deliverable.
- A merchant ERF, as proposed at Portland, will help meet Dorset's need for flexibility being able to adapt to changing waste market conditions and by reducing the practice of residual waste export can secure a value for money solution for Dorset residents.

### ***National and regional waste***

- 4.43 Whilst good progress has been made over recent years to recycle more of our waste and reduce the amount of waste sent to landfill, there remains a need to manage waste in a more sustainable way. To achieve this, more infrastructure of all types is required to ensure that waste management practice is pushed as far as possible up the waste hierarchy.

### **Waste management in England**

- 4.44 Nationally, high volumes of residual waste are still being generated, and despite efforts to reduce waste production, increase re-use and recycling and recover energy from waste, significant volumes of residual wastes (arising from both municipal and C&I sources) are still being sent to landfill (the least sustainable option) for disposal.
- 4.45 The most recent waste data for England (2018/19) demonstrates that:
- whilst the overall waste collected from households is beginning to reduce, there remains a very significant amount of local authority collected waste (LACW) that is not sent for recycling, composting or re-use and requires treatment (14.5 Mt). This residual waste is most likely sent for energy recovery or to landfill
  - whilst the disposal of waste to landfill is slowly decreasing there remains a substantial amount of local authority collected waste (2.8 Mt) that is still

disposed of to landfill, representing around 11% of the total amount of collected waste, some of which could have been sent for energy recovery

- the thermal treatment of waste represents a significant, reliable and deliverable method for managing residual wastes collected by local authorities across England (43.1%) and is playing an important role in helping divert waste from landfill
- there are significant volumes of C&I wastes being generated in the UK and especially England that requires treatment, and this amount is predicted to increase.

### **Waste management in the region**

4.46 A number of key conclusions can also be drawn from the DEFRA derived regional data in respect to need. These are:

- the south west region generates large volumes of waste that is collected by local authorities, approx. 2.6 Mt per annum (representing 10% of the total collected waste in England) with the majority (93%) being household waste
- the south west region is the best performing region in respect to household waste recycling rates (50.1%), compared to the worst performing region London (33.4%) and England (43.5%) as a whole
- the south west region still sends around 0.5 Mt of local authority collected waste to landfill each year
- in percentage terms the south west region therefore performs the worst of any region in terms of the amount of local authority collected waste that is sent to landfill (19.1%), compared to 10.8% for England
- the south west region sends much less of its local authority collected waste for incineration with energy recovery (28.3%) than England (43.1%).

4.47 These statistics show that the south west region is sending a large amount of residual waste to landfill and in percentage terms it is the worst performing region in England in respect to landfill.

4.48 Given that the south west region is the best performing region for recycling, but also has a much lower rate of energy recovery than England, the conclusion can be drawn that there is still a substantial regional need to divert residual waste from landfill towards energy recovery from residual waste and that this can be achieved without having an adverse impact on the existing high recycling rates.

### **The export of refuse derived fuel (RDF)**

4.49 As many waste authorities in the UK have turned to the use of MBT technologies, an export market has developed with significant quantities of RDF and SRF being exported from the UK to other countries in mainland Europe, notably the Netherlands, Sweden, Germany, Denmark and Norway. The exported RDF and SRF material is typically combusted in energy recovery plant and other facilities

with capability to make use of these materials as fuel to recover heat and energy for use in many applications.

4.50 The most recent annual data indicates that around 2.5 Mt of UK derived waste was exported from England to Europe for use as a fuel (of which 2.1 Mt was RDF), which could instead have been recovered in the UK. A number of conclusions can be drawn from the waste data sources in respect to waste export and this need case:

- the UK continues to export large volumes of residual waste as RDF to other European countries over long distances, which could instead be managed in the UK, supporting the self-sufficiency and proximity principles
- this trend for export is beginning to decline as a result of political and fiscal policies that are together creating uncertainty and additional cost in respect to the future viability of the export market
- the decline in the export of RDF is likely to require more of this residual waste material to be managed in the UK and more energy recovery facilities to be built to manage this waste
- it would be preferable for energy to be recovered from UK residual waste for the benefit of UK residents, rather than for this to be sent to European energy recovery facilities.

4.51 Furthermore, data sourced from the Environment Agency Waste Data Interrogator 2018 (England) confirms that regionally:

- the south west region generated around 345,000 tonnes of RDF, the majority in Bristol (199,000 tonnes), then Poole (89,000), Wiltshire (29,000) and Swindon (27,000 tonnes) and remainder in Somerset
- the majority of this (81%) was exported outside of the UK for management, 281,000 tonnes. The remainder was managed in England, with only 9,200 tonnes (3%) staying within the region
- 286,000 tonnes was sent to treatment facilities (mainly incinerators), 57,800 went to recovery facilities and 1,200 tonnes went to landfill.

4.52 A number of conclusions can be drawn from the regional waste data for RDF in respect to this need case:

- whilst the south west region produces a significant amount of RDF (345,000 tonnes) annually, with a proportion of this being produced in Dorset (Poole), the vast majority is exported out of the UK for use in Europe with little retained and managed in the region
- the south west region lacks capacity and facilities designed to recover energy from the RDF produced in the region, and as a consequence most of the RDF produced is exported.



## Conclusions on national and regional need

- 4.53 There is a need for the provision of additional waste management infrastructure in England that is capable of recovering energy from residual wastes that cannot practicably be recycled, diverting this material away from landfill and maximising the benefit of energy recovery from waste in the UK.
- 4.54 The Waste Need Statement draws the following conclusions in respect to national and regional need:
- the DEFRA national and regional waste statistics recognise that there are significant volumes of residual arisings (both household and C&I wastes) being generated in the region.
  - despite relatively high regional levels of recycling, a significant proportion of its residual waste (around 20%) is being sent to landfill (more than England at 11%) and less is being sent to energy recovery (28%) compared to England (43%).
  - in addition to household waste, there are significant quantities of C&I wastes being generated nationally and regionally, a proportion of which after recycling could be sent to energy recovery rather than to landfill.
  - based on figures for waste collected and managed, it is clear that whilst energy recovery is playing an important part in managing residual waste, more needs to be done to divert more of the 11 Mt (in England) and 0.5Mt (in south west region) of residual waste that is currently sent to landfill to energy recovery, instead in line with the waste hierarchy.
  - nationally, large volumes of RDF are being exported out of the UK to Europe (2.5 Mt). The export of RDF is declining as available ERF capacity reduces across Europe and fiscal and political factors create uncertainty. Most of the RDF produced in the south west region is exported out of the country (81%). A need exists, both nationally and regionally, for new treatment capacity to enable more of the UK's RDF to be retained and managed in the UK, to provide more sustainable lower carbon energy.
  - a South West Waste Technical Advisory Board (SWWTAB) study has concluded that the volume of residual municipal and C&I wastes, generated across the south west region, and requiring treatment by landfill or energy recovery, is likely to increase significantly over the coming years.
  - the SWWTAB study also concludes that available landfill capacity in the region has reduced significantly in recent years as sites are permanently closed or mothballed. This trend is expected to continue, and more landfill sites will close early with remaining sites performing a regional function.
  - the SWWTAB study also found that whilst there is a significant volume of consented thermal treatment technology capacity in the region, less than half of this had been developed and was operational, and it concludes that it is highly unlikely that all of the permitted energy recovery capacity would ever be delivered.

- given the reducing landfill capacity and uncertainty as to whether the consented thermal treatment capacity will come forward, the SWWTAB study concluded that there may be a requirement for further facilities in the region, potentially operating on a cross boundary and sub-regional scale.
- 4.55 These conclusions are further reinforced by the recent publication of the cross-Parliamentary report entitled '*No Time to Waste: Resources, Recovery and the Road to Net-zero*' in respect to the need for additional EfW capacity in England. It recognised that whilst the Resources and Waste Strategy had been based on DEFRA modelling suggesting that there was sufficient EfW treatment capacity to 2035, this was based on certain assumptions. These being that the export of RDF material would remain stable, that England will meet its waste recycling target of 65% by 2035 and that there will continue to be a reliance on landfill to dispose of residual waste.
- 4.56 The inquiry investigation found that the RDF export market was unlikely to be stable for various reasons, including the introduction of European import taxes on RDF, and concluded that the UK should no longer be exporting RDF waste, but instead should prioritise the acceptability of EfW through greater heat off-take.
- 4.57 It also heard that there is mounting expectation that England would not meet its 65% recycling target for 2035, until 2048. Regardless of when the 65% target would be met, the inquiry concluded that there would remain a baseline of 35% of residual waste, which is likely to grow as population increases, and that ensuring that sufficient EfW capacity exists would be key to avoiding reliance upon landfill in the future.
- 4.58 The inquiry report concluded that there are few materials where landfill is required, and that the 10% to landfill target is still too high and should be more ambitious. The report noted that the Committee on Climate Change has recommended that a more ambitious target should be adopted, for an end to the landfill of biodegradable waste by 2025; a decade sooner than the Resource and Waste Strategy previously outlined and modelled towards. The inquiry accepted that there was much uncertainty around these factors, but overall whilst over-capacity should be avoided, the greater risk is continued landfill due to insufficient capacity. Additional EfW capacity will be required if we are to be sufficiently ambitious on driving down landfill and ending RDF exports. The risk of insufficient feedstock for future EfW lies with the private investors; and market dynamics can be expected to avoid this.
- 4.59 Overall, there is a compelling national and regional need case for the provision of new energy recovery facilities to divert more residual waste away from landfill and enable more of the RDF material produced in the UK to be managed in the UK, reducing exports.

#### **Waste availability within the ERF waste catchment**

- 4.60 Market assessment, based on a 3 hour drive time catchment by road, confirms that there is a shortfall of residual waste treatment capacity in the region that could be available to the Portland ERF. Additionally, because of its port location the proposed facility is capable of securing other residual waste, where economic to do so, by sea from the UK, which might otherwise go to other ERF's in Europe.

## Exported RDF passing Portland Port

- 4.61 Analysis undertaken by the independent waste consultancy Tolvik for the applicant shows that there is a steady stream of RDF (estimated to be between 195,000 and 310,000 tonnes) that is currently exported from locations in England and Ireland via ship, which currently passes through the English Channel in the vicinity of Portland Port. Some of this material could be diverted to provide fuel for the proposed Portland ERF.

## Fuel supply strategy

- 4.62 Because the Portland ERF is not pre-contracted to manage a specific waste authority's arisings, the applicant has developed a robust fuel supply strategy to ensure that the facility is economically viable, deliverable and resilient. This supply strategy will ensure that it can continue to meet Dorset's long term residual waste treatment need.
- 4.63 The applicant has partnered with Geminor, one of the leading companies in Europe specialising in the supply of waste products to recycling and energy recovery to prepare a robust fuel supply strategy. Whilst still at planning stage, the Portland ERF has already secured (through Geminor) access to 60,000 tonnes of Dorset's residual waste, with potential for this to increase in future years to include all of the residual waste handled by the Dorset Waste Partnership. Potential exists for the waste market to produce further RDF from residues known to be available in the county. Additional residual waste is also likely to be sourced from neighbouring counties within the catchment, transported to the site by road, and from other areas by sea.

## Conclusions on waste need

- 4.64 The applicant has undertaken analysis of available waste data and other relevant evidence at the Dorset, national and regional levels. The Waste Need Statement presents evidence to demonstrate the waste need case for the proposed Portland ERF.
- 4.65 This evidence supports the following conclusions:
- there are large volumes of residual waste generated in Dorset, nationally and regionally that is still disposed of to landfill, a significant proportion of which could instead be diverted away to energy recovery facilities in line with the waste hierarchy.
  - large volumes of C&I waste are generated, in Dorset, nationally and regionally, a significant proportion of which is landfilled, which could instead be diverted further up the waste hierarchy and managed via energy recovery facilities.
  - Dorset has no remaining landfill capacity and no energy recovery facilities to manage existing and future waste. As a consequence, almost all of Dorset's residual waste is either managed by intermediate MBT to create RDF which is exported to Europe or directly exported to other energy from waste facilities or landfill outside of Dorset. This practice runs contrary to the objectives of the self-sufficiency and proximity principles and could be addressed by provision of an ERF in Dorset.

- Dorset has a predicted shortfall in residual waste treatment capacity of 234,000 tonnes by 2033. Action is urgently required to ensure that suitable capacity is provided in Dorset to meet both existing and predicted future need and reduce the need for more export. An ERF at Portland would be capable of helping to meet these needs.
- successive Dorset waste plans and waste policy, have failed to secure any substantial new waste management infrastructure in Dorset (other than one MBT facility) with proposals for advanced thermal treatment facilities failing technically and commercially. This has resulted in an over reliance on the export of waste out of county contrary to sustainable waste management policies and providing little security or control as to how and where Dorset's residual waste will be managed.
- four sites are identified in the waste plan for new residual waste treatment capacity, with a combined assessed capacity of 385,000 tonnes to provide flexibility for non-delivery. However, all of these sites are subject to significant planning and environmental constraints. As such, they are either unlikely to come forward at all and deliver any capacity, or could only accommodate small scale facilities that are less likely to be viable and deliverable. A need exists for a large-scale ERF facility as proposed on the application site, which is viable and deliverable.
- whilst residual waste arisings in the south west region are predicted to increase over coming years, landfill capacity is continuing to decline with the early closure of sites. Coupled with the fact that not all consented regional energy recovery capacity is expected to be delivered, this means that more energy recovery capacity is likely to be required and that this will operate on a cross boundary, sub-regional scale.
- large volumes of RDF, derived in the UK and regionally in the south west, are currently being exported to Europe for energy recovery, due to a lack of available capacity here, which should instead be treated at energy recovery facilities in the UK, in line with the self-sufficiency and proximity principles.
- specialist waste market analysis has determined that there are significant volumes of residual waste (municipal and C&I) available within a defined 3 hour drive time catchment of the ERF site at Portland that could reasonably be available to a merchant facility.
- whilst there is more than sufficient waste available within Dorset and the wider catchment covering neighbouring counties, by road, there are also substantial volumes of RDF available that are currently being exported to Europe from the UK though the English Channel that could be diverted to Portland by sea, due to the site's port location. It is preferable for RDF material arising in the UK to be managed at ERFs located in the UK, as this in line with the self-sufficiency and proximity principles.
- because the Portland ERF is not pre-contracted via a PFI/PPP contract which are typically long term, to manage a specific waste authority's arisings, the applicant has developed a robust fuel supply strategy to ensure that the facility is economically viable, deliverable and resilient. This supply strategy will

ensure that it can continue to meet Dorset's long term residual waste treatment need.

- the applicant has entered into a partnership with Geminor, one of the leading companies in Europe specialising in the supply of waste products to recycling and energy recovery. Through this partnership the ERF already has access to RDF waste produced at the Canford MBT facility and can therefore meet an existing need for residual waste treatment. The facility is well placed to secure future residual waste contracts for Dorset and other waste authorities, which could be transported to Portland by road and sea, meeting both existing and future need.

4.66 These factors, both individually and cumulatively, demonstrate that there is a clear and compelling waste need case for the proposed Portland ERF and that there is a quantitative and market need for a new waste management facility of this type in Dorset.

### ***Sustainable energy and climate change***

4.67 The need to secure new sources of energy generation, especially renewable and low carbon with their associated climate change benefits, is of equal importance to the waste case in favour of the Portland ERF.

### **Dorset need**

4.68 Dorset Council and Bournemouth, Christchurch and Poole (BCP) Council, along with all other local authority areas, are expected to contribute towards the UK Government's ambitious national greenhouse gas reduction targets.

4.69 The West Dorset and Weymouth Portland Local Plan states that locally generated renewable energy projects will need to generate 7.5% of all energy demand by 2020. When added to national scale energy projects across the country, this 7.5% contribution will enable the national renewable energy target of 15% to be reached by 2020. The local plan outlines the importance of taking up new development opportunities for generating renewable energy and low carbon energy and co-locating suppliers with local heat customers. It states that some installations will need to be of a larger scale, to meet the target, and be carefully planned to ensure they do not negatively affect the high quality of the surrounding environment.

4.70 The Bournemouth, Dorset and Poole Renewable Energy Strategy to 2020 notes that significant changes in policy surrounding renewable energy and incentives for renewable energy technologies mean that the development of renewable energy is being encouraged even more strongly by a host of existing and emerging international, national and local policies. It refers to the European Renewable Energy Directive under which the UK has a legally binding target to generate 15% of the UK's total energy needs from renewable sources by 2020. It notes that whilst this is a national target, Government expects local authority areas to play a part in meeting the 2020 national renewable energy target. The strategy sets out the following vision:

*“For the community of Dorset to play our part in mitigating climate change by using energy more efficiently and harnessing our viable renewable energy resources. We wish to maximise the local economic, environmental and community benefits that doing this can bring.”*

- 4.71 The strategy notes that renewable energy generation in Dorset is estimated to be 146GWh, or only 0.95% of total energy demand, or a third of the UK national average of 3% in 2010. It recognises that for the area to play its part in meeting national renewable energy targets, a significant step change is required, with generation needing to increase by over 15 times in just 8 years.
- 4.72 It sets an aspirational target of at least 15% of Dorset, Bournemouth and Poole’s energy needs to be met from renewable sources by 2020. Around 7.5% of this is expected to be delivered via national renewable energy resources, so the strategy focuses on a secondary target of a minimum of 7.5% of Dorset’s energy needs to be met from local renewable energy resources. This would equate to the area using enough local renewable energy resources to generate just under 1200 GWh of energy per year – sufficient to power about 250,000 homes or to heat around 85,000 homes.
- 4.73 The strategy identifies the drivers behind an increasing imperative for renewable energy. These being:
- mitigating climate change - reflected in Climate Change Act 2008 and legally binding carbon emission reductions targets of 30% by 2020 and 80% by 2050 (this has since increased to 100% by 2050)
  - energy security - an important issue due to political instability in oil producing nations, dwindling oil supplies, worries over the safety of nuclear power and the need to replace much of the UK’s large scale electricity generating capacity.
- 4.74 The submitted Energy Need Statement states that the Weymouth and Portland area currently has no ERF plants, with the majority of its 3.32MW of low carbon and renewable energy provided by solar PV (3.23 MW) with some onshore wind (0.06MW) and hydro (0.03MW). In the wider West Dorset area, the portfolio is more diverse with anaerobic digestion and landfill gas in addition to solar PV, onshore wind and hydro making a total of 48.02MW (51.24MW including Weymouth and Portland) per annum from renewable and low carbon sources, though solar PV is still heavily relied upon making up 39.91MW of the total
- 4.75 Whilst Dorset has delivered some renewable energy capacity this has largely been restricted to solar and anaerobic digestion technologies, and much of this has been relatively small scale. There are no large-scale energy from waste facilities present in the county.
- 4.76 In May 2019 Dorset Council declared a climate and ecological emergency. The council states that it is taking action to reduce the negative environmental impact of its services, using its services to support and influence Dorset communities and organisations to reduce their carbon footprint and working with partners to develop its climate emergency plan. In July 2019 BCP also declared a climate emergency. The council pledged to make BCP Council and its operations carbon neutral by 2030, and to work with the wider community to look at how early the

Bournemouth, Christchurch and Poole region can be made carbon neutral, ahead of the UK target of 2050. In June 2019 the Weymouth and Portland Town Council's also declared a climate emergency and committed to playing apart in reducing carbon emissions. On the 1 May 2019 the UK parliament declared a climate emergency.

- 4.77 In the context of the Bournemouth, Dorset and Poole Renewable Energy Strategy and the declared climate emergencies by all Dorset local authorities, there is a clear need for Dorset to deliver new renewable and low carbon infrastructure to make a greater contribution towards meeting national carbon reduction targets and the Dorset target to increase the amount of renewable energy generated to a minimum of 7.5%.
- 4.78 This demonstrates that there is a compelling energy need for the proposed Portland ERF which will make a significant contribution towards meeting Dorset's renewable/low carbon energy generation target.
- 4.79 An Energy Need Statement has been submitted in support of this application. In addition to setting out relevant national and local policy in respect to carbon reductions and the action required to address climate change, it provides more detail on the need for decarbonisation, future energy demand and improving the security of supply.
- 4.80 The Energy Need Statement demonstrates that there is a clear demand for an increased renewables and low carbon offering in the Dorset area which the proposed Portland ERF project can help to provide. Summary points in respect to energy need are:
- the requirement for an increased offering of renewable and low carbon energy generation options is supported by national and local policy
  - all areas of industry, including energy generation, have a part to play in meeting the UK's decarbonisation target of net zero emissions by 2050
  - future energy demand in the UK is predicted to increase, across all sectors, and needs to be met largely by renewable and low carbon solutions in order to fulfil national decarbonisation targets
- 4.81 Overall, the Energy Need Statement concludes that in addition to meeting the national need for decarbonisation, the proposed Portland ERF will provide a significant boost to Dorset's renewable and low carbon energy generation offerings, enabling the county to work towards its decarbonisation targets and achieving security of supply.

#### **The need for shore power**

- 4.82 The submitted Energy Need Statement and Shore Power Strategy Report demonstrate the specific need for the provision of shore power at Portland Port to serve the shipping sector, especially the cruise liner and military shipping that uses the port on a regular basis.
- 4.83 Shipping is an essential element of the UK economy, which like most sectors, is required to reduce greenhouse gas (CO<sub>2</sub>) emissions and pollutants harmful to

human health: nitrogen oxides (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>), particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), volatile organic compounds (VOCs) and ammonia (NH<sub>3</sub>).

- 4.84 The UK's 2019 Clean Maritime Plan<sup>3</sup> notes that in 2017 the UK's domestic and international shipping together were responsible for 13.87MT/CO<sub>2</sub>. This is 3.4% of UK's overall greenhouse gas emissions. In 2016 the UK's domestic shipping accounted for 11% of the UK's NO<sub>x</sub> emissions, 2% of primary PM<sub>2.5</sub> and 7% of SO<sub>2</sub>. International shipping with the UK as destination has been estimated to be three times larger. There is a clear need to reduce carbon emissions and other emissions to air from the shipping sector as part of the UK's action plan to tackle climate change.
- 4.85 The UK Government's Clean Maritime Plan sets out how the UK will transition to zero emission shipping. In the short term, this includes shore power as an interim measure to avoid vessels operating diesel engines to run non-propulsion electrical system whilst in port. In the longer term, shore power could be used for charging fully or partially battery powered shipping.
- 4.86 It is important that shore power is provided through low carbon electricity. Whilst the carbon content of grid electricity is declining, using electricity with a lower carbon content than from grid is a benefit.
- 4.87 Shipping sectors have different drivers for moving to shore power. The cruise industry has strong customer-based pressure to improve emissions; there are already signs that it is at the vanguard of the use of Shore Power. Military shipping, being Government owned, is also incentivised. The UK Government plays a major role in the process of reducing emissions through legislation and as owners of shipping needs to be seen to be at the forefront. Whereas commercial shipping is likely to lag behind other shipping sectors, driven by legislation alone.
- 4.88 The Energy Need Statement highlights the need for ports to provide shore power. It states that 30% of cruise ships (by tonnage) were already fitted with shore power facilities and that a further 17% are planned for retrofitting with shore power (together nearly half the fleet). An additional 39% are configured so that they could be fitted with shore power capacity in future. This leaves less than 15% of the fleet that are not already using shore power or configured for its future use and have no plans to be fitted with it or configured for it in future. Of the new build ships, 33% are being built with it pre-installed and a further 55% of tonnage is to be configured for future installation of shore power. The direction of travel towards shore power seems clear.
- 4.89 In addition, developing technology means the shore power may soon be used, not only for power on the ship, but to charge batteries which can then be used for propulsion once out at sea.
- 4.90 There are obstacles to implementing shore power. As set out in the submitted Energy Need Statement, the principle challenges identified in a recent report on Shore Power '*Examining the Barriers to Shore Power*' were found to be:

---

<sup>3</sup> Department for Transport, 'Clean Maritime Plan', UK Government, July 2019



- high capital costs, both within the port and associated with energy network upgrades;
  - high electricity prices making it difficult to compete with relatively cheap marine fuel;
  - a lack of consistent demand from shipping, although the report notes that may be starting to turn for some parts of some sectors
- 4.91 According to the CLIA (2019) *'Environmental Technologies and Practices Report'* there are currently only 16 ports 'visited by CLIA ocean going ships' which 'have at least one berth fitted with shore side electricity for cruise ships'. The UK Policy Document Maritime 2050 (p165) states that currently the ports of Portsmouth [Ministry of Defence], Fraserburgh [fishing port] and Brodick [ferry terminal, Isle of Arran] are the only ports in the UK to offer shore-side electricity facilities. However, this number is expected to increase significantly in the future with all ports, having to consider the addition of shore power facilities to stay competitive in the market.
- 4.92 This need applies equally to Portland Port. The Shore Power Strategy Report notes that in 2019 there were 794 calls by shipping at Portland Port, of which 41 were cruise ships. The port had 43 bookings for 2020 and already secured 45 bookings for 2021. The port is planning for and expecting cruise ship visits to increase to 65 by 2025. This is driven by multiple factors, including the UK's departure from the European Union, which will diminish the current benefits of visiting the Channel Islands.
- 4.93 Currently just over half the cruise ships visiting Portland have the facilities for connecting to shore power. There is a strong trend for new cruise ships to have such facilities and as new ships tend to serve European, Caribbean and North American cruise voyages, this proportion will increase.
- 4.94 Portland Port has a contract with the UK Navy to provide berthing for Royal Fleet Auxiliary (RFA) ships. All thirteen RFA ships which use the port are equipped with facilities for connecting to shore power.
- 4.95 Given the already strong availability of shipping, that is currently docking at Portland Port with facilities for connecting to shore power, there is a ready-made market and demonstrable need for provision of a shore power service. Such a service would offer a cheaper means of providing electricity to docked ships, than operating marine diesel fuelled generators, and one that has environmental benefits to the port and surrounding area.
- 4.96 Whilst the Covid-19 pandemic has had an impact on the amount of cruise liner activity taking place during 2020, it is expected that normal activities will resume in due course and that demand will begin to increase. The anchoring of cruise liners off the Dorset coast in recent months, as a result of the Covid-19 restrictions, has further highlighted the benefits of shore power. The presence of these cruise liners and the fact that the cruise liners have not switched off their generators has been noted in a local BBC news article<sup>4</sup>. The article refers to comments made by Dr Tristan Smith of University College London's Energy Institute, who specialises in

---

<sup>4</sup> <https://www.bbc.co.uk/news/uk-53720419>

shipping, which recognises the role of shore power in reducing air pollution. The article states:

*“... the best way to reduce the environmental impact of cruise ships in ports is for them to connect to local electricity grids, or shore power, when they berth - which should allow them to shut down onboard power generators.... But shore power is not yet available at many ports, including Southampton, meaning the ships would still need to use their own generators - even in port. Particulate matter and nitrogen oxide emissions, which can impact health of local populations, would be emitted closer to where people live and work, and therefore be more likely to impact the quality of the air they are breathing.”*

- 4.97 This provides further evidence as to the need for the provision of shore power at Portland Port, in reducing greenhouse gas emissions and other pollutants from shipping activities.

### **National need**

- 4.98 Dorset’s need to contribute towards reductions in carbon dioxide and other greenhouse gasses, through the generation of more renewable and low carbon energy and more efficient distribution networks must be considered in the wider international and national context. The following section summarises the UK’s approach through legislation, action plans, policies and strategies to decarbonise all parts of the UK economy, including energy and waste to tackle climate change.

- 4.99 According to the United Nations (UN)<sup>5</sup>:

*“Climate change is the defining issue of our time and we are at a defining moment. From shifting weather patterns that threaten food production, to rising sea levels that increase the risk of catastrophic flooding, the impacts of climate change are global in scope and unprecedented in scale. Without drastic action today, adapting to these impacts in future will be more difficult and costly.”*

- 4.100 It has now become clear that after more than a century and a half of human activity leading to industrialisation, deforestation, and large scale agriculture this has led to greenhouse gases in the atmosphere rising to record levels, not seen in three million years.

- 4.101 The global community, led by the UN, has sought to assess the potential effects of human activity on climate change, identify critical temperature thresholds and devise strategies to combat climate change and accelerate actions necessary to deliver a low carbon future. These include:

- The United Nations Framework Convention on Climate Change (1992) – aiming to prevent dangerous human interference with the climate system
- Kyoto Protocol (1998) – legally binding developed countries to emission reduction targets
- Paris Agreement (2015) – a landmark agreement (which the UK signed up to in 2016) to combat climate change and work towards a sustainable low

---

<sup>5</sup> <https://www.un.org/en/sections/issues-depth/climate-change/>

carbon future to keep global temperature rises this century to well below 2°C and pursue efforts to limit this to 1.5°C.

- 4.102 At the 2019 Climate Action Summit, focus was placed on key sectors where the most difference can be made, which included energy. World leaders reported on what they intended to do to address climate change ahead of the October 2020 Climate Action Summit, where it is expected that commitments may be renewed and likely increased.
- 4.103 The UK Government has led the push towards achieving a low carbon economy and reducing greenhouse gas emissions, particularly in the energy sector. This started through the Government's Energy White Paper (2007), which recognised that energy from residual waste and combined heat and power (CHP) had both waste and energy benefits, so far as supporting low carbon energy initiatives and energy supply.
- 4.104 The Climate Change Act (2008) imposed a statutory duty on the UK to meet carbon budgets aimed at reducing emissions by 80% by 2050, relative to the 1990 baseline. The 2008 Act aimed to build up the UK's resilience to climate change. The UK Low Carbon Transition Plan (2009), set legally binding targets to meet the UK's 2050 emission reduction targets. This was to be achieved through investment in energy efficiency and clean energy technologies. By 2050 it was envisaged that virtually all electricity will need to come from renewable sources.
- 4.105 The Clean Growth Strategy (2017) set out further action to cut carbon emissions and increase efficiency to comply with the 2008 Climate Change Act. It recognised the need to grow the UK's low carbon economy and the need to roll out low carbon heating, by building and extending heat networks across the country and delivering clean, smart and flexible power, and encouraging renewable and low carbon energy. It states that by 2050, there will be a need to fully decarbonise how we heat homes, with the design and building of low carbon power and heat projects *and* heating networks, identified as a potential solution to reducing carbon emissions.
- 4.106 The Government's 25 Year Environment Plan (2018). outlined ambitions to improve the environment via the Environment Bill. The plan strives to use natural resources more sustainably and efficiently, minimise waste and pollution, and mitigate and adapt to climate change. In these respects it aligns closely with the 2017 Clean Growth Strategy.
- 4.107 In May 2019, the UK Parliament passed a non-binding motion declaring an environment and climate emergency. Whilst there is no single definition, it can be taken to mean a situation in which urgent action is required to reduce or halt climate change and avoid potentially irreversible environmental damage resulting from it.
- 4.108 In June 2019, the UK Parliament passed legislation under the Climate Change Act 2008 (2050 Target Amendment) Order 2019 requiring the Government to reduce the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050.
- 4.109 In 2019 the EU completed a comprehensive update of its energy policy to support the transition of member states away from fossil fuels towards cleaner energy to

help deliver the EU's commitments for greenhouse reduction made under the Paris Agreement. This covered many aspects with the most relevant being the EU's binding target of 32% for renewable energy sources in the EU energy mix by 2030 and improvements to the energy performance of buildings to achieve energy and climate goals.

- 4.110 Under the Clean Energy Package negotiated in 2018, EU member states are required to produce a National Energy and Climate Plan (NECP). The NECP is the framework by which all member states are required to set out their integrated climate and energy objectives, targets, policies and measures, covering the five dimensions of the Energy Union for the period 2021 to 2030. Whilst the UK has now left the EU, the draft NECP notes that on climate, the UK recognises the shared interest in global action on climate change and the mutual benefits of a broad agreement on climate change cooperation. It adds that the UK's world leading climate ambitions and our high standards set out in domestic law are more stretching than our current obligations under EU law and will be maintained after the UK has left the EU.
- 4.111 Under the draft NECP the UK is committed to enhancing energy security by delivering a more diverse and reliable energy mix and is supportive of smarter, flexible networks thereby enabling the integration of clean generation. In order to meet the UK's climate change targets there is also a need for greater energy efficiency, with emissions from buildings needing to be near zero. This requires improving energy efficiency and energy management, and decarbonising nearly all heating and cooling of buildings. Finally, there is a need for the decarbonisation of the UK economy to meet the UK's ambitious carbon budgets for 2023-2027 and 2028-2032.
- 4.112 The draft NECP recognises the need for low carbon and renewable energy projects that contribute towards meeting the UK's stated climate change and decarbonisation objectives.
- 4.113 The national policy for energy infrastructure is outlined in the overarching National Policy Statement (NPS) for Energy (EN-1) which is one of a suite of NPSs issued by the Secretary of State for Energy and Climate Change to set out the Government's policy for the delivery of Nationally Significant Infrastructure Projects (NSIPs). They are however, also regarded as material considerations for energy development determined under the Town and Country Planning Act (1990) as amended.
- 4.114 National Policy Statement for Energy (EN-1) recognises that energy produced from the biomass fraction of waste is renewable. The National Policy Statement for Renewable Energy Infrastructure (EN-3) also provides guidance in respect to energy from waste. This confirms that electricity generation from renewable sources of energy is an important element in the Government's development of a low-carbon economy. EN-5 is also relevant in relating to electricity network infrastructure.
- 4.115 EN-1 (in conjunction with EN-3 and EN-5) sets out the case and immediate need for renewable and low carbon energy infrastructure to be consented and built with a view to supporting Government's policies on sustainable development, including mitigating and adapting to climate change, transitioning to a low carbon economy,

minimising fuel poverty and contributing to a secure, diverse and affordable energy supply.

- 4.116 As confirmed by international and national agreements, legislation, action plans and strategies, there is an urgent and compelling need to act now to address the effects of global climate change. This requires new infrastructure to generate renewable and low carbon heat and power, as part of the UK's transition towards a low carbon economy, and contribute towards meeting the legally binding reduction target for greenhouse gases of 100% relative to 1990 levels by 2050.
- 4.117 Energy from residual waste is recognised in national policy guidance as being capable of contributing towards the UK's renewable and low carbon energy needs. With this context there is demonstrable national need for the development of the proposed Portland ERF which will be capable of generating renewable and low carbon heat and power.

### **Conclusions on sustainable energy and climate change need**

- 4.118 The above evidence supports the following conclusions in respect to energy need:
- there is a need in Dorset for the delivery of more renewable and low carbon energy generation infrastructure to contribute towards meeting the Dorset county target of 7.5% of all energy generation to be from renewable sources.
  - there is a need for the provision of new renewable and low carbon energy infrastructure to help address the Dorset and UK local authority climate emergency declaration
  - there is a need to provide shore power, supplied by lower carbon energy facilities, both nationally and locally at Portland Port in Dorset, to meet the existing demand and help the UK shipping industry contribute towards meeting national targets to reduce carbon emissions and other pollutants (by eliminating the practice of cold-ironing)
  - there is a need at the local and national levels for a wide mix of energy infrastructure, including energy from waste facilities, to increase national energy security.
  - there is a national need for urgent action to reduce the emission of greenhouse gasses in accordance with international agreements, such as the 2015 Paris Agreement
  - there is a need for new renewable and low carbon energy infrastructure that will contribute towards meeting the UK's statutory carbon reduction targets, enshrined within the 2008 Climate Change Act (as amended) to reduce the UK's net greenhouse gases emissions by 100% by 2050 relative to the 1990 baseline
  - there is a need for more investment in energy efficiency and clean energy technologies, and to grow the low carbon economy by rolling out low carbon heating, by building and extending heat networks across the country and by delivering clean, smart and flexible power encouraging renewable and low

carbon energy, in accordance with the 2009 UK Low Carbon Transition Plan and the 2017 Clean Growth Strategy

- there is a need for new low carbon and renewable energy projects that will contribute towards meeting the UK's carbon reduction budgets enshrined within the draft National Energy and Climate Plan, required under the 2018 EU Clean Energy Package.
- there is a need for the provision of new renewable and low carbon energy infrastructure to help address the Portland, Dorset and UK local authority climate emergency declaration
- national energy and renewable energy policy recognises that the biodegradable fraction of residual waste, if treated by means of energy recovery, is renewable energy and contributes towards meeting renewable energy targets.

## **Socio-economic**

### ***Portland's need***

- 4.119 The Isle of Portland has suffered significantly from structural changes to its local economy. The 2016 Economic Vision for Portland document notes that until the 1990's a significant proportion of the local economy was dependent upon work associated with the Ministry of Defence and Royal Navy establishments at the port. With the closure of the naval base and other facilities, the Isle of Portland suffered from job losses and the associated impact on the wider local economy.
- 4.120 There has been considerable effort in recent years to regenerate the Portland economy and this has been partially successful in helping off-set the impact of the military establishment closures. Whilst there has been an economic recovery since 2001 the vision document highlights that economic under performance continues to be an issue.

### Population

- 4.121 The socio-economic baseline report (ES Appendix F1) provides an insight into the Portland socio-economic context and some of the issues that affect the local community. In respect to population, the proportion of young people (aged 16-24) is falling within the Weymouth and Portland area faster than in Dorset over the period 1991 to 2018 (27.1% decrease in Weymouth and Portland compared to 10.8% in Dorset) and significantly faster than the decrease for England (3.4%) over the same period. A significant increase has also occurred in relation to those aged 25-49, falling by 16.1% compared to a 7.6% fall for Dorset and 8.6% fall across England. Conversely the proportion of older people (aged 50 to 64 and 65 and older) within Weymouth and Portland has increased, similar to elsewhere in Dorset and England.
- 4.122 The baseline report indicates that the decreases seen in the proportion of young people in Weymouth and Portland may be the result of them leaving the area for educational purposes, or to find other forms of employment that are not available in the area, and may also be associated with average earnings being lower in the Weymouth and Portland area compared to Dorset, the South West region and

England. In addition, the population in common with many areas is ageing and there are fewer young people moving to rural areas creating a disproportionate local demographic.

- 4.123 This indicates that there is a need for economic investment and creation of good quality jobs to help retain and attract young people to Weymouth and Portland to address this imbalance.

#### Local economy

- 4.124 The socio-economic baseline report highlights volatility in the economic activity rate for Weymouth and Portland for people aged 16-64. The report notes that the economy of the area suffered badly following the defence cuts of the 1990s, and that local economic assessments undertaken since highlight poor performances in terms of competitiveness, business start-ups, and representation of knowledge intensive businesses, creating challenges with increasing the economic activity.

The employment rate in Weymouth and Portland has also been quite volatile. The socio-economic baseline report indicates that large declines in 2009 and 2016 may have been responsible but also that many residents of Portland have had to look for job opportunities elsewhere and some of the employment opportunities created on the island do not match the skills of the local workforce. The volatility in economic activity suggests that Weymouth and Portland's economy is vulnerable to economic shocks.

- 4.125 The report describes the types of jobs that are present in Weymouth and Portland. It finds that there is a dependency on the accommodation and food services, health and retail sectors for the majority (52.8%) of employment. This is higher than the comparable areas, these sectors account for 36.6% of employment in Dorset, 34.2% in South West region and 29.6% in England. The Education sector is also important for Weymouth and Portland, as well as the wider areas accounting for 8.7-9.7% of employment. During the recent COVID-19 pandemic, Weymouth and Portland may have been hit disproportionately hard due to the dependence on the accommodation and food services and retail sectors.
- 4.126 The baseline report states that the professional, scientific and technical sector accounts for only 5.6% of employment in the area, even though 23.9% of the area's residents have an occupation in this area. This further reiterates the point that many residents working in these occupations out-commute from Weymouth and Portland to do their jobs.
- 4.127 These factors indicate that the Weymouth and Portland economy is exposed to a high dependency on the accommodation and food services and retail sectors, and that few of those working in the professional, scientific and technical sectors do so locally. This indicates that there is a need for investment that can help to provide a greater diversity of jobs and reduce reliance upon hospitality and retail, whilst providing opportunities for more technically skilled workers in Weymouth and Portland.
- 4.128 The report states that whilst Weymouth and Portland compares well in terms of the lower levels of qualification attainment (NVQ level 1 or above), there are more substantive differences when it comes to higher level qualifications. Weymouth

and Portland have a much lower proportion of the population having NVQ Level 4 or above, with only 27.7%, compared to Dorset (37%), the South West region (39.2%) and England (40%).

4.129 The report recognises the importance of people and skills in contributing to the productivity of the local economy, and that one of the key challenges in Weymouth and Portland has been the increasingly limited supply of labour and skilled workers. This has been caused by a combination of factors including decreasing numbers of working age residents who are economically active and a significant proportion of the workforce due to retire within the next decade.

4.130 The area is also characterised by a population with a high and growing proportion of elderly people; and falling numbers of young and working age population. Projections within the local plans and economic strategies suggest a further decline in the working age population, creating the potential for a constrained labour market when considered against the scale of future labour requirements.

### **Standard of living**

4.131 The socio-economic baseline report examined levels of income in Weymouth and Portland. It found that the average weekly gross earnings for full-time employees between 2015 and 2018 for Weymouth and Portland, Dorset, and the wider South West region and England contexts. Weymouth and Portland average earnings in 2018 was £502.50, which is around £26,130 annually. This has seen a 2.2% increase since 2015 but is lower in comparison to Dorset which has seen a 5.6% increase in earning since 2015, the South West region which saw a 7.8% increase and England which saw an 8.1% increase. Average earnings are modest by regional standards.

4.132 The report indicates that this may reflect the local significance of the public sector, where earnings between higher and lower earners are traditionally more compressed than in the private sector.

4.133 The socio-economic baseline report also examines the 2019 indices of multiple deprivation which provide an indication of the quality of life experienced by the residents of Portland. The indices measure deprivation against several criteria in lower super output areas (LSOA) across the country, with 1 being the most deprived and 32,844 the least deprived. The data indicates that the north of Portland tends to experience higher deprivation than the south, with the four northernmost lower super output areas (LSOAs) ranked within the most deprived 25% of LSOAs in the country.

4.134 The most deprived LSOA (008D) in Portland is ranked within the most deprived 10% of LSOAs in the country for income, employment, education, skills and training, and health and disability.



### ***The Economic Vision for Portland***

4.135 This vision document provides further analysis of Portland's socio-economic context and highlights the following:

- an inward migration of retired and outward migration of working age population and the impact of this on efforts to bring new jobs to the area as the local labour pool decreases
- a lack of quality jobs on Portland and the need to reduce out commuting to other areas
- a relatively low level of competitiveness compared to other areas indicating a weakness in terms of skills, clusters of high growth companies and innovation
- a need for Portland to develop, attract and retain a suitably qualified and skilled workforce capable of meeting the requirements of a more knowledge-based, high-technology economy
- there is an over-reliance on public sector jobs and low-value employment in terms of Portland residents in employment
- a key focus must be to raise local wage rates relative to the average in Dorset and the region
- the Island needs to exploit new opportunities through innovation in environmental technologies, for example in renewable energy technologies based on tidal or wind or solar power
- Portland has pockets of multiple deprivation. Underhill ward is ranked as the 3rd most deprived ward in the borough and within the top 10% most deprived nationally; Tophill West and Tophill East are ranked as joint 8th most deprived ward in the borough.

4.136 The document states in summary that:

*“On the basis of the data and intelligence, it would be difficult to describe Portland’s economy as successful. Its economic base is weighted toward lower value-added activities, with an over-reliance on low-value employment. Average earnings are also modest by regional standards.*

*This may reflect the local significance of the public sector, where earnings between higher and lower earners are traditionally more compressed than in the private sector. The area suffers from pockets of deprivation and a disparity between low earnings and high housing cost.*

*It has been one of the weakest areas in the south-west in generating private sector employment in recent years and its modest increase in employment seems to be attributable to a comparatively robust public sector. However, the Island does have a number of strengths, opportunities and assets that could be a focus for future economic growth activities...”*

4.137 These opportunities and assets include areas of job creating potential, including Portland Port and the development of a 'green' technology opportunity cluster. The document considers Portland to be an area in transition and identifies a need for further private investment in Portland Port, comprising Portland's Northern Arc. It adds that:

*"The economic profile demonstrates a need to agree a future vision for Portland and define and implement a game-changing strategy with a focus on building on strengths and assets and unlocking the potential to deliver growth. Creating a sustainable high performing economy will be at the heart of the growth strategy, delivering faster sustainable economic growth with opportunities for all to flourish by increasing productivity, innovation and the quality of jobs."*

4.138 The Economic Vision document sets out a series of strategic objectives that are intended to help Portland meet its need for economic growth. These seek to:

- deliver business transformation by supporting the growth and development of a vibrant business community focusing interventions on those growing and opportunity sectors, including advanced engineering and renewable energy (SO1).
- support the low carbon economy by capitalising on its natural resources and advantages, and supporting the development of a low carbon economy, specifically renewable energy (SO2).
- support the delivery of an appropriately skilled, motivated and productive workforce to drive economic growth (SO4).

### ***Transforming Dorset – Strategic Economic Plan (2014)***

4.139 This strategic economic plan for Dorset identifies the need to address pockets of unemployment and decline (notably around Weymouth and Portland), retain skilled workers and attract more, focusing growth on key sectors to close the skills gaps. It envisages that transformational change would include far reaching development at Portland Port supporting industrial development, freight, exports and bringing radically larger sector of the cruise market to the Dorset tourist economy.

4.140 It identifies the need to unlock the potential of key employment and mixed use developments sites as a priority, some of which are of regional significance, such as Portland Port. Part of a western growth hub, key employment sites are to be brought forward with the development of Portland as a centre of excellence for marine and advanced engineering.

### ***A Strategic Economic Vision for Dorset (2016)***

4.141 This vision document aims to increase productivity, encourage business growth, support a competitive, sustainable and resilient sector mix, achieve a highly skilled workforce and deliver growth across Dorset.

### ***Western Dorset Economic Growth Strategy***

4.142 This economic growth strategy for Western Dorset recognises that Portland is part of a defined economic growth zone. It supports investment in infrastructure, including ports, and its key delivery aims include the delivery of infrastructure that supports economic growth and employment land and workspace at a rate above historic trends.

### ***National need***

4.143 The UK Government has sought to rebalance the UK economy since the financial crisis in 2008/09, and places considerable emphasis on transforming the UK economy to address identified weaknesses and increase competitiveness. The Treasury's 2015 updated growth plan '*Fixing the Foundations: Creating a more Prosperous Nation*' sets out the Government's approach to increasing productivity in the UK economy. Raising productivity is expected to create more prosperity and help to raise living standards. The framework is underpinned by two key pillars:

- encouraging long-term investment in economic capital, including infrastructure, skills and knowledge, and
- promoting a dynamic economy that encourages innovation and helps resources flow to their most productive use

4.144 The aim to encourage long term investment in economic infrastructure includes delivering reliable low carbon infrastructure and meeting the triple challenge of security of supply, affordability and sustainability. It also requires a highly skilled workforce. The dynamic economy is also expected to deliver a higher pay, lower welfare society.

4.145 The subsequent 2017 '*UK Industrial Strategy - Building a Britain Fit for the Future*' White Paper also focuses on creating an economy that boosts productivity and earning power across the UK by transforming the economy. It sets grand challenges, including clean growth, and generally commits to supporting low carbon industrial processes, innovation and the movement towards a regenerative circular economy.

### **Delivering sustainable communities, economy and environment**

4.146 The NPPF (paragraph 8) aims to deliver sustainable development meeting three overarching objectives. The economic objective is to help build a strong, responsive and competitive economy, support growth, innovation and improve productivity and the provision of infrastructure. The social objective supports strong, vibrant and healthy communities. The environmental objective aims to protect the environment, and support the move towards a low carbon economy.

4.147 The NPPF (paragraph 80) provides planning guidance in respect to the need to build a strong and competitive economy. It requires significant weight to be placed on the need to support economic growth and productivity, taking account of local business needs and wider opportunities for development. It adds that each area should build on its strengths, counter any weaknesses and also address the challenges of the future

4.148 Whilst the UK economy has recovered to some degree from the recession created by the 2008 financial crisis, the recovery varies across the UK and some areas, such as Portland, have struggled to generate significant economic growth and increase productivity.

### **Conclusions on socio-economic need**

4.149 The above evidence supports the following conclusions in respect to socio-economic need:

- there is a need for new economic investment at Portland to help address existing socio-economic concerns and generate sustainable growth by taking advantage of Portland's assets, opportunities and excellent growth potential
- there is a need to create more high quality and well paid jobs to help retain and attract younger people to the Portland area, and provide opportunities for training and education to increase education, skills and knowledge for local people
- there is a need for investment in Portland to improve overall standards of living, including helping to address relatively low levels of pay, diversifying the mix of employment opportunities and reducing a dependence on lower paid seasonal sectors, also providing job opportunities locally that reduce the need to out commute for work.
- there is a need for investment and stimulation of economic growth and regeneration to help address the existing pockets of social deprivation that are evident on some parts of Portland.
- there is a need for transformational change at Portland to unlock key employment sites, such as within Portland Port, to exploit the area's strengths and potential opportunities in respect to the development of renewable energy and low carbon technologies and support other tourism related activities, such as the cruise ship sector.
- there is a need at the UK level for new development that is capable of delivering economic growth and supporting the drive to transform the UK into a dynamic economy through investment in low carbon infrastructure, and a focus on skills and knowledge to increase productivity and generate greater prosperity for all
- there is a need for the planning system to support the delivery of sustainable development, especially development that can contribute towards building a strong, responsive and competitive economy, support strong, vibrant and healthy communities and protect the environment, whilst also supporting the move towards a low carbon UK economy

4.150 The proposed Portland ERF represents a major capital investment of around £95M that will generate around 300 new jobs during the construction stage and importantly 35 jobs for local people during its operation,. It will also support many other jobs as a result of associated activities and spend. The commitments to support training and education for local people will further ensure that the ERF will make a significant positive contribution towards improving local skill levels and the

provision of good quality and well paid jobs will be of further benefit the local community.

- 4.151 The proposed ERF will therefore make a significant contribution towards meeting the national and local need for economic growth and lead to substantial socio-economic benefits.

### **Overall conclusion on need**

- 4.152 As set out above, there is a clear and demonstrable need for the proposed Portland ERF in respect to sustainable residual waste management, sustainable low carbon energy generation and sustainable economic growth and local community benefit.
- 4.153 The proposed Portland ERF will address a Dorset, regional and national need for a more sustainable pattern of waste management, enabling Dorset to manage more of its residual waste in Dorset, further reduce the landfill of residual waste and reduce the export of residual waste out of county without compromising recycling and re-use initiatives, in line with the waste hierarchy and the self-sufficiency and proximity principles.
- 4.154 It will also address the national and local need for the generation of renewable and low carbon energy, by recovering energy from the combustion of residual waste from which all recyclable material has been previously removed, for use via a combined heat and power system that would supply shore power to visiting shipping and also heat to local heat customers by means of a local heat network, whilst reinforcing local energy supply. These measures will result in a reduction in carbon emissions, supported by a commitment to achieve carbon neutrality (net zero carbon), ensuring that the ERF will meet a need for renewable and low carbon energy, greater energy efficiency, and support the transition towards a low carbon economy.
- 4.155 The proposed Portland ERF will bring much needed economic investment to Portland that has struggled to regenerate following the loss of major military employers. Through the creation of new jobs and associated economic activity it can help to deliver transformational change, unlock key employment sites, and help address existing weaknesses in the local economy by providing training and education opportunities, well paid and higher quality jobs that are not seasonal and generate wealth for the benefit of the local community. In turn by raising living standards and generating income it will help to address pockets of deprivation.
- 4.156 The evidence presented in this chapter has demonstrated that there is a substantive, multi-faceted and compelling need case for the proposed Portland ERF.

## 5. POLICY FRAMEWORK

### Introduction

- 5.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that determination of applications for planning permission should be made in accordance with the development plan, unless material considerations indicate otherwise. The policies of the adopted development plan together with other relevant material considerations form the main planning considerations for this application.
- 5.2 This chapter provides an overview of the relevant development plan policies and other relevant material considerations including directives, regulations, policies and strategies as follows, with a more detailed assessment for each provided in section 6:
- the adopted development plan
  - the adopted waste plan
  - European directives and strategies
  - national regulatory frameworks, strategies and policies
  - national planning, energy and waste policy, frameworks and strategy
  - other material considerations
- 5.3 A more detailed assessment of the application against the key planning considerations is provided within chapter 6 of this statement. Particular focus is placed on describing how the proposed ERF complies with relevant policies within the development plan and particularly the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 (referred to here after as the Waste Plan), together with national waste management guidance. It also responds to the guidance provided by Dorset Council in its pre-application advice letter (December 2019).
- 5.4 This proposal has been developed in the context of the following policy areas:
- waste management
  - planning
  - environment
  - energy
- 5.5 These policies, strategies and guidance apply at different levels, as follows:
- European
  - United Kingdom

- Dorset Council (incorporating Weymouth and Portland Borough Council)
- Portland Neighbourhood

### **The development plan**

5.6 The development plan for this site comprises:

- Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019
- Adopted West Dorset, Weymouth and Portland Local Plan 2011-2031 (October 2015)
- Minerals Strategy (2014)
- Portland Neighbourhood Plan (2020)

5.7 On 25 June 2019, Dorset Council cabinet agreed to abandon the West Dorset, Weymouth and Portland joint Local Plan Review. The council has instead commenced work on a new Dorset wide Local Plan and is currently at early stages of the process. The emerging Local Plan is anticipated to be adopted in Spring 2023, but at this early stage in its preparation this is considered to have no little material weight.

5.8 The preparation of the Portland Neighbourhood has reached an advanced stage. Following submission of the Plan for independent examination, the examiner's report was issued on 21 January 2020. The report concluded that the Plan would meet the basic conditions and other legal requirements, subject to proposed modifications. Dorset Council has agreed with the examiner's report and has confirmed under its formal Decision Statement (25 February 2020) that the Plan may now proceed to referendum. The referendum is not expected to take place until restrictions placed on elections and referendum under the Coronavirus Act 2020 are lifted.

5.9 The neighbourhood plan is likely to be 'made' during the determination of this planning application and given the advance stage of the neighbourhood plan, weight should be attributed.

### **Development plan policies**

5.10 This section provides an overview of the local policy frameworks that are most relevant to the proposed Portland ERF facility. A detailed analysis of the relevant parts of these local frameworks is provided in section 6, demonstrating how the proposed Portland ERF complies with local waste policy, strategy and guidance.

### ***Adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019***

- 5.11 The Bournemouth, Christchurch, Poole and Dorset Waste Plan (hereafter referred to as the Dorset Waste Plan) was formally adopted in December 2019, by both of the newly formed waste authorities of Dorset Council and Bournemouth, Christchurch and Poole Council (BCP), and superseded the 2006 Waste Plan.
- 5.12 Regard should be given to the following policies, which are considered in more detail in section 6 and summarised in Table 6.1:
- *Policy 1 (Sustainable waste management)*
  - *Policy 2 (Integrated waste management facilities)*
  - *Policy 3 (Sites allocated for waste management development)*
  - *Policy 4 (Applications for waste management facilities not allocated in the Waste Plan)*
  - *Policy 6 (Recovery facilities)*
  - *Policy 12 (Transport and access)*
  - *Policy 13 (Amenity and quality of life)*
  - *Policy 14 (Landscape and design quality)*
  - *Policy 15 (Sustainable construction and operation of facilities)*
  - *Policy 16 (Natural resources)*
  - *Policy 17 (Flood risk)*
  - *Policy 18 (Biodiversity and geological interest)*
  - *Policy 19 (Historic environment)*
  - *Policy 22 (Waste from new developments)*

### ***West Dorset, Weymouth and Portland Local Plan 2011-2031***

- 5.13 The West Dorset, Weymouth and Portland Local Plan 2011-2031 was adopted in October 2015 and forms part of the development plan relevant to the proposed Portland ERF. The following policies are considered to be of relevance to the application site and are considered in more detail in section 6 and summarised in Table 6.2:
- *Policy ENV 1 (Landscape, seascape and sites of geological interest)*
  - *Policy ENV 2 (Wildlife and habitats)*
  - *Policy ENV 3 (Green infrastructure network)*
  - *Policy ENV 4 (Heritage assets)*
  - *Policy SUS 2 (Distribution of development)*
  - *Policy ECON 2 (Protection of key employment sites)*
  - *Policy COM 11 (Renewable energy development)*



## **Minerals Strategy 2014**

5.14 Portland is situated in a Mineral Safeguarding Area and Mineral Consultation Area. The following policies are of relevance and are considered in more detail in section 6 and summarised in Table 6.3:

- *Policy SS1 (Presumption in favour of sustainable development)*
- *Policy SG1 (Mineral Safeguarding Area)*
- *Policy SG2 (Mineral Consultation Area)*

## **Portland Neighbourhood Plan 2020**

5.15 The whole of Portland, including the application site, lies within the Portland Neighbourhood Plan area. Neighbourhood plans are intended to enable local people to have say in how and where new development should go and what it looks like. Neighbourhood plans should be in accordance with both national and local planning frameworks.

5.16 Preparation of the Portland Neighbourhood Plan (2017-2031) has reached an advanced stage, having recently been subject to an independent examination. The examiner's report, published in January 2020, confirms that the plan would meet the basic standards and legal requirements subject to some modifications. In February 2020, Dorset Council published its Decision Statement confirming that the plan can proceed to referendum.

5.17 The referendum has been delayed due to national restrictions imposed by the Covid-19 outbreak, until at least the 1 June 2020. Although the plan cannot be formally adopted until it has passed the referendum stage, it is likely to do so and once the restrictions are lifted, accordingly weight can be given to its policies and content in decision making.

5.18 The following policies are considered to be of most relevance to the application site and are considered in more detail in section 6 and summarised in Table 6.4:

- *Policy Port/EN0 (Protection of European sites)*
- *Policy Port/EN1 (Prevention of flooding and erosion)*
- *Policy Port/EN2 (Renewable energy development)*
- *Policy Port/EN4 (Local heritage assets)*
- *Policy Port/EN6 (Defined development boundaries)*
- *Policy Port/EN7 (Design and character)*
- *Policy Port/BE1 (Protecting existing employment sites and premises)*
- *Policy Port/BE2 (Up-grading of existing employment sites and premises)*
- *Policy Port/BE6 (The northern arc)*
- *Policy Port/ST1 (Sustainable tourism development)*

## **Material considerations**

- 5.19 In addition to the statutory development plan that are many other documents that are considered relevant to the Portland ERF proposals, that should also be considered as material considerations. These are briefly summarised below.

## **European directives and strategies**

- 5.20 Although the UK formally left the European Union (EU) on 31 January 2020, it remains subject to EU law and remains part of the EU customs union and single market during the transition period but is no longer part of the EU's political bodies or institutions.
- 5.21 It is likely that the UK will continue to adhere to existing commitments to EU directives relating to environmental and waste matters. However, the UK's future approach may lead to divergence as it may not be required to adopt any new or revised directives. The position on these matters will become more clear as trade negotiations between the UK and the EU continue over the course of this year.
- 5.22 For the purposes of this application, the following EU directives and strategies are considered to be material considerations in respect to this planning application.
- *EU Circular Economy Package (CEP)*
  - *Waste Framework Directive (WFD)*
  - *The Landfill Directive*
  - *Industrial Emissions Directive (IED)*
  - *Water Framework Directive (WFD)*
  - *The Habitats Directive*
  - *EU Directive on Environmental Impact Assessment (EIA)*
  - *European Sustainable Development Strategy (ESDS)*
  - *Thematic Strategy on Waste Prevention and Recycling*
  - *The Paris Agreement*

## **National legislation**

- 5.23 At the national level are regulations, that transpose EU Directives into UK law and provide the regulatory measures necessary to control development, including waste management and energy. These are material considerations in respect to this planning application.
- 5.24 The following national legislation is relevant to the proposed Portland ERF:
- *Environmental Permitting Regulations (EPR)*
  - *Waste (England and Wales) Regulations*
  - *Town and Country Planning (Environmental Impact Assessment) Regulations*
  - *Water Resources Act (WRA)*

- *Habitat and Species Conservation Regulation and Acts*
- *Air Quality Standards Regulations 2010*
- *Environmental Protection Act 1990*
- *Climate Change Act 2008*
- *Environment and Climate Emergency Declaration*

### **National planning policies, strategies, guidance and papers**

5.25 This section provides an overview of the national policy frameworks, strategies and guidance considered most relevant. A detailed analysis of the most relevant parts of these is provided in section 6, demonstrating how the proposed Portland ERF is compliant with them.

5.26 These are as follows:

- *National Planning Policy Framework, 2019*
- *National Waste Management Plan for England, 2014*
- *National Planning Policy for Waste, 2014*
- *Our Waste, Our Resources: A Strategy for England, 2018*
- *Energy from Waste – A Guide to the Debate (DEFRA), February 2013*
- *Government Waste Review, 2011*
- *No Time to Waste: Resources, Recovery and the Road to Net-zero (2020)*
- *Energy White Paper May 2007*
- *The UK Low Carbon Transition Plan, 2009*
- *The Clean Growth Strategy, 2017*
- *Revised Overarching National Policy Statement for Energy (EN-1), July 2011*
- *National Policy Statement for Renewable Energy Infrastructure (EN-3), July 2011*
- *The Carbon Plan: Delivering our Low Carbon Future, 2011*
- *National Infrastructure Plan, 2014*
- *Fixing the Foundations: Creating a More Prosperous Nation, 2015*
- *Industrial Strategy: Building a Britain Fit for the Future, 2017*
- *Maritime 2050: Navigating the Future, 2019*
- *Clean Maritime Plan, 2019*

### **National Planning Policy Framework 2019**

5.27 The 2019 National Planning Policy Framework (NPPF) sets out the overarching national policy framework for achieving sustainable development, providing guidance for both plan-making and decision-making and addressing specific topic areas.

5.28 Whilst the NPPF does not provide any specific policy guidance on waste, it does cover a wider policy matters, which are relevant to the proposed development. These should be considered as significant material considerations to be afforded considerable weight by the local planning authority in determining this application.

5.29 These include:

- achieving sustainable development
- building a strong, competitive economy
- promoting healthy and safe communities
- promoting sustainable transport
- achieving well designed places
- protecting green belt land
- meeting the challenges of climate change, flooding and coastal change
- conserving and enhancing the natural environment
- conserving and enhancing the historic environment
- facilitating the sustainable use of minerals

Relevant aspects to this planning application for each of these NPPF topic areas is set out in Appendix F.

### ***National Waste Management Plan for England 2013***

5.30 The Waste Management Plan for England (WMPE), fulfils an obligation under Article 28 of the revised WFD (2008/98/EC) for competent authorities to establish waste management plans that cover all of their territory. The plan is a high level document which is non-site specific, that replaces Waste Strategy 2007. It provides an analysis of the current waste management situation in England, and evaluates how it will support implementation of the objectives and provisions of the revised WFD.

5.31 The WMPE notes that there are comprehensive waste management policies in place in England that deliver upon the revised WFD objective which is:

*“to protect the environment and human health by preventing or reducing the adverse impacts of the generation and management of waste and by reducing overall impacts of resource use and improving the efficiency of such use”.*

5.32 As such, the WMPE does not introduce new waste management policies, but rather its aim is to bring current waste management policies under the umbrella of one national plan.

### ***National Planning Policy for Waste (NPPW) 2014***

- 5.33 The NPPW provides national planning policy for waste to be read in conjunction with the NPPF 2019 and Waste Management Plan for England (WMPE) 2013.
- 5.34 It contains detailed waste policies building upon the WMPE framework, which sets out the Government's ambition to work towards a more sustainable and efficient approach to resource use and management. It recognises that positive planning is necessary to deliver sustainable waste management, including provision of modern infrastructure, local employment opportunities and wider climate change benefits, by driving waste management up the waste hierarchy. The NPPW requires communities and businesses to take responsibility for disposal of their own waste and in the case of mixed municipal waste for recovery, in accordance with the proximity principle. Generally, planning should also help to secure the re-use, recovery or disposal of waste without endangering human health and without harming the environment.
- 5.35 The NPPW also provides guidance on important considerations when selecting sites for waste management and the determination of waste planning applications.

### ***Our Waste, Our Resources: A Strategy for England (2018)***

- 5.36 This is the first update of national waste strategy since the 2011 Waste Review. Linked to the Government's 25 year Environmental Plan, which pledges to leave the environment in a better condition for the next generation, it aims to move the UK to a more circular economy, essentially by keeping resources in use for longer and extracting maximum value. It focuses on particular waste problems such as single use plastics, confusion over recycling systems and a reduction in packaging waste.
- 5.37 The strategy is framed by natural capital thinking and guided by two overarching objectives, these being to maximise the value of resource use; and to minimise waste and its impact on the environment. The strategy is supported by five strategic principles, the most relevant to this application being 'to prevent waste from occurring in the first place, and manage it better when it does'.
- 5.38 The strategy refers to 12 Mt of municipal waste sent to landfill in 2016 and the need to eliminate biodegradable waste to landfill, the expected growth in energy from waste and alternative waste treatment infrastructure to further divert waste from landfill, and the need for efficiency of EfW plants to achieve recovery status (R1 status).
- 5.39 More broadly, the strategy indicates that on current waste projections, further market investment in residual waste treatment infrastructure is necessary and welcomed.

### ***Energy from Waste – A Guide to the Debate (DEFRA) February 2013***

- 5.40 DEFRA's guide on energy from waste was first published in 2013 and updated in 2014 to include an additional chapter setting out the future direction for energy from waste.

- 5.41 Although predating the recent 2018 waste strategy for England, it provides a useful starting point for discussions about the role energy from waste might have in managing waste, highlighting issues for discussion, identifying available options and outlining the process for decision making. The overview to the document summarises the key messages, with the remainder considering technical issues in more depth.

### **Government Waste Review, 2011**

- 5.42 This DEFRA waste policy review re-affirmed key waste management principles, the most relevant being to manage waste in line with the waste hierarchy, reduce the carbon impact of waste, support for energy from waste where waste cannot be recycled.

### ***No Time to Waste: Resources, Recovery and the Road to Net-zero (2020)***

- 5.43 Most recently in July 2020, a report entitled 'No Time to Waste: Resources, Recovery and the Road to Net-zero' was published by Policy Connect (an independent, cross-party, not-for-profit UK think tank). This looked at the role of EfW in terms of its contribution to waste management and carbon reduction. An inquiry, led by a cross-party group of Parliamentarians, considered the future role of EfW facilities in England. The inquiry received contributions from 50 organisations, heard through parliamentary roundtables, interviews, and written submissions.
- 5.44 The report made a series of recommendations to Government around waste policy, climate and the environment and waste heat. The most relevant of these being:
- *Residual waste treatment* - The Government should release a policy statement outlining the future role of EfW as the best available residual waste treatment, as well as its role in helping to decarbonise other sectors
  - *Managing our own waste* - The UK should stop sending its waste abroad. Rather than paying other countries to recover energy from our waste and buying energy back, the UK should deal with our own waste and recover more of our energy and heat needs
  - *Decarbonising EfW* - The Government should support the development and integration of Carbon Capture and Storage technology into EfW facilities, in anticipation of a future carbon tax
  - *A role for waste heat* - BEIS' upcoming Heat and Buildings Strategy should recognise a clear role for EfW heat to provide accessible low carbon heat, as a key early element on the road towards heat sector decarbonization
  - *Addressing the heat challenge* - The Government should implement a package of aligned and complementary measures drawn from the menu in this report, to address identified barriers to the EfW heat challenge

- Finding the right location - The Government should establish or actively participate in a cross-sectoral forum to consider the appropriate location of EfW infrastructure, prioritising finding potential heat customers.
- 5.45 Overall, the report concludes that waste management must be a key consideration as the UK's focus shifts to net-zero carbon by 2050 and to address the long-term impacts of COVID-19 . It also found that EfW has an important role to play in the transition ahead, as the lowest carbon solution for managing residual waste, but also by providing low carbon heat and supporting other sectors' decarbonisation efforts.
- 5.46 Further details in respect to the inquiry findings are set out in Appendix G covering the positive role that energy from waste can play in respect to the following topics:
- climate agenda
  - the road to recovery
  - waste to heat, and
  - unleashing the social potential

### ***Energy White Paper May 2007***

- 5.47 The Government's Energy White Paper (EWP), sets out the challenge of tackling climate change through reductions in greenhouse gas emissions and increased low carbon energy, whilst securing future supply.
- 5.48 The EWP confirms the Government's support for distributed energy and supports Combined Heat and Power (CHP), including the recovery of energy from waste. It states<sup>6</sup> that:

*“Generating energy from that portion of waste that cannot be prevented, reused or recycled has both energy and waste policy benefits. Energy generated either directly from waste or through the use of a refuse derived fuel has benefits for security of supply. In addition, the biodegradable fraction of waste is a renewable resource.”*

### ***The UK Low Carbon Transition Plan, 2009***

- 5.49 This set out the UK's first comprehensive low carbon transition plan to 2020 with the aim of delivering emission cuts of 18% on 2008 levels by 2020 (and over a one third reduction on 1990 levels). This formed part of a five point plan to tackle climate change.
- 5.50 Point 4 relates to building a low carbon UK and refers to the legally binding carbon budget to cut UK emissions by 34% by 2020 and at least 80% by 2050, which are to be achieved through investment in energy efficiency and clean energy technologies such as renewables, nuclear and carbon capture and storage. The

---

<sup>6</sup> Paragraph 5.3.44

plan is based on cutting carbon emissions, maintaining secure energy supplies and protecting the most vulnerable.

- 5.51 The plan refers to the need to transform our power sector highlighting that most of our electricity comes from coal and gas and adding that by 2050 virtually all electricity will need to come from renewable sources, nuclear or fossil fuels where emissions can be stored for the long term (carbon capture). The plan aimed to cut emissions from power and heavy industry by 22% on 2008 levels (half of the savings needed to meet the carbon budget) such that by 2020 40% of electricity will come from low carbon sources. It aimed for renewables to increase to around 30% by 2020, a five-fold increase. The plan also promotes the use of low carbon and electric vehicles.

### ***The Carbon Plan: Delivering our Low Carbon Future (2011)***

- 5.52 This Government plan sets out how the UK will achieve decarbonisation within the framework of our energy policy: to make the transition to a low carbon economy while maintaining energy security, and minimising costs to consumers. It recognises the potential of heat networks and the role of energy from waste in providing energy through combined heat and power. It notes that there are often geographical barriers that restrict the deployment of heat networks and states that the Government will work towards addressing barriers to low carbon heat.

### ***The Clean Growth Strategy, 2017***

- 5.53 This strategy was prepared to build on earlier plans and set out further action required to cut emissions and increase efficiency to meet requirements of the Climate Change Act. The strategy recognises the opportunity and potential for people and business, by growing the low carbon economy, as part of the UK's Industrial Strategy. This covers a range of sectors including low carbon power generators.
- 5.54 Key policies include rolling out low carbon heating, by building and extending heat networks across the country and delivering clean, smart and flexible power encouraging renewable and low carbon energy. It states that the low carbon economy encompasses activities such as the design and building of low carbon power and heat projects.
- 5.55 The clean growth strategy predicts that the UK's low carbon economy could grow significantly at around 11 per cent a year between 2015 and 2030, some four times faster than the average growth rate for the UK economy overall which would mean the low carbon economy would increase from around two per cent of the UK's total output at present to around eight per cent by 2030. It notes that reducing demand for energy is unlikely to be enough to meet ambitions for efficient homes. By 2050, there will be a need to fully decarbonise how we heat homes, with low carbon heating networks identified as a potential solution to reducing carbon emissions.



### ***A Green Future Our 25 Year Plan to Improve the Environment, 2018***

- 5.56 The UK Government launched its 25 Year Environment Plan in 2018, setting out how it proposes to improve the environment over a generation by creating richer habitats for wildlife, improving air and water quality and curbing the problem of plastic in the world's oceans.
- 5.57 It recognises that significant quantities of residual waste have been diverted from landfill through energy from waste but accepts that more can be done. The plan aims to maximise the full value of residual waste as a resource and minimise the impact on the environment. It continues to encourage the maximum amount of energy to be recovered from residual waste, by utilising heat as well as electricity produced but also looks to keep the amount of carbon dioxide emission from the energy recovery process as low as possible. One of the Plan's actions is to make better use of the heat produced through better connections to heat networks, so that facilities become more efficient and emit less carbon dioxide.

### ***The UK's Draft Integrated National Energy and Climate Plan (NECP) 2019***

- 5.58 Under the Clean Energy Package negotiated in 2018, EU member states are required to produce a National Energy and Climate Plan (NECP). The NECP is the framework by which all member states are required to set out their integrated climate and energy objectives, targets, policies and measures, covering the five dimensions of the Energy Union for the period 2021 to 2030. Whilst the UK has now left the EU, the draft NECP notes that on climate, the UK recognises the shared interest in global action on climate change and the mutual benefits of a broad agreement on climate change cooperation. It adds that the UK's world leading climate ambitions and our high standards set out in domestic law are more stretching than our current obligations under EU law and will be maintained after the UK has left the EU.
- 5.59 The NECP sets out how the UK will meet the five dimensions of the Energy Union, the most relevant being:
- *Energy security* – the UK is committed to enhance energy security by delivering a more diverse and reliable energy mix and is supportive of smarter, flexible networks thereby enabling the integration of clean generation.
  - *Energy efficiency* – in order to meet the UK's climate change targets emissions from buildings will need to be near zero, coupled with action on industrial processes. This also requires improving energy efficiency and energy management, and decarbonising nearly all heating and cooling of buildings.
  - *Decarbonisation* – having met its first carbon budget for 2008-2012 and predicted to meet the second and third carbon budgets (2013 to 2022), the Clean Growth Strategy sets out ambitious policies across all sectors of the economy to deliver the fourth and fifth carbon budgets (covering the periods 2023-2027 and 2028-2032).

- 5.60 The draft NECP fully supports low carbon and renewable energy projects that contribute towards meeting the UK's stated climate change and decarbonisation objectives.

### ***Revised Overarching National Policy Statement for Energy (EN-1)***

- 5.61 This National Policy Statement for Energy (EN-1) sets out national policy for energy infrastructure that falls within the remit of the Infrastructure Planning Commission (IPC). However, paragraph 1.2.1 indicates that EN-1 is likely to be a material consideration in decision making on applications that fall under the Town and Country Planning Act 1990 (as amended). Whether, and to what extent, EN-1 is a material consideration is a matter that should be judged on a case by case basis.
- 5.62 EN-1 provides guidance on the role of energy from waste in respect to renewable energy, its relationship with the waste hierarchy, and the benefits of using energy recovery for non-recyclable wastes to electricity and heat, that would otherwise go to landfill. It confirms that energy produced from the biomass fraction of waste is renewable. EN-1 also sets out some general principles to be applied in the assessment of development and provides policy for the assessment of impacts which are common across a range of technologies, including energy from waste.

### ***National Policy Statement for Renewable Energy Infrastructure (EN-3)***

- 5.63 Whilst EN-1 provides a primary basis for decision making on nationally significant infrastructure project applications, the National Policy Statement for Renewable Energy Infrastructure (EN-3) provides specific guidance in respect to energy from waste. It confirms that electricity generation from renewable sources of energy is an important element in the Government's development of a low-carbon economy. EN-3 can be a material consideration in decision making on relevant applications made under the Town Country Planning Act 1990 (as amended).
- 5.64 EN-3 provides guidance on the role of energy from waste towards meeting UK energy needs, renewable energy targets, and its importance as part of waste management strategies, together with assessment and technology specific information.

### **HM Treasury (2014) National Infrastructure Plan**

- 5.65 This set out the Government's approach to investment in infrastructure up to 2020 and beyond, necessary to boost productivity and competitiveness of the UK economy. It supports the role of ports in ensuring sustainable economic growth.
- 5.66 Large-scale investment in gas and low-carbon electricity generation, is vital in order to replace ageing energy infrastructure, maintain secure energy supplies and meet legally-binding environmental targets. It estimated that around £100 bn of investment is likely to be required in electricity generation and networks by 2020.

## **HM Treasury (2015) Fixing the Foundations: Creating a More Prosperous Nation**

- 5.67 This sets out the Government's approach to addressing productivity issues in the UK economy. Part of its framework to address this is the long term investment in economic infrastructure. This includes delivering reliable low carbon infrastructure and meeting the triple challenge of security of supply, affordability and sustainability. The Government envisages the decarbonisation of the UK's energy sector through a framework that supports cost effective low carbon investment.

## **BEIS Industrial Strategy (2017) – Building a Britain Fit for the Future**

- 5.68 This White Paper focuses on creating an economy that boost productivity and earning power across the UK by transforming the economy. It sets grand challenges, including clean growth, and generally commits to supporting low carbon industrial processes, innovation and the movement towards a regenerative circular economy.

## **Maritime 2050 – Navigating the Future (2019)**

- 5.69 This document provides a long term strategy for the future of the UK maritime sector, intended to ensure that the UK cements its position as a world leading maritime nation. To achieve this the sector will need to adapt and plan for the future. It recognises that whilst maritime is a key sector the Government has not taken strategic review for many years. It recognises that there is increasing pressure on the maritime sector to reduce its carbon and pollutant emissions. As such, it notes that the International Maritime Organisation (IMO) has recently agreed ambitious global targets for at least 50% carbon reduction by shipping by 2050, that will require new and innovative technologies.
- 5.70 The vision is for the Maritime sector to support delivery of the wider Clean Growth Strategy. It states:
- “The UK will be seen as a global exemplar in green maritime issues and will be a leading supplier of zero (and low) emission shipping technology and green maritime finance. The UK will continue to play a leading role in setting international standards in this field. More broadly, the UK will be taking advantage of the opportunities presented by the increasing technological and economic transition associated with climate change mitigation and adaptation”.*
- 5.71 In terms of CO<sub>2</sub> emissions, shipping is considered one of the most efficient modes of transport. However, it also represents a substantial source of GHG emissions. The 2050 strategy signals an intent for the maritime sector to invest in the development of low or zero-carbon and energy efficient technologies. Allied to this the UK has been at the forefront of pushing for an ambitious strategy to reduce greenhouse gases from shipping and also recognises that carbon emissions from domestic shipping are included in the UK's carbon budgets and the 2050 carbon reduction targets.

## **Clean Maritime Plan (2019)**

- 5.72 The Clean Maritime Plan is the Environment Route Map of Maritime 2050, setting out in more detail how Government sees the UK's transition to a future of zero emission shipping.
- 5.73 It recognises that renewables are expected to play a part in generating low carbon electricity to drive shore power systems to power ship auxiliary power systems and charge batteries. Shore power is expected to contribute towards achieving zero-emissions shipping.

## **Regional and local energy and economic strategies**

### ***Bournemouth, Dorset and Poole Renewable Energy Strategy to 2020***

- 5.74 This 2013 strategy builds upon the first such renewable energy strategy published in 2005. It states that the main drivers for developing renewable energy sources remain and have, in many respects, strengthened. In addition, significant changes in policy surrounding renewable energy and incentives for renewable energy technologies mean that the development of renewable energy is being encouraged even more strongly by a host of existing and emerging international, national and local policies.
- 5.75 It refers to the European Renewable Energy Directive under which the UK has a legally binding target to generate 15% of the UK's total energy needs from renewable sources by 2020. It notes that whilst this is a national target, Government expects local authority areas to play a part in meeting the 2020 national renewable energy target. The strategy sets out the following vision:

*"For the community of Dorset to play our part in mitigating climate change by using energy more efficiently and harnessing our viable renewable energy resources. We wish to maximise the local economic, environmental and community benefits that doing this can bring."*

- 5.76 Alongside the vision a number of aims are defined. Most relevant are to:
- maximise the potential for local economic benefit and diversification
  - enable Dorset to play its part in reducing greenhouse gas emissions in line with local, regional and international targets
  - facilitate renewable energy development that is appropriate to Dorset's environment and communities.
  - provide local, affordable and secure renewable energy supplies.
- 5.77 The strategy states that current generation in Dorset is estimated to be 146GWh, or only 0.95% of total energy demand, or a third of the UK national average of 3% in 2010. It adds that for the area to play its part in meeting national renewable energy targets, a significant step change is required, with generation needing to increase by over 15 times in just 8 years.

- 5.78 It sets an aspirational target of at least 15% of Dorset, Bournemouth and Poole's energy needs to be met from renewable sources by 2020. Around 7.5% of this is expected to be delivered via national renewable energy resources, so the strategy focuses on a secondary target of a minimum of 7.5% of Dorset's energy needs to be met from local renewable energy resources. This would equate to the area using enough local renewable energy resources to generate just under 1200 GWh of energy per year – sufficient to power about 250,000 homes or to heat around 85,000 homes.
- 5.79 This strategy sets six priority areas for action to meet this target:
- Priority 1: Supporting the development of community renewable energy
  - Priority 2: Maximising the local economic benefits of renewable energy generation
  - Priority 3: Creating a more supportive planning system for renewable energy
  - Priority 4: Developing locally appropriate technologies
  - Priority 5: Delivering leadership and partnerships that support renewable energy
  - Priority 6: Improving renewable energy communications and learning.
- 5.80 The strategy identifies drivers behind an increasing imperative for renewable energy. These being:
- mitigating climate change - reflected in Climate Change Act 2008 and legally binding carbon emission reductions targets of 30% by 2020 and 80% by 2050
  - energy security - an important issue due to political instability in oil producing nations, dwindling oil supplies, worries over the safety of nuclear power and the need to replace much of the UK's large scale electricity generating capacity.
  - maximising local economic benefits - the generation of energy locally at a community or household level offers the opportunity to retain spending on energy for the benefit of local people and the local economy. It also provides opportunities for skilled job creation, local economic growth and significant financial benefits

### ***Dorset Climate and Ecological Emergencies***

- 5.81 In May 2019 Dorset Council declared a climate and ecological emergency. The council states that it is acting to reduce the negative environmental impact of our services, using its services to support and influence Dorset communities and organisations to reduce their carbon footprint and working with partners to develop its climate emergency plan.

- 5.82 In July 2019 Bournemouth, Christchurch and Poole (BCP) declared its climate emergency. The council pledged to make BCP Council and its operations carbon neutral by 2030, and to work with the wider community to look at how early the Bournemouth, Christchurch and Poole region can be made carbon neutral, ahead of the UK target of 2050.

### ***Future Portland – Portland Economic Vision and Plan 2016***

- 5.83 This plan was prepared in 2016 by the Portland Community Partnership, who established the Economic Vision Board led by local business and stakeholders to develop and drive forward the Vision and Economic Action Plan. The plan sets out the vision, objectives and proposed interventions for securing economic growth in Portland over the next 15 years. It also informed the emerging Neighbourhood Plan, which will provide the overarching framework for growth and development on the island.
- 5.84 The plan states that although the area is an attractive place to live and contains some large employment sites, there are still areas that suffer from high levels of multiple deprivation; three of the most deprived areas in Dorset are on Portland. Indeed, headline data indicate that Portland is underperforming compared to the national / county average across a number of measures of productivity and business competitiveness.
- 5.85 The plan identifies opportunity sectors as drivers for future economic growth. These include the maritime sector, where advanced engineering and manufacturing is considered to be a strength a consequence of its naval history. There are also opportunities for business not only in the port estate but across Portland and beyond.
- 5.86 The renewable energy sector is also a key opportunity sector. The plan notes that Portland offers an ideal environment for renewable energy companies to thrive and there are opportunities for wave and tidal power as well as solar and wind power development. It states that the port, with access to deep water, can assist in putting the region at the forefront of construction and support to renewable energy development.
- 5.87 The plan highlights that Portland could become a leading location to test and develop renewable energy development as well as supporting the development of community renewable energy. It adds that the generation of energy locally at a community level offers benefits for local people and the local economy. The development of renewable energy technologies also provides opportunities for skilled job creation, local economic growth and significant financial benefits.
- 5.88 The plan also notes the potential importance of the growing cruise liner tourism activities to Portland.
- 5.89 The plan considers Portland to be an area in transition, noting further private investment in Portland Port, including the northern arc of Osprey Quay and Castletown.
- 5.90 The Plan notes that the shared economic vision is:

*“Drawing upon our key strengths, the island will be a leader in innovative business, destination development, maritime services and low carbon technologies, connecting its residents and businesses to more opportunities, and providing an ideal environment to grow, start and locate a business. Portland will be a leading player in the thriving Western Dorset Growth Corridor and to the UK.”*

5.91 The plan also sets out a number of relevant strategic objectives:

- SO1: To support the growth and development of a vibrant business community focusing interventions on those growing and opportunity sectors, including the maritime, advanced engineering and renewable energy, capable of delivering higher skilled, higher waged jobs.
- SO3: Capitalising on its natural resources and advantages, support the development of a low carbon economy, specifically renewable energy.
- SO4: To support the delivery of an appropriately skilled, motivated and productive workforce to drive economic growth

### ***Transforming Dorset – Strategic Economic Plan (2014)***

5.92 The Strategic Economic Plan encapsulates the core themes of Talented Dorset, Competitive Dorset, Connected Dorset and Responsive Dorset for 2015 to 2021 and looks towards transforming the Dorset economy by unlocking its growth potential.

5.93 It identifies the need address pockets of unemployment and decline (notably around Weymouth and Portland), retain skilled workers and attract more – to focus growth on key sectors and close the skills gaps. In respect to Portland it envisages that transformational change would include far reaching development to unique natural Port assets at Portland Port supporting industrial development, freight, exports and bringing radically larger sector of the cruise market to the Dorset tourist economy.

5.94 The plan identifies the need to unlock the potential of key employment and mixed use developments sites as a priority, some of which are of regional significance, such as Portland Port. Part of a western growth hub key, employment sites are to be brought forward with the development of Portland as a centre of excellence for marine and advanced engineering, based around Portland Port and Osprey Quay.

5.95 The plan notes that since acquiring the port, Portland port has gained an enviable reputation as one of the most efficient, financially successful and fastest-growing ports in the UK. It recognises that the deep and sheltered water of Portland Harbour and Weymouth Bay, are adjacent to one of the busiest shipping lanes in the world and that this unique feature secures Portland port as a gateway to domestic and international trade and a hub for shipping and the maritime services sector.

5.96 However, it states that the port is still a long way from delivering upon its ever increasing potential. It highlights opportunities to accelerate development across a range of different markets including: agriculture, recycled commodities and other cargo; cruise enhanced vessel services & ship repair; and, offshore wind, marine renewables and other energy. Its unique assets include over 35 hectares of key

employment land, that has only partially developed, with planning permission for industrial and port type uses.

- 5.97 In respect to the plans key themes development of Portland port is considered to have potential to increase skill levels of the workforce in one of the most deprived areas in Dorset, tackling worklessness, welfare and poverty (Talented Dorset), become a global hub for trade and international business (Competitive Dorset), can secure Dorset on a global map as a gateway for the import and export of goods in and out of the UK (Connected Dorset) and can create an environment for enterprise to flourish building on capacity on various sectors including renewables and energy to create a cluster effect to support economic growth (Responsive Dorset).

### ***A Strategic Economic Vision for Dorset (2016)***

- 5.98 The Dorset Economic Plan was refreshed in 2016 by the Dorset Vision to 2033. This aims to increase productivity, encourage business growth, support a competitive, sustainable and resilient sector mix, achieve a highly skilled workforce and deliver growth across Dorset.

### ***Western Dorset Economic Growth Strategy (2016)***

- 5.99 This strategy was prepared by the Western Dorset Economic Growth Partnership, comprising the Dorset Local Enterprise Partnership (LEP) and former North Dorset District Council, West Dorset District Council, Weymouth and Portland Borough Council and Dorset County Council, prior to local Government reorganisation.
- 5.100 The strategy sets out the vision and economic growth strategy for the period 2017 to 2033. It aims to deliver 13,200 new jobs, increase the proportion of workforce with Level 4 qualifications or higher from 25% to 35% and deliver an additional £564 m of GVA to the Western Dorset Area. Portland is part of a defined economic growth zone. The strategy supports investment in infrastructure, including ports, and its key delivery aims include the delivery of infrastructure that supports economic growth and employment land and workspace at a rate above historic trends.

### ***Long-term Economic Plan for the South West (2015)***

- 5.101 In January 2015, the Chancellor George Osborne set out a six point plan for supporting the long term development of the region's economy, in a ministerial speech. These plan included increasing the size of the regional economy by £6.4bn in real terms by 2030 - equivalent to over £1,000 per person - by increasing the long term growth rate of the south-west to at least the long term growth rate of the whole UK.
- 5.102 Other aspects included supporting the tourism sector to draw more people to the south-west's beautiful countryside and coastlines, with the aim of increasing the number of annual overseas visits to the south-west to 3 million by 2020, creating around 7,000 more jobs and building on the region's existing reputation in life and agricultural sciences and boost science more broadly, supporting tech clusters, green energy, promoting skills development and an innovative rural economy.



## 6. PLANNING ASSESSMENT

### Introduction

- 6.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 required that planning applications should be determined in accordance with the statutory Development Plan unless material considerations indicate otherwise. This section provides a detailed assessment of the proposed Portland ERF's compliance with the Development Plan (especially the Dorset Waste Plan 2019) and other material considerations including directives, regulations, policies, strategies and guidance outlined in section 5, in respect to waste management and renewable energy. It considers a range of other documents, such as economic strategies, that lend support to the proposals and should be given attributed some weight as material considerations.
- 6.2 Sustainable development, waste management and renewable energy policy follows a hierarchy established at the top through relevant European directives, the requirements of which are transposed into UK legislation, and then further down the hierarchy through national strategies, policy statement and guidance to the local level policy frameworks.
- 6.3 Under this hierarchy lower level policy is generally in accordance with the policy principles established at the higher levels. Proposals that can demonstrate that they fully accord with high level principles, can therefore also be deemed to be compliant at the lower levels, subject to consideration of more local planning and environmental matters.
- 6.4 Due regard has been given to pre-application advice provided by Dorset Council officers during pre-application discussion in respect to consideration of adopted local development plan policies.
- 6.5 This chapter considers the key planning considerations with respect to the proposed Portland ERF's compliance with all relevant legislation, policy frameworks, strategies, guidance and other material considerations that should inform decision making.

### The Development Plan (The Dorset Waste Plan 2019)

#### *Vision, strategic objectives and spatial strategy*

- 6.6 The Dorset Waste Plan sets out the following vision to be achieved by 2033:

*“By 2033, we will have worked with the community and delivery partners to achieve a sustainable waste management infrastructure that deals with existing and planned growth in the Plan area. This will maximise the economic benefits of sustainable resource management for the residents of Bournemouth, Christchurch, Poole and Dorset.*

*Our innovative and effective network of waste management facilities will have optimised waste prevention at source, pushed waste management up the waste hierarchy, maximised the re-use of waste as a resource and contributed to the achievement of a 'circular economy'. Waste management facilities will be flexible, appropriately sized, located, designed and operated to minimise adverse impacts*

*on the local road network and climate change and seek to enhance local amenity, natural and built environment whilst meeting the needs of communities and businesses.”*

- 6.7 The proposed Portland ERF will enable Dorset to achieve a more sustainable network of waste management infrastructure to meet required residual waste capacity and deliver real economic benefit to Weymouth and Portland and the Dorset area. It will play an important part in pushing waste management up the waste hierarchy, diverting waste from landfill and maximising the recovery of low carbon energy. It will support recycling initiatives and the circular economy by treating pre-treated RDF material (where recyclable material has already been removed) and recovering residual materials from the treatment process for re-use in the construction industry.
- 6.8 The plant has been sized to be commercially viable as a merchant facility and is located with access to a deep water port and the strategic road network. It provides opportunities to deliver low carbon heat and power to Portland. As such, the Portland ERF is able to achieve the Dorset vision to minimise adverse impacts on the local road network, address climate change, protect and enhance the local environment, help to unlock growth potential and meet the needs of communities and businesses.

#### *Strategic objectives*

- 6.9 The Dorset Waste Plan establishes six objectives that together are intended to underpin the waste management strategy, spatial vision, site allocations and detailed policies. These are:
1. *To manage waste at the highest feasible level of the waste hierarchy. This will be achieved through waste prevention, increasing re-use, recycling, composting and recovery. Facilities for the use of waste as a resource will also be promoted to maximise economic benefits. Disposal to landfill will be seen as the last resort in the management of waste.*
  2. *To optimise self-sufficiency, through the provision of an appropriate number and range of well designed, appropriately sized facilities for the management of waste, recognising that some waste requires specialist management facilities of a strategic nature. Waste management facilities should be located in appropriate locations, as close as practicable to the origin of waste in order to reduce the total mileage waste is transported. Consideration will be given to existing waste production and operational capacity, the implications of growth and new developments likely to generate waste.*
  3. *To provide a flexible approach for the delivery of waste management facilities and to allow for emerging technologies to come forward throughout the plan period and beyond to create a network of waste management facilities that are fit for purpose.*
  4. *To safeguard and enhance local amenity, landscape and natural resources, environmental, cultural and economic assets, tourism and the health and wellbeing of the people.*

5. *To assist in reducing greenhouse gas emissions and assist in adaptation/mitigation and resilience to climate change through the development of appropriate methods of waste management and promotion of sustainable transport modes*
  6. *To safeguard existing waste management facilities from incompatible non-waste development.*
- 6.10 The proposed ERF, as demonstrated through this statement and other supporting documentation, is deemed to be in accordance with all these strategic objectives.

### **Sustainable waste management**

- 6.11 Policy 1 (sustainable waste management) of the Dorset Waste Plan sets provides the overall context for sustainable waste management in the Bournemouth, Christchurch, Poole and Dorset area. It reflects all of the sustainability principles enshrined within the WFD, NWPE and NPPW. It also supports sustainable development as per the NPPF, promotes the circular economy and requires proposals for waste management to demonstrate conformity with the waste hierarchy, and self-sufficiency and proximity principles.
- 6.12 The following sections demonstrate how the ERF accords with these sustainability principles in the context of meeting local, regional and national need for residual waste treatment capacity.

### **The waste hierarchy**

- 6.13 The waste hierarchy is a key overarching principle set within European and national waste policy. The waste hierarchy is both a guide to sustainable waste management and a legal requirement, under the Waste (England and Wales) Regulations 2011 (as amended).
- 6.14 The waste hierarchy has several stages and requires that anyone managing waste to consider in order:
- prevention
  - preparing or reuse
  - recycling
  - other methods of recovery (e.g. energy recovery)
  - disposal
- 6.15 The Portland ERF will receive RDF which is a product arising from residual waste after prevention, reuse and recycling has been carried out. It will recover energy from the RDF in accordance with the required energy efficiency standard (65% or greater) and is therefore classified as “recovery” as opposed to “disposal”.
- 6.16 The formula used to calculate this value of energy efficiency is known as the R1 Energy Efficiency Formula.

6.17 The proposed ERF will acquire R1 status (refer to the CHP Heat Plan submitted in support of this application for more detail) and will provide a valuable recovery facility for residual waste arisings in Dorset and the wider catchment area.

6.18 Importantly, the ERF will push the treatment of residual wastes up the waste hierarchy by diverting residual wastes away from landfill (the least sustainable option in the waste hierarchy) to energy recovery (the most sustainable option for residual waste). The WMPE makes specific reference to the waste hierarchy, of which other recovery forms an important part in diverting waste from landfill. It confirms that:

*“The Government, supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities.”*

6.19 The proposed ERF would only treat residual municipal and commercial and industrial wastes that have been subject to pre-treatment (RDF), where all of the economically and practicably recoverable recyclable materials have already been extracted. Therefore, it would not undermine efforts to push waste management further up the waste hierarchy by means of prevention, re-use and re cycling. As such, it will be able to operate comfortably as part of an integrated network of waste management facilities, complementary to existing and future recycling efforts. Indeed, even the residual bottom ash material and air pollution control residues would be recovered for reprocessing at appropriate facilities, and then re-used as construction material.

6.20 As demonstrated in section 4 (need), there are large quantities of residual waste arising locally, regionally and nationally that is currently being sent to landfill for disposal that could be subject to recovery through the proposed ERF. The diversion of residual waste away from disposal to recovery is by definition more sustainable and is in line with the principle of moving waste management further up the waste hierarchy.

6.21 The proposed ERF therefore fully accords with, and is supportive of, the waste hierarchy.

### **The self-sufficiency and proximity principles**

6.22 The proximity principle and self-sufficiency are deemed to be an integral part of waste management practice and law.

6.23 These principles are enshrined in Article 16 of the Waste Framework Directive (WFD), and they require all members states to move towards a position of self-sufficiency for waste disposal and recovery of waste, taking into account geographical circumstances or the need for specialised installations for certain types of waste.

#### *The self-sufficiency principle*

6.24 WFD Article 16 is transposed in to UK law by the Waste (England and Wales) Regulations 2011. The self-sufficiency principle requires that most waste should be treated, or disposed of, within the region that it is produced. In England the

need for local waste collection and disposal authorities to move towards greater self-sufficiency is a core waste management principle embedded in the WMPE.

- 6.25 The Government places importance on ensuring that the right waste management infrastructure is in place, at the right time, and in the right location. Appropriate waste management infrastructure should be constructed and operated effectively at all levels of the waste hierarchy to enable the most efficient treatment of our waste and resources.
- 6.26 The NPPW supports the self-sufficiency principle. It requires planning to assist in providing a framework where communities and businesses are engaged with, and take more responsibility for, their own waste.
- 6.27 National Planning Practice Guidance (NPPG) states that each waste planning authority should aim to manage all of its waste. It also accepts that there is no expectation for each local planning authority to deal solely with its own waste to meet the requirements of self-sufficiency. This accepts that it would be uneconomic to have a facility in each local authority area to manage some small quantities of waste and that there may be economies of scale by working together with other authorities.
- 6.28 Under the self-sufficiency principle, Dorset's waste authorities (including Dorset Council and Bournemouth Christchurch and Poole Council (BCP)), should aim to manage the majority of waste arisings within the combined administrative area. Whilst these authorities have achieved a good record of recycling, almost all of their residual waste arisings are currently being exported out of the county to neighbouring authorities to landfill, or to energy from waste facilities located elsewhere in the UK, or to European markets as RDF (having been subject to some pre-treatment in Dorset).
- 6.29 This pattern of activity has largely arisen because of a lack of residual waste management facilities and capacity in the county. This has been exacerbated by the closure of Dorset's landfill sites and a failure to deliver sufficient residual waste treatment infrastructure.
- 6.30 Dorset Council and BCP recognise that they are jointly a net-exporter of waste and the Dorset Waste Plan confirms that there will be a shortfall in residual waste treatment capacity of 234,000 tonnes by the end of 2033.
- 6.31 Whilst not all of Dorset and BCP's wastes can, or indeed should, be managed within the plan area, it is necessary to provide for sustainable residual waste management facilities in the plan area to reduce Dorset's reliance on the export of its residual waste. Failure to meet the self-sufficiency principle leads to uncertainty and less sustainable outcomes. This is because the export of waste is:
- using up existing landfill capacity quickly, which is a valuable resource for wastes that must be disposed of to landfill, and cannot easily be replaced
  - eroding the capacity of remaining landfills in other waste management authority areas, which will in future be needed to deal with the host waste authorities' residual wastes

- highly dependent upon UK EFW facilities continuing to provide capacity for managing Dorset and BCP's residual waste, which are already running at capacity and may in future give priority to more locally arising wastes
- subject to an uncertain and shrinking RDF export market to Europe, where import taxes are being applied and the costs for exporting waste are likely to continue to rise.

6.32 The Inspector's report (para 25) on the Dorset Waste Plan confirms that the plan's approach will facilitate the treatment of an increased tonnage of waste to enable recovery within the county, instead of transporting waste to landfill or recovery facilities outside of Dorset, as happens at present. The management of Dorset's residual waste in the county, at Portland, is consistent with the self-sufficiency and proximity principles.

6.33 Dorset's existing level of residual waste export does not comply with the self-sufficiency principle and is not sustainable in the long term. As recognised in the Dorset Waste Plan, there is a pressing need for new residual waste treatment capacity in Dorset to meet its needs and ensure that Dorset is less reliant upon other areas to manage its residual waste. The proposed Portland ERF, if consented, would therefore be very well placed to meet this identified capacity shortfall and would help Dorset to become more self-sufficient in dealing with its own residual waste.

6.34 The proposed Portland ERF would enable Dorset to reduce the export of residual waste out of county to landfill and other facilities and become more self-sufficient, in accordance with the provisions of Dorset Waste Plan Policy 1 and as required under the provisions of the WFD, Waste (England and Wales) Regulations 2011, WMPE, NPPW and NPPG. This compliance should be attributed substantial weight in decision making.

*The proximity principle*

6.35 The proximity principle requires that waste should be recovered or disposed of, as close as possible to where it is produced. The WMPE reflects the role of the proximity principle in underpinning the delivery of a more sustainable waste management system. It requires a network of waste management facilities to be established to enable waste to be disposed of, or be recovered, in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

6.36 The NPPW confirms that positive planning should enable waste to be disposed of or recovered, in line with the proximity principle.

6.37 The application of the proximity principle to decision making should take account of the following considerations:

- there is no expectation<sup>7</sup>, for each local planning authority to deal solely with its own waste to meet the requirements of the proximity principle, as this is unlikely to be practicable for some types and quantities of waste
- the proximity principle requires waste to be managed at ‘one of the nearest appropriate installations’, but not necessarily at ‘the nearest appropriate installation
- the proximity principle relies upon the delivery of an integrated network of appropriate waste management facilities required to manage various types of waste arisings
- where there is an absence of an appropriate installation, to manage significant residual waste arisings from a waste authority area, the proximity principle would suggest a new appropriate installation may be required, as part of a wider network, to reduce the need for waste to travel long distances
- the proximity principle must be applied flexibly, as there are many factors that could potentially influence what constitutes one of the nearest appropriate installations. The availability of capacity is one important factor, as an appropriate installation may be well located in respect to waste arisings but may have little or no remaining capacity, or may only be able to provide short term capacity.

6.38 Whilst the proximity principle was first applied, under the WFD, at the national (EU member state) level, it can be applied at other geographical scales, including the regional, sub-regional and local levels. Each of these geographical areas will comprise an existing network of waste management installations with differing capabilities and capacities. In the context of this planning application the proximity principle can reasonably be applied at the national, south west region/sub-region and Dorset county levels.

6.39 It is recognised that waste does not respect administrative boundaries and there will always be a need for some types of specialist wastes to move across these boundaries to an appropriate installation, that may not necessarily be the nearest appropriate installation. However, the following key objectives should be applied to the management of significant volumes of residual waste under the provisions of the proximity principle:

- appropriate installations should, where possible, be provided within the UK to avoid the need for waste to be exported to other countries for treatment or disposal
- appropriate installations should, where possible, be provided within the south west region to avoid the need for waste to be exported to other UK regions for treatment or disposal

---

<sup>7</sup> PPG Paragraph: 007 Reference ID: 28-007-20141016

- appropriate installations should, where possible, be provided within the Dorset area to avoid the need for waste to be exported to other waste authority areas

*Proximity principle at the Dorset level*

- 6.40 In Dorset, whilst waste management infrastructure exists that is capable of managing collected recyclable materials, including green and food wastes, little infrastructure currently exists within the county for the management of residual wastes and specifically RDF.
- 6.41 The Canford Magna Mechanical Biological Treatment (MBT) facility currently accepts mixed municipal waste, and removes recyclable elements, producing RDF as an end product. There are currently no waste management facilities (or appropriate installations) within Dorset that can accept RDF and recover energy. As a consequence, RDF is exported out the county, with most eventually going to European markets.
- 6.42 With all of Dorset's landfill sites now closed, residual wastes not processed at the Canford Magna MBT facility, are either sent for disposal to landfill sites in neighbouring Hampshire and Wiltshire, or are sent for treatment at other EfW facilities located in Hampshire and Slough. Some of Dorset's residual waste is therefore currently travelling over large distances by road for disposal; with the associated increased disposal costs, transportation costs and carbon emissions. This is an important sustainability issue that the county must urgently address.
- 6.43 The Portland ERF will provide an important residual waste management facility that will accept local residual waste that would otherwise be disposed to landfill, or travel further to other UK energy from waste plants. It will also be able to supplement this by managing residual wastes arising from within the region and also nationally.
- 6.44 In doing so the proposed ERF will provide capacity for all of Dorset's residual wastes to be managed in line with the proximity principle, and enable Dorset to become more self-sufficient.

*Proximity principle at the regional level*

- 6.45 The south west region, whilst achieving an overall good recycling rate, still sends the highest proportion of its residual waste to landfill (0.5 Mt), in comparison with all other regions and the UK as a whole, and conversely a much lower proportion of its residual waste is sent for energy recovery compared to England as a whole.
- 6.46 In 2018/19 the south west region generated around 345,000 tonnes of RDF, the majority being from Bristol (199,000 tonnes), then Poole (89,000), Wiltshire (29,000) and Swindon (27,000 tonnes) with the remainder in Somerset. The vast majority of this 281,000 tonnes (81%) was exported outside of the UK for final recovery. The remainder was managed in England, with only 9,200 tonnes (3%) remaining within the region.
- 6.47 These figures demonstrate that there is clearly scope for much more of the region's residual waste to be diverted from landfill towards energy recovery, and



equally a need for additional residual waste treatment capacity within the region to facilitate a further move away from landfill.

- 6.48 The Portland ERF would provide an additional component in the south west region's network of strategic residual waste management installations. It would enable more of the region's residual waste to be subject to energy recovery, with the associated low carbon/renewable energy generation benefits, and less residual waste to be disposed of to landfill, reducing greenhouse gas emissions. This approach accords with the proximity principle, regional self-sufficiency and the waste hierarchy.

*Proximity principle at the national level*

- 6.49 In England, for the 12 month period ending in March 2020, around 2.45 Mt of residual waste was exported to Europe, the majority of which was in the form of RDF (2.12 Mt) for use in energy recovery facilities. Under the proximity principle, arguably much more of this waste should be being managed in the UK and preferably by means of energy recovery.
- 6.50 The large tonnages of RDF currently being exported to Europe indicate that there is insufficient capacity to manage RDF material in the UK and that there is a need for the delivery of new energy recovery capacity in the UK that is capable of dealing with RDF material. Whilst there are many energy from waste facilities in the UK, few of these have the capacity or the technical capability to manage large volumes of RDF. The Portland ERF would form part of a new generation of merchant EfW facilities that would be capable of intercepting RDF that would otherwise be sent to Europe, thus supporting the proximity principle by enabling this waste to be managed in the UK at one of the nearest appropriate installations.

*The proximity principle in decision making*

- 6.51 Merchant plants, such as the Portland ERF, have in most cases not been subject to any planning conditions that seek to restrict the locations from which waste can be sourced. The origin of waste delivered to such facilities is dictated by market conditions, and waste is rationally sourced as close to a waste facility as possible to reduce transportation costs.
- 6.52 For PFI/PPP projects, typically designed with the express purpose of serving a long-term local authority waste contract from one or more waste authority areas, planning conditions were sometimes imposed restricting waste source to the contract municipal solid wastes (MSW) arising from the contract area, sometimes with the ability for some C&I waste to be managed if any spare capacity were to become available. However, even then, in some cases planning permissions have since been granted to provide additional flexibility to accept other wastes from outside the contract areas and from other local waste authority areas.
- 6.53 The extent that waste travels to a facility in the context of the proximity principle, depends on a number of factors including the amount of waste available requiring recovery, the availability of existing recovery capacity and the economic costs of transporting that waste. These factors working together largely regulate the distance that waste typically travels to the nearest appropriate facility for recovery, in accordance with the proximity principle.

- 6.54 Hence merchant facilities not tied in to long term publicly procured contracts and usually without public support require sufficient flexibility to source waste commercially from a range of sources and locations. The distance that waste travels to an appropriate facility is largely determined by the market and the high cost of transportation. As such, most waste will be sourced from the local area unless it can be moved sustainably and viably over longer distances by means of rail or by water. Restrictions on the potential source of waste for merchant waste facilities would harm their ability to secure contracts and thereby impact upon their viability.
- 6.55 The need for waste catchment flexibility for merchant facilities is supported by the NPPW (paragraph 4). This identifies the need to plan for the recovery of mixed municipal waste in line with the proximity principle, but recognising that new facilities will need to serve catchment areas large enough to secure the economic viability of the plant.
- 6.56 The proposed ERF at Portland, if approved would provide one of the nearest appropriate installations, that would be capable of managing RDF arising from within Dorset area, in compliance with the self-sufficiency and proximity principles.
- 6.57 However, it is not UK policy to preclude such facilities from securing waste from outside the local area, and neither should planning decision-making seek to interfere with market competition. Only those residual wastes that the applicant could secure competitively, accounting for the cost of transportation, would be sent to the proposed ERF, and this would ensure compliance with the aims of the proximity principle in practice.
- 6.58 The proposals provide an ERF in proximity to several sources of waste arisings in Dorset and adjacent areas. The proposals are entirely consistent with the proximity principle and should be afforded substantial weight in decision making.
- 6.59 The proposed ERF is therefore fully compliant with the proximity principle and this should be attributed substantial weight in the decision making process and the planning balance.

#### *Spatial strategy*

- 6.60 The Dorset Waste Plan defines a spatial strategy for delivering an appropriate network of waste management infrastructure to meet expected future needs. In doing so, the plan identifies in general terms what facilities are needed and where, although in doing so it also adopts a flexible approach to ensuring that suitable capacity is delivered in good time to meet its requirements.
- 6.61 The strategy accepts that landfill capacity is diminishing and that existing waste treatment capacity for residual waste is insufficient to meet projected needs, this being a stated shortfall of 234,000 tonnes of capacity by 2033. It states that additional facilities are required including for recovery of energy. Whilst the Dorset Waste Plan envisages that most new treatment capacity would be delivered in south east Dorset, it also accepts that additional capacity may be appropriate elsewhere to ensure that the capacity gap is adequately addressed and when it would result in a good spatial distribution of facilities.

- 6.62 Four existing waste management sites are allocated under Policy 3 for the intensification or redevelopment of existing operations for residual waste management (as shown in the Dorset Waste Plan Insets 7, 8, 9 and 10).
- 6.63 Whilst the application site is not one of the four sites identified for residual waste management in the spatial strategy, the provision of an ERF at Portland would not be inconsistent with the spatial strategy. The spatial strategy acknowledges that other sites might come forward to ensure that the capacity gap is properly addressed and the Portland ERF is consistent with that approach as it provides recovery capacity in a location that contributes to a good spatial distribution of facilities.
- 6.64 The Dorset Waste Plan accepts that its provisions can only take account of the information available at the time of its preparation. The application site was not formally considered during the plan preparation, despite dialogue taking place between the Dorset Waste Partnership and Portland Port to consider the strategic role that the port might play in helping Dorset meet its future waste management requirements.
- 6.65 The Dorset Waste Plan is intended to be flexible in terms of the type of waste management facilities that might be appropriate on the identified sites and the technologies that could be used. A flexible approach is entirely appropriate given that only four sites are identified as potentially suitable for strategic residual waste management uses and the difficulty that the Dorset waste planning authorities have had in identifying suitable sites. The Dorset Waste Plan notes that the four allocated sites are subject to various planning and environmental constraints that would need to be adequately addressed, and accepts that not all of the allocated sites will come forward for development.
- 6.66 This flexibility is provided through Policy 4 (applications for waste management facilities not allocated in the Waste Plan), which permits the development of unallocated sites for waste management infrastructure provided proposals can meet the specified criteria.
- 6.67 It is important to note that appeal decisions (Avonmouth Resource Recovery Centre<sup>8</sup>) have found, in respect to other merchant EfW facilities, that compliance with a spatial strategy, as defined within a local development plan, must be balanced against a much wider set of sustainability considerations, and the underlying sustainability objectives that are set out in national and local policy frameworks and strategies.
- 6.68 Principally these considerations are:
- compliance with the waste hierarchy and need to move waste away from landfill and further up the waste hierarchy,
  - the very substantial benefits of generating lower carbon energy from residual waste and its ability to address climate change and carbon emissions, and
  - the potential to support economic growth.

---

<sup>8</sup> Appeal Reference APP/Z0116/A/10/2132294 06/04/2011

- 6.69 In these respects, a scheme's compliance with a spatial strategy must be balanced with these important considerations and the strategic objectives that inform and direct the overall spatial strategy for waste management. Planning Inspectors have concluded that waste miles are not an overriding factor when balanced against other benefits of reducing landfill and low carbon energy recovery.
- 6.70 The applicant has undertaken a comparative analysis of the potential of the allocated sites to accommodate the proposed ERF. The Comparative Assessment Against Waste Local Plan Allocated Sites report is submitted in support of this application. That report has concluded that none of the allocated sites could realistically deliver a similar facility to the proposed Portland ERF. They could not meet all of the operational requirements and nor would they realise the site specific benefits and opportunities associated with the Portland location. Whilst the allocated sites are already in waste management use, and could successfully host some types of additional waste management facilities, it is highly unlikely that any of these sites could deliver a large-scale ERF as is proposed at Portland Port, and it logical that a materially smaller plant at such a location would contribute materially less to Dorset and the UK need for efficient and effective residual waste treatment.
- 6.71 The Portland ERF complies with the key sustainable waste management objectives and provides a significant opportunity to assist the Dorset waste authority area to become more self-sufficient in managing its own residual waste. It adheres to the proximity principle by delivering new residual waste treatment capacity in Dorset. It provides a new ERF as part of the network of waste management facilities available in Dorset, providing the opportunity to send residual waste for recovery at a facility located in Dorset. This would reduce the current practice for this waste to be exported out of the county for recovery or disposal.
- 6.72 It would also be the nearest available facility for residual waste from other proximate areas, diverting waste from landfill and intercepting RDF material that would otherwise be exported to Europe for recovery.

### ***Compliance with energy and carbon development plan policy***

- 6.73 Whilst the proposals accord with national policy statements for energy and renewable energy, the Portland ERF also complies with local development plan policies that aim to deliver sustainable forms of development. More specifically the Portland ERF will fully meet policies that require opportunities to be taken to generate renewable and low carbon energy from waste and for this to be used though the supply of both heat and power for the benefit of the local community.
- 6.74 This facet of the 'need case' is discussed in more detail in the Energy Need Statement.
- 6.75 In generating renewable and low carbon energy from residual waste, to be used to supply electricity to a new ship to shore power facility and the local grid (which is currently constrained), and to supply heat to a number of local community facilities by means of a potential future district heat network the Portland ERF represents a genuine sustainable waste management and CHP facility. As such, it fully accords with Dorset Waste Plan Policy 1 (sustainable waste management), Policy 2

(integrated waste management facilities) and Policy 6 (energy facilities), and Policy Port/EN2 of the Portland Neighbourhood Plan, which is broadly supportive of proposal for energy generating infrastructure using renewable energy or low carbon sources. This facet of the 'need case' is discussed in more detail in the Energy Need Statement.

- 6.76 The ability to provide heat and power to a number of local users, whilst increasing the efficiency of the local electricity supply network (which is constrained), is fully compliant with local development plan policy and is a key factor in the location of the ERF at Portland and within the port. This is a significant material consideration which should be afforded substantial weight in the determination of this planning application.

### ***Allocated waste management sites***

- 6.77 The Dorset Waste Plan spatial strategy for future waste management is underpinned by the allocation of twelve sites, located across Dorset. The allocated sites are expected to accommodate new or expanded facilities and provide the additional waste management capacity required to collect, transfer and manage a number of identified needs, including recycling, green and food wastes, bulky wastes and residual wastes.

- 6.78 Four sites are allocated as potential locations for strategic facilities that could accommodate larger-scale waste management infrastructure and provide additional capacity to manage residual waste. These are:

- Inset 7. Eco Sustainable Solutions, Parley
- Inset 8. Land at Canford Magna, Poole
- Inset 9. Land at Mannings Heath Industrial Estate, Poole
- Inset 10. Binnegar Environmental Park, East Stoke

- 6.79 Whilst these sites are allocated for waste management use in Policy 3 (*sites allocated for waste management development*), the policy is not process or technology specific and therefore any proposal for waste management uses on these sites would be required to meet criteria tests. These are:

- a. the proposal complies with the relevant policies of this Plan;
- b. the relevant Development Considerations have been addressed to the satisfaction of the Waste Planning Authority;
- c. there would not be an unacceptable cumulative impact, from the development, in combination with existing waste management operations; and
- d. possible effects (including those related to proximity, species and displacement of recreation) that might arise from the development would not adversely affect the integrity of European and Ramsar sites either alone or in combination with other plans or projects.

- 6.80 Policy 3 sets requirements for the consideration of ecological interests associated with European protected sites. Dorset Waste Plan Inset sites 8 (Canford Magna) and 10 (Binnegar) are required to undertake surveys for species typical of the European Sites (in particular nightjar, woodlark and Dartford warbler) that assess the effects of proposed development on the populations on site and in surrounding areas. If it is shown that the development of these sites would have a significant effect on species listed in Annex I of the Birds Directive (those for which SPAs may be designated), avoidance/mitigation to ensure there is no adverse effect on the integrity of the European sites must be designed in to any development in order for it to take place.
- 6.81 In relation to Dorset Waste Plan inset sites 7 (Eco-sustainable Solutions), 8 (Canford Magna), 9 (Mannings Heath Industrial Estate) and 10 (Binnegar) the policy requires studies to that demonstrate that emissions from development will not impact on the features (species and habitats including lichens and bryophytes) of the nearby European sites. Again, if it is shown that development proposals for these sites would have a significant effect on the critical pollutant load/level of the European sites then avoidance/ mitigation to ensure there is no adverse effect on the integrity of the European sites must be designed in to any development in order for it to take place.
- 6.82 Policy 3 places considerable importance on protecting the integrity of European sites, in terms of both protected species and habitats. It is likely that a Habitat Regulation Assessment would need to be undertaken for any large-scale energy from waste facilities. The policy states that incineration will not be acceptable if it would impact upon the integrity of these sites. Although allocated on a non-technology specific basis, the European sites represent a significant constraint. There is much uncertainty as to what types of waste management activities could realistically be accommodated at these sites without having an unacceptable impact on ecology, and whether the emissions from energy from waste would be acceptable.
- 6.83 The allocated sites are therefore subject to a number of potential restrictions on the type of waste management processes that could be accommodated, and these suggest that they are unlikely to be suitable for an ERF of the type proposed at the Portland site, and indeed might be unlikely to accommodate any significant energy recovery capacity that would lead to a significant reduction in export of residual waste from Dorset.
- 6.84 A detailed assessment of Dorset Waste Plan allocated sites has been undertaken, against a series of operational, planning and environmental criteria, to determine their suitability to accommodate the proposed ERF. This assessment has concluded that none of the 12 sites identified for waste management use performed as well as the proposed site at Portland. Three of the four sites (7, 8 and 10), identified as potential locations for strategic waste management facilities, performed relatively poorly in comparison, whilst the fourth site (9) performed better than these but is too small to accommodate a comparable sized ERF. Full details are provided in the Comparative Assessment of Waste Local Plan Allocated Sites report, submitted with this application.

### *Development of unallocated sites*

- 6.85 The Dorset Waste Plan (paragraph 6.9) considers allocated sites to be available for waste uses, but also recognises that circumstances may change during the plan period and that the allocated sites may not come forward as expected. It also accepts that it will be the private sector and waste management businesses that will ultimately determine whether facilities are built and what technology is selected to be used. In addition, other suitable waste management sites, not identified or considered during preparation of the Dorset Waste Plan (as they may have been overlooked or were not deemed to be available at that time), may subsequently become available for development.
- 6.86 The application site at Portland is an example of a site that was not considered formally during the development of the Dorset Waste Plan (although it was under discussion for a waste use for some of that time during the development of the Waste Plan as described below. The site benefits from an extant planning consent 2010 planning permission for an energy plant fuelled by vegetable oil (including waste oil) later varied after it had been implemented (in 2013) to allow for use of waste rubber crumb as an additional fuel.
- 6.87 Officers from the Dorset Waste Partnership explained to the applicant that it had previously identified Portland Port as potentially playing a strategic role in the future management of Dorset's waste management. Whilst the adopted Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 was progressing through the plan making process, Officers from the former Dorset Waste Partnership (DWP) former Dorset County Council (DCC) economic development team and their consultants had a series of meetings and site visits with the Port in 2017-2018 as part of an options feasibility for sites to potentially support the early stages of a procurement exercise for residual waste disposal. During those discussions it was proposed that Dorset municipal collected waste could be brought to and processed at the Port with recycling and production of baled RDF for export by ship. DWP considered trying to secure permission for that use themselves and then include that as part of the procurement process inviting bidders to bid to operate that processing and export system, but in the event none of the sites investigated, including the site at Portland Port, were considered appropriate for inclusion in the procurement exercise given commercial and timing constraints and the structural changes at Dorset Council, and DWP chose not to progress that at the time and the residual waste contract was subsequently awarded. Consistent with the January 2018 Dorset Waste Partnerships Joint Committee resolution to (inter alia) "engage with Bournemouth Borough Council (BBC) and Borough of Poole (BoP) to investigate the potential for joint commissioning arrangements following the expiry of BoP's contract in August 2027" DWP considered that the Port might play a role as part of a longer-term strategy, once all of the existing waste contracts had been brought into alignment and aggregated, around 2027, to benefit from the larger scale that this combined volume would bring. The Port was nonetheless not included in the 2019 Waste Plan and is being assessed as such in this full application.
- 6.88 The Dorset Waste Plan adopts a flexible policy approach to address circumstances where allocated sites do not come forward for development, in good time to meet expected need, or new suitable sites are identified that can help to meet need. This is sensible planning as it would not be appropriate for a waste planning authority to exclude consideration of all other sites that can help

deliver upon its strategic objectives, on the basis of holding out for a facility to come forward on an allocated site.

- 6.89 Paragraph 6.11 of the Dorset Waste Plan, states that proposals on unallocated sites will be considered on their merits and that they should be in accordance with national policy, Dorset Waste Plan policies and should address the plan's spatial strategy and guiding principles, including the waste hierarchy and managing waste in line with the proximity principle. It also requires applicants to demonstrate that there are no suitable allocated sites capable of meeting the waste management need that would be served by the proposal, or the unallocated site provides advantages over the allocated sites.
- 6.90 Paragraph 6.11 of the Dorset Waste Plan provides guidance as to the type of advantage that could justify the development of an unallocated site over an allocated site. These include:
- co-location with complementary facilities
  - provision of a site that can be demonstrated to be in a better strategic and sustainable location and/or that has less impacts than an allocated site
  - the provision of sustainable localised heat and energy sources
- 6.91 Paragraph 6.15 of the Dorset Waste Plan also confirms generally that modern waste management facilities for recycling, transfer, recovery and treatment of waste are appropriate on industrial sites, sites identified for employment uses and previously developed land.
- 6.92 The above principles are enshrined in Policy 4, which provides a series of criteria against which all proposals for waste management development on unallocated sites will be assessed. Each of these criteria is set out below in full, together with an explanation as to how the proposed Portland ERF is deemed to be compliant.
- 6.93 Proposals for waste management facilities on unallocated sites will only be permitted where it is demonstrated that they meet all of the following criteria:
- a) *there is no available site allocated for serving the waste management need that the proposal is designed to address or the non-allocated site provides advantages over the allocated site.*
  - b) *the proposal would not sterilise, or prejudice the delivery of, an allocated site that would otherwise be capable of meeting waste needs, by reason of cumulative or other adverse impacts;*
  - c) *the proposal supports the delivery of the Spatial Strategy, in particular contributing to meeting the needs identified in this Plan, moving waste up the waste hierarchy and adhering to the proximity principle; and*
  - d) *the proposal complies with the relevant policies of this Plan.*

*Also, proposals should be located:*



- e) *within allocated or permitted employment land which allows for Class B1, B2 and/or B8 uses; or*
- f) *within or adjacent to other waste management and/or complementary facilities where the proposed use is compatible with existing and planned development in the locality; or*
- g) *on previously developed land suitable for employment or industrial purposes*

*Waste management facilities may be suitable within an agricultural setting where the proposed use and scale is compatible with the setting, provides opportunities to utilise outputs from the process in the locality and provides advantages over the locations specified in criteria e - g.*

*Other locations will only be permitted if the Waste Planning Authority is satisfied that no suitable site meeting the above criteria is available.*

*Sites will only be permitted where it has been demonstrated that possible effects (including those related to proximity, species and displacement of recreation) that might arise from the development would not adversely affect the integrity of European and Ramsar sites either alone or in combination with other plans or projects.*

#### **Compliance with Policy 4 part a**

- 6.94 The applicant has undertaken a comparison of the proposed Portland ERF site against other allocated sites (identified under Policy 3) and this has concluded that none of the allocated sites perform as well as the application site against a set of defined operational, planning and environmental criteria. In some cases sites could not physically accommodate a comparable facility, and in others it is unlikely that planning permission could be achieved for such a facility.
- 6.95 The application site provides many advantages over the allocated sites. These include:
- access to both a deep water port and the strategic road network allowing materials to be transported to and from the site by either road and sea, representing a highly sustainable location in respect to transportation
  - a location within an operational port, with opportunities to forge links with existing complementary activities, such as engineering and shipping expertise, and potential complementary activities associated with the availability of heat and power
  - the unique ability to deliver and supply energy for a shore power facility that would enable visiting cruise liners and other shipping to access power when docked, removing the need for vessels to run their engines when stationary (known as cold-ironing), reducing exhaust and carbon emissions and improving air quality with associated benefits for health and biodiversity
  - the ability to provide a significant amount of electricity to the local distribution network, increasing its efficiency. Existing capacity constraints associated

with the Chickerell Bulk Supply Point would preclude the economic provision of shore power at the port.

- the ability to implement a local heat network at an early stage that is capable of serving a number of potential heat customers located in close proximity to the proposed ERF, including local community facilities, planned new housing and Portland's two prisons.
- the ability to deliver a significant reduction in carbon emissions, in comparison to the Dorset Waste Plan allocated sites, as a consequence of the site's unique ability to deliver shore power to reduce shipping emissions and supply a viable local heat network.
- bringing new jobs and investment to an area that has pockets of socio-economic deprivation, as a result of the closure of the naval base and other military establishments, and help to safeguard and support the commercial port and economic growth.
- providing certainty that capacity will be delivered in sufficient time to meet Dorset's residual waste management needs, as opposed to the high level of uncertainty associated with the Dorset Waste Plan allocated sites which are subject to planning and environmental constraints that may preclude them from coming forward with suitable proposals and technologies that are proven, reliable and viable.
- the site is located within Portland Port, an area that is safeguarded for employment use and historically has been the subject of various industrial activities associated with its naval use, including a berth suitable for nuclear powered vessels, and fuel bunkering operations. Furthermore, unlike some of the allocated sites, the application site comprises previously developed land outside of the green belt and has the benefit of an extant planning consent for an energy facility.
- use of the Portland site would not require the redevelopment of any existing waste management activities or functions, currently taking place on some of the allocated sites, which could lead to their temporary or permanent loss from the existing network of waste installations, for which alternative facilities or location may need to be sought
- the proposed ERF is capable of being developed in this location without causing any significant harm to the environment and would potentially have less environmental impact than similar development at any of the allocated sites.

6.96 These advantages are discussed in detail within this statement. However for the purpose of Policy 4 part a) it can be demonstrated that none of the allocated sites in the Dorset Waste Plan are suitable for a comparable ERF, and that the application site clearly has many significant advantages over the development of the allocated sites.

### **Compliance with Policy 4 part b**

- 6.97 The construction of the proposed Portland ERF would not sterilise or prejudice the delivery of an allocated site. The ERF is a strategic merchant waste management facility specifically designed to deal with residual waste (RDF) and similar C&I wastes arising from Dorset and its wider catchment. In these respects, it would not in any way prejudice the delivery of the local waste facilities, identified to host activities related to the transfer and recycling of waste, and management of bulky wastes and green wastes. Neither would the proposed ERF prejudice the existing activities taking place at any of the four sites identified as being suitable for the management of non-hazardous wastes, or preclude the development of future waste management activities.
- 6.98 The applicant considers that these strategic sites will continue to perform an important role, as part of the local network of appropriate installations that manage a variety of wastes. Indeed, these sites could play an important role in increasing the amount of municipal and other wastes that can be recovered for recycling, as is undertaken at the Canford Magna MBT site, supporting the ERF by supplying RDF for energy recovery. In this way, recycling can be increased, the export of residual waste to landfill can be reduced, and more residual waste can be used for energy recovery in Dorset.
- 6.99 As the Portland ERF is not located adjacent to the allocated sites it would not have any cumulative impacts that would prevent waste uses coming forward on allocated sites. As reflected in Dorset Waste Plan policy, it would be a matter for applications for new or additional waste facilities, that would intensify activities at existing allocated waste management sites, to demonstrate that this would not have an adverse impact cumulatively on designated areas, including European protected site or green belt.
- 6.100 The proposed Portland ERF fully accords with the provisions of Policy 4 part b).

### **Compliance with Policy 4 part c**

- 6.101 This criteria refers directly to the spatial strategy, in particular the plan's identified needs, the waste hierarchy and the proximity principle. These matters are addressed in detail in the first half of this section. The Dorset Waste Plan accepts that there is a need for a distribution of waste treatment capacity across the county and the Portland ERF will help achieve that.
- 6.102 Whilst there is a preference for such capacity to be located in the south east Dorset area, the allocated sites are subject to planning and environmental constraints. It is highly unlikely that they could accommodate an ERF of the type and capacity proposed at Portland and nor could they deliver the specific benefits that the Portland proposals bring.
- 6.103 Planning inspectors have placed importance on the ability of ERF proposals to contribute to the underlying objectives of national and local waste policy and plans as part of a balance. Less importance is placed on whether proposals accords precisely with a prescribed or envisaged spatial strategy. Those objectives, upon which great weight should be attributed, include moving waste further up the waste hierarchy, promoting self-sufficiency, providing facilities that can contribute to the network of appropriate installations under the proximity principle and

capturing the benefit of recovering low carbon and renewable energy from residual waste that cannot be recycled, to reduce landfill and address the challenge of climate change.

6.104 The Dorset Waste Plan adopts a flexible position with regard to the provision of required residual waste management capacity, as demonstrated by the inclusion of Policy 4 that provides for unallocated sites to be considered. The proposed ERF can meet all of the Dorset Waste Plan strategic objectives and will support delivery of the spatial strategy.

6.105 The proposed Portland ERF fully accords with the provisions of Policy 4 part c).

#### **Compliance with Policy 4 part d**

6.106 As demonstrated throughout this statement and by means of a summary in Tables 6.1-6.4, the proposed ERF is compliant with other relevant policies within the Dorset Waste Plan and complies with Policy 4 part d).

#### **Compliance with Policy 4 parts e, f and g**

6.107 Policy 4 requires applications for waste management facilities, located on unallocated sites, to demonstrate that they are within allocated or permitted employment land, or adjacent to other waste management and/or complementary facilities, or are on previously developed land suitable for employment or industrial purposes.

6.108 The application site comprises previously developed land located with an operational port. The site is safeguarded under Policy ECON 2 of the adopted West Dorset, Weymouth and Portland Local Plan as a key employment site, where applications for B1, B2, B8 and other similar uses would generally be permitted. The site is also subject to an extant planning permission for an energy facility, fuelled by vegetable oil and waste tyre crumb, which constitutes a similar type of activity to the ERF. Given its location within a port and the objective to transport some materials by sea, opportunities exist to complement existing port activities, including provision of shore power, and establish linkages with existing marine activities.

6.109 Whilst the Dorset Waste Plan only requires one of these criteria to be satisfied, the proposal fully accords with all of the requirements of Policy 4 parts e, f and g.

#### **Other Policy 4 requirements**

6.110 The remainder of Policy 4 relating to sites in agricultural settings is not relevant in this case. However, the requirement for applications to demonstrate that the proposed development on unallocated sites would not lead to effects that would adversely affect the integrity of European and Ramsar sites, either alone or in combination is relevant.

6.111 These matters are addressed in detail in the Environmental Statement (ES) and the Shadow Appropriate Assessment (SAA) that have been submitted in support of this application.

6.112 These conclude that the proposed Portland ERF would not give rise to effects that would have a significant impact on the integrity of any European or Ramsar sites located within the vicinity of the site. As such, the proposals comply with this Policy 4 requirement.

***An established precedent for energy generation use***

6.113 The use of the application site for energy generation from waste derived materials has already been established and a planning precedent exists for similar types of energy recovery uses. The relevant site planning history is provided in section 2 of this planning statement.

6.114 Full planning permission was granted in 2010 to develop an energy plant (application reference: 09/00646/FULES) which would be fuelled by vegetable oils (some, or all of which, could have comprised waste oils). After the 2010 permission had been implemented following material work being performed at the site, in 2013, the conditions of planning permission 09/00646/FULES were varied through a section 73 application to enable waste rubber crumb from end-of-life tyres to be used as an alternative fuel source (application reference: 13/00262/VOC). The rubber crumb material was to undergo thermal treatment similar to pyrolysis in an advanced conversion technology, rather than being directly combusted, producing oil, gas and carbon black. The oil and gas were intended to be combusted in generators for power generation.

6.115 The 2010 consent permitted two 8.9 MWe engines and two 27 m high stacks, while the 2013 revised consent added four smaller generators with a total capacity of 6 MW. Irrespective of the revisions made to the fuel stock, the scale and extent of the approved development, and associated industrial buildings and structures were largely unchanged.

6.116 In October 2019, Dorset Council issued a Certificate of Lawful Use or Development confirming that the 2010 planning permission granted for the construction of an energy plant had been lawfully implemented and that the consent remained extant (09/00646/FULES).

6.117 Whilst the approved energy generation plant was never completed, in planning terms the consent has not lapsed or expired, meaning that the site is subject to an extant planning permission for a type of development similar to the proposed ERF. Whilst the physical characteristics of the proposed ERF differ from the consented scheme, both comprise buildings and structures of an industrial nature and would be capable of recovering energy from waste materials (waste oils or waste tyres under the extant permission, and RDF at the proposed ERF).

6.118 The extant permission demonstrates that the site is, in principle, suitable for the receipt and thermal treatment of waste materials to be used for the purpose of generating energy, and is appropriate for other similar energy recovery uses such as the proposed ERF.

### ***An established location for industrial use***

- 6.119 It has already been demonstrated that the site is an appropriate location for the proposed ERF in the context of Dorset Waste Plan Policy 4 (unallocated sites) and specifically for an industrial use given the extant consent for development of an energy plant.
- 6.120 However, other parts of the development plan lend support in respect to the suitability of the application site for an industrial use. Policy SUS2 (*distribution of development*) of the West Dorset, Weymouth & Portland Local Plan (2015) requires development to be located according to a settlement hierarchy. Whilst the main towns of Dorchester and Weymouth are noted as the highest priorities for new development, Portland is also identified as a focus for future development.
- 6.121 The Portland Neighbourhood Plan (2020) provides further guidance on suitable locations for industrial development. The application site falls within an area defined as the Northern Arc (Policy Port/BE6). This policy seeks to realise the economic and employment potential of the area whilst also aiming to improve environmental quality. Supporting paragraph 8.21 confirms that the Northern Arc concept, which evolved from work on the Portland Economic Strategy, aims to cement the location as a vital employment zone for the benefit of local people and the economic wellbeing of the Island, whilst also respecting important heritage and natural environment sites.
- 6.122 The proposed ERF's location within the Portland Northern Arc development area, on previously developed industrial land located within the port, fully accords with the expectations of Policies SUS2 and Port/BE6, which direct growth to main settlements and to areas where there is potential for economic and employment growth.

### ***Compliance with energy recovery policy (Policy 6)***

- 6.123 The Dorset Waste Plan makes provisions for the recovery of waste. It confirms (para 9.2) that recovery in the context of the waste hierarchy includes waste treatment processes and waste management techniques that produce fuels, heat and power (i.e. energy recovery). This includes EfW (including combined heat and power plants, such as the proposed Portland ERF).
- 6.124 The Dorset Waste Plan (para 9.3) also confirms that where the R1 energy efficiency formula value is calculated as being greater than 0.65, the process can be classed as a recovery rather than a disposal operation, placing it higher up the waste hierarchy. The Portland ERF has a design R1 value of 0.68 with no heat export, thus exceeding the 0.65 figure and will be a recovery operation. This figure would increase to 0.71 with heat export.
- 6.125 Paragraph 9.4 of the Dorset Waste Plan confirms that there is a need for recovery facilities in order to manage arisings of non-recyclable waste in line with the waste hierarchy, self-sufficiency and the proximity principle. It also accepts that this includes a need for capacity for managing non-hazardous residual waste, with policy 6 intended to enable the delivery of recovery facilities where these can meet the defined criteria.

- 6.126 Policy 6 (recovery facilities) states that proposals for the recovery of non-hazardous waste, including thermal treatment, will be permitted where it is demonstrated that they meet all of the following criteria:
- a) *the operation of the facility will support the delivery of the Spatial Strategy, contributing to meeting the needs identified in this Plan;*
  - b) *they will not displace the management of waste which is already managed, or likely to be managed, by a process which is further up the waste hierarchy than that being proposed, unless the Waste Planning Authority is satisfied that the proposal would result in benefits sufficient to outweigh the displacement;*
  - c) *proposals will provide for all operations including the reception, handling, processing and storage of waste to take place within an enclosed building unless there would be no proven benefit from such enclosure and demonstrate that the proposed operations will be compatible with existing or proposed neighbouring uses;*
  - d) *where energy is produced, they provide combined heat and power, or if this is demonstrated to be impracticable they recover energy through electricity production and are designed to have the capability to deliver heat in the future;*
  - e) *where gas is produced, it is injected into the grid, used for fuel or is refined for use in industrial processes, unless this would not be practicable; and*
  - f) *possible effects (including those related to proximity, species and displacement of recreation) that might arise from the development would not adversely affect the integrity of European and Ramsar sites either alone or in combination with other plans or projects.*

#### **Compliance with Policy 6 part a**

- 6.127 The proposed ERF will support the delivery of the Dorset Waste Plan's spatial strategy by providing new residual waste treatment capacity that is capable of meeting the recognised need in Dorset. The Dorset Waste Plan accepts that additional capacity may be appropriate elsewhere (other than the four allocated sites) to ensure that the capacity gap is adequately addressed and when it would result in a good spatial distribution of facilities.
- 6.128 The Dorset Waste Plan adopts a flexible approach under Policy 4, which permits the development of unallocated sites for waste management infrastructure provided proposals can meet the specified criteria.
- 6.129 The proposed ERF's compliance with the Dorset Waste Plan vision, strategic objectives, spatial strategy and Policy 4 (unallocated sites) are covered in detail above.

#### **Compliance with Policy 6 part b**

- 6.130 In 2018/19 the total quantity of municipal collected waste that is managed in Dorset was 380,415<sup>9</sup> tonnes, encompassing the Dorset Waste Partnership, Bournemouth Borough Council and Poole Borough Council. Some 52% (203,972 tonnes) was sent for recycling, composting or reuse, 46% (173,919 tonnes) was

---

<sup>9</sup> This figure does not match that quoted above for total local authority collected waste, due to the stockpiling of waste between reporting periods.

not sent to recycling (landfill and energy recovery) and 4% (17,217 tonnes) was estimated rejects.

- 6.131 Therefore, some 191,136 tpa of non-recycled waste is potentially available for treatment at the Portland ERF. Some of this waste is currently converted to RDF in Dorset, whilst the waste that is not currently turned into RDF could in future be processed at existing and future RDF production facilities and be managed at the Portland ERF.
- 6.132 The amount of local authority collected waste (LACW) that is not being recycled and is potentially available for energy recovery therefore exceeds the proposed ERF nominal capacity of 183,000 tpa.
- 6.133 However, the Dorset Waste Plan envisages that an ERF would not be confined to the treatment of LACW but would also take a proportion of C&I waste that has a similar composition and can be processed into RDF. This is in line with the strong national support given in the NWPE for greater integration in the treatment of MSW and C&I waste.
- 6.134 The levels of C&I residual waste that could be produced in the county and the wider catchment area exceed the amount of such waste that is likely to be accepted at the ERF.
- 6.135 The alternative to taking residual C&I waste at the ERF could be for that waste to be landfilled (for which Dorset has no capacity), or to be exported out of the county or country.
- 6.136 The market in C&I waste is competitive. Just because the ERF would be able to process C&I derived waste does not mean that waste producers and contractors would necessarily send their waste to the Portland plant. The existence of a market in recyclable materials is likely to ensure that the Portland facility will not be the first port of call for the treatment of wastes which could otherwise be recycled. Thus, any concern that the existence of capacity for C&I waste in the ERF would act as a disincentive for C&I waste to be recycled is unlikely to be realised.
- 6.137 A concern expressed by objectors during pre-application is that the Portland ERF will act as a deterrent to recycling of waste. According to DEFRA figures for 2018/19, the rate of recycling and composting of LACW for the Dorset area as a whole has risen to around 54%. Alongside this, some 14% of Dorset's waste is sent to landfill and around 29% is sent to energy recovery (all of which are located outside of Dorset).
- 6.138 Although the achievement of higher recycling rates is desirable this has to be set against the investment that may be required in the provision of new or improved waste management facilities, such as MRFs and also anaerobic digestion plants to deal with food waste. Compared to the progress on recycling already made in Dorset, the level of investment needed to reach much higher recycling rates may not be justified by the amount and value of recyclable materials that are collected and managed.
- 6.139 Some who are opposed to the development of ERFs have argued that higher rates of energy recovery are incompatible with high rates of recycling. There is no reason why the UK cannot achieve high levels of both energy recovery from waste



and recycling. Energy recovery can go hand in hand with robust rates of recycling and composting. It is a question of appropriate contracting and within the control of the relevant waste authorities.

- 6.140 Given that the Portland ERF will only manage residual waste (RDF), which has been subject to pre-treatment to remove recyclable materials, it will complement existing recycling activities. Indeed, in providing a RDF recovery facility in Dorset the proposed ERF will encourage more processing of mixed wastes (that would otherwise be disposed of without any pre-treatment) and enable more materials to be recovered for recycling. The proposal will therefore work alongside recycling initiatives.
- 6.141 It is not considered that the capacity of the proposed Portland ERF is oversized, such that it would act as a deterrent to the recycling of either municipal or C&I wastes, or would in the context of Policy 6 part b) displace the management of waste which is already managed, or likely to be managed, by a process further up the waste hierarchy. The capacity of the ERF is below the level of feedstock available from Dorset.
- 6.142 Furthermore, some Dorset Waste Plan sites allocated for new residual waste treatment capacity are identified as having potential for intensification or redevelopment of existing waste management uses. In order to accommodate a large-scale ERF at these sites, there is a risk that the existing recycling and composting activities could be lost, or that their treatment capacity would be temporarily or permanently reduced, contrary to Policy 6 part b). The proposed ERF is not subject to such constraints.
- 6.143 The proposed ERF therefore fully accords with the provisions of Policy 6 part b).

#### **Compliance with Policy 6 part c**

- 6.144 The proposed ERF has been designed to ensure that the reception, handling, processing and storage of RDF takes place within an enclosed building, as demonstrated in the Design and Access Statement. Residual materials, from the process such as incinerator bottom ash (IBA) and air pollution control residue (APCr) are also contained within suitable storage areas and the movement of this material is carefully controlled.
- 6.145 The proposed ERF therefore fully accords with the provisions of Policy 6 part c).

#### **Compliance with Policy 6 parts d and e**

- 6.146 The proposed ERF will generate 18.1 MW with 15.2 MW available for export of electricity from residual waste. The plant has been designed with combined heat and power (CHP) capability and will be CHP ready at the point the facility commences operation. The proposed location at Portland Port, was identified as being particularly suitable for an ERF, because of the opportunities for delivering CHP. The proposal makes provision for the cabling and associated infrastructure required to enable the port to supply shore power to visiting cruise liners and other shipping. This would enable ships when berthed to turn off their diesel engines (usually kept running to maintain electrical power to all systems), significantly reducing fossil fuel emissions and greenhouse gases.

- 6.147 The supply of electricity onto Portland to meet any significant additional demand (such as shore power for the port or other energy intensive industrial activities) is constrained by capacity at the Chickerell Bulk Supply station. The proposal will supply energy to the local grid reinforcing the electricity network and increasing its efficiency.
- 6.148 The Portland ERF will be delivered as CHP ready. However, unlike many similar projects where only potential is deemed to exist, the applicant has identified a number of heat customers that could be supplied by means of a district heating network and worked closely with a specialist partner who could practically deliver this, post completion and operation of the Portland ERF. Opportunities have been identified to supply heat to the local prisons, leisure centre and new housing and evidence is supplied to demonstrate that these potential heat users are supportive of the proposals and would be interested in receiving heat from the facility if consented and built. Further details are provided in the CHP Heat Plan in respect to the provision of CHP.
- 6.149 The proposed ERF will be capable of providing CHP and therefore fully accords with the provisions of Policy 6 part d).
- 6.150 Criterion e is not relevant in this instance as the proposed ERF would not produce any gases for fuel or industrial process use.

#### **Compliance with Policy 6 part f**

- 6.151 The Portland ERF is designed to operate to all required emission standards and incorporates the latest emission control technology. Consideration has been given to possible effects from emissions on European and Ramsar sites within the locality, taking account of the findings of the air quality assessment (which forms part of the ES). Information has been supplied by means of a shadow Appropriate Assessment (SAA), as part of the application to enable the competent authority (Dorset Council) to undertake its own habitats regulation assessment. The conclusions of the SAA indicate that the proposed development would not adversely affect the integrity of these sites.

#### **Compliance with Policy 6 Residues**

- 6.152 The proposed ERF will give rise two incinerator bottom ash (IBA) and air pollution control residue (APCr).
- 6.153 The IBA arising from the combustion of residual waste, will be taken off-site to a fixed reprocessing facility at Greenwich or Avonmouth. Further metal is recovered in this IBAA production process (and consequently should improve overall recycling of Dorset waste with increased metals recovery over landfill). The IBA produced on-site will be transported by sea to Greenwich, using the existing port infrastructure. Upon reaching its destination the IBA would be processed and then re-used as a secondary aggregate for use in the construction industry known as Incinerator Bottom Ash Aggregate (IBAA). IBAA has many applications in the construction industry, such as block manufacture and in road building and is increasingly specified in public road contracts as it reduces pressure on virgin aggregate. The transfer of IBA by boat, rather than by road, and its recovery and reuse as secondary aggregate is a highly sustainable option for the treatment of IBA residue and prevent this material from going to landfill. However, in the event

that movement by boat is not possible at some juncture, the option of movement by road to the reprocessing facility at Avonmouth would be used. The EIA transport assessment assumes the worst case of road based export.

- 6.154 Policy 6 requires processing facilities for incinerator bottom ash to be located at or close to the source of the waste arising. IBA processing facilities are specialist facilities designed to deal with these types of residual materials and by aggregating material operate at a scale that is commercially economic. There is insufficient space available to accommodate an IBA facility on-site, and therefore the most practicable option is for the IBA to be transported by sea to a specialist IBA facility, or alternatively by road to a similar specialist facility at Avonmouth. However, opportunities may arise in future for IBA processing facilities to be developed elsewhere on Portland which would provide a local solution. This could be particularly relevant on Portland where waste aggregate from quarrying could play a substantial role. The applicant is willing to keep the IBA management strategy under review and consider options for managing IBA at a more local facility should this become available.
- 6.155 The APCr residues will be managed off-site, being transported by road to a specialist reprocessing facility located at Avonmouth, as one of the nearest appropriate installations. The process uses carbon dioxide gas to react with the APCr material creating a form of manufactured limestone. This product has many applications in the construction industry, such as light weight aggregate for use in trenching. The process used captures significant volumes of carbon dioxide within stable carbonates. The secondary aggregate produced typically captures more carbon dioxide than is produced in its manufacture and hence the aggregates are deemed to be carbon negative.
- 6.156 The applicant is committed to considering other sustainable options for the treatment of APCr, either on site or in the local area, that would further reduce travel distance and derive local community benefits, such as job creation and local product manufacturing and sales. As with IBAA, productisation of APCr could benefit from proximity to local Portland aggregate.
- 6.157 All residues arising from the plant's operation would therefore be managed in a sustainable way, being recovered and recycled for use in the construction industry and diverted from landfill, in accordance with the waste hierarchy. APCr and IBA will be transported by sustainable means to an appropriate installation with available capacity, in line with the requirements of the proximity principle.
- 6.158 The proposal therefore broadly complies with the requirements of Policy 6 in respect to treatment of residual materials.

### ***The need for residual waste capacity***

- 6.159 The NPPW (para 7) only expects applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities, where proposals are not consistent with an up to date local plan. Given that Policy 4 of the Dorset waste local plan permits waste management facilities to come forward on unallocated sites, provided relevant criteria are met, it is considered that the proposal for the Portland ERF is consistent with the local development plan.

6.160 Notwithstanding this, there is a demonstrable quantitative and market need for the recovery capacity proposed at the Portland ERF upon which considerable weight should be applied in decision making. This is set out in full in the Waste Need Statement, submitted with this application, and summarised in Chapter 4 of this statement.

### ***Road transport and the potential for taking up access by sea***

6.161 Dorset Waste Plan Policy 12 (transport and access), the NPPF, NPPW and other national and local planning policies seek to encourage the use of alternatives to road transport. The circumstances of the application site would enable access by sea to be provided for the proposed ERF.

6.162 The ES and Transport Assessment have considered the potential impact of transporting 100% of RDF to the Portland ERF by road, as this represents a worst case scenario, and concluded that this would not give rise to an unacceptable highway impact. However, it is anticipated that in practice, only around 75% of the ERF's feedstock would be transported by road from Dorset and its wider catchment area. The remaining approximately 25% of RDF is expected to be transported to the site by sea.

6.163 The flexibility that the site's port location affords, enables the proposed ERF to receive residual waste by sea. The movement of waste by sea is considered to be a sustainable mode of travel in comparison to road transport and would reduce the need for road transport.

6.164 The ability to receive residual waste by sea, and reduce the need for road transport is a significant sustainability benefit of the proposal in accordance with Dorset Waste Plan Policy 12 (transport and access), which encourages maximum use of alternative transport modes to road transport. This should therefore be afforded significant weight.

### ***Compliance with other development management policies***

6.165 The planning application is accompanied by an Environmental Statement that reports the findings of the environmental impact assessment. A formal scoping exercise was undertaken in January 2020 and as a result it was determined that the following environmental topics should be considered within the environmental statement: air quality, community, health and economics, traffic and transport, carbon and greenhouse gas emissions, cultural heritage, ground conditions and water quality, landscape and visual effects, the World Heritage Site, natural heritage and waste.

6.166 Topics scoped out of the EIA such as noise and vibration, flood risk and lighting have been considered in supporting technical reports.

6.167 The environmental assessment work has also looked at the potential for cumulative effects with other developments in the area that are either existing or have received planning approval. This approach is in line with regulatory requirements.

6.168 The findings of the EIA are contained within the ES that accompanies the planning application. The proposed development will lead to a number of changes to the

local environment, but a range of measures will be put in place to minimise potential significant adverse effects and enhance beneficial effects. The proposed mitigation measures and the significant effects of the proposals that are predicted to remain after mitigation are summarised in more detail in chapter 14 of the ES.

6.169 The following tables summarise the proposed ERF’s compliance with key policies (addressed in detail above) and other relevant environmental policies contained with the development plan, taking account of the findings of the ES and other technical assessments.

*Table 6.1 Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019*

<b>Policy ref</b>	<b>Policy</b>	<b>Compliance</b>
Policy 1 Sustainable waste management	Mirrors the NPPF to reflect the presumption in favour of sustainable development. Proposals for the development of waste management facilities must conform with the principles of the Waste Plan	Fully compliant The ERF will facilitate more sustainable waste management practice and accord with the underpinning principles of the Dorset Waste Plan. It will increase Dorset’s residual waste treatment capacity, enabling Dorset to reduce its export of residual waste, therefore becoming more self-sufficient and further in line with the proximity principle. It will divert more residual waste from landfill thus pushing the management of residual waste further up the waste hierarchy towards recovery without compromising recycling efforts.
Policy 2 Integrated waste management facilities	Support for waste management facilities if there are no unacceptable cumulative impacts on the local area	Fully compliant The ERF is located in Portland Port, where opportunities exist to link with existing and future complementary activities, such as leisure, commercial and military shipping (which requires the provision of shore power) and other energy related business.
Policy 4 Applications for waste management facilities not allocated in the Waste Plan	Sets out the requirements for waste management facilities on unallocated sites	Fully compliant The policy provides flexibility for unallocated site to come forward to reflect changing circumstances driven by the waste market. The proposed ERF could not be accommodated at allocated sites and the site at Portland provides significant advantages over the allocated sites, including provision of shore power at the port (helping to safeguard the port and assist future economic growth), support for a viable local heat network serving existing identified heat customers, improving the efficiency of the electricity supply network and providing wider socio-economic benefits from job creation and the support of cruise ship related tourism. It would not prejudice any existing waste activities at allocated sites, indeed these could support the ERF as part of a RDF production and supply network. In recovering energy from RDF (processed to remove all recyclable material) it will complement recycling activities and in reducing landfill would fully accord with moving waste further up the waste hierarchy. The ERF is located on a site

Policy ref	Policy	Compliance
		with an extant consent for an industrial energy facility, which is safeguarded employment land that has been previously developed, compatible with existing and planned uses in the area. The proposals can demonstrate that they would not adversely impact upon the integrity of European sites.
Policy 6 Recovery facilities	Proposals for recovery facilities should support delivery of the spatial strategy and meet the needs of the plan area, not displace existing activities further up the waste hierarchy, enclose activities within buildings, provide CHP where possible or at least demonstrate ability to provide CHP in future, and they would not have an adverse impact on the integrity of European or Ramsar sites. Residues should be managed in line with waste hierarchy and proximity principle and IBA to be located at or close to the source of waste arisings.	Fully compliant The Portland ERF will be able to treat residual waste arising from Dorset in Dorset. It has been demonstrated that the ERF could not be located at allocated sites because of operational or environmental constraints and that the Portland site has significant advantages over the allocated sites (as per Policy 4). The ERF would provide a focal point in a spatial network of waste management facilities, with the allocated sites processing residual waste to extract recyclables and producing RDF for recovery at Portland. This supports the spatial strategy and meets the plan area's needs. The ERF would divert more waste from landfill and accord with the waste hierarchy. The main process facility would be enclosed within a building. The ERF would supply a shore power facility for shipping, would support a viable local heat network, and make the local electricity grid more efficient. The ES and SAA undertaken demonstrates that the proposals would not have an adverse impact on the integrity of European sites. Both IBA and APCr will be transported to appropriate licensed facilities for recycling and reuse in accordance with the waste hierarchy and as close as possible to the site. Where this is not possible, in the case of IBA, this will be transported by ship to enhance sustainability.
Policy 12 Transport and access	A transport assessment should demonstrate a safe access and sufficient highway improvements to mitigate or compensate for any significant adverse impacts	Fully compliant A transport assessment has been undertaken which demonstrates that a safe access can be achieved and that the HGV movements associated with the facility when considered in the context of the overall highway network and traffic levels would not give rise to any significant highway impact.
Policy 13 Amenity and quality of life	Proposals must demonstrate that any potential adverse impacts on amenity arising from the operation of the facility and any associated transport can be avoided or mitigated to an acceptable level	Fully compliant The ERF is designed not to give rise to any significant adverse effects on amenity and its location within a commercial port places the facility away from any sensitive receptors. The ES and other supporting technical studies indicate that with appropriate mitigation and management measures in place there would be no significant adverse impact in terms of noise and vibration, airborne emission including dust, litter or windblown material, vermin, birds and pests or loss of privacy.

Policy ref	Policy	Compliance
		<p>The assessment indicates that traffic generation would not give rise to an unacceptable level of impact and that the site is not subject to any land stability issues. The ERF has been carefully and sensitively designed, with guidance from landscape officers, to minimise visual impact on the local setting and character and wider views from designated landscape areas such as the AONB and the WHS. The outline CEMP demonstrates how the commitments made in the ES will be implemented during the construction phase. It also sets out the monitoring and auditing activities that should be undertaken to demonstrate that such mitigation measures are carried out and that they are effective. The Lighting Statement has considered the potential impact from lighting and has devised an appropriate lighting strategy that would mitigate any impact from light spill to an acceptable level.</p>
<p>Policy 14 Landscape and design quality</p>	<p>Requires compatibility with their setting, character and quality of the landscape</p>	<p>Fully compliant                      The ERF has been carefully and sensitively designed, with guidance from landscape officers, to minimise visual impact on the local setting and character and wider views from designated landscape areas such as the AONB and the WHS. The design reflects the local geology of Portland and its immediate cliff setting, with this also translated into the use of appropriate cladding materials to provide a high quality building that provides a landscape feature, but also successfully blends into its surroundings to limit visual impact. The ES (Landscape and Visual Impact Assessment) recognises that whilst the development would result in some impact, overall this is deemed to be acceptable.</p>
<p>Policy 15 Sustainable construction and operation of facilities</p>	<p>Requires proposals to demonstrate that the site design, layout and operation takes account of climate change mitigation and resilience</p>	<p>Fully compliant                      The proposals incorporate sustainable design and construction principles including the use of recyclable materials where possible and recovery of construction waste as set out in the framework SWMP. It minimises water usage and as an energy recovery facility (also with PV panels) will generate its own power all of which will be either renewable or low carbon energy.</p>
<p>Policy 16 Natural resources</p>	<p>Sets out the requirements for waste management facilities in relation to water resources, ground conditions and agricultural land</p>	<p>Fully compliant                      The ES concludes that the ERF will not give rise to any adverse impact on the quality or quantity of water resource, ground conditions are suitable for this use. As previously developed industrial land there are no soils to be protected and no loss of high quality agricultural land,</p>
<p>Policy 17 Flood risk</p>	<p>New waste management facilities in flood zones 2 and 3 and of one hectare or</p>	<p>Fully compliant</p>

Policy ref	Policy	Compliance
	greater in flood zone 1 require a flood risk assessment and must comply with the set requirements	The ERF is located in Flood Zone 1 (low risk) and is not subject to any significant flood risk. The Flood Risk Assessment has been undertaken and this has not identified any significant risk of site flooding. A sustainable drainage system has been devised, as an integral part of the site design and landscaping strategy, to manage surface water and would not give rise to flooding occurring elsewhere.
Policy 18 Biodiversity and geological interest	Proposed waste management facilities must not adversely affect the integrity of designated sites and, where practicable, enhance biodiversity and geological interest	Fully compliant The ES and SAA demonstrate that the proposed ERF and its associated process, traffic and ship related emissions to air would not adversely affect the integrity of European sites, or other designated ecological sites. This position has been discussed with Natural England and Dorset Council. It is recognised that the ERF would lead to a loss of the existing on-site habitat and off-site mitigation is proposed to deliver a net biodiversity gain, by introducing measures to enhance other agreed ecological interests and habitats.
Policy 19 Historic environment	Requirement to demonstrate that heritage assets and their settings will be conserved and/or enhanced	Fully compliant The ERF will result in some change to the setting of heritage assets, with this being within the slight to moderate range of significant adverse effects. Overall, the proposed ERF would not lead to any substantial adverse effects on heritage assets.
Policy 22 Waste from new developments	Sets out the requirements in relation to waste from new developments	Fully compliant The proposals include measures for the separation and storage of waste from staff areas for recycling. The ERF itself is a waste management facility that would facilitate recover energy from residual waste that cannot be re-used or recycled.

Table 6.2 Adopted West Dorset, Weymouth and Portland Local Plan 2011-2031

Policy	Policy summary	Compliance
ENV 1 Landscape, seascape and sites of geological interest	Requirements set out in relation to the character, special qualities or natural beauty of the Dorset Area of Outstanding Beauty or Heritage Coast.  Development should not detract from and enhance the local landscape character.  Appropriate measures to moderate adverse effects of development on the landscape and seaside will be required.	Fully compliant As per Dorset Waste Plan Policy 14 above.
ENV 2 Wildlife and habitats	Proposals should not have adverse impacts on the designated wildlife sites and habitats	Fully compliant As per Dorset Waste Plan Policy 18 above
ENV 3 Green infrastructure network	Development should not harm the green infrastructure network	Fully compliant The ERF is located on previously developed industrial land within thin an operational port and would not cause any significant harm to the green network



<b>Policy</b>	<b>Policy summary</b>	<b>Compliance</b>
ENV 4 Heritage Assets	Thorough assessment of designated or non-designated heritage assets and demonstration of how proposals would positively contribute to the assets' conservation. Any harm would need to be justified.	Fully compliant As per Dorset Waste Plan Policy 14 above
SUS 2 Distribution of development	Within development boundaries, employment development to meet the needs of the local area will normally be permitted	Fully compliant The proposed ERF site is located in Portland which is identified as a focus for new development.
ECON 2 Protection of key employment sites	Within key employment sites, applications for B1, B2 B8 and other similar uses will be permitted subject to proposals not having a significant adverse impact on surrounding land uses	Fully compliant The proposed ERF is a waste management use, which is considered to be a similar use to B2 employment and therefore does not conflict with the objective of this policy to protect key employment sites. The ERF will generate new jobs. The site is also subject to an extant planning consent for an energy plant, using waste material as fuel and the principle has been established.
Policy COM 11 Renewable energy development	Generally permits proposals for generating heat or electricity from renewable energy sources where ever possible provided the benefits of the development, such as the contribution towards renewable energy targets, significantly outweigh any harm taking account of potential impacts and mitigation in respect to local landscape, areas of historical interest, residential amenity and wildlife sites and biodiversity.	Fully compliant The proposed ERF will generate a proportion of renewable energy (and lower carbon energy) from the biodegradable element of residual waste for production of heat and power to be used locally. Mitigation measures have been introduced to ensure that impacts on landscape, cultural heritage, amenity and ecology are minimised and overall the scheme delivers significant benefits that outweigh any residual harm.

Table 6.3 Minerals Strategy 2014

<b>Policy ref</b>	<b>Policy</b>	<b>Compliance</b>
SS1 Presumption in favour of sustainable development	Mirrors the NPPF in its presumption in favour of sustainable development	Fully compliant The proposed ERF represents sustainable development
SG1 Mineral Safeguarding Area	Requires demonstration that the sterilisation of proven mineral sources will not occur as a result of the development nor pose a serious hindrance to future mineral development in the vicinity	Fully compliant Whilst the site lies within a Minerals Safeguarding Area, the site comprises previously developed industrial land located within the operational Portland Port. The site has previously been occupied by port buildings and is subject to an extant consent for an energy plant. The proposed ERF would therefore not lead to the sterilisation of any mineral resources.
SG2 Mineral Consultation Area	Requires consultation with the County Council for proposals	Fully compliant As per Policy SG1 above the proposed ERF would not constitute inappropriate development in a Mineral Consultation Area.

Table 6.4 Portland Neighbourhood Plan 2019

Policy ref	Policy	Compliance
Policy Port/EN0 Protection of European Sites	Reflects other local development plan policies that protect the integrity of European sites	Fully compliant As per Dorset Waste Plan Policy 18 above
Policy Port/EN1 Prevention of flooding and erosion	Supports development in areas protected from coastal flooding	Fully compliant As per Dorset Waste Plan Policy 17 above. The proposed site is not subject to coastal flooding.
Policy Port/EN2 Renewable energy development	Supportive of proposal for energy generating infrastructure using renewable energy or low carbon sources, subject to no unacceptable effects on stated interests	Fully compliant The proposed ERF will recover renewable and low carbon energy from residual waste and therefore is in accordance with this policy.
Policy Port/EN4 Local heritage assets	Reflects other local development plan policies which seek to maintain or enhance the character and setting of designated or non-designated heritage assets	Fully compliant As per Dorset Waste Plan Policy 19 above
Policy Port/EN6 Defined development boundaries	Supports development within the defined development boundary of Portland, subject to consideration of other policies	Fully compliant The proposed site is located within the defined settlement boundary of Portland.
Policy Port/EN7 Design and character	requires design to take account of existing surrounding development, be of high quality and make use of local materials, take account of local character and where possible incorporate or enhance existing landscape features	Fully compliant As per Dorset Waste Plan Policy 14 above.
Policy Port/BE1 Protecting existing employment sites and premises	Generally aims to preclude the loss of key employment areas	Fully compliant As per West Dorset, Weymouth and Portland Local Plan Policy ECON 2 above
Policy Port/BE2 Up- grading of existing employment sites and premises	Generally supports the improvement, modernisation or upgrading of current employment sites and premises subject to criteria	Fully compliant The proposed ERF site comprises an area of previously developed industrial land, which is vacant having been cleared of buildings. The redevelopment of the site would result in the improvement of this industrial area.
Policy Port/BE6 The northern arc	Recognises the economic and employment potential of the northern arc and the aim to improve the environmental quality of the area.	Fully compliant The site is located with the Portland northern arc which is identified for its employment and growth potential.
Policy Port/ST1 Sustainable tourism development	Supports proposals that extend or expand existing tourism uses, subject to consideration of specific criteria	Fully compliant The proposed ERF will provide energy to the shore power facility, which will enable cruise liners to switch off their diesel engines whilst in port. Cruise liners are increasingly expecting ports to be able to provide shore power facilities to deliver more sustainable cruise based tourism.

Policy ref	Policy	Compliance
		The provision of this will help to safeguard cruise liner visits in future and maintain and encourage grow in this part of the tourism sector. There is no evidence that the presence of the ERF located within the existing industrial port area, and screened from many public viewpoints, would preclude visitors from coming to Portland or cruise liners from continuing to visit Portland. The Economic Impact Assessment provides details of the benefits for local tourism associated with providing a shore power facility at the port.

### ***Other technical considerations***

#### **Human health risk**

##### *Human Health Risk Assessment*

- 6.170 Public concern regarding health impacts of waste disposal facilities has mainly focused on concerns around the impact of incineration on air quality and the risk this may pose to nearby residents. The literature indicates that modern, well-regulated and well-managed waste incinerators only make a very small contribution to local concentrations of air pollutants<sup>10</sup>. There is also currently no evidence directly linking waste disposal facilities to negative health effects<sup>11</sup>. Nonetheless, there is a need to be aware of, and responsive to, concerns and anxiety which may exist amongst the public and communicate with regard to this issue.
- 6.171 The applicant has commissioned a comprehensive Air Quality Impact Assessment (ES chapter 4 and Technical Appendix D) and Human Health Risk Assessment (HHRA), in accordance with the quantification methodology used by the Department of Health’s Committee on the Medical Effect of Air Pollutants (COMEAP) and the Clean Air for Europe (CAFE) programme. The HHRA undertaken by ERM notes that in order to be meaningful, the risks to health due to the emissions from the ERF need to be considered in context. Residual wastes are inevitable and must be managed appropriately, and the ERF offers many advantages over landfilling.
- 6.172 The HHRA has assessed the human health risk effects of SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub> and PM<sub>2.5</sub> in respect to emissions from the proposed Portland ERF, and concludes that the increased exposure to these will have an insignificant effect on the health of the local population. Furthermore, these impacts are considered only in the context of the increase in PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub> and SO<sub>2</sub> arising from the operation of the ERF and associated HGV traffic. The HHRA does not consider the off-set of the emissions that will be achieved with shore power provision in Portland. The provision of shore power will greatly reduce the emissions of PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>2</sub> and

<sup>10</sup> Public Health England 2019. Municipal waste incinerators emissions: impact on health. Retrieved from: <https://bit.ly/2Q9kKpn>

<sup>11</sup> Public Health England 2019. PHE statement on modern municipal waste incinerators (MWIs) study. Retrieved from: <https://bit.ly/2E6nVvR>

SO<sub>2</sub> arising from shipping emissions, as ships will no longer need continually to run engines to provide power.

- 6.173 Moreover, it is important to recognise that the ERF is treating and disposing of large quantity of waste which must be dealt with by some means. This would very likely be landfill, which is also associated with emissions to air and road traffic. Therefore, the assessment of health effects does not take place against a 'zero effect' alternative. All options have some implications for health.
- 6.174 The HHRA has also assessed the lifetime health risk associated with the proposed ERF. The risk assessment process for dioxins/furans and metals is based on the application of the US EPA Human Health Risk Assessment Protocol (HHRAP). Overall, the assessment concluded that the risk to health due to emissions from the ERF plant are negligible, in terms of both carcinogenic and non-carcinogenic risks. Further details are provided in these respects in the HHRA submitted with this application.

#### *Health Impact Assessment*

- 6.175 The applicant has also commissioned a Health Impact Assessment (HIA) which considers how a range of socio-economic, physical, mental and community health outcomes might be affected by the activities associated with the construction and operation of the proposed ERF. It concluded that there would be some benefits from increased employment during construction, which would be temporary, and benefits from job creation at the operational stage would be permanent. The HIA concludes that the income generation resulting from the proposed ERF may improve health and wellbeing across Weymouth and Portland, and the wider Dorset area.
- 6.176 It concluded that any potential effects on social capital and subsequent health impacts during construction will therefore be temporary and not likely to be significant. Also, given that the predicted increase in HGV traffic is less than 2.5%, representing a negligible increase in local traffic, the predicted effects are not likely to be significant in terms of severance, driver and pedestrian delay, and pedestrian amenity on all road networks.
- 6.177 Reflecting the findings of the ES and the HHRA in respect to air quality and health, the HIA concludes that it is unlikely that the construction of the ERF would result in any discernible permanent health effects due to the temporary and intermittent nature of the construction phase. It also states that the predicted increase in airborne concentrations will also be small and confined to a relatively small area.
- 6.178 The HIA refers to the ES which predicts the significance of effects on air quality at human receptors to be negligible during operation. The potential change from traffic emissions during operation are both described as negligible. Therefore, the HIA concludes that there is not anticipated to be any overall net changes in emissions within the local area once the proposed ERF is operational and it is not likely that any measurable change in health outcomes would occur for local communities.
- 6.179 The HIA considers health effects from noise and vibration during construction and operation. It notes that construction noise is unlikely to cause annoyance for residents in nearby properties as the nearest residential properties are over 500m

away. The noise impact assessment concluded that the construction noise levels at all receptors will be below the existing background noise levels and therefore unlikely to pose significant health impacts. The HIA notes that the vibration assessment concluded that with mitigation in place, it is expected that no significant effect of vibration would remain.

- 6.180 The HIA refers to the noise impact assessment which concludes that noise from the proposed development during operation may from time to time be audible at some locations, but at a level that is below the assessment criteria, including the night time level. It recognises in the HIA that the proposed ERF will be designed, and include any mitigation, to ensure that overall noise levels from operation of the whole development comply the required noise limits at sensitive receptors.
- 6.181 The HIA considers potential health effects associated with an increase in traffic levels. It concludes that it is not anticipated that the likelihood of Road Traffic Accidents (RTAs) will increase or these impacts will be significant due to the transport chapter concluding only low percentage increases (just over 2%) in traffic associated with construction. Given that no issues were identified with the existing road network, and the negligible increases in traffic predicted as a result of the proposed development, no highway safety issues are predicted to be generated by the proposals. Therefore, it is considered that there will be a negligible effect on accidents and safety that is predicted not be significant.
- 6.182 The HIA considers the potential effects on health associated with changes to the character of the site and the character of surrounding areas, together with landscape and visual effects during the construction and operational stages. The HIA states that this impact is not predicted to lead to significant negative health effects, and that because there are no significant landscape or seascape character effects predicted, visual effects will be felt only within the immediate site vicinity, and the highest degree of effect predicted is moderate.
- 6.183 A number of mitigation measures have been generated as a result of the EIA and supporting environmental studies and are reported in the ES and stand alone environmental reports. The HIA has identified a number of potential impacts to health and wellbeing, in particular, associated with the construction phase of the proposed ERF. Mitigation identified within the ES will contribute to the reduced potential for such impacts and in addition, a series of further recommendations are set out below to further minimise residual impacts to health and wellbeing (see HIA for details).

## Utilities

- 6.184 A Utilities Assessment has been prepared and submitted with this application. It considers the potential availability of, and connectivity to, potable water supply, telecommunications, gas and electricity. Initial investigations have not highlighted any concerns or engineering difficulties with servicing the proposed development with new water, electric or telecommunications. There is no immediate supply of gas at the site but containerised solutions are commonplace and acceptable here. Sufficient capacity with the remaining services networks is or can be made available in order to adequately serve the proposed development. The assessment concludes that there is no reason, from a utility constraint or supply availability perspective, that any services would preclude the grant of planning permission.

### ***The need for residual waste capacity***

- 6.185 The NPPW (para 7) only expects applicants to demonstrate the quantitative or market need for new or enhanced waste management facilities, where proposals are not consistent with an up to date local plan. Given that Policy 4 of the Dorset waste local plan permits waste management facilities to come forward on unallocated sites, provided relevant criteria are met, it is considered that the proposal for the Portland ERF is consistent with the local development plan.
- 6.186 Notwithstanding this, there is a demonstrable quantitative and market need for the recovery capacity proposed at the Portland ERF. This is set out in full in the Waste Need Statement, submitted with this application, and summarised in chapter 4 of this statement.

### **Sustainable design**

#### ***Design approach and evolution***

- 6.187 The Dorset Waste Plan (paragraph 12.51) requires waste management facilities to be of high design quality and contribute positively to the character and quality of the area in which they are located, taking account of the local landscape context. They should be of an appropriate scale and form and use appropriate materials so as not have an unacceptable impact on the local landscape character and key landscape features.
- 6.188 In designing the proposed Portland ERF, careful attention has been given to understanding the site's location, context and setting and then devising a design that respects this and makes a positive contribution to the area in which it is located. At an early stage in the design process consideration was given as to whether the approach should be to adopt a landmark approach, or a more recessive approach.
- 6.189 The design team consulted with Dorset Council landscape officers to understand what the most appropriate approach should be to reflect the site's location. This concluded that whilst the building should be of a high architectural quality and could in some respects become a landmark feature, the building should blend in with Portland, with its geometry picking up on vegetation and the geology of the cliffs and quarries.
- 6.190 The Design and Access Statement (section 3) provides further details of the design approach development and the options considered. Having studied the local geological features, the building design was developed to reflect the angular features of the Portland geology, the exposed cliff face stone and vegetation.
- 6.191 Section 3 of the Design and Access Statement provides details in respect to the consideration of massing and layout, in respect to geological and geometric inspiration, site layout, stack design and location, and massing in context. Specific attention was given to the potential design improvements that could be made beyond the very basic industrial design of the extant approved energy plant and the basic form required to accommodate the proposed ERF's process technology.

- 6.192 Detailed consideration has also been given to the proposed building envelope and section 4 of the Design and Access Statement provides detail of the façade development. Having established the principle of reflecting both the grey cliff face and green vegetated elements of the site's landscape context, further examination was given to the material composition. This concluded that the green clad wall should be predominant, wrapping around the front of the boiler house, largely concealing the taller element of the building, with the taller element to the rear subject to a grey cladding that from longer distance views could replicate the exposed limestone cliff face.
- 6.193 Further consideration was given to material details and horizontal banding to reflect the patterns naturally observed in Portland geological strata. Various options were considered as to how this could best be reflected in the façade treatment. Sections 4.3 to 4.7 of the Design and Access Statement provide details of the various options considered and the preferred option.
- 6.194 In addition, the building design incorporates a louvred plinth running along the base of the building. This has carefully been designed to contain any odour within the building (which will operate under a negative pressure), whilst also allowing suitable ventilation and providing a constant aesthetic to ground the building from long distance views.
- 6.195 A number of options were considered for the green wall element of the building, including plain green cladding (as adopted on other recently approved projects in this area), a living green wall, angled metal blades and a printed solution either onto a robust PVC mesh or directly onto cladding. Sections 4.8 to 4.12 of the Design and Access Statement provide more details of each approach with section 4.13 assessing each option in context to determine which option are most effective in camouflaging the building.
- 6.196 Consideration has also been given to the most appropriate stack colour in section 4.15 of the Design and Access Statement. This concludes that a neutral battleship grey provides the least visually prominent solution and reflects many of the existing structures in the port.
- 6.197 Section 5 of the Design and Access Statement draws together and provides details of the final proposed ERF design. This covers:
- massing principles (section 5.1)
  - site layout (section 5.2)
  - office building layout (section 5.3)
  - plant building layout (section 5.4)
  - concept elevational treatment (section 5.5)
  - final proposals (section 5.6)

- 6.198 The Design and Access Statement confirms that the proposals do meet the requirements of Dorset Waste Plan Policy 14 (landscape and design quality) and specifically part a) in that it comprises a sympathetic design and location, and part b) in that it demonstrates an appropriate use of scale, form, mass, layout, detailing and building orientation.
- 6.199 The building has been designed to be of a high quality and conserve the character and quality of the landscape. The design approach has sought to ensure that the proposed buildings are appropriate to an industrial port setting, but also deliver a higher degree of design quality than many of the port's older existing industrial buildings, or the extant consented energy plant. It has also been careful through the design evolution to respect the immediate Portland landscape and seascape setting and wider views from the AONB and WHS. In these respects the design has inherently sought to include mitigation to minimise any adverse impact on landscape quality in accordance with Dorset Waste Plan Policy 14 part c).
- 6.200 As set out in the landscape and visual impact assessment (see above), forming part of the ES, whilst the proposed ERF would give rise to some change to the character of the site and also change views of the site from the surrounding area, it is predicted that these changes will be very localised and only affect very small parts of the overall landscape character areas. No significant effects are predicted on the character of any of the surrounding landscapes, including those that lie within the AONB, WHS and heritage coastline. Furthermore, consultation has been undertaken with the Dorset Council AONB officer and representatives of the Jurassic Coast Trust, through the ERF design evolution process, to ensure that the design is appropriate to its setting and that there are no unacceptable adverse impacts upon the special qualities that underpin the relevant designation.
- 6.201 The proposals therefore, accord with the provisions of Dorset Waste Plan Policy 14 (landscape and design quality) in safeguarding the landscape and scenic beauty of the AONB and WHS. They also accord with the requirements of West Dorset, Weymouth and Portland Local Plan Policy ENV1 (landscape, seascape and sites of geological importance) in recognising the importance of these assets and the need for development to be located and designed sensitively in these respects, and Portland Neighbourhood Plan Policy Port/ENV7 (design and character) in being of high quality, making use of local materials and taking account of local character.

### ***Access, movement and servicing***

- 6.202 Section 6 of the Design and Access Statement provides details in respect to access, movement and servicing aspects of the proposed ERF. It describes how the site and circulation has been designed to safely accommodate deliveries and collections. It also describes the provision for car access and parking, (including disabled parking) provisions for sustainable movement by pedestrians and cyclists (including cycle spaces).
- 6.203 Appropriate provision is made for waste storage arising from staff administration and welfare areas, specifically recycling bins, and waste collection. This closely aligns with part b) of Dorset Waste Plan Policy 22 (waste from new developments).



### ***Inclusive design***

- 6.204 The proposed ERF has been designed to meet appropriate regulations, policy and guidance in respect to providing an inclusive environment. Both the main plant and the office building have been designed to be as inclusive as practicably possible. Section 8.1 of the Design and Access Statement provides further details. Provision includes level access and egress and limitation of gradients to no greater than 1:20, wheel chair accessible lifts and toilets, and provision of two disabled parking spaces.

### ***Sustainable design and construction***

- 6.205 Dorset Waste Plan Policy 15 (sustainable construction and operation of facilities) requires built waste management facilities to demonstrate that the site design, layout and operation make provision for climate change and resilience in respect to the following factors.

#### **Sustainable construction practices**

- 6.206 The applicant is committed to adopting a sustainable approach to construction, design and operation. This will include using recycled materials for construction. The Framework Site Waste Management Plan (SWMP) also considers measures as to how waste arising from the construction activity can be avoided and where waste occurs how this can be re-used or recycled in accordance with the waste hierarchy. Section 3.4.1 of the SWMP confirms that the project will strive to minimise construction waste and table 2 sets out the good practice waste minimisation practice to be adopted for the construction phase. This includes sustainable procurement, supply chain partners, avoiding wasteful working practice, materials management and investigation of modern methods of construction.
- 6.207 Section 3.4.2 of the SWMP confirms the applicants commitment to re-using any existing materials and construction elements wherever possible. Where waste is produced materials will be recycled to reduce the amount of waste that would need to be disposed of.
- 6.208 The proposals will therefore look to maximise the use of recycled construction materials, and then during the construction process aim to minimise the production of waste, and maximise re-use and recycling. The operation of the proposed ERF itself will produce residual materials, such as IBA and APCr. These materials will be sent to appropriate licensed facilities for treatment and processing for use as secondary aggregate materials for use in the construction sector.
- 6.209 The proposed ERF fully complies with the objectives of Policy 15 part a) and part a) of Dorset Waste Plan Policy 22 (waste from new developments).

#### **Water efficiency**

- 6.210 The proposed ERF has been designed to reduce water consumption both through the plant operation and the office function. As set out in section 3 of this planning statement, process water will be recovered for re-use, minimising the need for fresh water use. The office and staff administration areas will be equipped with water efficiency measures, again with a view to minimising water consumption.

The proposed ERF is therefore fully compliant with the objectives of Dorset Waste Plan Policy 15 part b).

### **Sustainable landscape design**

- 6.211 The proposed ERF is located on previously developed industrial land within the exiting operation port. Whilst the majority of the site will comprise built development, where possible landscaped areas have been incorporated into the scheme design as shown on the proposed landscape strategy drawing with further details provided in section 7 of the Design and Access Statement.
- 6.212 The landscape planting is intended to provide amenity and provide a range of features and habitats that will maximise the biodiversity of the development. This strategy is integrated with the surface water drainage strategy, which includes channeling, storage and filtration features, including swales and rain gardens. Given that the site is in a very exposed maritime location this naturally restricts planting to species that will thrive in those conditions. New planting will be primarily locally native plants, but the proposals will include some small areas of more ornamental planting including non-native plants, appropriate in this distinctive maritime location, to provide year-round interest and biodiversity value.
- 6.213 The landscape design has contributed to sustainable development objectives, by integrating sustainable surface water drainage and using appropriate plant species for a marine environment, that together will add climate change resilience to the proposals. The proposed ERF is fully compliant with the objectives of Dorset Waste Plan Policy 15 part c).

### **Energy efficiency**

- 6.214 Policy 15 part d) requires waste management facilities to minimise energy demand and heat loss in the design and operation of all new built waste development. The proposed ERF has been specifically designed to minimise energy demand, and therefore the facility will be equipped with low energy lighting where this is appropriate in operational terms and any appliances required for staff office and welfare will be low energy rated.
- 6.215 Additionally, a proportion of the energy generated from the treatment of residual waste will be used to operate the facility and there will be no need for the import of energy for operation. The proposed ERF is fully compliant with the objectives of Dorset Waste Plan Policy 15 part d).

### **Renewable and low carbon energy**

- 6.216 The proposed Portland ERF will recover energy from the combustion of residual waste in the form of RDF. The plant will be capable of generating 18.1 MW of electricity with 15.2 MW of electricity for export. The recovery of energy from residual waste (RDF) that cannot be recycled is in part deemed to be renewable energy (the biogenic element) whilst the non-biogenic element is not. Overall the electricity produced is categorised as low carbon.
- 6.217 The proposed Portland ERF makes provision for the implementation of a shore power facility to be installed at Portland Port. This will enable renewable/low carbon power to be used to power visiting cruise liners and other shipping (such

as the RFA) whilst berthed in port. This will allow shipping to end the practice of 'cold ironing' where by less efficient marine diesel engines are run to provide power. This will result in a significant reduction of around 4,500 to 5,500 tonnes of CO<sub>2</sub> emissions per annum and reduce other ship exhaust emissions, leading to a further environmental benefit.

- 6.218 The proposal also makes provision for the installation of photovoltaic (PV) panels on the roof of the RDF storage building, which will be capable of generating a further approximately 0.5 MW of renewable power.
- 6.219 The need for renewable and low carbon energy is addressed in Chapter 4 of this statement and the Energy Need Statement, whilst the benefits in respect to the ERF's ability to provide a shore power facility at Portland Port, supply heat to a local heat network and support local energy network efficiency are addressed later in this chapter and addressed further in the Energy Need Statement and Shore Power Strategy Report.
- 6.220 Given the combination of all of these measures the proposed ERF can fully meet the requirements of Dorset Waste Plan Policy 15 part d).

## **The proposal and wider sustainability objectives**

### ***Generation of energy from non-fossil fuel sources***

#### **National policy compliance**

- 6.221 The Portland ERF is in a location that could provide a more distributed network of power generation in the county, especially to Portland. Provision of such distributed generation would accord with Government climate change objectives for capacity and carbon reductions associated with local energy supply.
- 6.222 National Policy Statement for Energy (EN-1) (para 3.4.3) states that future large-scale renewable energy generation is likely to come from various sources, including energy from waste. It confirms that the principal purpose of the combustion of waste, is to reduce the amount of waste going to landfill in accordance with the waste hierarchy and to recover energy from that waste as electricity or heat. It adds that only waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill should be used for energy recovery. Also, energy produced from the biomass fraction of waste is renewable.
- 6.223 EN-1 specifically highlights the potential for EfW derived CHP, where by waste heat is used to drive electricity generation and steam/lower grade heat is supplied to customers via heat networks. It recognises that this approach can reduce the amount of fuel otherwise needed to generate the same amount of heat and power separately. EN-1 policy guidance also recognises that using less fuel to generate the same amount of heat and power reduces emissions, particularly CO<sub>2</sub> ( para. 4.6.3). Part 5 sets out policy for the assessment of impacts which are common across a range of technologies (generic impacts), including energy from waste.
- 6.224 The proposed Portland ERF facility fully accords with Part 4 of EN-1 by facilitating the generation of renewable / low carbon energy from residual waste, the reduction of greenhouse gas emissions associated with disposal of waste to

landfill, and introducing the potential future opportunity to utilise CHP systems. The ES and supporting technical documents, submitted with this application, address the matters covered in Part 5, and conclude that any identified impacts are avoided or mitigated to an acceptable level. EN-1 affords national energy policy support.

- 6.225 National Policy Statement for Renewable Energy Infrastructure (EN-3) provides guidance in respect to energy from waste. It confirms that electricity generation from renewable sources of energy is an important element in the Government's development of a low-carbon economy. It confirms that the recovery of energy from the combustion of waste, where in accordance with the waste hierarchy, will play an increasingly important role in meeting the UK's energy needs. Where the waste burned is deemed renewable, this can also contribute to meeting the UK's renewable energy targets. Furthermore, recovery of energy from the combustion of waste forms an important element of waste management strategies in both England and Wales.
- 6.226 Whilst related to energy from waste projects considered under DCO procedures, the EN-1 and EN-3 guidance can be a material consideration for energy from waste projects determined through the Town and Country Planning Act. The proposed Portland ERF is deemed to be in compliance with both EN-1 and EN-3 national energy planning policy.
- 6.227 One of the key planning objectives in the NPPW is to seek to use waste as a resource. Deriving energy from residual waste is in keeping with this objective. In doing so and as sought by the draft NECP the Portland proposal would generate energy in a location that would be close to potential users of the supply and where electricity infrastructure is constrained.

### **Meeting UK energy demand**

- 6.228 The Energy Need Statement which supports this application considers future UK energy demand in the UK and how the proposed Portland ERF would contribute towards meeting this need.
- 6.229 It recognises that over the past decade, the UK's electricity demand has declined slightly, primarily due to efficiency gains and a shift away from energy-intensive economic activity. However, in order to achieve the UK's Net Zero emissions by 2050, many previously carbon-intensive activities will need to be electrified, leading to an expected increase in electricity demand between now and 2050.
- 6.230 The Energy Need Statement recognises that sources differ as to the extent of this increase. However, as a result of electrification, the total electricity demand and peak demand are expected to increase by 70% and 93% respectively, between 2018 and 2050, due to increased efforts for decarbonisation with greater electrification of heat, more electric vehicles, and an increase in the production and use of hydrogen as a substitute for natural gas. The transition from higher carbon intensity forms of energy generation to those with lower carbon intensity and supporting security of supply, as is the case for the proposed Portland ERF, is an important contributor to meet this future demand profile.

- 6.231 The greatest demand for electricity is expected to come from the transport sector, especially road transport. Annual transport demand for electricity is expected to increase by more than 20,000% between 2018 and 2050, driven by the electrification of vehicles, reaching c. 90 TWh per year by 2050. Under this Net Zero scenario, no internal-combustion engine vehicles would be sold by 2035 and no conventional or hybrid vehicles would be on the road by 2050. This significant demand increase for electricity will have to be supported by investment in the national electric charging infrastructure, including the installation of public and workplace charge points to shift demand away from an evening peak created by domestic charging.
- 6.232 There is also likely to be future demand for electricity for the wider shipping sector. The specific benefits of providing shore power to docked cruise ships and Royal Fleet Auxiliary (RFA) ships in Portland Port are discussed in detail below. In the longer term, this need may also apply to commercial vessels but, on the whole, the commercial shipping market has been much slower to take up environmental interventions compared to the cruise market, which faces increasing pressure from its customers to do so.
- 6.233 Demand for electricity for hydrogen production is expected to dramatically increase between 2018 and 2050. While current demand is negligible, it is predicted to reach c. 68 TWh per year by 2050. This demand is driven by the production of hydrogen for transport, which must be done via electrolysis to attain the required level of purity. In a Net Zero future, all heavy goods vehicles would be electrified or powered by hydrogen, leading to a major increase in the demand for electricity to power hydrogen production.
- 6.234 The proposed ERF will therefore be capable of making a renewable and lower carbon contribution towards meeting expected future energy demands and especially in relation to existing and future electricity demand in the transport sector (road and ship). This significant benefit should be afforded substantial weight in decision making.

### **Security of supply**

- 6.235 The Energy Need Statement considers the role of the Portland ERF in improving the security of supply nationally and locally.
- 6.236 Nationally it concludes that over the past decade, the UK's electricity generation mix has undergone a profound change. The reduction in coal and increase in renewables has resulted in a decline in emissions; however, these have been offset to some extent by increased reliance on natural gas. Consequently, more needs to be done to ensure greenhouse gas reduction targets are achieved, whilst also ensuring that energy demand is met to avoid driving energy prices higher.
- 6.237 The change in energy mix has been driven by low carbon incentive mechanisms. A future energy mix could comprise a mixture of renewables and low-carbon technology supported by energy storage and Carbon Capture & Storage (CCS). The exact mix of technologies to deliver a net zero carbon future is uncertain with a number of projections in the public domain, however, renewables will play a significant role.

- 6.238 The Energy Need Statement states that onshore and offshore wind, solar PV and nuclear power alone cannot fulfil the UK's power demand. A portfolio approach (including other renewable and low carbon sources) with a diverse generation mix is crucial for ensuring security of supply. Future increase in demand will only exacerbate the need for diversity.
- 6.239 The Energy Need Statement notes that the Weymouth and Portland area has no ERF plants, with the majority of its 3.32MW of low carbon and renewable energy provided by solar PV (3.23 MW) with some onshore wind (0.06MW) and hydro (0.03)<sup>12</sup> In the wider West Dorset area, the portfolio is more diverse with anaerobic digestion and landfill gas in addition to solar PV, onshore wind and hydro making a total of 48.02MW (51.24MW including Weymouth and Portland) per annum from renewable and low carbon sources, though solar PV is still heavily relied upon making up 39.91MW of the total.
- 6.240 The ERF at Portland Port will produce, net of its own parasitic demand, up to 15.2MW of electricity. It is expected to operate around 8,000 hours per annum and generate some 122GWh. Where there is demand from shipping for shore power, shipping will be served from the plant and the remaining generation will be exported to grid. Around 20% is expected to go to shore power each year and 80% to the grid.
- 6.241 It is normal for a plant of this scale to be connected to the public distribution network. The local distribution network operator (DNO) in this area is Scottish and Southern Electric (SSE). The applicant Powerfuel Portland Ltd has applied to SSE for a connection for 15.2MW export and 5MW import and accepted the offer made by SSE. Through the application process SSE has assessed the impact of the generation on its ability to operate a reliable distribution network and included the modification necessary to upgrade its network for the plant. SSE will be confident that connection of the ERF will have no impact upon its ability to provide supplies to its customer which is regulated by Ofgem.
- 6.242 The Energy Need Statement states that electricity generated at the ERF and exported onto the grid will, due to its location on the electrical network, provide electricity to consumers in the vicinity. This will displace electricity flowing from the national grid and will reduce losses in the electrical system. As such it will provide a benefit for all consumers. The ERF has the capacity to meet the maximum demand for electricity from Portland's Primary Substation. The excess will feed to the Chickerell Bulk Supply Point and be distributed to Weymouth and other local Primary Substations.
- 6.243 The ERF will also have the capability to generate around 0.5 MW of electricity from PV panels installed on the roof, which would provide zero-carbon power and would contribute to energy security through the diversity of local energy supply.
- 6.244 The proposed ERF will support renewable and low carbon generation in both Portland and the wider Dorset area. Also, because of its location on the supply network the ERF will provide electricity to local consumers and has secured an appropriate connection to the local supply network that will not cause any impact

---

<sup>12</sup> Joint Annual Monitoring Report, West Dorset and Weymouth and Portland, 2018/19

on existing supply. All of these are significant factors that lend significant support to the proposals.

### **Shore power facility**

- 6.245 The Portland ERF is located within Portland Port, a commercial port operation and significant local employer. The port has identified the ERF as a suitable project that is capable of supporting the port's future commercial development and particularly the objective of providing a shore power facility. At most UK ports, shipping (most typically at Portland visiting cruise liners and the RFA) maintain their on board power supply through the practice of 'cold ironing', whereby the ship's marine oil fuelled engines are run whilst they are docked in port. This practice results in continuous emissions from the exhaust systems.
- 6.246 There is a desire to move away from this practice towards visiting shipping simply plugging into the port's existing electricity grid. The port is not able to economically provide the power necessary to offer shore power facilities. The Energy Need Statement concludes that whilst it would be technically feasible to build a grid connection to provide shore power, the high capital costs of this significant infrastructure, likely to be in the region of £20 million, would outweigh any environmental or economic benefits meaning it would be more cost effective to continue burning diesel for fuel. A standalone project, like the Portland ERF, is therefore considered to be the only commercially viable way in which shore power can be achieved and Dorset supported towards its decarbonisation target. There are also benefits associated with reductions in NO<sub>x</sub>, SO<sub>x</sub> and particulates.
- 6.247 The port faces commercial risks associated with its inability to provide shore power facilities, in terms of maintaining and expanding its trade, with its associated socio-economic benefits in terms of job support, creation and distribution of income through Weymouth and Portland, Dorset, the wider region and nationally. The Portland ERF therefore is able to meet a specific port need and deliver associated socio-economic benefits, that other allocated waste sites could not achieve.
- 6.248 International shipping (together with aviation) has not previously been subject to the UK Government's carbon reduction obligations and targets. However, attention is now being turned to these sectors to consider how these might also contribute towards the Government's objective to bring all greenhouse gas emissions to net zero by 2050, compared with the previous target of at least 80% reduction from 1990 levels. The aspirations to reduce greenhouse gas emissions and other airborne pollutants emitted from the shipping sector are reflected in the Government's 2019 Maritime 2050 vision and the Clean Maritime Plan tasked with deliver this vision.
- 6.249 The ERF's ability to support a shore power facility at Portland Port, and eliminate 'cold ironing practice' would help meet the need for the UK shipping sector to reduce carbon emissions. It would also help to reduce the emission of other airborne pollutants, arising from ship exhausts, which are not subject to any form of clean up technology.
- 6.250 The Carbon Assessment, supporting this application, assessed the amount of carbon dioxide emissions that would be saved through the introduction of a shore power facility at Portland Port, supplied by energy generated by the ERF. It

concluded that the ERF operating at the nominal capacity of 183,000 tonnes per annum would have the benefit of saving between 4,500 and 5,500 tonnes of CO<sub>2</sub>e per annum. This benefit would increase if the ERF were to operate at its maximum capacity of 202,000 tonnes. This significant carbon saving would accord entirely with the objectives of national carbon reduction targets, strategies and policies and specifically would facilitate the decarbonisation of the shipping/cruise sector, a sector which has found it particularly challenging to deliver meaningful carbon reductions.

- 6.251 These benefits, derived from recovering energy from residual waste, must be viewed in the context of a national legally binding commitment to achieve a net zero carbon target by 2050, the wider environmental sustainability policy, strategy and objectives and the national and local Portland/Dorset declarations in respect to action to address the climate emergency. These factors must be attributed great weight in terms of decision making.

### **Local supply constraints for shore power**

- 6.252 The UK strategy to address climate change is to move towards a low carbon economy, with a switch from electricity generation from fossil fuels to renewable and low carbon sources. As part of this it is likely that there will be more domestic and commercial demand for electricity in future, for example associated with the move towards electric vehicles. Whilst the grids will inevitably evolve to meet demand in the long term, the proposed Portland ERF will help to improve the efficiency of the electricity supply grid in the short to medium term by boosting supply to the local grid, facilitating the move towards the low carbon economy.
- 6.253 As addressed in more detail in the Shore Power Strategy Report and Energy Need Statement, these constraints create difficulties in seeking to supply a shore power facility via grid connected options.
- 6.254 Shipping typically uses electricity at a frequency of 60Hz; UK grid frequency is 50Hz. Therefore, conversion of electricity from 50Hz to 60Hz is required. The scale of demand from shipping at Portland, up to 15MW requires substantial distribution infrastructure to the docking points at high voltage, and transformation to connection voltages at the docks. The electricity infrastructure at the port will be required whether electricity is supplied from the grid, generation or both.
- 6.255 Docks are typically supplied with electricity from the UK transmission and distribution grid (grid). Substantial additional capacity above that needed for general port operation is needed for shore power. This can be provided by one of the following ways:
- upgrading of the existing port grid connection,
  - new grid connection and independent infrastructure for shore power,
  - on or near site generation, connected to existing port electrical infrastructure,
  - on or near site generation, connected to independent infrastructure for shore power.



- 6.256 For Portland Port to deliver shore power to the largest cruise ship and an RFA ship simultaneously, additional capacity of circa 15MW would be required. Electricity on Portland is distributed by local distribution network operator (DNO) Scottish and Southern Energy (SSE). Portland is supplied from Chickerell Bulk Supply Point, which feeds nine other primary substations. SSE's forecast data indicates that Chickerell Bulk Supply Point will have just 15.97MW spare capacity by 2023/24. Adding 15MW for shore power will have a significant impact upon SSE's network which will require investment by future parties requiring further electricity capacity.
- 6.257 The upgrading of the port's existing grid connection to circa 20MW will have serious impacts upon the port, including the need for a new primary substation and significant upgrading of the existing port electrical infrastructure. The cost for such an arrangement is likely to be prohibitive as would the costs for a new 15MW grid connection (likely to be in excess of £20m would make the provision of shore power uneconomic).
- 6.258 Generation, whether connected directly to grid or connected to Portland Port infrastructure would require approval from SSE as the DNO. It is understood from SSE that Chickerell Primary Substation has little or no capability for further generation to be connected to it without the addition of an additional 132/33kV transformer. The cost for such an arrangement is likely to be prohibitive.
- 6.259 The proposed Energy Recovery Facility (ERF) already has a connection contract with SSE for a 33kV connection. Its generation capacity of 15.2MW enables it to supply the shore power infrastructure at 33kV with a simple cable connection.
- 6.260 There are currently no commercially viable alternative options to provide grid connected shore power for Portland Port other than from the proposed ERF.
- 6.261 An alternative option to grid connection is an island system, comprising either:
- generation located at dock side for direct connection to vessels
  - remote generation with associated electrical distribution to dock side for connection to vessels.
- 6.262 The Shore Power Strategy Report provides more detail on these options but concludes that given the high electrical demand from docked ships, the only current feasible dockside generation is from containerised internal combustion engines. Such engines typically operate on diesel or potentially bio-diesel. Providing shore power through a diesel generator would have no benefit in reducing greenhouse gas (CO<sub>2</sub>) emissions or reducing the emission of other pollutants.
- 6.263 Hydrogen fuelled internal combustion engines are feasible, but are currently produced in limited numbers and with outputs well below that needed for shipping at Portland.
- 6.264 Remote generation has the potential for other forms of generation and renewable generation in particular, for instance wind, solar photovoltaic and tidal. All of these forms of generation are intermittent and without grid connection require electricity storage to be able to provide a continuous shore power service. Both would

require substantial battery storage. There is insufficient suitable unallocated space on the port for such installations. Tidal generation is not sufficiently developed to be considered.

- 6.265 The Shore Power Strategy Report concludes that Island based system are not feasible options for shore power at Portland Port due to latent emissions or the scale of renewable generation required.
- 6.266 The proposed Portland ERF is the only commercially viable and practical option for generating and providing the electricity necessary to supply a shore power facility at Portland Port, and the only option to realise the significant reductions in carbon and other pollutants that can be achieved by reducing the need for visiting cruise liners and stationed RFA shipping to run their diesel engines (cold-ironing) whilst in port. This provides further justification for the location of the ERF within Portland Port, as opposed to other allocated locations, and the ability to supply a shore power system is a substantial material consideration that weighs in favour of the proposal.

### **The production of heat to be used elsewhere (district heat network)**

- 6.267 A CHP Heat Plan has been prepared and submitted with the application which:
- identifies potential heat consumers to connect to the network
  - undertakes a heat study to establish the financial metrics associated with connecting to these consumers and determine the peak demand(s)
  - calculates the electricity export sacrifice for connecting to these consumers
  - determines if the ERF meets the R1 'recovery' standard
- 6.268 The CHP Heat Plan confirms that there will be an opportunity for steam and/or low temperature hot water to be recovered for delivery to an off-site district heating network. The ERF will be designed with a steam turbine that can generate both electrical power and heat via an extraction point to potential heat consumers. At day one the ERF will operate in a power only mode but will operate as a CHP as soon as a district heating network is connected .
- 6.269 The district heating network itself is not part of this planning application but it is envisaged that a district heating network will be connected as soon as reasonably practicable.
- 6.270 There are a number of potential users of heat that have been identified in or around Portland Port, that could form part of and benefit from a district heating system or network. These include HMP the Verne and the Young Offenders Institute (YOI), which has a substantial heating demand, local community leisure centre with swimming pool, and a new housing development proposed adjacent to the site.
- 6.271 In the UK many other energy recovery facilities have been developed that are deemed to be 'CHP ready'. This means that the facilities can supply heat to heat customers either by means of a direct link or as part of a wider heat network. However, in many cases at the planning stage there are often no confirmed off-

takers of this heat and so the ability to generate greater efficiency from the thermal process can only be regarded as potential, that can only be realised if and when heat customers are found.

- 6.272 The applicant has placed emphasis on ensuring that once planning permission is granted for the ERF, there is a realistic prospect that a heat network will be implemented and that the mechanisms necessary for its delivery are in place. It has been working closely with a delivery partner with expertise in this respect, who would be responsible for overseeing the successful planning, construction and operation delivery of the district heating network. The applicant has also entered into a development agreement with its district heating delivery partner, which confirms its intention to ensure that a viable heating network is capable of being delivered to serve the local community, should planning permission be granted for the Portland ERF.
- 6.273 In addition to securing a delivery partner, the applicant has been in contact with the identified potential local heat off-takers to discuss their heat requirements and ascertain their interest in receiving heat. It is understood that the Ministry of Justice has expressed an interest in connecting to the ERF should a district heat network become available, to supply heating to HMP the Verne and the YOI, as has the Osprey leisure centre.
- 6.274 The ability to implement a heat network to serve local heat customers has the effect of increasing the overall efficiency of the ERF (R1) from 0.68 to 0.71, and will bring local economic and environmental benefit in terms of supplying renewable / low carbon heat at reduced cost.
- 6.275 Further details setting out how a local heat network could be implemented in the future are provided in the CHP Heat Plan that is submitted in support of this planning application.
- 6.276 For clarity, this planning application does not include any development necessary for the implementation of the local heat network (such as pipes, pumping stations or other infrastructure), other than the infrastructure necessary at the ERF itself (and within the confines of the application red line boundary) to enable a future heat network to be connected and for the facility to provide heat to that network.
- 6.277 The ability to provide viable CHP is a significant benefit of the scheme and a locational advantage (compared to other allocated sites) that should be attributed significant weight.

### ***The supply of community power***

- 6.278 The proposed Portland ERF has the potential to supply lower cost/discounted electricity to the local Portland community. Whilst the electricity recovered from residual waste will primarily be exported to the distribution grid, the applicant is considering options for partnering with supply organisations that offer innovative energy supply products.
- 6.279 Chapter 7 of the submitted Energy Need Statement considers in more detail the potential for tariffs (for economic and social good). The Portland ERF could, via a licenced supplier, facilitate a special discounted tariff available to key workers. Whilst at present no such energy tariff is available in the market, the Covid-19

pandemic has reminded the nation of the need to support those providing essential services. A discounted tariff available to for example, local residents suffering from fuel poverty or key workers may go a little way towards showing support, in a practical sense, to key workers instrumental in the fight against Covid-19.

6.280 The applicant recognises that the existing legislative and energy supply regulatory frameworks are challenging in this area. Nonetheless, as the Energy Need Statement concludes, the Portland ERF has the potential to offer favourable domestic tariffs, if approved by Ofgem, to those considered to be most in need. The applicant is willing to consider the potential for such supply to the local community should this become feasible in future.

### ***Carbon emissions and climate change***

6.281 Pre-application advice received from Dorset Council confirmed that the waste planning authority will be looking for evidence that proposals give rise to overall carbon reductions. This would include replacing local energy use for heating purposes with the heat generated by the facility and a comparison of the carbon footprint of the proposed facility with the carbon emissions of alternatives including the transportation of waste. The alternative options requested included:

- the carbon emissions of sending the same waste to landfill, including the transportation of waste to landfill sites with available capacity.
- the carbon emissions if sending the RDF to other Energy Recovery Facilities in the UK
- the carbon emissions if sending the RDF to other Energy Recovery Facilities overseas
- the carbon emissions of managing the RDF in Energy Recovery Facilities within Dorset on allocated sites.
- the carbon emissions of Dorset's current waste management practice

6.282 A Carbon Assessment has been undertaken by Fichtner and this has been submitted in support of this planning application. This has assessed the relative carbon emissions of sending approximately 183,000 tonnes (the nominal design capacity) and 202,000 tonnes (the maximum capacity) of residual waste to the Portland ERF, rather than to landfill. The calculation of carbon emissions from the ERF takes account of:

- the carbon dioxide released from the combustion of fossil-fuel derived carbon in the ERF
- the releases of other greenhouse gases from the combustion of waste;
- the combustion of gas oil in auxiliary burners; and
- the carbon dioxide emissions from the transport of waste and residues

- 6.283 The proposed ERF (at nominal capacity) is calculated to produce a total direct emission of 89,751 tCO<sub>2</sub>e annually from the combustion of fossil -fuel derived sources of waste (ignoring the biogenic content of waste which is considered to have a neutral carbon burden).
- 6.284 The assessment then gives credit for exporting electricity, displacing carbon emissions from other power stations. The power displacement factor used in the main assessment was obtained from the UK fuel mix table and reflects the marginal source of displaced electricity, which is currently gas-fired power stations. It is considered that the construction of the ERF would have little effect on how other renewable energy plants operate and that a gas-fired power station is a reasonable comparator for the purposes of this assessment. This approach was confirmed in the recent decision letter on the Development Consent Order for the Riverside Energy Park, a large energy-from-waste plant (ref. EN010093, dated 9 April 2020), the secretary of state said in paragraph 4.12 that “CCGT is the appropriate counterfactual against which the Development should be assessed.” This supports the approach taken in this carbon assessment.
- 6.285 The Carbon Assessment then compares the net emissions from the ERF with the net carbon emissions from sending the same waste to landfill, taking account of:
- the release of methane in the fraction of landfill gas which is not captured; and
  - the emissions offset from the generation of electricity from landfill gas.
- 6.286 Landfill is used as the comparator as this is the primary alternative treatment route available for residual waste. This is because the UK does not have enough ERF capacity to treat all residual waste, so a large quantity of UK residual waste goes to landfill. If a new ERF is built in the UK, this means that less waste overall will be sent to landfill and therefore, at a national level, the correct comparator is landfill. This approach is supported by national guidance, and recent planning precedent; specifically “Energy from Waste: A Guide to the Debate” and “Energy recovery for residual waste – A carbon based modelling approach”, both published by DEFRA in 2014. It is acknowledged that residual waste produced in Dorset does not all go to landfill at present and so the specific waste which would be processed at the Portland ERF might not currently go to landfill. Therefore, as requested by Dorset Council, the relative carbon benefits of the Portland ERF compared to alternative sites for an ERF in Dorset, elsewhere in the UK and Europe have also been considered, as well as the relative carbon benefits compared to current residual waste management routes in Dorset, which are a combination of landfill and ERFs outside Dorset. However, these comparisons do not take account of the second order effects, as any ERF which is currently processing residual waste from Dorset would need to secure waste from elsewhere and it is likely that the replacement waste will currently be going to landfill.
- 6.287 In the base case, the ERF is predicted to lead to a net reduction in greenhouse gas emissions of approximately 21,900 tonnes of CO<sub>2</sub>-equivalent (CO<sub>2</sub>e) per annum compared to the landfill counterfactual. At the maximum design capacity, this increases to 34,100 tonnes CO<sub>2</sub>e per annum.
- 6.288 The Carbon Assessment also concluded that if the Portland ERF was to export power to ships moored in Portland Harbour (as is proposed), avoiding the operation of diesel engines, then the carbon benefit of the proposed ERF over

landfill would increase by around a further 4,500 to 5,500 tonnes of CO<sub>2</sub>e emissions per annum.

- 6.289 The Carbon Assessment considers the potential net carbon emission benefit from exporting heat via a local heat network. It found that the carbon benefit of the ERF over landfill would increase by around a further 3,000 tonnes of CO<sub>2</sub>e emissions per annum.
- 6.290 Hence, the Carbon Assessment concludes that the overall benefit of the ERF at the nominal design capacity, while exporting heat to a district heating scheme and power to ships moored in the port, is estimated to be about 30,000 tCO<sub>2</sub>e per annum. This would be increased if operating at the maximum design capacity.
- 6.291 Sensitivity analysis was applied for different grid displacement factors and different landfill gas recovery rates. The assessment identified a net reduction of greenhouse gas emissions within a range of -6,700 to 69,200 tonnes of CO<sub>2</sub>e emissions per annum. A predicted increase in greenhouse gas emissions could only occur if there is a high landfill gas capture rate, a low grid displacement factor, and no heat export and no export of power to ships, which is deemed a very unlikely combination of circumstances.
- 6.292 The benefit of the ERF over its lifetime will vary depending on how the electricity grid develops and when shore power and district heating are implemented. The “baseline” to which actual ERF emissions are compared will be adjusted dynamically in future to account for these changes. However, the Carbon Assessment includes an illustrative conservative calculation which shows that the ERF could reduce greenhouse gas emissions by around 62,000 tCO<sub>2</sub>e over its lifetime. This reflects that there is a very strong net positive carbon position through to 2037, but given conservative assumptions in later years on changes to grid carbon intensity, the net position rises in those latter years.
- 6.293 As requested by Dorset Council, the Carbon Assessment has considered the other alternative scenarios. In all cases the direct carbon emissions from combusting waste are considered to be the same whether it is combusted at Portland or elsewhere. This means that, from a carbon perspective, the only differences between ERFs at different locations are the transport impacts for transporting waste and any differences in the carbon displaced by generating power or heat.
- 6.294 In the scenario where Dorset’s residual waste is exported to other UK based EfW facilities (assuming Lakeside and Marchwood EfWs as this is where some of Dorset’s residual waste is managed) the assessment concludes that sending Dorset’s waste to the Portland ERF would have a slight benefit over sending the same waste to Marchwood ERF. There would be a slight dis-benefit compared to the Lakeside ERF. However, this slight dis-benefit is more than outweighed by the advantages of exporting power to ships at Portland, which is not available at either of these EfW facilities.
- 6.295 In the scenario where residual waste is exported to other ERFs in Europe, the assessment recognises that such a comparison is complex given that the transport emissions are very different, the type of electricity which is displaced may be different and the potential for exporting heat will be different. Overall, the Carbon Assessment concludes that exporting residual waste to European EfW

plants may have a carbon benefit over sending waste to a UK plant, but it would not contribute to diverting waste, overall, from landfill. Neither would it contribute towards Dorset achieving self-sufficiency and lead to greater compliance with the proximity principle.

- 6.296 If the Portland ERF was to be located on one of the four sites identified in the Dorset Waste Plan, there would be a saving on carbon emissions related to the transport of waste to the facility. Carbon emissions associated with transporting waste by road to Portland ERF (673 tCO<sub>2</sub>e per annum) would be around 370 to 550 tCO<sub>2</sub>e higher than for the allocated Dorset Waste Plan sites. However, the Carbon Assessment concludes that the Portland ERF has three potential advantages which more than outweigh this disadvantage:
- potential for district heating with several potential customers identified, which would displace around 3,000 tCO<sub>2</sub>e per annum.
  - potential for exporting power to ships, which would displace around 4,500 to 5,500 tCO<sub>2</sub>e per annum.
  - potential for waste to be delivered by ship from longer distances away, with an associated reduction in road traffic emissions.
- 6.297 In respect to the existing management of Dorset's waste, the Carbon Assessment considers the potential carbon implications of diverting Dorset's waste from three routes (to ERF in the UK, to ERF in Europe and landfill in the UK). It concludes that the Portland ERF would result in an estimated carbon saving benefit of 7,200 tCO<sub>2</sub>e per annum. This saving does not take account of the additional benefits associated with the provision of shore power from the proposed Portland ERF, which would otherwise not be available.
- 6.298 In terms of achieving reductions in carbon dioxide emissions, the main benefit of the Portland ERF in carbon terms is primarily related to its potential to export power to ships (shore power) and ability to connect to a district heat network. As confirmed in the CHP Heat Plan, the Portland ERF can viably supply a new local heat network, and can go beyond 'potential' in so far as a heat network partner has already been engaged and support has been confirmed from local heat customers including Government departments and other local organisations responsible for operating existing facilities.
- 6.299 The Carbon Assessment demonstrates that the Portland ERF will deliver significant net reductions in carbon dioxide emissions compared to the counterfactual landfill option. It also demonstrates beneficial net carbon reductions in comparison to the existing pattern of Dorset's residual waste management (exported out of the county and the country), and can achieve greater benefit in comparison to other alternative allocated sites in the Dorset Waste Plan. None of the allocated sites can deliver the net carbon reduction benefits associated with shore power at Portland Port, and provide much less certainty as to their ability to deliver a local heat network.
- 6.300 As a consequence of these factors, the proposed Portland ERF can contribute towards meeting the UK Government's binding targets for carbon reduction, and responds positively to Dorset's climate emergency declaration. As such the

demonstrable net reduction in carbon emissions should be afforded great weight in decision making.

- 6.301 Furthermore, it can be demonstrated to be in line with Dorset Waste Plan Policy 4 that the provision of a shore power facility at Portland Port (supplied by the Portland ERF) and its associated reduction in carbon dioxide and other exhaust gases from shipping, represents a significant locational advantage over other allocated sites.

### ***Net zero carbon***

- 6.302 Objectors to energy from waste facilities sometimes refer to the emission of carbon dioxide to the atmosphere from combustion, contrary to policy objectives to reduce carbon and achieve net zero by 2050. That ignores the point (as set out above in relation to the Carbon Assessment) that the recovery of energy from residual waste can significantly reduce net GHG emission compared to the alternative options for dealing with the same waste. This highlights the fact that while waste continues to be generated, those responsible for it (wherever they sit in the chain from producers, consumers, collectors to disposers) cannot reduce to zero the emissions that arise in its management through its full lifecycle. In this case, the proposed ERF will lead to further carbon reductions both through the provision of shore power and the ability to supply heat to a district heat network.
- 6.303 However, the proposed ERF is not projected to be net-carbon negative for its entire operational life (as discussed in 6.291) when it is assessed a baseline that is dynamically adjusted through time to account for changed circumstances (e.g. to account for expected future decarbonisation of the grid generation mix). There are many variables used in such calculations that mean the reality is likely to be different than even the best model.
- 6.304 The applicant has decided, in order to create some certainty on the net carbon position in the long term to commit that the Portland ERF will operate as a net-zero carbon infrastructure asset for its operational life. It is believed that this would be the first such facility in the UK to commit to achieving net-zero carbon. This means that all process derived greenhouse gas (GHG) emissions from the combustion of the fossil-fuel derived component of the residual waste RDF, in excess of emissions from the counterfactual baseline, would be off-set by other measures and activities avoiding the emission of or removing an equivalent amount of GHG from the atmosphere.
- 6.305 The applicant has engaged with Pure Leapfrog, a specialist 3<sup>rd</sup> sector organisation that has expertise in carbon-off setting (having worked with organisations like airline BA or the London Stock Exchange), to determine how the Portland ERF could achieve a net-zero carbon position. Pure Leapfrog has been commissioned by the applicant to provide a route map for achieving its net-zero ambition, in a robust and defensible manner that can be verified. The Achieving Carbon Neutrality report submitted with this application provides further details as to approach that is proposed to achieve carbon neutrality, the types of measures that can be deployed, and the process by which the required carbon-offsetting can be assessed and verified in accordance with recognised standards.



6.306 The robust approach to achieving net-zero carbon is a process that can be subject to oversight of Dorset Council includes broadly the following stages:

- establish the most appropriate counterfactual “baseline” against which emissions will be measured (this is broadly established in the Fichtner Carbon Assessment);
- measure qualifying emissions from the operation during a specified multi-year compliance period of three to five years (based on actual fuel composition data and operational performance);
- calculate the net carbon position;
- decide on the specific offset approach (see below) and measures that will be put in place to achieve net-zero status in light of the agreed criteria;
- perform an independent review and verification to certify that the emission calculations were correct and that the required actions have been taken to achieve carbon neutrality in accordance with the agreed standards;
- maintain effort to reduce emissions and physically capture GHGs if and when possible (the financial incentive is to reduce wherever possible);
- dynamically adjust the baseline for subsequent compliance periods to account for changes such as a future ban on landfill, changes in waste composition, or changes in the generation mix feeding the UK grid.

6.307 In any period where the ERF is net carbon positive and where consequently no offset is required, the ERF operator will make a financial contribution, suggested by the applicant to be in the region £100,000 per annum to fund “voluntary offsetting measures” targeted at local measures with higher social impact and fuel poverty alleviation.

6.308 Whilst the applicant is willing to enter into a suitable planning obligation to ensure the ERF in operation adheres to the approach outlined above, it should be given no weight in the planning balance because it is a voluntary financial obligation in years when the facility is properly assessed as being net-carbon negative (i.e. reduces net emissions). Should the ERF be subject to another method of correcting the environmental externality, and compensating for carbon emissions such as a carbon tax or being included in a binding emissions trading regime, then that would be taken into account and double payments would not be made (but the agreed sum would set a floor price).

6.309 As explained in the Achieving Carbon Neutrality report, a carbon offset is a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere. Offsets are measured in tonnes of carbon dioxide-equivalent (tCO<sub>2</sub>e). One tonne of carbon offset represents the reduction of one tonne of carbon dioxide (or its equivalent) in other greenhouse gases. There are many types of carbon credit generating project types that exist. Including:

- Renewable energy – Including hydro, wind, and photovoltaic solar power, solar hot water and biomass power and heat production.
- Energy efficiency – these projects are fundamentally about using less energy (e.g. LED lighting or installing more efficient cooking stoves).
- Forestry – Forestry projects can involve either afforestation (the establishment of a new forest or reforestation (rebuilding existing forests.) REDD+ (a UN standard) projects stand for Reducing Emissions from Reforestation and Forest Degradation.
- Transport – These projects may involve switching transportation to less carbon intensive means or introducing new technologies to improve vehicle fuel efficiency.
- Agriculture – By changing agricultural process techniques to methods which are more environmentally friendly, significant reductions in carbon emission can be achieved.
- Water, sanitation and hygiene (WASH) – Projects which improve access to water, water treatment, improved sanitation and hygiene which contribute to climate change mitigation/adaptation can provide offsets.
- Methane capture – There are two types of methane projects. The first type captures and burns (flares) methane, converting it to less potent carbon dioxide and water. Alternatively, projects can capture methane and use it to produce hot water or electricity.
- Waste management and handling – These include projects that reduce the emissions from waste or water management such as composting, biogas etc

6.310 Objectors may question the validity of carbon off-setting and suggest that such proposals do not actually deliver on achieving carbon neutrality, or simply represent a statistical exercise. Such criticisms do not apply to this application because the applicant is prepared to back up its net-zero commitment by entering into a legal agreement with Dorset Council to ensure that the proposed ERF does achieve carbon neutrality. Whilst the precise measures to be applied have yet to be determined, carbon neutrality will be achieved through supporting a number of projects which may include those mentioned above, or sequestration through tree planting or re-wilding off-site or otherwise the use of verified carbon credits such as those marketed as Gold standard carbon credits by retail off-setters, or through supporting local community scale energy efficiency measures.

6.311 The applicant is also prepared to consider the incorporation of appropriate carbon capture technologies to the ERF, should these be proven to be technically and economically viable.

6.312 The commitment to achieving carbon neutrality, in addition to the benefits of low carbon energy recovery, will make a meaningful contribution toward the UK's statutory objective to achieve net-zero carbon by 2050. It also fully accords with the aims of all relevant national and local waste and energy policies that seek to maximise the generation of renewable and low carbon energy and minimise the emission of carbon.

6.313 Given that the applicant is committed to funding additional carbon off-setting measures in each year that the ERF reduces GHG emissions (compared to baseline), and in each year that the ERF increases GHG emissions (compared to the baseline) will compensate for this by purchasing carbon offsets, the proposed plant will reduce GHG emissions over its lifetime and will achieve carbon neutrality, or better in every operating year. This should be afforded great positive weight in the planning balance.

### ***Sustainable economic growth***

6.314 The Portland ERF is located in Portland Port, a former Ministry of Defence naval base, which closed in the 1990's. The nearby naval air station also closed soon after, with the result that the Portland economy suffered a severe shock from which it has not fully recovered. Despite efforts to regenerate the Portland economy over recent years, this has had limited success such that there remain pockets of social deprivation within the local community. Replacement jobs have tended to be seasonal, less well paid and reliant upon lower skill levels, than what was traditionally the case when the naval port was in operation.

6.315 There is a need to support the existing jobs at the port, in part by helping to secure its longer term future through the provision of new facilities, such as ship to shore power, and in part by providing a source of reliable and economic heat and power that can unlock the economic potential of the port and Portland as a whole, which has areas of designated employment land that have yet to be taken up.

6.316 An Economic Impact Assessment (see ES Technical Appendix F2) has been submitted in support of the application, which presents an assessment of the likely significant economic effects that are predicted to arise from the construction and operation of the proposed project. The underlying policy context informing the economy and economic development is sketched out in the accompanying Economic Baseline report (Appendix F1).

6.317 The economic analysis has been undertaken at up to three levels, with Level 1 being the smallest and the most local area of interest, being defined by the old local authority area of Portland and Weymouth, which was abolished last year. The second area of geographic interest is larger. Known as Level 2, it is defined by the combined areas of Dorset, Bournemouth; Christchurch and Poole. The highest geographical area is Level 3 which comprises the remainder of the UK.

6.318 The economic analysis takes account of the revenue or jobs generated by a particular economic activity that is lost to more distant areas is known as 'leakage', and the proportion of the proposed project's outputs/outcomes that are accounted for by reduced outputs/outcomes elsewhere known as 'displacement'. It also takes account of the multiplier effects that cause further economic activity (jobs, expenditure or income) associated with additional income and supplier purchases, that is greater than the economic activity that caused them in the first instance.

## Benefits from the construction stage

- 6.319 The analysis considers the effects of the proposals during construction. It notes that capital expenditure expected to be incurred in building and commissioning the ERF is estimated at £95m, and that just over a third of this gross capital spending (around £30.4m) would be concentrated in the Dorset, Bournemouth, Christchurch and Poole areas (i.e. Levels 1 and 2). Accounting for displacement there would be a direct spend of £18.8m in levels 1 and 2 and an indirect spend (for all areas including the wider UK of £8.7m. The applicant has already begun some contractual discussions with Dorset based plant hire companies, steel stockholders, building contractors, design and build specialists and civil engineers, further demonstrating the positive benefits in terms of spending and supply chain impacts on existing and new businesses.
- 6.320 The spend on construction of the proposed ERF will also support a large number of jobs. The Economic Impact Assessment finds that the overall construction would give a total of 276 direct FTE jobs across the Level 1 and 2 areas, with 19 more direct jobs across the remainder of the UK and a further 272 indirect job across the UK (some of these may also be within Level 1 and 2 areas). In all then, a total of 566 direct and indirect FTE jobs are expected to be either created or supported across the UK; an additional 38 (approximately) should also be supported via testing and commissioning, but the whereabouts of these is not yet known.

## Benefits from the operation stage

- 6.321 The Economic Impact Assessment also considers the economic effects of the proposed Portland ERF during operation in respect to spending and supply chain impacts on new and existing businesses, public sector receipts and employment. In respect to supply chain, the annual maintenance spend is anticipated to be £4m which will include £3m to be spent mostly in the Level 3 area (UK) and £1m to be spent on boiler/turbine and generator maintenance, some of which will be spent locally. Beyond plant maintenance, transport costs are likely to be considerable and most likely road haulage contracts will be awarded to local hauliers. If RDF is brought in by sea, employment would also be supported at the Port through loading and unloading activities. RDF brought in by ships will be unloaded and transported from the berth to the site by the existing stevedore at the port, Quest Underwater Services. This would have positive impacts on the port, on employment and economic activity, with associated benefits to the local economy.
- 6.322 In respect to public sector receipts, business rates payable to Dorset Council (which would not be payable without the plant) are expected to create around £600,000 of additional income for the council annually.
- 6.323 In respect to employment the Portland ERF is expected to create between 30 and 35 jobs. The Economic Impact Assessment has however, conservatively assumed that the proposed ERF to create some 30 directly employed FTE permanent jobs. Among these the following breakdown of occupation types are anticipated:
- Managers and directors, 3
  - Professional occupations, 3

- Skilled trades, 8
- Process, plant and machine operatives, 12.
- Administrative and secretarial, 4

6.324 The proposed development is expected to create between 30 and 35 full-time equivalent permanent jobs. Taking account of leakage and displacement to estimate net job creation, a minimum of 17 net new direct jobs will benefit the Weymouth and Portland area, with a further three net new direct jobs benefitting the wider Dorset, Bournemouth, Christchurch and Poole area. A further 62 net indirect jobs will be created nationally as a result of the proposed development, some of which will be within Weymouth and Portland and the wider Dorset area.

### **Education and apprenticeships**

- 6.325 Prior to opening, the applicant will be using its influence to encourage its construction contractors to operate an apprenticeship scheme so that two apprentices can be trained in construction trades.
- 6.326 After opening, the applicant has ambitions to create a long-term apprenticeship scheme to train an ongoing group of apprentices. The applicant has held preliminary discussions with Weymouth College regarding establishing apprenticeships for local young people on the project. In addition to the operational employment opportunities, it is anticipated that the proposed ERF will offer two apprenticeship positions, ongoing during its operation. Apprenticeships are likely to be offered in skilled trades such as electrician/engineer and will follow the BTEC qualification route. These new opportunities will be finalised as the construction timetable is confirmed.
- 6.327 An existing Portland company, Manor Marine, already runs a successful scheme. The applicant is collaborating with Manor Marine in order to develop opportunities for both companies' apprentices to benefit from the provision of a broader range of skills and experience, the scope of which would not be possible without joint collaboration.
- 6.328 The applicant is committed to inclusivity, involving the local community in what it does and playing a constructive role as a business and economic operator on the island of Portland. Once open, the operator of the plant will be legally restricted in the extent to which tours or site visits can be offered in order that the safety and security of visitors and staff can be guaranteed. That said, two separate audiences have been identified, educational trips and industrial tourists and plans for the ERFs construction have been developed such that once in operation, plant access can be provided to both groups. The facilitation of plant visits for educational visits and as part of an industrial tourism offer will help to ensure long-term involvement and engagement with the community throughout the plant's operation.
- 6.329 The provision of training and education in an area where there is a need for the improvement of skill levels and educational attainment is a significant benefit of the proposals and lends further weight to the case for granting planning permission.

## Economic benefit of power supply

- 6.330 The Economic Impact Assessment (see section 1.5.2.3) considers the economic benefit associated with provision of a shore power facility at Portland Port, in the context that the needs of any significant increases in the demand for power from newly located industrial customers could not be met through the use of current infrastructure capacity.
- 6.331 The estimated cost of the provision of capacity through means other than the plant is therefore at least £20m and potentially as high as £26m. Any new or upgraded demand from non-domestic consumers (certainly for bulk supply) would have to be paid for by the customer, acting as a disincentive to new investment. The impact is assessed as at least £20m opportunity cost of *not* going ahead with the scheme in the short-medium term.
- 6.332 The ERF is able to generate some 15.2MW of power for export itself and this power supply can be made available to the grid, to Portland-based companies or organisations via a 'private wire', or to other Portland heat customers via a district heating scheme, or to a combination of all three. There is therefore a considerable and positive economic benefit of the plant, in that it avoids the need for power infrastructure investment which can otherwise be provided through a 'private wire' arrangement.
- 6.333 The proposed ERF provides power capacity (via a private wire arrangement) that simply will not be there otherwise, without a very large investment. It is still possible that even with the plant, future changes in the use of electricity mean that Portland arrives at a position where it has insufficient power supplied relative to demand. However, without the plant, such an event is both more likely to happen and more likely to happen sooner.
- 6.334 The Economic Impact assessment considers in detail the economic benefits of the proposed ERF in relation to the provision of shore power and the associated commercial benefits to the port and the wider area, related to cruise ship tourism.
- 6.335 The assessment states that the extent of any post Covid-19 recovery, and indeed the continued success of the cruise business at Portland, could be threatened if the Port were unable to provide Shore Power, certainly towards the middle of the 2020s and beyond. There is considerable commercial and environmental pressure in the cruise ship sector to achieve greater efficiency and protect the environment by reducing emissions.
- 6.336 There is little prospect of the port being able to provide shore power in the absence of the proposed plant, and if it wished to, the costs are expected to be prohibitive. Therefore in the absence of the ERF, the port is unlikely to install shore power without Government or other financial assistance. Even if the infrastructure were in place, it is unlikely that power could be provided through the grid more cheaply than via the ERF plant private wire.
- 6.337 Predictions regarding the number of cruise ships that would no longer call at the Port without the installation of shore power (without the proposed ERF private wire) are conservative, in order that the positive effects of shore power (and the plant) are not exaggerated. The impact of the loss of business will be felt firstly by

the Port and its stevedoring suppliers, and also by coach trip and transport operators, in the form of lost income, potentially leading to lost employment.

- 6.338 The Economic Impact Assessment considers the effect of not providing shore power on local cruise related tourism spend over 3 different time periods – 20 years, 25 years and 30 years.
- 6.339 Without shore power, the number of lost cruise calls at Portland Port is predicted to result in the loss of on-shore passenger spending of between £3 and £4.3m per annum (gross, before displacement is removed) of spending in the Level 1 and 2 areas combined. This is equivalent to the loss of approximately £2-£3m of annual local tourism spend. This does not include impact on coach hire companies, the Port itself, stevedoring services, bunkering or any other cost – this solely relates to expenditure made by passengers whilst on day trips. Furthermore, the assessment indicates that without the provision of Shore Power, Areas Level 1 and 2 would lose an average of between 36 and 52 FTE permanent jobs. The number of jobs lost increases with the length of the assessment period, because as time advances more cruise ship calls (and tourist visits) are lost.
- 6.340 The assessment demonstrates that the tourism spend figures (facilitated through the plant's provision of shore power to the port, which supports existing and future cruise ship calls) are quite considerable, amounting to tens of millions of pounds over the operating period of the plant. The ERF is therefore able to ensure the continued economic impact of short to medium term growth in cruise ship calls and then continue to support them at the Port's intended level of 65 per year.
- 6.341 It has been suggested by objectors that the Portland ERF would have an adverse impact on local tourism. There is no evidence to suggest that the provision of this type of facility has such a negative impact, and there are operational waste facilities in the centre of several popular European cities (often deliberately located centrally because they feed urban heat networks). This includes the plants in the centre of Vienna and Copenhagen which have become tourist attractions. It seems rather far-fetched that an ERF located in an operational port on previously developed land and on a site where an energy plant has already been consented, would dissuade visitors from coming to Portland or the wider Dorset area. The application site would not be directly visible from many parts of Portland itself, is not publicly accessible, and the potential impact on views from popular tourist locations would be quite limited given the distance between these areas and the site, and the careful design approach applied to the ERF building that has ensured that this blends in with its surrounding cliff context.
- 6.342 As demonstrated by the Economic Impact Assessment, the proposed ERF will support the economic provision of shore power facilities at the port which will enable the port to continue to attract cruise liners to the port, and grow this sector further, with the benefit of the passenger spend in the local area. If the ERF is not approved, the shore power facility is unlikely to be provided at Portland Port and the loss of cruise liner business would lead to a significant loss in tourist related income and related jobs.
- 6.343 Rather than adversely impacting on tourism, the proposed ERF (by providing shore power) would positively support and grow the cruise liner business and bolster the area's tourism sector. The economic benefit of this should be regarded

as a significant material consideration, weighing in favour of the grant of planning permission.

### **Economic benefits of carbon reduction**

- 6.344 The Economic Impact Assessment considers the monetised benefits of carbon reduction arising from waste combustion, shore power and district heating. The full details are provided in the assessment, however it concludes that (based on a central price scenario, a nominal ERF capacity of around 183,000 tonnes per annum and 25 year period) the monetised saving from reducing greenhouse gases is expected to be in excess of £55m in today's money, comprising over £40m in respect of combusting waste and generating power (relative to landfill), £9m through providing shore power more efficiently and some £5.5m from supplying district heating.
- 6.345 The monetised cost savings from carbon reduction associated with the ERF represent a significant benefit.

### **Economic impact on local waste provisioning**

- 6.346 The Economic Impact Assessment has considered the potential cost implications in respect to the proposed and the cost of landfill of residual waste. It suggests that Dorset Council has been paying some £130/tonne to landfill waste, and if this figure also applies to BCP, this would imply a landfill bill in the region of £6.6m for 2018 for the combined authorities. Some £94/tonne of the landfill gate fee is presently landfill tax. Without more detail about the Level 1 and 2 area local authorities' gate fees for waste it is not possible to undertake a detailed analysis of savings, however with the ERF's gate fee (according to the applicant's Tolvik market review) likely to be in the region of £80/tonne, there is a potential to save Dorset Council and BCP Council considerable sums, for this landfill element, perhaps in excess of £2.5m per annum. Over the 25 year life of the plant such a saving would add up to a net present value in the region of £43m.
- 6.347 The potential to significantly reduce local waste disposal authority costs associated with the landfill of residual waste is considered to be a significant benefit of the Portland ERF.

### **Use of brownfield land**

- 6.348 One of the benefits of the project will be the re-use of 2.30ha of brownfield land. There is no realistic suggestion of any alternative use for this site in the short to medium term which has been vacant for several years despite the benefit of the extant 2010 and 2013 planning permissions. The re-use of such land and the making of considerable investment in Portland, together with the provision of both heat and power, will help improve the image of the port, and build business confidence in Portland, as an attractive place for further commercial investment, potentially in complementary activities such as energy.
- 6.349 In summary, the proposed ERF will deliver substantial economic benefits that will generate income and help to address some of the socio-economic weaknesses in the local economy. The key benefits include:
- Supply of 15.2MW power to the National Grid;



- The potential to supply CHP to businesses and local households) in the vicinity of the site;
- Knock on impacts on the operation of the port and potentially, other existing local businesses;
- Removal of a power bottleneck on the Island of Portland, facilitating inward investment by new and existing businesses;
- Direct, indirect and induced employment associated with the construction of the ERF;
- A permanent workforce based at the proposed ERF in Portland;
- Indirect employment associated with the operation of the ERF;
- Induced employment associated with the operation of the ERF;
- Support for the delivery of shore power at the port, safeguarding existing cruise liner related tourism spend in the local area and encouraging further growth of this sector
- Reduction in waste management costs for Dorset Council;
- Brownfield land re-use (via regeneration and re-use).

6.350 The economic benefits of the proposed Portland ERF are potentially significant to Portland, which has suffered from structural change and been slow to recover from it.. Combined they will help to deliver upon local, regional and national policy, visions, strategies and objectives which aim to encourage sustainable economic growth, create more skilled jobs, improve education, skills and productivity and improve living standards. Therefore, considerable weight should be applied to these benefits in the planning balance.

### Other material considerations

6.351 Table 6.5 below provides a summary of the proposed ERF's compliance with other relevant material considerations.

*Table 6.5 Summary of compliance with other material considerations*

Policy ref	Policy	Compliance
<b>National Planning Policy Framework (February 2019)</b>		
Paragraphs 7 & 8	The planning system should contribute to the achievement of sustainable development. There are three dimensions to sustainable development: economic, social and environmental.	Fully compliant The Portland ERF helps to achieve and deliver all three of the dimensions to sustainable development. In terms of the economic role, it helps to ensure a strong responsive economy supporting growth by generating a range of jobs and injecting significant investment into an area of the local economy which has been identified as a priority area for regeneration during the construction and operation of the facility. It helps to support strong and vibrant communities by helping to deliver cost effective and efficient renewable electricity and heat and managing residual waste in a sustainable way. It helps to deliver the environmental role by ensuring that waste is diverted up the hierarchy reducing greenhouse gas emissions. The application is accompanied by an ES prepared fully in accordance with the EIA Regulations which assesses the likely significant effects of the development and helps to inform the mitigation that may be considered appropriate.

Policy ref	Policy	Compliance
<b>National Planning Policy Framework (February 2019)</b>		
Paragraph 11	Provides a presumption in favour of sustainable development. Development proposals that accord with an up to date development plan should be approved without delay.	Fully compliant The preceding planning policy assessment has demonstrated that the proposed development accords with all relevant development plan policy. As such, the application should be approved without delay.
Section 6	Sets out the government's commitment to building a strong and competitive economy.	Fully compliant As demonstrated in Chapters 4 and 6, the proposed development would result in significant beneficial impacts on the local economy.
Section 9	Requires all developments that generate significant amounts of movement to be subject to a Transport Assessment. Applications should only be refused on highway grounds if the impacts on the road network would be severe.	Fully compliant The TA submitted with the application clearly demonstrates that the development would not give rise to any severe impacts.
Section 11	Promotes the effective use of land in meeting need for specific uses, whilst protecting and improving the environment and living conditions.	Fully compliant The application site is previously developed land which has an extant planning permission for a power station. The NPPF promotes the reuse of previously developed land wherever possible. The ES submitted in support of the application concludes that the Portland ERF would not result in any unacceptable adverse environmental impacts. The proposed development would help to meet local and national waste management needs and would make effective use of the land.
Section 12	Promotes well designed places.	Fully compliant The DAS provides a summary of the design process which has been followed. The design has been developed in a sensitive way to minimise effects on the local landscape and ecology, including the AONB and World Heritage Site, while creating an innovative, efficient and sustainable building. The results of the public consultation exercise have also informed the proposed design.
Section 14	Supports the transition to a low carbon future in a changing climate, especially reductions in carbon emissions and the reuse of existing resources.	Fully compliant The Portland ERF is in conformity with all the relevant climate change requirements of the NPPF and other national and local policy guidance. These benefits include: <ul style="list-style-type: none"> <li>• diversion of waste from landfill;</li> <li>• dealing with Dorset's residual waste much closer to its source of origin rather than export longer distances out of the County;</li> <li>• generating renewable electricity from residual waste;</li> <li>• providing the potential for shore power within the Port;</li> <li>• providing the potential for the production of renewable heat;</li> <li>• achieving a Net Zero Carbon development.</li> </ul> The ES and supporting Flood Risk Assessment have shown that the proposed development would not increase flood risk or affect local water quality.
Section 15	Concerns the conservation and	Fully compliant The ES includes a detailed assessment of the effects of the proposed development on ecology. There would be no

Policy ref	Policy	Compliance
<b>National Planning Policy Framework (February 2019)</b>		
	enhancement of the natural environment.	<p>unacceptable effects on any designated sites or protected species. The indirect effects of emissions to air on locally, nationally and internationally designated sites including the Fleet are also within acceptable limits. The ERF has been designed in consultation with relevant local bodies (including Natural England) to increase the biodiversity value on the site including the creation of new habitats. It is also proposed to undertake offsite mitigation. These measures ensure that the Portland ERF would deliver a net biodiversity gain.</p> <p>The ES also includes a detailed assessment of landscape character and visual effects of the Portland ERF. The DAS has also described how the design of the facility has mitigated landscape and visual effects including the stack. The ES concludes that while there would be some localised significant adverse effects, these have been reduced to acceptable levels. The impact on the proposed development on the AONB and World Heritage Site has been carefully considered within the ES. It concludes that there would be no material effect on the statutory purposes of the designations. On this basis the proposed development is considered to comply fully with the requirements of Section 15.</p>
Section 16	Conserving and enhancing cultural heritage assets.	<p>Fully compliant</p> <p>The ES includes an assessment of the Portland ERF on heritage assets within a 1km radius. The assessment finds that the harm to these assets would not be unacceptable.</p>

<b>National Planning Policy for Waste (2014)</b>		
Paragraphs 1, 7 and 9	Waste planning policies should be read in conjunction with the NPPF	<p>In the context of paragraph 1, the Portland ERF would divert residual waste away from landfill and further up the waste hierarchy. As a net zero carbon facility it would establish an up to date, sustainable, recovery facility which would give rise to local employment opportunities and wider climate change benefits.</p> <p>In terms of paragraph 7:</p> <ul style="list-style-type: none"> <li>• There is a demonstrable need for the development, as set out in Section 4.0 of this Planning Statement.</li> <li>• The ES demonstrates that the Portland ERF would not result in any unacceptable adverse impacts on the local environment.</li> <li>• The Portland ERF is well designed.</li> </ul> <p>The Portland site is located on previously developed land with the benefit of an extant planning consent for a power station. As set out above the site is in accordance with Policy 4 of the Dorset Waste Plan, as it represents a suitable site, located on previously developed land with access directly onto the strategic highway network and with many benefits over the allocated sites in Policy 3. It is anticipated that a substantial proportion of the residual waste that would be treated at the Portland MRF would be from within Dorset and the conurbation of Bournemouth, Christchurch and Poole, although as a merchant facility, it is possible that some would be sourced from surrounding areas.</p>
Section 3	Describes strategy for resource recovery and identified need for new	<p>Fully compliant</p> <p>The Portland ERF accords with the strategy.</p>

	waste management facilities.	
<b>National Waste Management Plan for England (2013)</b>		
This Plan constitutes the UK Government's response to the EU Waste Framework Directive.	The Plan emphasises the importance of the 'proximity principle' to enable waste to be treated in the nearest facilities with the most appropriate treatment technologies	Fully compliant The Portland ERF, located within Dorset and capable of dealing with quantity of residual waste arisings using the most appropriate technology, accords with the proximity principle
<b>Energy from Waste – A Guide to the Debate (DEFRA, 2013)</b>		
Provides a general understanding of the role EfW plays in residual waste management	Promotes increase in recycling and energy recovery as replacement for landfill	Fully compliant The Portland ERF will help to divert residual waste away from landfill and recover energy in accordance with the guidance.
<b>Government Waste Strategy Review (2011)</b>		
Promotes new energy from waste technologies	Makes clear that energy recovery is a sustainable option for the treatment of residual waste and can make a significant contribution to the UK's renewable energy needs.	Fully compliant The Portland ERF, will make a major contribution to meeting Dorset's need for both residual waste treatment facilities and renewable energy.
<b>Our Waste, Our Resources: A Strategy for England (2018)</b>		
Promotes the circular economy and maximising the value of waste minimising its impact on the environment.	Expects and welcomes growth in energy from waste infrastructure to further divert waste from landfill, and confirms the need for efficiency of EfW plants to achieve recovery status (R1 status).	Fully compliant The Portland ERF, will contribute towards reducing the landfill of Dorset's residual waste, recover low carbon heat and power and enable the recovery of materials from residual ash material for use in construction in line with the principles of the circular economy
<b>Energy White Paper (2007)</b>		
Sets out national strategy	Gives key objectives and national targets for renewable energy. Advises no need to justify the location of new renewable energy development and for planning authorities to	Fully compliant The Portland ERF will help to meet the targets for renewable energy.

	look favourably upon renewable energy developments.	
<b>The UK Low Carbon Transition Plan (2009)</b>		
Provides a national plan meet carbon budgets.	Sectors include the power and waste sectors.	Fully compliant The Portland ERF, will make a major contribution to meeting Dorset's carbon targets for waste and power.
<b>UK Draft Integrated National Energy and Climate Plan (NECP) 2019</b>		
Supports low carbon and renewable energy projects that contribute towards meeting the UK's stated climate change and decarbonisation objectives	Sets out key dimensions for energy including energy security, efficiency and decarbonisation	Fully compliant The Portland ERF will generate partially renewable and low carbon energy from residual waste, whilst also improving energy supply, security and assist in the decarbonisation of the energy sector and the economy, compliant with the climate plan.
<b>Revised Overarching National Policy Statement for Energy (EN-1) (July 2011)</b>		
Identifies energy from waste as potential source of renewable energy	Recognises that the role that energy from waste play to deliver predictable, controllable electricity is increasingly important in ensuring the security of UK energy supplies.	Fully compliant The Portland ERF provides for the generation of partially renewable energy which accords with the policy statement.
<b>National Policy Statement for Renewable Energy Infrastructure (EN-3, July 2011)</b>		
Section 2.5	Provides guidance on site selection for energy from waste developments. Considerations include: grid connection, transport infrastructure and combined heat and power.  States that such plans should not be regarded as being detrimental to health if emissions do not exceed local air quality	Fully compliant The site for Portland ERF is ideally suited, emissions will not exceed local air quality standards and the building has been carefully designed to reflect the local landscape character and visual sensitivity.

	standards.  Recognises that good design will help to mitigate any potential adverse landscape and visual impacts, having regard to the local landscape context.	
<b>The Carbon Plan: Delivering our Low Carbon Future (2011)</b>		
Sets out how the UK will achieve decarbonisation within Energy Policy	Target to cut emissions by 80% by 2050. Proposes increase in energy generated from renewable and low carbon sources. Recognition of importance of CHP technologies. Particular encouragement given to recovering energy from waste.	Fully compliant The Portland ERF will help divert residual waste away from landfill avoiding methane emissions. The generation of renewable energy and heat also accords with the policy statement.
<b>The Clean Growth Strategy (2017)</b>		
Supports growing the low carbon economy and low carbon power generators.	Key policies include rolling out low carbon heating, by building and extending heat networks across the country and delivering clean, smart and flexible power encouraging renewable and low carbon energy	Fully compliant The Portland ERF will generate renewable and low carbon energy, capable of supplying a local heat network, and in supporting a lower carbon economy accords with the strategy objectives.
<b>A Green Future Our 25 Year Plan to Improve the Environment (2018)</b>		
Supports diversion of residual from landfill through energy from waste. Aims to maximise the full value of residual waste as a resource	Encourage the maximum amount of if energy to be recovered from residual waste, by utilising heat as well and electricity whilst minimising dioxide emission from the energy recovery process. Requires better use of the of the heat produced through better connections to heat networks, so that facilities become more efficient and emit less carbon dioxide	Fully compliant The Portland ERF will divert Dorset's residual waste from landfill and generate renewable and low carbon energy, capable of supplying a local heat network,, in accordance with the plan objectives

<b>National Infrastructure Plan (2014)</b>		
Promotes investment in infrastructure and ports to deliver sustainable economic growth	Large-scale investment in gas and low-carbon electricity generation, is vital in order to replace ageing energy infrastructure, maintain secure energy supplies and meet legally-binding environmental targets.	Fully compliant The Portland ERF will generate renewable and low carbon energy and heat, and through the upgrading of local and port infrastructure (via provision of shore power) support energy security and economic growth in line with the national infrastructure plan.
<b>Fixing the Foundations: Creating a More Prosperous Nation (2015)</b>		
Addresses productivity issues in the UK economy and supports the long term investment in economic infrastructure	This includes delivering reliable low carbon infrastructure and meeting the triple challenge of security of supply, affordability and sustainability. The Government envisages the decarbonisation of the UK's energy sector	Fully compliant The Portland ERF will generate renewable and low carbon energy from residual waste, whilst also improving energy supply, security and affordability in accordance with the provisions of this strategy
<b>Industrial Strategy: Building a Britain Fit for the Future (2017)</b>		
Focuses on creating an economy that boost productivity and earning power across the UK by transforming the economy	Generally commits to supporting low carbon industrial processes, innovation and the movement towards a regenerative circular economy.	Fully compliant The Portland ERF will generate renewable and low carbon energy from residual waste, supporting low carbon objectives and the circular economy in line with the industrial strategy.
<b>Maritime 2050: Navigating the Future (2019)</b>		
Maritime sector is expected to support delivery of the wider Clean Growth Strategy by reducing emission of greenhouse gases and IMO) global target for at least a 50% carbon reduction by shipping by 2050.	The strategy signals an intent for the maritime sector to invest in the development of low or zero-carbon and energy efficient technologies	Fully compliant The Portland ERF facilitate (and supply low carbon energy) the provision of shore power facilities at Portland Port, enabling shipping to switch off diesel engines and reduce greenhouse gas emissions from shipping, contributing to meeting objectives and targets.
<b>Clean Maritime Plan, 2019</b>		
Sets out in detail how Government sees the UK's transition to a future of zero emission shipping	Recognises that renewables are expected to play a part in generating low carbon electricity to drive shore power systems to power ship auxiliary power systems and charge	Fully compliant The Portland ERF facilitate (and supply low carbon energy) the provision of shore power facilities at Portland Port, enabling shipping to switch off diesel engines and reduce greenhouse gas emissions from shipping, contributing to meeting objectives and targets.

	batteries. Shore power is expected to contribute towards achieving zero-emissions shipping	
<b>Bournemouth, Dorset and Poole Renewable Energy Strategy to 2020</b>		
Provides a strategy for delivering greater renewable energy within the area	Sets an aspirational target of at least 15% of Dorset, Bournemouth and Poole's energy needs to be met from renewable sources by 2020. A minimum of 7.5% of Dorset's energy needs to be met from local renewable energy resources	Fully compliant The Portland ERF will generate renewable and low carbon energy that will contribute towards meeting the local target for Dorset
<b>Future Portland – Portland Economic Vision and Plan (2016)</b>		
Identifies the need to address pockets of unemployment and decline (notably around Weymouth and Portland), retain skilled workers and attract more. Need to close the skills gaps. In respect to Portland development to unique natural Port assets at Portland Port	Envisages transformational change, developing unique natural Port assets at Portland Port and bringing radically larger sector of the cruise market to the Dorset tourist economy. Highlights opportunities to develop renewables and other energy	Fully compliant The Portland ERF will generate renewable and low carbon energy in line with the identified growth potential, create growth and job creation and through shore power support and grow the cruise liner business activity at the port, supporting local tourism. It fully complies with the Portland economic vision.
<b>A Strategic Economic Vision for Dorset (2016)</b>		
The Dorset Economic Plan was refreshed in 2016 by the Dorset Vision to 2033	This aims to increase productivity, encourage business growth, support a competitive, sustainable and resilient sector mix, achieve a highly skilled workforce and deliver growth across Dorset	Fully compliant The Portland ERF will support business growth in Dorset and help to increase local skill levels through training and education, in line with the vision objectives.
<b>Western Dorset Economic Growth Strategy (2016)</b>		
Sets out the vision and economic growth strategy for the period 2017 to 2033. Supports investment in infrastructure, including ports, and delivery of infrastructure that supports economic	It aims to deliver 13,200 new jobs, increase the proportion of workforce with Level 4 qualifications or higher from 25% to 35% and deliver an additional £564 m of GVA to the	Fully compliant The Portland ERF will contribute to job growth, skills and targets in Dorset and help to increase local skill levels and income, in line with the strategy objectives.



<p>growth and employment land and workspace at a rate above historic trends</p>	<p>Western Dorset Area.</p>	
<p><b>Long-term Economic Plan for the South West (2015)</b></p>		
<p>Sets out a six point plan for supporting the long term development of the region's economy</p>	<p>Plan to increasing the size of the regional economy by £6.4bn in real terms by 2030 - equivalent to over £1,000 per person. Aims to increasing the number of annual overseas visits to the south-west to 3 million by 2020, creating around 7,000 more jobs.</p>	<p>Fully compliant                  The Portland ERF will contribute to economic growth in Dorset and the south west, contributing to the set income and tourism targets in the long-term economic plan.</p>

## 7. CONSULTATION

### Introduction

- 7.1 A Statement of Community Involvement (SCI) has been submitted with the planning application providing details of the pre-planning consultation work that the applicants have undertaken with the local community and the responses received.
- 7.2 The applicant recognises the potential impacts of the proposed development on local communities and the valuable contribution that local people can make in helping to create the best possible planning applications for their communities.
- 7.3 The purpose of the pre-application consultation was to involve the residents and stakeholders of Portland and the surrounding areas in the earliest stages of discussions about the proposed development. The applicant considered it important to seek the views of the public on the proposal, and to gather any feedback which could be used to further develop the plans, mitigating any concerns where possible.
- 7.4 There has also been consultation with Dorset Council, as the waste planning authority and statutory and non-statutory consultees.
- 7.5 This chapter of the PSS is intended to provide an overview of the approach taken to the consultation, the feedback raised by consultees, and the applicants' response to key themes arising in the feedback. Details of the pre-application process are provided in the SCI.

### **Consultation approach**

- 7.6 The importance of pre-application engagement is recognised in the Government's National Planning Policy Framework (NPPF) updated in February 2019, which states that:

*“Early engagement has significant potential to improve the efficiency and effectiveness of the planning application system for all parties. Good quality pre-application discussion enables better coordination between public and private resources and improved outcomes for the community.” (Paragraph 39, page 13).*

- 7.7 To determine the pre-application consultation activities, the applicants have followed Dorset Council's Draft Statement of Community Involvement (SCI). The Council has devised a set of guiding principles for the SCI to make sure that community involvement in the planning process is as effective as possible. Dorset Council's SCI states:

*“Anyone seeking planning permission is encouraged to talk to those likely to be affected by the proposal and consider their views before submitting an application.*

*There are a number of methods that we can use to inform, consult and involve others such as:*

- *Publicising consultations through press releases, website, public notices in the local press, posters, leaflets, and social media*
- *Emailing appropriate organisations, community groups and individuals directly*
- *Making consultation documents available*
- *Hosting public events such as exhibitions and displays where everyone is welcome to attend and ask questions.”*

7.8 In accordance with the NPPF and Dorset Council's SCI, the applicants have put in place a robust programme of community consultation, which focused on engagement with local stakeholders and communities during the pre-application period.

7.9 Whilst the community consultation work was undertaken by Quantum Public Relations, on behalf of the applicant, principally between November and December 2019, the applicant has remained open to further dialogue and engagement with stakeholders. The consultation process followed best practice guidance on public consultation, to make sure this was carried out in a clear and transparent manner.

7.10 The applicants have, where possible, taken on board comments raised by stakeholders and the local community.

### **Consultation tools and scope**

7.11 The objective of the consultation was to engage as widely as possible and specifically to engage with:

- Residents living within a 2km radius of the site
- Local Dorset Councillors and Portland Town Councillors
- Local parliamentary candidates for South Dorset (as the consultation period fell between parliaments and during election campaigning)
- Local businesses
- Local community groups

7.12 The plans and the public exhibition were widely publicised through adverts in local newspapers, The Dorset Echo (readership 43,000) and the Free Portland News (delivered to 95% of the properties on the Isle of Portland). A press release and responses to enquiries were also provided to local media. Individual leaflets were delivered to more than 2,700 residents and local businesses within a 2km radius of the site.

7.13 A letter was sent to over 100 stakeholders advising them of the proposals and inviting them to attend the public exhibition or contact the developers to request a one-to-one briefing.

7.14 These stakeholders included:

- Dorset Parliamentary candidates, including Richard Drax, Chris Loder, Edward Morello, and Carralyn Parker
- Dorset Council (Chief Executive, Leader, all members)
- Portland Town Council members and Clerk
- Tenants of Portland Port – Dragon Portland, Global Marine Group, Dorset Cleanerfish, Portland Shellfish, Portland Bunkers, Glencore, Quest, LG & P
- Chairman of Portland Community Partnership
- President of Weymouth and Portland Chamber of Commerce

7.15 Other methods of communication included:

- Telephone and e-mail - A telephone hotline and development email enquiry account were established to provide members of the public with convenient ways in which to ask questions, raise any concerns or make comments on the proposals.
- *Leaflet* - A four-page A5 leaflet providing information about the proposals and promoting the time, date and location of the public exhibition was sent to more than 2,700 households and businesses within a 2.5-mile radius of the site.
- *Advert* - An advertisement highlighting the public exhibition was placed in The Dorset Echo and in the December issue of the Free Portland News (a local community magazine).
- *Website* - A dedicated project website was developed to provide information on the proposals and to promote the public exhibition. PDF copies of the leaflet and boards used at the exhibition were made available to view or download via a Resources section of the website. A dedicated FAQs page was also hosted on the website. A live version of the website can be viewed at [www.powerfuelportland.co.uk](http://www.powerfuelportland.co.uk)
- *Media* - A press release was prepared for local media which included details of the proposals and the date and venue for the public exhibition. In addition several requests for interviews or additional information were received from journalists and media sources, resulting in several news pieces which included information about the proposals and the public exhibition, including:
  - BBC News
  - The Dorset Echo
  - Wessex FM
  - BBC Radio Solent
  - BBC Spotlight evening news
- Press release - A press release was issued to trade media

7.16 A public exhibition was held on Thursday 5 December 2019 from 1pm to 7pm. A total of 223 people attended the exhibition. Local stakeholders were invited to attend the event during the first hour and 12 elected members attended during the session including the Leader of Dorset Council, Cllr Pauline Batstone, Portland

Ward members Paul Kimber and Sue Cocking (who are also members of Portland Town Council) and Portland Town Councillors Giovanna Lewis and David Thurston. In addition, Carralyn Parker, Labour parliamentary candidate for South Dorset and Richard Drax, Conservative parliamentary candidate for South Dorset also attended.

- 7.17 Exhibition display boards provided information and background about the proposal, details about the technology and processes that the facility would use, and information about the developers and wider team. Members of the applicant's development team were in attendance to welcome visitors and answer questions.
- 7.18 Visitors to the exhibition were invited to complete a questionnaire giving their views on the proposal. 94 forms were completed on the day of the exhibition, two forms were received by post and one form was received via email.
- 7.19 Full details of all of the above are provided in the SCI.

### **Consultation timeline**

- 7.20 The applicants carried out a six week community consultation programme as set out below:
- Telephone hotline and email established – 8 November 2019
  - Consultation starts – 11 November 2019
  - Letter sent to Dorset Council members, parliamentary candidates and Portland Town Council members – 20 November 2019
  - Leaflet sent to local residents and businesses – 20 November 2019
  - Project website launched – 8 November 2019
  - Exhibition advert appeared in local press – 28 November 2019
  - Public exhibition held – 5 December 2019
  - Consultation closes – 20 December 2019
  - Responses to enquiries via email, telephone and letter – Ongoing

### **Feedback**

- 7.21 The types of comments received covered a wide range of topics, and are summarised in the SCI. Although a range of comment was received on a range of topic areas, the main themes with the greatest frequency in the responses broadly related to traffic and transport (63 comments) pollution and emissions (58 comments) and visual issues (9 comments).
- 7.22 The comments also include those that recognised the need for waste management infrastructure of this type and the benefits in terms of energy

generation, addressing the effects of climate change, and new investment in Portland and job creation.

- 7.23 The SCI provides details of the types of key comments that were made, both supporting and opposing the proposals. It also provides a more detailed breakdown of the comments received.

### **Waste Planning Authority and other pre-application consultation**

- 7.24 Pre-application meetings and dialogue has taken place with the Waste Planning Authority (WPA) and the Highway Authority (both Dorset Council). The pre-application engagement exercise has included a range of relevant disciplines including planning, highways, landscape, environmental health, cultural heritage and natural heritage officers. This has provided helpful advice to the applicant's technical consultant in respect to key planning and environmental considerations to be addressed through the planning application and information required to enable officers to fully assess the project.
- 7.25 A meeting was also held with the Jurassic Coast Trust to explain the proposals in respect to the World Heritage Site, jointly with Dorset Council landscape officers to ensure that landscape and visual matters were being addressed and to agree appropriate viewpoints. Further meetings were subsequently held with officers to provide a further briefing on the ERF design evolution and explain the rationale behind the approach.
- 7.26 As a separate (but parallel) process, discussions have also taken place with the permitting teams at the Environment Agency.
- 7.27 The applicants submitted a scoping request to the WPA, outlining the proposed development and the scope of the Environmental Impact Assessment (EIA). The WPA's scoping opinion has informed the preparation of the Environmental Statement (ES).
- 7.28 Similarly, a scoping note was submitted to the Highway Authority and the response has been followed, alongside that in the EIA scoping opinion, in the preparation of the transport assessment.
- 7.29 The specialists carrying out the technical work for the EIA have also consulted directly with relevant statutory and on-statutory bodies. This includes the Environment Agency, Natural England, Health and Safety Executive, and Dorset Council in its role as the Lead Local Flood Authority.
- 7.30 Following the formal pre-application meeting the WPA issued a letter with formal pre-application advice. The matters raised have been addressed in the preparation of the application and this supporting statement. Further guidance has been sought and received from the WPA in respect to the scope of information that is expected to be submitted with the application to meet the council's validation requirements.

## **Conclusions**

- 7.31 In accordance with local and national guidance, the applicants have engaged with local residents, elected representatives, officers of the WPA and statutory and non-statutory consultees.
- 7.32 The issues raised have been used to help shape the proposals as they have developed towards the final application for submission.
- 7.33 Many of the issues raised in feedback from the public consultation are addressed through the Environmental Statement and other supporting information submitted with this application. Where appropriate, mitigation has been built into the proposals, such as the compliance with emission standards, the design of the buildings and layout, appropriate vehicle routing and sustainable transport measures. The applicants are committed to maintaining an ongoing dialogue with stakeholders and other interested parties as the application progresses through the planning process.

## 8. PLANNING CONDITIONS AND OBLIGATIONS

### Planning conditions

- 8.1 National Planning Policy Guidance (NPPG) provides guidance on the appropriate use of planning conditions. Where used properly it states that planning conditions can enhance the quality of development and enable development to proceed where it might otherwise be refused, by mitigating the adverse effects. The use of planning conditions must therefore be seen to be fair, reasonable and practicable. It adds that planning conditions should be tailored to tackle specific problems, rather than be standardised or used to impose broad unnecessary controls.
- 8.2 The NPPF (paragraph 55) makes clear that planning conditions should only be applied where they satisfy six tests, these being that conditions should be:
- Necessary
  - Relevant to planning
  - Relevant to the development to be permitted
  - Enforceable
  - Precise, and
  - Reasonable in all other respects
- 8.3 The NPPG states that it is good practice to keep the number of conditions down to a minimum and good practice for the local planning authority and the applicant to engage at an early stage of the process to discuss and agree relevant planning conditions.
- 8.4 The applicant accepts that for a development of the type proposed at Portland it will be necessary for planning conditions to be imposed to mitigate potential adverse effects and is willing to engage positively with Dorset Council to ensure that planning conditions are reduced to the minimum required, meet the required tests and generally deliver the outcomes that are expected to be achieved.
- 8.5 Whilst the need for planning conditions and the precise required wording will be considered by Dorset Council, following consultation and during the determination period of the application, the applicant expects that suitable planning conditions will apply in the following respects:
- Commencement of development
  - Approved application drawings and documents
  - Materials and finishes
  - Landscape and ecological scheme
  - Construction and environmental management plan



- Details of piling works
- Community liaison group
- CHP capability
- Construction and operation noise
- Construction activity hours
- HGV movements – number
- Odour control scheme
- Enclosure of vehicle loads
- Maximum throughput volume of 202,000 tonnes per annum
- Travel plan statement
- Foul and surface water drainage details
- Land contamination
- Connection to the electricity supply grid

8.6 The proposed Portland ERF is a merchant waste management facility, and as such requires sufficient flexibility to source waste commercially from a range of sources and locations. The above list does not therefore include a condition relating to the geographical source of residual waste.

8.7 Whilst it is located in Dorset and is ideally placed to manage all of Dorset's residual waste, the facility would also accept suitable RDF material delivered by road from its 3 hour drive time catchment area and/or diverted RDF delivered by sea from elsewhere.

8.8 The distance that waste travels to an appropriate facility is largely determined by the market and the high cost of transportation. As such, most waste will be sourced from the local area, unless it can be moved sustainably and viably over longer distances by means of rail or by water. Restrictions on the potential geographical source of waste for merchant waste facilities would harm their ability to secure contracts and thereby impact upon their viability and would conflict on NPPW guidance requiring the provision of flexibility. Furthermore, Inspectors and the Secretary of State have held in appeal decisions, for other merchant waste management facilities, that it is not appropriate for the planning system to interfere in the commercial waste market or impose conditions that unreasonably restrict the source of waste.

8.9 For the above reasons and for clarity, the applicant would not be willing to accept any planning conditions that would seek to unreasonably restrict a merchant waste management facility from sourcing waste commercially from a range of sources and locations. Any such condition would be unlikely to pass the relevant condition tests.

- 8.10 Whilst Dorset Council will determine the need for, and the content and wording of any required planning conditions, as agreed with planning officers, some draft suggested planning conditions based on other similar developments, have been provided at Appendix D to inform this process.

### **Planning obligations**

- 8.11 Planning obligations are legal obligations entered into between the applicant and the local planning authority to mitigate the impacts of a development proposal. Such obligations, commonly referred to as Section 106 agreements, run with the land and are legally binding and enforceable.
- 8.12 The NPPG (para 002 Reference ID: 23b-002-20190901) states that planning obligations may only constitute a reason for granting planning permission if they meet the tests that they are necessary to make the development acceptable in planning terms. They must be:
- necessary to make the development acceptable in planning terms;
  - directly related to the development; and
  - fairly and reasonably related in scale and kind to the development.
- 8.13 Planning obligations, should only be used where it is not possible to address unacceptable impacts of development through a planning condition. Typically they are appropriate where the mitigation requirements are more complex, place obligations on more than one party and/or where financial contributions or payments are required.
- 8.14 The details of section 106 agreements are typically worked up during the determination of the application, working with the local planning authority, once the full extent of any mitigation is identified and understood. The starting point is to define appropriate heads of terms for the legal agreement, which once agreed are then drafted in full.
- 8.15 The applicant expects that the section 106 agreement and heads of terms will cover the following topic areas:
- Net-zero carbon
  - CHP and local heat network
  - Shore power
  - Off-site ecology
  - Training and education
  - Treatment of residual materials (IBA and APCr)
  - Vehicle routing
  - Local community or municipal power

- Community liaison and monitoring

### ***Net-zero carbon***

- 8.16 The applicant commits that the Portland ERF will operate as a net-zero carbon infrastructure asset. It is believed that this would be the first such facility in the UK to commit to achieving net-zero carbon and carbon neutrality for its operational life. This means that all process derived greenhouse gas (GHG) emissions from the combustion of the fossil-fuel derived component of the residual waste RDF would be off-set by other measures and activities avoiding the emission of or removing an equivalent amount of GHG from the atmosphere.
- 8.17 The applicant has engaged with a specialist 3<sup>rd</sup> sector organisation with expertise in achieving carbon neutrality to identify a suitable and robust approach to achieving net-zero carbon. This is set out in the Achieving Carbon Neutrality report that provides further information and the proposed route map for ensuring that the ERF does achieve carbon neutrality through a process that will involve the oversight of Dorset Council.
- 8.18 The Process is multi-stage and includes broadly the following:
- establish the most appropriate counterfactual “baseline” against which emissions will be measured (this is broadly established in the Fichtner Carbon Assessment);
  - measure qualifying emissions from the operation during a specified multi-year compliance period of three to five years (based on actual fuel composition data);
  - calculate the net carbon position;
  - decide on the specific measures that will be put in place to achieve net-zero status in light of the agreed criteria;
  - perform an independent review and verification to certify that the emission calculations were correct and that the required actions have been taken to achieve carbon neutrality in accordance with the agreed standards;
  - reduce emissions and physically capture if and when possible;.
  - independently verify the process and report to stakeholders.
  - dynamically adjust the baseline for subsequent compliance periods to account for changes such as a future ban on landfill or changes in the generation mix feeding the UK grid;
  - In any period where the ERF is net carbon positive make a base financial commitment of £[100,000] to fund “voluntary offsetting measures” targeted at measures with higher social impact and fuel poverty alleviation.

- 8.19 The applicant is willing to enter into a suitable planning obligation to adhere to the approach outlined above and more particularly described in the reports mentioned.

### ***CHP and local heat network***

- 8.20 As outlined within this statement, the ERF's ability to serve a local heat network is a significant advantage of the proposal and its location at Portland. The facility will as a minimum be CHP ready, and the applicant has demonstrated that a local heat network is both technically and economically viable and that there are potential heat customers in close proximity to the site that have confirmed a willingness to connect to such a network if it is provided.
- 8.21 The applicant wishes to demonstrate its commitment to the future delivery of a local heat network, to serve existing facilities such as the Portland prisons and local community centre and proposed new homes in close proximity to the site.
- 8.22 Whilst the delivery of a local heat network does not form part of this planning application, which will be delivered post consent of the ERF, the applicant is willing to commit to an obligation for the ERF to supply such a local network with heat, subject to a suitable commercial agreement being reached.
- 8.23 Such an obligation would provide greater certainty that a local heat network could be delivered in future and goes beyond commitments made by other UK energy from waste facilities to simply ensure that the process technology is 'CHP' ready.
- 8.24 The applicant would be willing to discuss the details of such an obligation with Dorset Council.

### ***Shore power***

- 8.25 The provision of shore power to enable Portland Port to offer this facility to visiting cruise liners and other resident shipping, such as the Royal Fleet Auxiliary RFA, represents a significant benefit of the scheme in terms of increasing energy efficiency, achieving significant reductions in carbon emissions and other polluting exhaust gases associated with the existing practice of 'cold-ironing', and helping to safeguard the commercial future of Portland Port. The provision of shore power is also one of the key drivers for locating the ERF at the port.
- 8.26 Many of the existing fleet of cruise liners are already equipped with shore power facilities and as customer demand increases for more environmentally sustainable cruise products, more of the fleet is likely to be equipped to accept shore power if they are not already. Similarly, all of the RFA ships, typically berthed at Portland Port for over 200 days a year, are already equipped to accept shore power, if this was made available.
- 8.27 The applicant and Portland Port have reached an agreement that the proposed ERF, if consented, would provide power to this facility. As such, the applicant and Portland Port are willing to enter in to an obligation that would encourage visiting shipping to make use of the shore power facility, if they are equipped to do so.
- 8.28 It is anticipated that the details of such an obligation would be discussed further with Dorset Council and Portland Port.

### ***Off-site ecology***

- 8.29 As summarised in this planning statement and covered in more detail in the ES and technical appendices, the proposed ERF would result in the reduction of existing habitat on the application site.
- 8.30 A landscaping strategy is proposed that would maximise the potential for creating new habitat areas on-site to help maximise biodiversity interest. However, the applicant accepts that it is not possible to fully mitigate the loss of existing habitat on-site.
- 8.31 Dorset Council requires that the development should not only compensate for the loss of on-site ecology, but also demonstrate at least a net biodiversity gain of 10% above existing. The requirement for net biodiversity gain is also enshrined in the NPPF.
- 8.32 The applicant has been discussing potential options for meeting its obligation to achieve a net biodiversity gain, as required under Dorset Councils Biodiversity Protocol, with ecology officers from both Natural England and Dorset Council. The applicant has submitted a Biodiversity Plan to Dorset Council and is agreeable to entering into a suitable planning obligation to provide a financial contribution and/or undertake works necessary for the purposes of the conservation and enhancement of suitable off-site habitat.
- 8.33 Whilst discussions are ongoing, it is expected that the off-site ecological mitigation package would focus on habitats located in and around Portland and elsewhere in Dorset.
- 8.34 It is anticipated that the details of such an obligation would be discussed further with officers at Dorset Council and Natural England.

### ***Training and education***

- 8.35 The applicant considers that there is significant synergy between the proposed ERF, shore power provision and existing and future tenant business located at the Port. Potential exists to create a cleantech hub of energy related activities and skills at the port, which is also specifically identified in the Portland Neighbourhood Plan and Portland Economic Strategy.
- 8.36 The ERF will require a range of skilled employees and opportunities will exist for local people to work at the facility, and access suitable training, apprenticeships and education. The applicant has already begun to establish linkages with existing business and education, skills and training institutions with the aim of maximising the local social and economic benefits of the ERF.
- 8.37 On this basis the applicant is willing to enter into a suitable obligation in respect to capturing opportunities to support training, apprenticeships and education, through construction and operational phases. The applicant's policy in respect of apprenticeships and training is set out in Appendix H.
- 8.38 It is anticipated that the details of such an obligation would be discussed further with officers at Dorset Council.

### ***Treatment of residual materials***

- 8.39 The applicant currently proposes to transfer IBA material by boat to specialist re-processing facilities at Greenwich, or if not available alternatively by road to Avonmouth, where this material is turned into secondary aggregate ready for use in the construction industry. It is currently proposed that APCr will be transported by road to a processing facility at Avonmouth for use in construction products.
- 8.40 The applicant recognises that future opportunities may exist for both IBA and APCr materials to be treated more locally either on-site at the ERF, elsewhere at Portland Port or on Portland, should suitable facilities become available, as this would deliver additional benefit for Portland in terms of job creation and supporting the existing aggregate industry. The applicant is willing to enter into an obligation to review its management of IBA and APCr to ascertain whether alternative local options for treatment of these residual materials would be feasible.

### ***Vehicle routing***

- 8.41 As demonstrated in the ES and Transport Assessment, the generation of 80 two-way HGV movements associated with the ERF is not significant in context of existing traffic movements on the network. However, the applicant is aware that local residents will be concerned that HGV traffic might seek to use alternative routes to the main strategic highway routes, that would not be appropriate for such traffic.
- 8.42 If this was deemed to be necessary, by the local highway authority, the applicant would be willing to enter into a suitable obligation defining a suitable HGV route to address this concern. This could only apply to vehicles that are under the control of the applicant.

### ***Local community and municipal power***

- 8.43 The applicant has considered the potential for the ERF to supply discounted electricity to local residents, including those who are deemed to be disadvantaged or in fuel poverty. Unfortunately, the sector and regulatory framework for permitting this is currently challenging and is not deemed to be deliverable in the immediate future. However, the applicant remains committed to exploring the prospects of securing a discounted local supply arrangement and would be willing to enter into a suitable obligation to keep this option under review over the lifetime of the project. These options are considered in the Energy Need Statement.
- 8.44 The applicant would be willing to enter into a power purchase agreement with one or more local authorities, to supply some or all of the available exportable power to the authorities. This could also be extended to local businesses.
- 8.45 The proposed ERF includes provision for solar generation through a PV array located on the building's roof. This will generate renewable power and an associated income. The power is expected to be exported and fed into the Port current power supply infrastructure. The applicant considers that there may be potential for revenues generated from sale of such solar power to be hypothecated to the Portland Town Council or a local community group or community fund for use by the local community to fund projects that are of environmental and social benefit locally. The applicant expects that the

applicability and delivery mechanisms for such a local community fund would be explored further through discussions with Dorset Council.

### ***Community liaison and monitoring***

- 8.46 The applicant has engaged with the local community at the pre-application stage and has sought to be as transparent and open as possible in respect to its proposals. Should planning permission be granted, the applicant would wish to continue to engage with the local community during both the construction and operation stages of the project.
- 8.47 The creation of a Community Liaison Panel (CLP), meeting on an agreed basis, would provide a regular forum whereby the local community could ask questions or raise concerns with the applicant, and an opportunity for the applicant to provide further information about construction progress or other operational matters.
- 8.48 Furthermore, it is recognised that ERF's raise concerns locally in respect to emissions and air quality. Emissions from such plants are heavily regulated by the Environment Agency and data is provided continuously in real time to the Environment Agency to ensure that emissions are closely monitored and controlled.
- 8.49 The applicant is willing to enter into an obligation or condition to arrange, manage and hold regular CLP sessions and also ensure that such verified emissions data is accessible to the CLP. The terms of reference, in Appendix E, set out the aims and objectives and general matters of the operation, membership and communications of the CLP.
- 8.50 The applicant expects that the detail for establishing a CLP and access to emission monitoring data would be explored further through discussions with Dorset Council.

### **Community Infrastructure Levy**

- 8.51 The Community Infrastructure Levy (CIL) was introduced by the Planning Act 2008 and enables local authorities to deliver infrastructure in support of development in their area, through the adoption of a charging schedule based on net additional floor area.
- 8.52 On 1 April 2019, Dorset Council became the CIL Charging Authority for rural Dorset and assumed responsibility for administering the adopted Charging Schedules of the former council's, including Weymouth and Portland Borough Council.
- 8.53 The CIL charging schedule for Weymouth and Portland was adopted in October 2015 and only applied a charge to residential development. All other types of development, including waste management uses, were subject to a nil charge rate.
- 8.54 The proposed Portland ERF would therefore not be subject to any CIL contributions.

## 9. CONCLUSIONS AND THE PLANNING BALANCE

### Overview

- 9.1 Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that the determination of this planning application should be made in accordance with the development plan, unless material considerations indicate otherwise.
- 9.2 Important material considerations for this planning application include national planning policy and guidance, national, regional and local waste management and energy policy and strategy, other policy and strategy, and the views of stakeholders, including statutory and non-statutory organisations and the community.
- 9.3 The applicant has assessed the proposed Portland ERF in the context of the policy framework set out in the Dorset Waste Plan and other components of the statutory development plan. It concludes that the proposed development will:
- Represent a sustainable form of waste management, reducing landfill and managing waste further up the waste hierarchy (without impacting negatively on Dorset's admirable recycling rates)
  - Enable Dorset to manage more of its residual waste in the County reducing the exiting reliance upon the export of waste to other facilities in neighbouring waste authority areas, or outside of the UK, and in doing so Dorset's residual waste management system will become better aligned with the self-sufficiency and proximity principles
  - Play an important part in meeting the Dorset Waste Plan vision and objectives to deliver sufficient residual waste management capacity in Dorset to meet the existing and future shortfall
  - Form an integral component of Dorset's integrated network of waste management facilities, and not compromise the potential of other allocated waste sites, which could support the Portland ERF (by producing more RDF feedstock for the ERF in particular in suitable locations close to generation of the waste which may not be suitable for energy recovery).
  - Accord with the Dorset Waste Plan's spatial strategy and approach, which provides flexibility for unallocated sites to come forward (Policy 4) if these are suitable and like this proposal, can meet specific policy test (principally delivering advantages over allocated sites).
  - Comply with all of the provisions of Dorset Waste Plan energy recovery policy (Policy 6), including the provision of CHP capable of supplying electricity to shore power and the local grid and/or a local heat network serving identified heat customers.
  - Be located on brownfield previously developed land, located within an operational port, and upon which an extant planning consent exists permitting the development of an energy plant, fuelled in part by waste materials.



- Be in accordance with (in the context of proposed appropriate mitigation where this is required) all relevant Dorset Waste Plan development management policies (Policies 12-19 and 22)
  - Meet the requirements of all relevant policies in the West Dorset, Weymouth and Portland Local Plan, Dorset Minerals Strategy and the Portland Neighbourhood Plan
- 9.4 Consequently, the applicant considers that the proposed Portland ERF is in overall accordance with the provisions of development plan.
- 9.5 The applicant has undertaken an extensive review of the relevant development plan policies and other material considerations. The main planning considerations relevant to this planning application can be summarized under three broad themes of policy regarding waste, energy and socio-economics, which largely establish the need for the proposed Portland ERF; site specific policies at the site, and the policies of the development plan, covering waste, general sustainability, environmental and amenity issues.

### **Waste, energy and socio-economic policy; establishing the need**

#### **Waste**

- 9.6 From the evidence presented the following conclusions can be drawn in respect to waste management and need:
- There are large volumes of residual waste generated in Dorset, nationally and regionally that is still disposed of to landfill, a significant proportion of which could instead be diverted away to energy recovery facilities in line with the waste hierarchy
  - Large volumes of business (C&I) waste are generated, in Dorset, nationally and regionally, a significant proportion of which is landfilled, which could also be diverted further up the waste hierarchy and managed via energy recovery facilities
  - Dorset has no remaining landfill capacity and no energy recovery facilities to manage existing and future waste. As a consequence, almost all of Dorset's residual waste is either managed by intermediate MBT to create RDF which is exported to Europe or directly exported to other energy from waste facilities or landfill outside of Dorset. The provision of this ERF in Dorset would provide a higher degree of sustainability and self-sufficiency and accord with the proximity principle.
  - Dorset has a predicted shortfall in residual waste treatment capacity of 234,000 tonnes by 2033. Action is urgently required to ensure that suitable capacity is provided in Dorset to meet both existing and predicted future need and reduce the need for more export. An ERF at Portland with a capacity to process around 183,000 tonnes per annum of residual waste (and up to a maximum of 202,000 tonnes per annum) would make a significant contribution to meet these needs.

- Successive Dorset waste plans and waste policy, have failed to secure any substantial new waste management infrastructure in Dorset (other than one MBT facility) with proposals for advanced thermal treatment facilities failing technically and commercially. Dorset has also decided not to go the route of procuring its own waste facility in the county (the route pursued by many UK waste authorities) although this was pursued as an option (ultimately aborted) some years ago. This has resulted in an over reliance on landfill and the export of waste out of county and country, providing little long-term security or control as to how and where Dorset's residual waste will ultimately be managed. In the current protectionist climate, including Brexit, it is not inconceivable that out of county and out of country waste management options will become less accessible on less commercially acceptable terms and a local solution would be a good hedge against such potential changes.
- Four sites are identified in the Dorset Waste Plan for new residual waste treatment capacity, with a combined assessed capacity of 385,000 tonnes to provide flexibility for non-delivery. However, all of these sites are subject to significant planning and environmental constraints. As such, they are either unlikely to come forward at all and deliver any capacity, or could only accommodate small scale facilities that are less likely to be viable and deliverable or meet only a small proportion of the expected future need. A need exists for a large-scale ERF facility as proposed on the application site, which is viable and deliverable.
- Whilst residual waste arisings in the south west region are predicted to increase over coming years, landfill capacity is continuing to decline with the early closure of sites. Coupled with the fact that not all consented regional energy recovery capacity is expected to be delivered, this means that more energy recovery capacity is likely to be required and that this will operate on a cross boundary, sub-regional scale.
- Large volumes of RDF, derived in the UK and regionally in the south west, are currently being exported to Europe for energy recovery, due to a lack of available capacity here, which should in preference be treated at energy recovery facilities in the UK, in line with the self-sufficiency and proximity principles.
- Specialist waste market analysis has determined that there are significant volumes of residual waste (municipal and C&I) available within a defined 3 hour drive time catchment of the ERF site at Portland that could reasonably be available to a merchant facility.
- Whilst there is more than sufficient waste available within Dorset and the wider catchment covering neighbouring counties, by road, there are also substantial volumes of RDF available that are currently being exported to Europe from the UK through the English Channel that could be diverted to Portland by sea, due to the site's port location. It is preferable for RDF material arising in the UK to be managed at ERFs located in the UK, as this is more in line with the self-sufficiency and proximity principles.
- Because the Portland ERF is a merchant facility and is not pre-contracted to manage a specific waste authority's arisings, the applicant has developed a

robust fuel supply strategy to ensure that the facility is economically viable, deliverable and resilient. This supply strategy will ensure that it can continue to meet Dorset's long term residual waste treatment need.

- The applicant has entered into a partnership with Geminor, one of the leading companies in Europe specialising in the supply of waste products to recycling and energy recovery. Through this contracted partnership with Geminor, and Geminor's contracted arrangements with the operators of the Canford MBT facility the ERF already has access to RDF waste produced there under its residual waste contract with Dorset Council and can therefore meet an existing need for residual waste treatment. The facility is also well placed to secure future residual waste contracts for Dorset and other waste authorities, which could be transported to Portland by road and sea, meeting both existing and future need.

9.7 The demonstrable need for residual waste management capacity of this type and located within the existing catchment area, both now and in the future, is a material consideration to be given considerable weight in decision making.

### ***Energy***

9.8 The evidence presented in this application supports the following conclusions in respect to energy and need:

- There is a need in Dorset for the delivery of more renewable and low carbon energy generation infrastructure to contribute towards meeting the Dorset county target of 7.5% of all energy generation to be from renewable sources.
- There is a need for the provision of new renewable and low carbon energy infrastructure to help address the Dorset and UK local authority climate emergency declaration
- There is a need to provide shore power, supplied by lower carbon energy facilities, both nationally and locally at Portland Port in Dorset, to meet the existing demand and help the UK shipping industry contribute towards meeting national targets to reduce carbon emissions and other pollutants (by eliminating the practice of cold-ironing)
- There is a need at the local and national levels for a wide mix of energy infrastructure, including energy from waste facilities, to increase national energy security.
- There is a national need for urgent action to reduce the emission of greenhouse gasses in accordance with international agreements, such as the 2015 Paris Agreement
- There is a need for new renewable and low carbon energy infrastructure that will contribute towards meeting the UK's statutory carbon reduction targets, enshrined within the 2008 Climate Change Act (as amended) to reduce the UK's net greenhouse gases emissions by 100% by 2050 relative to the 1990 baseline

- There is a need for more investment in energy efficiency and clean energy technologies, and to grow the low carbon economy by rolling out low carbon heating, by building and extending heat networks across the country and by delivering clean, smart and flexible power encouraging renewable and low carbon energy, in accordance with the 2009 UK Low Carbon Transition Plan and the 2017 Clean Growth Strategy
- There is a need for new low carbon and renewable energy projects that will contribute towards meeting the UK's carbon reduction budgets enshrined within the draft National Energy and Climate Plan, required under the 2018 EU Clean Energy Package
- There is a need for the provision of new renewable and low carbon energy infrastructure to help address the Portland/Dorset and UK local authority climate emergency declarations
- National energy and renewable energy policy recognises that the biodegradable fraction of residual waste, if treated by means of energy recovery, is renewable energy and contributes towards meeting renewable energy targets.

### ***Socio-economic***

9.9 The evidence set out within this planning application supports the following conclusions in respect to socio-economics and need:

- There is a need for new economic investment at Portland to help address existing socio-economic concerns and generate sustainable regeneration by taking advantage of Portland's assets, opportunities and excellent growth potential
- There is a need to create more high quality and well paid jobs to help retain and attract younger people to the Portland area, and provide opportunities for training and education to increase education, skills and knowledge for local people
- There is a need for investment in Portland to improve overall standards of living, including helping to address relatively low levels of pay, diversifying the mix of employment opportunities and reducing a dependence on lower paid seasonal sectors, also providing job opportunities locally that reduce the need to out commute for work
- There is a need for investment and stimulation of economic growth to help address the existing pockets of social deprivation that are evident on some parts of Portland
- There is a need for transformational change at Portland to unlock key employment sites, such as within Portland Port, to exploit the area's strengths and potential opportunities in respect to the development of renewable energy and low carbon technologies and support other tourism related activities such as the cruise ship sector

- There is a need at the UK level for new development that is capable of delivering economic growth and supporting the drive to transform the UK into a dynamic economy through investment in low carbon infrastructure, and a focus on skills and knowledge to increase productivity and generate greater prosperity for all
- There is a need for the planning system to support the delivery of sustainable development, especially development that can contribute towards building a strong, responsive and competitive economy, support strong, vibrant and healthy communities and protect the environment, whilst also supporting the move towards a low carbon UK economy.

### **The planning balance**

- 9.10 This Planning Statement has demonstrated that the proposed ERF is in accordance with the development plan as a whole and that the proposed previously developed site, with an extant consent for a power station (fuelled by vegetable oil or waste tyre crumb) and within an area in need of regeneration, is ideally suited.
- 9.11 The proposed ERF would help meet an identified need for waste recovery, generate renewable energy and bring significant economic benefits to Portland. The ERF would enable Dorset to establish its own waste recovery capacity and would assist in the diversion of residual waste away from landfill to generate power. The ERF would also generate significant economic benefits in a location where there is potential for shore power and heat use. In addition the ERF is in accordance and assists with the delivery of a number of key national waste and energy policy objectives. Together these benefits should be afforded substantial weight in the overall planning balance.
- 9.12 The proposed ERF will increase the generation of low carbon energy and result in carbon dioxide savings over the landfill of waste or other potential alternatives, through the provision of shore power, electricity supply to the local network and the supply of heat to a future local heat network. In doing so it will help to mitigate the local climate emergency.
- 9.13 The ES has established that the ERF would not generate any unacceptable impacts on any acknowledged environmental interests. Such adverse impacts that do exist are considered to be outweighed by the public benefits of the proposed ERF.
- 9.14 In the unlikely event that the waste planning authority was to find that the ERF proposals are not entirely consistent with the development plan, it has been demonstrated in this planning statement and other supporting application documents that the need for and benefits of the proposed ERF are significant material considerations that weigh heavily in its favour.

## Overall conclusion

9.15 This planning statement concludes that there is a robust and compelling need for the proposed Portland ERF as follows:

- Delivering a more sustainable waste management system for Dorset which will reduce its existing reliance on the export of residual waste out of the county, and its continued use of landfill, without compromising on-going recycling efforts, in accordance with the provisions of the waste hierarchy, and self-sufficiency and proximity principles, whilst also contributing towards meeting wider regional and national waste management need
- Recovering low carbon energy from residual waste, which through the supply of electricity to shore power and the grid, and capability to supply heat to a local heat network (with identified heat customers) and a firm commitment to achieve carbon neutrality in respect to process emissions, will help meet the national net-zero by 2050 target, local renewable/low carbon energy generation targets, and respond to local climate emergency declarations.
- Creating around £100m of investment in the construction and operation of the Portland ERF, resulting in significant economic benefits in terms of local business, direct, indirect and induced job creation, training and education opportunities, support for local tourism (through the provision of shore power at the port) to support the retention and growth of the cruise liner sector and provision of greater efficiency in the local energy networks, to support future economic growth. All of these would benefit local communities and help to raise living standards and address existing pockets of deprivation.

9.16 The Portland ERF accords with the provisions of the development plan as a whole and is subject to many significant material considerations to which substantial weight should be afforded. It is considered that the benefits of the proposed development far outweigh any dis-benefits (which have been reduced through appropriate mitigation) and that the planning balance must come down in favour of the scheme. In light of the urgent need, planning permission should be granted without delay.

## Appendix A: Pollution Control Statement

A.1 The Dorset Council validation checklist requires that all planning applications for waste management development be accompanied by a Pollution Control Statement. It states that:

*“This should contain summaries of, and references to, other documents and contain an assessment of the following impacts and how they will be controlled, mitigated and monitored:*

- *mud and waste on the public highway*
- *odour, dust and bio-aerosols*
- *birds/flies/vermin/litter*
- *noise*
- *surface and ground water pollution*
- *spillages/seepages*
- *soil”*

A.2 These matters are addressed through the Environmental Statement (ES) and other supporting technical information submitted as part of this application. In order to avoid unnecessary duplication it has been agreed with Dorset Council planning officers that a full Pollution Control Statement will not be required in this instance and that this validation requirement is best served by means of a short index table, as provided below (Table A.1), identifying where in the application documentation each of the above pollution control measures are addressed.

*Table A.1 Index schedule for pollution control information*

Potential impact	Where addressed in application
Mud and waste on the public highway	ES chapter 2 (Site description and development proposals) and ES Technical Appendix C (Framework CEMP)
Odour	ES chapter 2 (Site description and development proposals)
Dust	ES chapter 2 (Site description and development proposals) and ES Technical Appendix C (Framework CEMP)
Bio-aerosols	Not applicable
Birds / flies / vermin / litter	ES chapter 2 (Site description and development proposals)
Noise	ES chapter 2 (Site description and development proposals) and noise impact assessment report
Surface and groundwater pollution	ES chapter 8 (Ground conditions and water quality), ES technical appendices C (Framework CEMP), I1 (Ground conditions) and I2 (Water quality)
Spillages / seepages	ES chapter 8 (Ground conditions and water quality), ES technical appendices C (Framework CEMP) and I2 (Water quality)
Soil	ES chapter 8 (Ground conditions and water quality), ES technical appendices C (Framework CEMP) and I1 (Ground conditions)

## Appendix B: Waste Planning Statement

B.1 The Dorset Council validation checklist requires all planning applications for waste management development to include a Waste Planning Statement. It states that:

*‘The Waste Planning Statement should include all of the information required in the above Planning Statement section and, where applicable:*

- *how the facility meets sustainable waste management, drives waste up the waste hierarchy and does not undermine movement up the waste hierarchy (prevent, reuse, recycle, other recovery and disposal);*
- *how the facility meets the spatial strategy of the Waste Plan*
- *the maximum annual capacity of the facility and the types, quantities and sources of waste;*
- *a statement of how the facility meets Dorset’s requirements, the need will need to be demonstrated if the proposal is not consistent with the Waste Plan;*
- *details of the operational and processing methods, and if landfill, details of phasing and timeframes for filling;*
- *details of any residual materials and how they will be managed;*
- *details of how any energy produced will be utilised; and*
- *details of site management and monitoring procedures’*

B.2 These matters are addressed through the Environmental Statement (ES), this Planning Supporting Statement (PSS) and other supporting technical information submitted as part of this application. In order to avoid unnecessary duplication it has been agreed with Dorset Council planning officers that a full Waste Planning Statement will not be required in this instance and that this validation requirement is best served by means of a short index table, Table B.1 below, identifying where in the application documentation each of the above pollution control measures are addressed.

*Table B.1 Index schedule for waste planning information*

<b>Topic area</b>	<b>Where addressed in application</b>
Sustainable waste management (waste hierarchy)	PSS chapter 6 (Planning assessment)
Spatial strategy	PSS chapter 6 (Planning assessment)
Capacity, types, quantities and sources of waste	ES chapter 2 (Site description and development proposals) and PSS chapters 3 (Proposed development and 6 (Planning assessment) and Waste need statement
Need	PSS chapter 4 (Need) and Waste need statement
Operational and processing methods	ES chapter 2 (Site description and development proposals)
Residual materials and management	ES chapter 2 (Site description and development proposals) and noise impact assessment report
Energy utilisation	ES chapter 2 (Site description and development proposals), PSS chapter 6 (Planning assessment), CHP Heat Plan and Energy need statement
Site management and monitoring procedures	ES chapter 2 (Site description and development proposals), ES technical appendices C (Framework CEMP), Framework Site Waste Management Plan (SWMP)



## **Appendix C: Rights of Way Statement**

- C.1 The Dorset Council validation checklist requires that all planning applications for waste management development be accompanied by a Rights of Way Statement where development would have adverse implications on a public right of way.
- C.2 The site for the proposed ERF is located within the operational area of Portland Port and is not publicly accessible. Access to the port area is controlled via the entrance gatehouse and on-site security.
- C.3 The application site is not subject to any statutory rights of way, and the proposals do not require the creation of any new public rights of way, or the amendment of any existing off-site right of way.

## Appendix D: Draft Planning Conditions

### Suggested planning conditions

1) The development hereby permitted shall begin no later than 3 years from the date of this decision.

2) The development hereby permitted shall not take place other than in accordance with the following approved plans save as varied by the conditions hereafter:

*(insert list of approved drawings)*

3) No development shall be carried out until a schedule of materials and finishes to be used for external walls, roofs, flue stack, air cooled condenser structure of the proposed building(s), including samples where requested by the Waste Planning Authority, has been submitted to and approved in writing by the Waste Planning Authority. The development shall be constructed in accordance with the approved schedule of materials, and maintained as approved.

4) Prior to the commencement of the development hereby permitted, a Landscape and Ecological Scheme detailing landscape and ecological proposals, in accordance with the approved Landscape Strategy, shall be submitted to and approved in writing by the Local Planning Authority. The Scheme shall include:

- Details of all species (including grass species), planting sizes and nursery stock types, densities, planting method and soil amelioration;
- Details of proposed fencing;
- A programme for implementation.

Thereafter, the Scheme shall be implemented in full as approved. The approved landscape works shall be fully implemented in the first growing season following waste first being accepted at the development hereby permitted unless otherwise agreed by prior arrangement in writing by the Local Planning Authority. Any planting that fails to establish, is damaged, becomes diseased or dies within 5 years of planting shall be replaced in the next growing season in accordance with the original scheme or as otherwise agreed by prior arrangement in writing with the Local Planning Authority.

5) Prior to the commencement of the development hereby permitted, including construction and preparatory works, a Construction and Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the Local Planning Authority. The CEMP shall provide details on the following matters:

- The method of construction;
- The method of demolition of existing structures and surfacing;
- The measures to prevent the mobilisation of any existing contamination;
- The parking of vehicles by construction site operatives;
- Staff accommodation;
- Details of public engagement both prior to and during construction works;

- Dust suppression measures, particularly during demolition;
- Litter control measures;
- The storage, loading and unloading of plant, materials and waste;
- The measures to minimise and manage waste resulting from construction activities;
- The use of temporary lighting;
- The erection and maintenance of construction screening/hoardings/security fencing;
- The provision during the construction phase of wheel washing and/or other works required to mitigate the potential impact of mud/dirt on the public highway;
- Traffic management, including the anticipated number, frequency and types of vehicles used during construction (including a framework for managing abnormal loads), and the installation of any signage within the site and the highway;
- The measures to minimise noise arising from construction activities; and,
- The measures to prevent spills on site or address any spills that might occur.

Thereafter, the scheme shall be implemented and adhered to as approved throughout the entire construction period of the development hereby permitted, unless otherwise agreed by prior arrangement in writing by the Waste Planning Authority.

6) Prior to the commencement of any, piling associated with the development hereby permitted details of those works shall be submitted to and approved in writing by the Local Planning Authority. Thereafter the piling works shall be carried out as approved.

7) Prior to the commencement of the development hereby permitted a scheme shall be submitted to and approved in writing by the Local Planning Authority detailing the establishment of a Community Liaison Panel to include representation from the site operator, Dorset Council and local residents. The scheme shall include provision for:

- The appointment of a chairperson from the Local Planning Authority;
- The appointment of a liaison representative from the facility operator and contact number;
- A community complaints procedure;
- The production, approval and publication of minutes of community Liaison Group meetings;
- Details of how the group will operate, including its terms of reference; and,
- An implementation programme.

Thereafter, the scheme shall be implemented and adhered to in accordance with the approved details throughout the lifetime of the development.

8) The development hereby approved shall be designed from the outset such as to allow for the potential future beneficial use of combined heat and power, the specific measures and specifications for which shall be submitted to and approved in writing by the Local Planning Authority prior to the installation of the energy recovery facility. Thereafter, the plant shall be installed in accordance with the approved specifications.

9) Prior to the first operation of the energy recovery facility and ancillary infrastructure (the facility) hereby permitted a scheme for the monitoring of noise emissions from the facility in accordance with BS4142:2014+A1:2019 'Method for rating and assessing industrial and commercial sound' (or successor) shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall include the identification of sensitive receptor monitoring locations and monitoring periods. Noise emissions from the operation of the facility hereby approved measured in accordance with the approved scheme shall not exceed representative background sound levels LA90,T by more than *(insert appropriate figure)* dB at approved monitoring locations.

Within two months of the facility hereby approved becoming operational, an Operational Noise Survey undertaken in accordance with the approved scheme shall be submitted to the Local Planning Authority to demonstrate whether the required noise limit is being adhered to.

10) Construction (including any demolition and site clearance) of the development hereby permitted, involving the use of plant/machinery/equipment/vehicles and the deliveries of construction materials/plant/machinery/equipment being received by or dispatched shall only take place between the following hours unless otherwise agreed by prior arrangement in writing by the Local Planning Authority:

- 07.00 and 19.00 on Monday to Sunday inclusive

No HGVs shall enter or exit the site on Sundays, Bank Holidays or Public Holidays.

11) Prior to the first operation of the facility hereby permitted details of a scheme to control odour arising from the site shall be submitted to and approved in writing by the Waste Planning Authority. The scheme shall include that the RDF storage and RDF unloading Hall (as shown on the Proposed Site Plan (*drawing ref xxxxxxxx*)) shall incorporate and operate negative pressure extraction/ventilation systems, and all vehicular doors shall remain closed other than when vehicles, plant or equipment are passing through. Thereafter, the scheme shall be implemented as approved and the associated measures retained as approved.

12) All vehicles associated with delivery of wastes to the site and the removal of waste/treated waste materials/products from the site shall have their loads enclosed so as to prevent spillage or loss of materials on the public highway and the release of emissions to air.

13) No more than 202,000 tonnes of waste (including refuse derived fuel) shall be received at the facility hereby permitted in any regulatory year (1 April-31 March). A running total record of the quantities (in tonnes) of wastes delivered to the facility and the number of all goods vehicle movements entering and exiting the site shall be maintained for each regulatory year by the operator at all times and made available to the Waste Planning Authority upon request.

14) Vehicles within the control of the operator of the facility hereby permitted, including those required to visit the site under contract, that are required to emit reversing warning noise, shall use only white noise/broadband alarms rather than single tone alarms.

15) The vehicle and cycle parking shown on the Proposed Site Plan (*drawing ref xxxxxxxx*) shall be retained for this use throughout the operation of the development hereby permitted.

16) Prior to the commencement of the development hereby permitted a Travel Plan Statement (TPS) shall be submitted to and approved in writing by the Local Planning Authority. The TPS shall include continuing long-term measures to promote and encourage alternative modes of transport to the single-occupancy car. The approved TPS shall be implemented in accordance with the approved details prior to the first operation of the facility hereby approved.

17) No combustion of waste shall take place at the facility hereby permitted, with the exception of that required for hot commissioning, until a connection to an electricity grid for the export of electricity from the facility has been installed and is available for use. The connection shall be maintained as installed throughout the lifetime of the development.

18) Prior to the commencement of the development hereby permitted, details of foul and surface water drainage for the facility shall be submitted to and approved in writing by the Local Planning Authority. The details shall be consistent with the principles set out in the submitted Drainage Strategy (*drawing ref. xxxxxxxxx*) The development shall be carried out and maintained thereafter in accordance with the approved details.

19) Prior to the commencement of the development approved by this planning permission (or such other date or stage in development as may be agreed in writing with the local planning authority), the following elements of a scheme to deal with the risks associated with contamination of the site shall each be submitted to and approved, in writing, by the local planning authority:

i) A preliminary risk assessment which has identified: all previous uses and potential contaminants associated with those uses, a conceptual model of the site indicating sources, pathways and receptors, and potentially unacceptable risks arising from contamination of the site.

ii) A site investigation scheme based on (i) to provide information for a detailed assessment of the risk to all receptors that may be affected, including those off site.

iii) The site investigation results and the detailed risk assessment referred to in (ii) and, based on these, an options appraisal and remediation strategy giving full details of the remediation measures required and how they are to be undertaken.

iv) A verification plan providing details of the data that will be collected in order to demonstrate that the works set out in (iii) are complete and identifying any requirements for longer-term monitoring of pollutant linkages, maintenance and arrangements for contingency action.

The scheme shall be implemented as approved, unless otherwise agreed.

20) If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Local planning authority) shall be carried out until the developer has submitted, and obtained written approval from the Local planning authority for, a remediation strategy detailing how this unsuspected contamination shall be dealt with. The remediation strategy shall be implemented as approved.

## Appendix E: Community Liaison Panel Draft Terms of Reference

### 1. INTRODUCTION

- E.1 This document has been prepared by Powerfuel Portland (the Developer) as a statement of its intention to establish a Community Liaison Panel (CLP) in advance of the construction and operation of the Portland Energy Recovery Facility (PERF).
- E.2 The main purpose of the CLP is to facilitate communication, share information and engage in “balanced” discussions about the development and operation of the PERF without prejudice to people’s positions and with the intention of informing the local community about construction and operational aspects of the development. The CLP’s remit will also cover discussions regarding local energy supply, district heating, the achievement of ‘net zero’ in the operation of the PERF and carbon offsetting projects.
- E.3 This document sets out the aims and objectives and general matters of the operation, membership and communications of the CLP.

### 2. OBJECTIVES OF THE GROUP

- E.4 The CLP will be established to provide a communication channel between the Developer and Operator of the PERF with local neighbours during the construction, operational and de-commissioning phases of the PERF. The Developer or its appointed representative will inform members of the CLP of the various stages and elements of the development of the PERF.
- E.5 The aims of the CLP are to provide:
- A balanced forum for the operator to inform representatives of the local community of progress on the site development;
  - A forum for local residents to discuss any areas of the site operations;
  - An opportunity to inform interested parties in advance of any new proposals, or any submissions to amend or vary the approved scheme of operations;
  - An opportunity to inform interested parties in advance of any new proposals, or any submissions to amend or vary the approved scheme of operations;
  - A better understanding for the developer of local concerns and how to mitigate them.
- E.6 It is hoped that members of the group will become knowledgeable about the proposed facility and will report back as appropriate to the people they represent.

### 3. MEMBERSHIP OF THE GROUP

- E.7 It is proposed that the CLP would include an invited representative from each of the following organisations/bodies:
- The developer;

- The site operator;
- Portland Port;
- A tenant at the Port;
- A representative of the construction contractor (during the construction phase);
- Two local Portland residents;
- Two representatives from Portland Town Council;
- Weymouth Town Council;
- Three elected members from Dorset Council representing Portland;
- The MP for South Dorset

E.8 It is proposed that the following individuals attend the CLP meetings and represent each organisation/body. Where any of the following individuals are unable to attend, the Developer will seek to temporarily co-opt into the group another suitable individual as nominated by the absentee.

E.9 The proposed representatives are:

The Developer;	TBA
Site operator	TBA
Portland Port	TBA
Port tenant	TBA
Construction contractor	TBA
Local residents	TBA
Portland Town Council	TBA
Weymouth Town Council	TBA
Dorset Council	TBA
South Dorset MP	TBA

E.10 Invitations to members will be made by the Developer at least 3 months before the first meeting.

E.11 From time to time the CLP may invite other specialist individuals to attend including the Environment Agency.

#### **4. OPERATION AND CONDUCT OF THE GROUP**

E.12 It is proposed that the CLP would meet on a quarterly basis (three-monthly) beginning approximately three months prior to the commencement of construction of the facility.

E.13 It is proposed that the initial meetings of the CLP will be held at a local venue to be determined with meetings moving to the PERF site when available. Should an alternative meeting venue be required for any reason, the cost of venue hire would be met by the Developer.

E.14 Meetings will be held on a weekday, between 6pm and 8pm.

E.15 The meetings will be independently facilitated by a Chairperson nominated by the Developer. The Chair will plan the way that the meetings are run and

suggest an agenda based on their understanding of what the group has requested and what is feasible to cover in the agreed time.

E.16 The cost and responsibility of administration of the CLP, the preparation and distribution of agendas and minutes and accommodation will be the responsibility of the Developer. CLP members will be expected to provide their time free of charge.

E.17 The agenda will as a minimum cover:

- Approval of the minutes of the previous meeting,
- A report by the Developer on Health & Safety records and compliance with permits,
- Anything else of notable interest which the Developer wishes to raise,
- Any matters tabled by CLP members in advance
- Any Complaints received at the PERF and their mitigation; and
- Discussion (all members).

## **5. COMMUNICATIONS**

E.18 Agendas and minutes will be circulated in advance and after each meeting to the liaison panel. Minutes will be circulated to members within 4 weeks of the date of a liaison meeting having taken place and placed on the Developer's website <http://www.powerfulportland.co.uk> for public viewing.

E.19 Members of the CLP may submit comments and questions to be raised during the meeting by contacting the Developer through the free phone helpline 08081 681678, emailing [info@powerfuelportland.co.uk](mailto:info@powerfuelportland.co.uk) or through the Chair when appointed.

E.20 For the CLP to be successful members must conduct themselves with mutual respect. Rules of behaviour include:

- Mobiles off when in the meeting;
- One person speaks at a time in the meeting;
- Listen as well as talk;
- During the presentations, make a note of your questions and ask at the end.

E.21 Local administration and recording and distribution of the minutes is to be undertaken by the Developer who will make the necessary logistical arrangements for the CLP.

E.22 The meetings will not be open to the press, public or additional representatives from the group representatives. The only communications to be issued to the press by Group members will be the CLP minutes and only as directed by the Chair.

E.23 Members are expected to discuss the issues raised at the meetings with others and bring their views to the meetings. This is part of their responsibility as representatives of other people in the community.



## **6. GENERAL**

E.24 Only matters relating directly to the PERF and its environs shall be discussed.

E.25 The CLP is not empowered to take executive decisions in relation to the PERF and its operations.

## Appendix F: Relevant NPPF extracts

F.1 The NPPF provides relevant guidance in respect to the following topic areas:

### ***Achieving sustainable development***

F.2 Paragraph 8 NPPF states that sustainable development consists of the following three dimensions:

- a) *An economic objective – to help build a strong, responsive and competitive economy*
- b) *A social objective – to support strong, vibrant and healthy communities*
- c) *An environmental objective – to contribute to protecting and enhancing our natural, built and historic environment*

F.3 The planning system needs to perform all of these dimensions for sustainable development to be achieved. This includes minimising waste and adapting to climate change.

F.4 Paragraph 11 states that at the heart of the NPPF is the presumption in favour of sustainable development, which would apply to both plan-making and decision-taking. In terms of decision-taking, this means approving development proposals that accord with the development plan without delay, unless there are policies within the framework that provide a clear reason for refusing permission, or adverse impacts of granting permission would demonstrably outweigh the benefits when assessed against the policies in the NPPF.

F.5 Paragraph 38 NPPF requires all decisions on proposed development to be approached in a positive and creative way, and for local planning authorities to work proactively with applicants to secure developments that will improve the economic, social and environmental conditions of the area. All decision-makers should seek to approve applications for sustainable development where possible.

F.6 Paragraph 39ff NPPF encourages early engagement to improve the efficiency and effectiveness of the planning system, leading to better coordination between public and private resources and improved outcomes for the community.

### ***Building a strong, competitive economy***

F.7 Paragraph 80 NPPF 2019 requires significant weight to be placed upon the need to support economic growth and productivity, with consideration of local business needs and wider opportunities for development. Furthermore, the NPPF sets out the need for decisions to recognise and address the specific local requirements for different sectors.

### ***Promoting healthy and safe communities***

- F.8 Paragraph 91 NPPF requires policies and decisions to help achieve healthy, inclusive and safe places, whilst also facilitating the provision of local services to enhance the sustainability of communities and residential environments.

### ***Promoting sustainable transport***

- F.9 Paragraph 102 NPPF 2019 requires the environmental impacts of traffic and transport infrastructure to be identified, addressed and considered, together with appropriate opportunities for avoiding and mitigating any adverse effects, and for achieving net environmental gains.

### ***Achieving well-designed places***

- F.10 Paragraph 124 NPPF requires the creation of high quality buildings and places, stating that good design is a key aspect of sustainable development, creating better places to live and work, and helps make development acceptable to communities. Furthermore, the NPPF states in para. 127 that policies and decisions should ensure that developments should function well and add to the overall quality of the area over the lifetime of the development and are visually attractive as a result of good architecture, layout and appropriate and effective landscaping.
- F.11 In general, paragraph 131 NPPF requires that, when determining applications, great weight should be given to outstanding or innovative designs which promote high levels of sustainability, or help raise the standard of design more generally in an area, as long as they fit in with the overall form and layout of their surroundings.

### ***Meeting the challenge of climate change, flooding and coastal change***

- F.12 Paragraph 148 NPPF states that the planning system should support the transition to a low carbon future in a changing climate, including renewable and low carbon energy and associated infrastructure. The NPPF further states that local planning authorities should not expect new development proposals for renewable and low carbon development to demonstrate the overall need for renewable or low carbon energy and should approve the application if its impacts are, or can be made, acceptable. Applications for commercial scale projects outside identified areas in plans should demonstrate that the proposed location meets the criteria used in identifying suitable areas.
- F.13 Paragraph 155 NPPF requires development to be directed away from areas at risk of flooding. The proposal site is located in flood zone 1 with the lowest area of risk.

### ***Conserving and enhancing the natural environment***

- F.14 Paragraph 170 NPPF states that policies and decisions should contribute to and enhance the natural and local environment in relation to protecting and

enhancing valued landscapes and the character and beauty of the countryside, biodiversity and the coastline. Development should, where possible, help improve local environmental conditions.

- F.15 Paragraph 175 NPPF requires local planning authorities to apply a set of principles when determining planning applications, including the following principles of relevance to the proposal:
- Avoidance of harm to biodiversity arising from a development
  - Development on land outside a Site of Special Scientific Interest (SSSI) with a likely adverse effect on it, should not normally be permitted except if the benefits of the development in the location clearly outweigh both its likely impact on the features of the site
  - Avoidance of loss or deterioration of irreplaceable habitats or inclusion of a suitable compensation strategy
  - Opportunities to incorporate biodiversity improvements in and around developments should be encouraged
- F.16 Paragraph 178ff NPPF requires sites to be suitable for its proposed use in relation to ground conditions, land stability and contamination, including any risks arising from natural hazards or activities such as land remediation. Adequate site investigation is required to enable an assessment to be made and appropriate remediation undertaken.
- F.17 New development should be appropriate for its location, in consideration of likely effects of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. The EIA has assessed in detail all relevant aspects relating to land contamination, stability, potential pollution and impact on natural heritage and are found to accord with the NPPF.

### ***Conserving and enhancing the historic environment***

- F.18 The NPPF defines heritage assets as sites and buildings of local historic values and includes those of the highest significance, such as the internationally recognised World Heritage Sites. These sites should be conserved in a manner appropriate to their significance (para. 184 NPPF).

### ***Facilitating the sustainable use of materials***

- F.19 According to the NPPF, it is essential that there is a sufficient supply of minerals, given that they are a finite natural resource and can only be worked where they are found (para. 203). Therefore, development proposals in Mineral Safeguarding Areas that might constrain potential future use for mineral working will not normally be permitted (para. 206).

## Appendix G: Relevant Extracts from No Time to Waste (2020)

G.1 This appendix provides narrative from the recent report entitled 'No Time to Waste: Resources, Recovery and the Road to Net-zero' was published by Policy Connect. An inquiry, led by a cross-party group of Parliamentarians, considered the future role of EfW facilities in England in respect to waste management and carbon reduction.

G.2 The report states:

*"Our investigations consider the three options for managing residual waste: sending it to EfW, burying it in landfill or shipping it abroad, and firmly conclude that EfW is the best available option. By sending the waste to EfW, it is pushed up the waste hierarchy, diverted away from environmentally damaging landfill, and can support the UK's heat and power needs. At the same time, it helps to maintain a clean and hygienic waste service; something the public has come to expect; the need for which has been reinforced during the COVID crisis. The inquiry proposes that the UK should move towards a Scandinavian style approach to residual waste, viewing it as a valuable resource to generate heat, to ensure that landfill reliance is driven down to as low as is feasible".*

G.3 Whilst continuing to recognise and support efforts to maximise recycling, the report also accepts that the UK will continue to generate large volumes of residual waste in future. It states:

*"Calculations show that even if the UK does meet its 2035 recycling targets, there will continue to be large volumes of residual waste produced long into the future. The UK should therefore frequently reassess projections for future waste volumes, to account for the impact of new measures and externalities, and to allow necessary investment into EfW capacity. This will enable maximum use of low carbon waste heat generated by EfW to support housing, industry, and other sectors".*

G.4 The report also states:

*"...that there is no time to waste. The UK is disproportionately lagging behind much of Europe in harnessing EfW heat, with less than a quarter of plants connected to heat networks. We found that there are currently a number of barriers preventing this on a larger scale, but that the primary challenge is finding the right sites for plants, located near to a potential heat off take..."*

G.5 The report found that:

*"...when integrated into communities, and with the addition of local heat supply, EfW has the potential to offer significant community value across the country. Whether this is by attracting local investment, creating new skilled jobs, or by providing low carbon heating to help address fuel poverty, EfW can play a critical role as the UK builds back better from the impact of COVID-19 on our society and economy."*

### ***EfW and the climate agenda***

G.6 In respect to EfW and the climate change agenda the report states that:

*“In recent years, the climate agenda and focus of Government has shifted significantly, and public concern for the environment has never been greater. The UK has committed to net-zero carbon emissions by 2050, and adopted ambitions to reach a circular economy. There now needs to be a focus on how every sector and industry adapts to this, where previously many had assumed they could fall outside of the scope of the less ambitious Paris Agreement.”*

and

*“Energy from Waste (EfW) has an important role to play in this transition, and this report outlines the future of this suite of technologies. EfW is the lowest carbon solution for managing residual waste, by diverting landfill and generating useable electricity and heat. Every tonne of waste diverted from landfill to EfW saves 200kg of CO<sub>2</sub>, while generating low carbon energy and heat.”*

G.7 The inquiry reported its finding that EfW is the lowest carbon option for managing residual waste. Whilst recognising that there are still carbon emissions released during the process, this is to some extent offset by the heat and electricity generation.

G.8 The report notes that whilst EfW is primarily a waste management tool, and a transitional technology until a point where residual waste ceases to arise, there are additional roles that EfW technologies can play and that these should be fully utilised to contribute to the decarbonisation efforts for often-difficult sectors and the wider UK climate agenda. It highlights the Clean Growth Strategy’s recognition of the good progress made in the waste and resources sector in reducing carbon emissions but also reflects upon the relative lack of progress in other sectors, particularly across transport, industry and the domestic heating sector. In respect to heating, the report states:

*“Significantly, the EfW process generates vast quantities of heat, which can and should be utilised as far as possible. Decarbonising domestic and industrial heating is already proving to be one of the most challenging aspects of the drive towards net-zero.”*

and

*“EfW also presents a significant opportunity to provide heat to non-domestic buildings. By 2050, non-domestic buildings are projected to represent 53% of heat network demand, despite the fact that they will only account for 28% of the UK’s general heat requirements. As a high temperature process, EfW heat is ideally placed to serve lower efficiency buildings and industrial plants with high heat demand.”*

G.9 Further stating that:

*In 2018, the Government identified at least 0.2tWh of accessible EfW waste heat, which alone would double the proportion of UK heat provided through heat networks if utilised...*

### **The road to recovery**

G.10 The report recognises that since the publication of the Resources and Waste Strategy, a number of European countries have introduced RDF import taxes and most recent data trends indicates that the amount of RDF exporting is beginning to reduce. The result is that the inquiry found that the Resources and Waste Strategy assumption, that the export of RDF will remain stable to 2035, is unlikely to be the case. It also noted that £280 million is being spent by the UK each year to export waste for other countries to recover energy from; often the same countries that the UK then imports energy from. This led the inquiry to conclude that:

*"We now additionally believe that the UK should no longer be exporting RDF waste and should instead prioritise ensuring EfW is more acceptable through greater heat offtake."*

G.11 The inquiry heard mounting evidence indicating that the 65% recycling target for England would be missed and may not be reached until 2048. Also that the 10% target for landfill of residual waste was still too high and should be more ambitious. As a consequence the report concluded that the UK is likely to require sufficient EfW capacity to avoid a reliance on future landfill and reduce the export of RDF.

G.12 The report also found that EfW was entirely compatible, and a servant to the Circular Economy ambitions, which is stated in the EU action plan as:

*"The value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste minimised" and where "waste and resource use are minimised, and when a product reaches the end of its life, it is used again to create further value."*

G.13 The inquiry report stated in these respects that:

*"Naturally, the priority and focus of a circular economy is waste minimisation and redesign. However, a uniformly and totally waste-free society is not realistic. The latter part of this definition therefore poses a clear role for EfW in providing a valorisation service; complying with the waste hierarchy by displacing landfill, and as the best available and proven technology to recover maximum value from end of life waste".*

### **From waste to heat**

G.14 The inquiry report considered the role of waste to heat and the challenges that delivering heat networks from EfW facilities face. It recognises the role that EfW can play in this and states that the EfW heat challenge must be tackled now otherwise the opportunity will pass. It also notes that EfW heat displaces virgin energy, by using wasted heat from a partially renewable source, and that EfW can play a role in decarbonising other sectors. In comparison to abroad the inquiry states that:

*“The UK is a long way behind the rest of Europe when it comes to utilising EfW heat. Instead UK policy has historically favoured the adoption of gas network supplies for heat, and was until recently the world’s largest market for boilers. Most modern EfW plants are built CHP-enabled (Combined Heat and Power), in anticipation of finding a heat customer. However, as of 2018, of the 40 EfW facilities in the UK only eight were actually operating in CHP mode”.*

Adding

*“Despite this lack of progress, this inquiry found the waste sector to be almost unanimously supportive of the Government’s EfW heat ambitions, and would welcome the opportunity to export their heat. Similarly, it was noted that when the EfW debate shifts away from emotional arguments around waste, and towards the opportunities and practicalities of heat, it becomes a much more constructive conversation.”*

- G.15 The inquiry noted a number of barriers and challenges to heat off take from CHP. Of these, location was highlighted as the most significant challenge. It noted that the specific spatial location of plant largely determines the feasibility of finding and connecting to heat customers. The Inquiry found that plant locations are often influenced by suitable land availability and in some cases are located rurally away from housing or industrial developments, often driven by local opposition to planning applications, resulting in isolated locations becoming the sites of least resistance. The report found that whilst community engagement is important in the planning process, this historical opposition has meant that there are now numerous EfW facilities in the UK where heat connections have not been viable.

### ***Unleashing social potential***

- G.16 The report also investigated the potential of EfW to offer a range of social benefits for the surrounding communities, if they are well integrated. The inquiry report highlights a number of common concerns and misconceptions around EfW and whilst finding that the understanding of EfW among the public appears to have improved over recent years, it concludes that certain campaigns continue to oppose plants, building emotional cases that largely rely on inaccurate grounds.
- G.17 The report notes that the most common concern is around potential health and air quality implications of EfW plants through emissions and particulates released into the atmosphere. It states:

*“There is a historical misconception that EfW emissions contain significant levels of pollutants, which are harmful to the health of the local community. EfW emissions are closely regulated by the plant’s Environmental Permit. This permit is awarded by the regulating authority which is either the Local Authority in the case of small facilities, or in most cases the Environment Agency. The authority then regulates the plant in accordance with the Environmental Permitting (England and Wales) Regulations 2010. EfWs are required to submit strict Air Quality Assessments, to demonstrate that the plant meets emission limit values as set out in the Directive 2000/76/EC on the incineration of waste (Waste Incineration Directive)”*



Adding that:

*“Public Health England commissioned research from the Small Area Health Statistics Unit (SAHSU) at Imperial College London, looking into the health impact of EfW plants. Three papers were published between 2018 and 2019. These found no evidence of an increased risk of infant mortality for children living close to Municipal Waste Incinerators, and a causal association between an increased risk of congenital anomalies and close proximity to MWIs was not established.”*

G.18 The current PHE risk assessment and guidance is that:

*“Modern, well run and regulated municipal waste incinerators are not a significant risk to public health. While it is not possible to rule out adverse health effects from these incinerators completely, any potential effect for people living close by is likely to be very small”*

G.19 The report states that what is less well communicated is the balance of health risks. It highlights that nearby communities connected to district heating avoid the need for a natural gas boiler in the home, removing potential health risks associated with burning gas. It recognises that health questions around EfW appear more frequently than any possible impacts of boilers, or nearby roads etc. despite no increased evidence. Reference is also made to data from BEIS' National Air Emissions Inventory, that indicates that bonfire night alone contributed 10x more dioxin emissions in 2016 than all EfW plants throughout the year.

G.20 The inquiry also reported on a continued perception, often from local opponents to EfW, that the process is detrimental and hampers efforts to increase recycling. The inquiry found no evidence to support this, and concluded in fact that the evidence shows that areas with EfW often have the highest recycling performance.

G.21 The report also highlights other areas of potential benefit where public bodies provide the initial heat load, thus supporting the delivery of the rest of the heat network. This could be in the form of community infrastructure or other energy intensive facilities such as schools, hospitals and swimming pools. Other benefits of EfW include the creation of a range of skilled jobs and education (through integrated educational facilities and the attraction of new investment to an area. It can also help support local industry, as the co-location of EfW to provide heat and power can help reduce the carbon impact of industry. The report states:

*“Developing the EfW heat market has additionally become increasingly important for Government at the scale of attracting foreign direct investment into the UK, as well as helping UK companies to export overseas. This potential investment presents an opportunity for EfW and heat networks to contribute to the economic recovery from the COVID-19 crisis. If done efficiently and in line with this inquiry's recommendations, this could also play a role as part of the much-discussed green recovery.”*

## Appendix H: Youth Training and Employment Policy

### 1. Policy Statement and Purpose:

- 1.1 This policy is a fundamental element of the overall Corporate Social Responsibility strategy of Powerfuel and seeks to ensure that the proposed facility provides the young people of Portland with access to ongoing training and long-term career opportunities.
- 1.2 In order to achieve this aim, this policy will set out how Powerfuel will build and maintain ongoing relationships with local education providers and ensure youth employment is considered at all stages of the construction and operation of the facility.

### 2. Definitions:

- 2.1 Apprenticeship:  
An apprenticeship is a genuine job combining practical on-the-job training with study, leading to the completion of an apprenticeship standard.
- 2.2 Apprenticeship Standard:  
An apprenticeship standard is an apprenticeship programme of at least 12 months duration, and sets out the knowledge, skills and behaviours that must be achieved within that time to enable an apprentice to pass an end point assessment, signifying their competence within the subject matter.
- 2.3 Occupational map:  
Occupational maps are produced by the Institute of Apprenticeships and Technical Education, demonstrating the development and progression that can be taken within an occupational area.
- 2.4 Traineeship:  
A traineeship is a skills development programme, including work placement, for young people aged 16-24 years old. It is designed to help young people without appropriate skills or experience prepare themselves for an apprenticeship or employment.
- 2.5 Training Provider:  
A training provider is a provider of traineeships and/or apprenticeships recognised and contracted by the Education and Skills Funding Agency (ESFA).

### 3. Construction of the Facility:

- 3.1 During construction of the facility, Powerfuel will place obligations on contractors to ensure that youth training and employment is a priority.

- 3.2 Contractors will be obligated to provide a minimum of two traineeship opportunities per work package, with preference given to young people resident within Portland.
- 3.3 Powerfuel will work with contractors to procure training providers for the traineeships to ensure that traineeships are of the highest quality and offer the most opportunity to the trainees.
- 3.4 Training providers must ensure that traineeship programmes include employability skills and work-readiness support, alongside Functional Skills Maths and English at Level 1 or Level 2 where this has not already been achieved. Where appropriate for the traineeship undertaken, training providers will be expected to facilitate achievement of a Construction Skills Certification Scheme (CSCS) Card to support future employability of the trainee.
- 3.5 Powerfuel will continue to offer support to contractors and liaison with training providers to ensure high quality training and engagement of contractors with the programme.
- 3.6 Due to the duration of the construction programme, contractors will be encouraged to provide apprenticeship opportunities following on from traineeships where appropriate. Powerfuel will extend support and training provider liaison to facilitate this.

#### **4. Operation of the Facility:**

- 4.1 Upon commencement of operations at the facility, Powerfuel is committed to maintaining support for the training and employment of Portland's young people.
- 4.2 The facility will have an 'Education Room', designed to facilitate school visits and other work with the young people of Portland, as well as host regular community liaison group meetings. This facility will also be made available to other Port businesses who share Powerfuel's commitment to traineeships and apprenticeships.
- 4.3 Powerfuel will commit to an initial apprenticeship programme of two apprenticeship starts per year, which will equate to approximately 7.5% of the initial expected workforce. The specific apprenticeship standards will be confirmed following consultation with training providers and operational management, but are expected to be at Level 2 or 3 within the Construction and Engineering and Manufacturing occupational maps, as set out by the Institute of Apprenticeships and Technical Education (IfATE).
- 4.4 Training providers will be identified through a procurement exercise focusing on the quality of provision and support offered to apprentices.
- 4.5 Powerfuel are committed to providing an apprenticeship programme offering a transformative, high quality development journey for the apprentice. The apprenticeship programme will be expertly designed, including induction, on the job training, mentoring support, and continuous professional development.

- 4.6 In order to maintain quality, Powerfuel will bi-annually review the scheme and services procured from external training providers.
- 4.7 Wherever possible, apprentices will be supported to remain in employment with Powerfuel following the completion of their apprenticeship programme. Where immediate permanent employment within the facility is not available, Powerfuel is committed to liaising with their supply chain to promote the movement of apprentices into substantial ancillary roles.
- 4.8 The intention of Powerfuel is to grow the apprenticeship programme in line with organisational growth, considering both an increase in entry level apprenticeship roles and future progression opportunities, including higher level apprenticeships and qualifications.

## **5. Financial Implications:**

### 5.1 Programme costs:

5.1.1 There are no programme costs associated with traineeships.

5.1.2 The maximum cost of each apprenticeship programme is set by the IfATE. Whilst Powerfuel maintains an annual wage bill of less than £3 million, it is deemed to be a non-levy paying employer, and will be liable for an employer contribution of no more than 5% towards the apprenticeship programme cost, with the government funding the remaining 95%.

5.1.3 For illustrative purposes, a Level 2 Engineering Operative apprenticeship programme would cost a maximum of £6000, with Powerfuel liable for a contribution of no more than £300.

### 5.2 Salary costs:

5.2.1 Salaries are not paid to trainees as they are deemed to be in full time education for the duration of the traineeship programme. It is good practice to cover expenses for trainees where possible.

5.2.2 Apprentices must be paid at least the following hourly rate:

- Aged 16-18: National Minimum Wage – Apprentice rate
- Aged 19+ and within first 12 months of apprenticeship: National Minimum Wage – apprentice rate
- Aged 19+ and in apprenticeship beyond first 12 months: National Minimum Wage or National Living Wage for their age group.

### 5.3 Support costs:

5.3.1 Powerfuel have committed to covering support costs related to contractors in respect of points 3.3, 3.5, and 3.6 above, as well as design and quality review of apprenticeship programme in respect of points 4.5 and 4.6 above.

5.4 Incentives and grants:

- 5.4.1 Wherever possible Powerfuel will look to receive available incentives and grants, which will be used to improve trainee and apprentice experience and enable further opportunities.
- 5.4.2 Through the support and liaison offered, Powerfuel will provide support and advice to ensure that contractors are aware of incentives and grants available to them.
- 5.4.3 Incentives and grants currently available include, but are not limited to, existing apprenticeship incentives, CITB apprenticeship grants, and ‘A Plan for Jobs 2020’ government incentives.

**6. Implementation and Review**

- 6.1 This policy will be implemented immediately, and subject to review every two years.

**References**

**CITB (Construction Industry Training Board):**

New apprentice support grant  
 Apprenticeship grants for intermediate and advanced levels  
 Apprenticeship grants for higher levels

**GOV.UK:**

‘A Plan for Jobs 2020’  
 Apprenticeship funding rules – Incentive payments (E105 to E127)  
 National Minimum Wage and National Living Wage rates

**Institute for Apprenticeships and Technical Education:**

Website  
 List of apprenticeship standards - Construction  
 Engineering and Manufacturing  
 Occupational maps - Construction  
 Engineering and Manufacturing

Levels of Apprenticeships: Name	Level	Equivalent educational level
Intermediate	2	GCSE
Advanced	3	A Level
Higher	4	Year 1 Undergraduate Degree HNC
	5	Year 2 Undergraduate Degree Foundation Degree HND
Degree	6	Bachelor’s Degree
Master’s Degree	7	Master’s Degree