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PPF 13: PROOF OF EVIDENCE OF SIMON ELLIOTT

SOCIOECONOMIC IMPACT ASSESSMENT

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1.0 Introduction

1.1 Background

- 1.1.1 In this Proof of Evidence (PoE), I consider the socioeconomic impact of the proposed Portland Port Energy Recovery Facility (ERF, “the Proposed Development”), as requested by Powerfuel Portland Limited (“the Appellant”).
- 1.1.2 The Proposed Development was subject to a planning application (reference WP/20/00692/DCC) submitted by the Appellant to Dorset Council (“the Council”) on the 7 September 2020. The planning application had the following description:
- 1.1.3 To be clear, I was not involved in the planning application or any of the documents prepared at that time.
- 1.1.4 The planning application was refused permission at the Strategic and Technical Planning Committee (STPC) on 24 March 2023 in line with officer’s recommendation (CD 5.1 and 5.2), with the refusal notice issued the same day (CD 6.1). The reasons given were as follows:

“Construction of an Energy Recovery Facility (ERF) with ancillary buildings and works including administrative facilities, gatehouse and weighbridge, parking and circulation areas, cable routes to ship berths and existing off-site electrical sub-station, with site access through Portland Port from Castletown.”

“2.1 The proposed development, being located on a site that is not allocated in the Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019, fails to demonstrate that it would provide sufficient advantages as a waste management facility over the allocated sites in the Plan. This is by reason of its distance from the main sources of Dorset’s residual waste generation and the site’s limited opportunity to offer co-location with other waste management or transfer facilities which, when considered alongside other adverse impacts of the proposal in relation to heritage and landscape, mean that it would be an unsustainable form of waste management. As a consequence, the proposed development would be contrary to Policies 1 and 4 of the Bournemouth, Christchurch, Poole and Dorset Waste Plan 2019 and paragraph 158 of the NPPF.

2.2 The proposed development, as a result of its scale, massing and height, in the proposed location, would have a significant adverse effect on the quality of the landscape and views of the iconic landform shape of the Isle of Portland within the setting of the Dorset and East Devon Coast World Heritage Site, particularly when viewed from the South West

Coast Path and across Portland Harbour. As such, the proposal is contrary to Policy 14 of the Waste Plan, Policy ENV1 of the West Dorset, Weymouth & Portland Local Plan, Policies Port/EN7 and Port/BE2 of the Portland Neighbourhood Plan, and paragraph 174 of the NPPF.

2.3 *The proposed development would cause ‘less than substantial’ harm to a range of heritage assets. Public benefits of the scheme have been assessed, taking account of the mitigation proposed, but are not considered sufficient to outweigh the cumulative harm that would occur to the individual heritage assets and group of heritage assets, with associative value in the vicinity. As a result, the proposal is contrary to Policy 19 of the Waste Plan, Policy ENV4 of the West Dorset, Weymouth & Portland Local Plan, Policy Port/EN4 of the Portland Neighbourhood Plan and Paragraph 197 and Paragraph 202 of the NPPF.”*

1.1.5 My evidence will address the public socioeconomic benefits arising from the Proposed Development, and the weight that should be attributed to them in the planning balance.

1.2 Experience and Statement of Truth

1.2.1 This PoE has been prepared by Simon Elliott. I have a BSc (Hons) in Environmental Geology and a MSc in Environmental Impact Assessment. I have over 22 years’ experience working as a planning consultant in the private sector, except for a short period when I worked for Bedford Borough Council as a Community Intelligence Analyst.

1.2.2 I am an Associate Socioeconomic Planner at Bidwells LLP. Throughout my career I have worked predominantly on largescale strategic developments, first project managing Environmental Impact Assessments (EIA), and subsequently, on socioeconomic matters. I have been involved and given evidence on socioeconomic matters at several appeals and examinations and have given evidence both in support and against development. For example:

- The 2012 Olympics: I prepared the outline socioeconomic modelling for the use of Greenwich Park and the Royal Artillery Barracks as venues for the Olympics. I subsequently prepared the socioeconomic assessment for the replacement of the temporary Olympic Stadium with the permanent London Stadium, following on from my work on the relocation of Arsenal Football Club to the Emirates Stadium (and subsequent redevelopment of Highbury Stadium), the redevelopment of White Hart Lane Stadium for Tottenham Hotspur Football Club and Stadium:MK for the MK Dons.
- The Coventry and Warwickshire Gateway: 3m sq.ft of industrial floorspace at Coventry Airport proposed by Roxhill. While the recovered appeal was ultimately dismissed by the

Secretary of State on Green Belt grounds in 2015, my socioeconomic evidence was accepted by the main parties.

- Dunsfold Park, Surrey: I prepared all the socioeconomic evidence that led to the allocation of the site for a new settlement in the local plan and the subsequent planning application, which was called-in and ultimately approved by the Secretary of State in 2017. I was also involved in the subsequent legal challenges to both the planning permission and adoption of the local plan.
- The Vale of York Motorway Service Area: I was brought in to prepare the socioeconomic evidence for the appeal on behalf of Applegreen, which was co-joined with a competing site, that had been refused permission of several grounds, including economic harm. The appeal was allowed in 2021, and the competing site dismissed, with the Inspector concluding that... *“moving on to a range of benefits claimed by Applegreen, I consider that the most significant would be the likely inward investment and employment opportunities which merit substantial weight”*.
- Cambridge North: I prepared all the socioeconomic evidence for this planning application and appeal, which has now been recovered by the Secretary of State. All of my evidence on the private rented sector, effects on education, healthcare and open space, and the economic impacts of the office and laboratory elements of the development has been agreed with the two local authorities prior to the public inquiry in June 2023. This decision is currently awaited.

1.2.3 The evidence that I present to this appeal is my true and professional opinion and has been prepared in accordance with the Royal Town Planning Institute (RTPI) Code of Professional Conduct (10 February 2016) and the Royal Institution of Chartered Surveyors (RICS) Rules of Conduct (2 February 2022).

1.3 History Pertinent to this Proof of Evidence

1.3.1 The planning application was validated on 7 September 2020, including an Environmental Statement that itself included an Economic Assessment in Chapter Six (CD 1.36g) and Technical Appendix F (CD 1.37h and 1.37i).

1.3.2 On 30 November 2020 the Dorset Local Enterprise Partnership (LEP) responded to the planning application (my Appendix SE1), concluding that (emphasis added):

*“The £100M investment in this project will be one of the largest recent private sector investments into Dorset. It will benefit the Port and the cruise sector, but by providing shore power, **it also***

represents a strong backing for our local supply chains, transport links, retail and hospitality businesses that rely on the customer base generated by activity at the port of Portland.

The potential impact of this project extends beyond the much-needed local solution for sustainable waste management and increased electricity supply for Portland from low carbon energy. The direct economic benefits of job creation during construction and operation, and the wider stimulus they provide to bring forward other green technology development at this key employment site. We note that applicant's commitment to an apprenticeship scheme working in collaboration with a successful programme run by another renewable energy business at the Port (Manor Renewables) and Weymouth College. This is an opportunity to expand training for Dorset's residents to benefit from the job creation in the green economy. **This investment could help to support one of the areas with the lowest social mobility by providing jobs and training within the new and emerging eco tech sector.**

Alongside this, we have an unprecedented opportunity to bring forward a greener recovery for Dorset, dealing with its waste needs in a more sustainable manner, reducing emissions at sea, providing shore power and bringing forward plans for a district heating work. **These are all proposals which chime with the national plans for a green recovery, Dorset LEP's clean growth agenda and locally Portland's Economic Plan and Neighbourhood Plan.**

We recognise that this is a matter for the planning authority to determine the balance of issues but Dorset LEP notes and would like to highlight the economic implications and economic importance of the Proposed Portland Energy Recovery to Dorset. **Many Dorset Sites are suffering with poor grid infrastructure and capacity and this facility could have a positive influence on the county's energy security.**

For these reasons the LEP wishes to draw your attention to the strong synergies with this planning application and national strategy for industry, energy and the environment and will help to deliver Dorset's Local Industrial Strategy and green recovery plan and the Portland Economic Plan."

1.3.3 The Case Officer's report (CD 5.1) summarised comments from other parties in relation to the local economy:

- The workforce for the construction of the facility will likely be brought in from other areas rather than using people in the local area.
- The development would deter visitors to the island and therefore have a detrimental effect on the local economy which relies heavily on the tourism industry.

- The development would discourage new sustainable businesses to the area.
- Arts and culture attract public funding and grant income to Portland. The arts and culture industry creates jobs and subsequently contributes to the local economy through investment in accommodation, retail and local goods and services. The development has the potential to threaten the varied, environmentally sensitive and sustainable tourism opportunities on Portland.
- The development could result in degradation of the landscape over time, therefore destroying the main attractions to the area resulting in fewer visitors to the area.
- The presence of the facility would result in a decrease in the value of properties.
- The development could deter future investment into the area.

1.3.4 I have not been able to identify a consultation response from the Council's Economic Growth and Regeneration team. I would echo the concerns of Stop Portland Waste Incinerator (SPWI) in their letter of 6 April 2021 regarding the lack of a formal response despite email correspondence with SPWI.

1.3.5 The Case Officer's report (CD5.1) sets out the following conclusions with regards to the local economy (emphasis added):

"14.156 The site is within a key employment site as identified under policy ECON2 of the West Dorset Weymouth and Portland Local Plan. The policy encourages proposals for B1, B2, B8 employment and 'other similar uses' subject to them not having a significant adverse impact on surrounding land uses. It also allows employment purposes other than B1, B2 and B8, if it can be proven that the use demonstrates an economic enhancement over and above the B1, B2 or B8 uses.

*14.157 The application states that during the construction of the ERF there would be a need to employ up to 300 people and around 30 full time employees once the facility is operational. Construction could take around 30 months in total and the increase in employment opportunities on Portland would be welcomed as a boost to the local economy. This aspect of the proposal is in line with local plan policy, as well as NPPF paragraph 81, which says that planning decisions should help create the conditions in which businesses can invest, expand and adapt. **Significant weight should be placed on the need to support economic growth and productivity taking into account both local business needs and wider opportunities for development.***

14.158 *This planning application also proposes that the electricity would be supplied in the form of shore power to ships visiting Portland Port. Portland Port have confirmed that having the electricity supply to be offered to ships is necessary if the current cruise ship use of Portland is to continue and increase, and this has also been confirmed by one of the cruise ship operators, and supported by the local enterprise partnership (LEP). Portland Port currently has around 60 of cruise ships visiting per year (usually between April and October), and for each of these, a number of passengers, sometimes hundreds, are taken into Weymouth town centre for the day, where they are likely to spend money and thereby support the local economy. The Port considers the proposed supply of electricity from the ERF to be essential to its future plans for offering moorings to ships. **Grid capacity is recognised as a constraint to development across Dorset, including at a number of employment sites such as Portland Port.***

14.159 **Concerns, however, have been expressed by local companies that the presence of the ERF could have a negative impact upon business and tourism in the area. There has not been any evidence submitted to support this view and, on balance, it is considered that the economic benefits arising from the proposal would outweigh any negative economic impacts.** *It is acknowledged that there would be heritage and landscape impacts, and these have been reflected in the recommendation.*

14.160 *The applicant has proposed a s106 obligation which would aim to support access for local residents to suitable training, apprenticeships, and future employment opportunities. It is stated that the developer would use ‘reasonable endeavours’ to provide these opportunities to the local population. It is considered that this would be a beneficial aspect of the proposal if it were to go ahead, but as it relies upon reasonable endeavours, there remains a lack of certainty, and therefore little weight can be attached to this in the planning balance. The developer has also offered to provide an education room which is proposed to be secured via a s106 obligation.”*

1.3.6 The Case Officer’s report (CD5.1) then sets out six benefits of the Proposed Development in paragraph 14.161, two of which are pertinent to this assessment:

- Shore power connection and supply made available for cruise ships and other ships.
- Local economy benefits from more cruise ships visiting, resulting in increased spend in the local area plus job creation.

1.3.7 The subsequent analysis of the planning balance, the Case Officer states that:

“14.170 The proposal would provide economic benefits if the proposed ERF was constructed, and the NPPF states under an ‘economic objective’, that it would like proposals to help build a strong responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation and improve productivity.”

1.3.8 In the subsequent Committee Report Update Sheet (CD 5.2) the Case Officer determined that whether the Proposed Development accords with the NPPF economic objective and that the socioeconomic benefits of the Proposed Development should be afforded the following weight in the planning balance:

Benefit	Case Officer comment	Officer view on weight to be given
Provision of onshore power	Accepted that shore power is a significant benefit and the applicant has provided evidence that this is both capable of delivery and take-up. It is also accepted that there will be benefits for the local economy from visiting cruise ships.	Full positive weight to the delivery of shore power in the planning balance is appropriate.
Energy security on Portland	It is accepted that National Grid constraints limit the opportunity to increase power supply to Portland and that Powerfuel would be capable of delivering additional generation capacity and resilience.	Agreed that moderate positive weight should be attributed to energy provision that will improve energy resilience and local capacity.
Employment generation	It is accepted that socio-economic benefits would arise from the scheme.	Agreed that this should be afforded moderate positive weight.
District heating	It is considered that the applicant has taken all reasonable steps to ensure the proposal will be CHP-ready (combined heat and power, whereby it is able to generate heat from the production of electricity, which is then fed into district heating systems). The applicant has provided supporting information which confirms that there is a reasonable prospect of this being taken up by the Ministry of Justice at the Verne, and all steps necessary within the site to facilitate this will be taken. Whilst there may be a need for subsequent planning permissions to facilitate links outside of the application site, it is agreed that the applicant has gone to considerable lengths to ensure the proposal can deliver district heating. Future uptake by the Portland community is less certain at this stage, but the fact that the potential exists can be considered to be a positive benefit for Portland.	Agreed that this should be afforded moderate positive weight

1.4 Scope and Structure of Evidence

- 1.4.1 I have reviewed all the documents referred to above and consider these can be distilled into the following issues:
- The socioeconomic effect associated with increased electricity supply and improved energy security in Portland, particularly with regards to the provision of onshore power capabilities to visiting cruise ships and the net socioeconomic effect on the local tourism industry.
 - Employment supported during construction and the net socioeconomic effect this may have.
 - Direct operational employment and the net socioeconomic effect this may have.
 - The potential net socioeconomic effect that the implementation of a district heating system would have should it be implemented.
- 1.4.2 I note that the reuse of incinerator bottom ash is a sought-after by-product and will most likely be used in the construction industry. However, I do not believe that this will have any tangible socioeconomic benefit to the Portland and Weymouth area and as such do not consider it further.
- 1.4.3 I will deal with each of these issues in this order in the following chapters.

2.0 Relevant Policies and Strategies

2.1 Introduction

2.1.1 In this chapter I briefly introduce the policies and strategies at all levels of government against which the net socioeconomic impact of the Proposed Development should be considered.

2.2 National Planning Policy Framework

2.2.1 The National Planning Policy Framework (NPPF, September 2023 (CD 9.1)) paragraph 8 sets out the three mutually supportive overarching objectives of the planning system:

- a) *an economic objective – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;*
- b) *a social objective – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and*
- c) *an environmental objective – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”*

2.2.2 NPPF paragraph 81 makes clear, as the Case Officer noted in paragraph 14.157 of the Committee Report (CD 5.1) that *“significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development”*. Furthermore, *“the approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future”*. As the Case Officer notes in paragraph 14.158 of the committee report, grid capacity is a known constraint.

2.2.3 While in relation to policy, NPPF paragraph 82(c) does highlight the importance in seeking *“to address potential barriers to investment, such as infrastructure...”*. Read alongside NPPF paragraph 83, which explains that *“decisions should recognise and address the specific locational requirements of different sectors”*, clearly location of economic development and its relationship to infrastructure constraints are of material importance. This is consistent with

paragraph 20, which states that “*strategic policies should... make sufficient provision for... the provision of... energy (including heat)*”.

2.3 National Planning Policy for Waste

2.3.1 The National Planning Policy for Waste (NPPW, October 2014 (CD 9.2)) paragraph 1 make clear that “*positive planning plays a pivotal role in delivering this country’s waste ambitions through delivery of sustainable development and resource efficiency, including provision of modern infrastructure, local employment opportunities and wider climate change benefits...*”.

2.3.2 Paragraph 4 makes clear that “*waste planning authorities should... where a low carbon energy recovery facility is considered as an appropriate type of development, waste planning authorities should consider the suitable siting of such facilities to enable the utilisation of the heat produced as an energy source in close proximity to suitable potential heat customers; [and] give priority to the re-use of previously-developed land, sites identified for employment uses*”.

2.4 Planning Policy Guidance

2.4.1 Planning Practice Guidance (PPG, live document (CD 9.21)) paragraph 5-003-20140306 makes clear that “*all communities have a responsibility to help increase the use and supply of green energy, but this does not mean that the need for renewable energy automatically overrides environmental protections and the planning concerns of local communities*”.

2.4.2 Paragraph 5-009-20140306 states that “*planning can provide opportunities for, and encourage energy development which will produce waste heat, to be located close to existing or potential users of the heat*”.

2.4.3 Paragraph 6-003-20140612 recognises that providing opportunities for low carbon technologies and for decentralised energy and heating are two ways of mitigating climate change by reducing emissions.

2.5 West Dorset, Weymouth and Portland Local Plan

2.5.1 The West Dorset, Weymouth and Portland Local Plan (adopted October 2015 (CD 7.2)) sets the current economic development policies for the Weymouth and Portland area. Policy ECON1 ‘Provision of Employment’ seeks to direct employment uses to specific areas such as existing employment premises, which the Proposed Development site is identified as in Table 4.1 ‘Key Employment Sites’.

- 2.5.2 Policy ECON2 'Protection of Key Employment Sites' indicates that alternative uses to (former) B1/B2/B8 uses may be appropriate if they provide onsite support facilities or demonstrate economic enhancement over B1/B2/B8 uses.

2.6 Bournemouth, Christchurch, Poole and Dorset Waste Plan

- 2.6.1 The Bournemouth, Christchurch, Poole and Dorset Waste Plan (adopted December 2019 (CD 7.1)) paragraph 3.23 explains that:

"Energy recovery facilities provide particular opportunities to provide low carbon energy and heat to customers and suppliers. In particular, combined heat and power schemes provide opportunities for providing efficient, low carbon energy to sites such as hospitals, leisure centres, commercial buildings, factories, and industrial estates, although small businesses and residential developments can also benefit."

- 2.6.2 Paragraph 6.11 notes that "... the provision of sustainable localised heat and energy sources could also be a positive consideration in appropriate locations".

- 2.6.3 Fundamentally, paragraph 9.13 states that:

"Energy recovery recognises the role of waste as a resource by ensuring that value is obtained from the treatment of waste that would otherwise be disposed of through landfill or through treatment without energy recovery. Energy recovery can provide heat and power, as well as cooling, for use at the site and/or for supply to a distribution grid including through combined heat and power (CHP) schemes. This can help address the challenges of energy security and climate change and contribute to renewable energy targets. Energy recovery is expected to play an increasingly important role in the waste management infrastructure mix and is important to enable the diversion of waste from landfill."

- 2.6.4 Paragraph 9.15 then underlines that:

"Co-location of energy recovery facilities with potential users of low carbon energy, heat and fuels is encouraged (see Policy 2, Chapter 3) in order to maximise opportunities for the use of energy from waste and the production of CHP. The development of an energy recovery facility can provide a good opportunity for the provision of CHP to sites such as hospitals, leisure centres, commercial buildings, factories, and industrial estates. It is therefore expected that applicants will actively seek such opportunities and build provision into proposals wherever practicable."

2.7 Portland Neighbourhood Plan

2.7.1 The Portland Neighbourhood Plan 2017-2031 (June 2021, CD 7.4) aims include strengthening the Island's business function, building growth and prosperity. Policy Port/EN2 'Renewable Energy Development' states that *“development proposals for energy generating infrastructure using renewable or low carbon energy sources, including wind and tidal power, will be supported provided there will be no unacceptable effects...”*.

2.7.2 At paragraph 8.7, the Neighbourhood Plan recognises the strengths in the maritime sector with the deep-water port creating opportunities for businesses within the Port, on Portland and beyond. Paragraph 13.27 recognises the importance of the cruise ship industry (emphasis added):

“Portland Port offers a safe, sheltered and deep harbour which makes it a viable choice for all vessels, from small yachts to some of the largest cruise ships in the world. The cruise business is already a success story. A significant financial investment in berth infrastructure should open up in excess of 95% of the global cruise fleet enabling continued expansion into international markets. We are pleased that the tourism potential of the Port is being realised.”

2.8 Emerging Planning Policy

2.8.1 The Dorset Local Plan consultation draft January 2021 is too early in its gestation to be given any weight in decision-making; however, it does help to understand the Council's emerging priorities.

2.8.2 The Vision for Portland (paragraph 26.2.1, CD 8.2) states that:

“In 2038 Portland will:

- *have maintained and enhanced the unique character of the island in terms of its built and natural assets, whilst meeting its needs and thriving economically and socially for the benefit of residents and visitors;*
- *be the home of specialist maritime industries and other growth sectors that benefit from its unique location, providing it with a good supply of well-paid jobs that benefit the local community and wider area. Portland Port will have maintained and expanded its role as a port of national and international importance and a location for job creation;*
- *have Easton as the main focus for thriving town centre uses with Fortuneswell providing similar services on a smaller scale;*

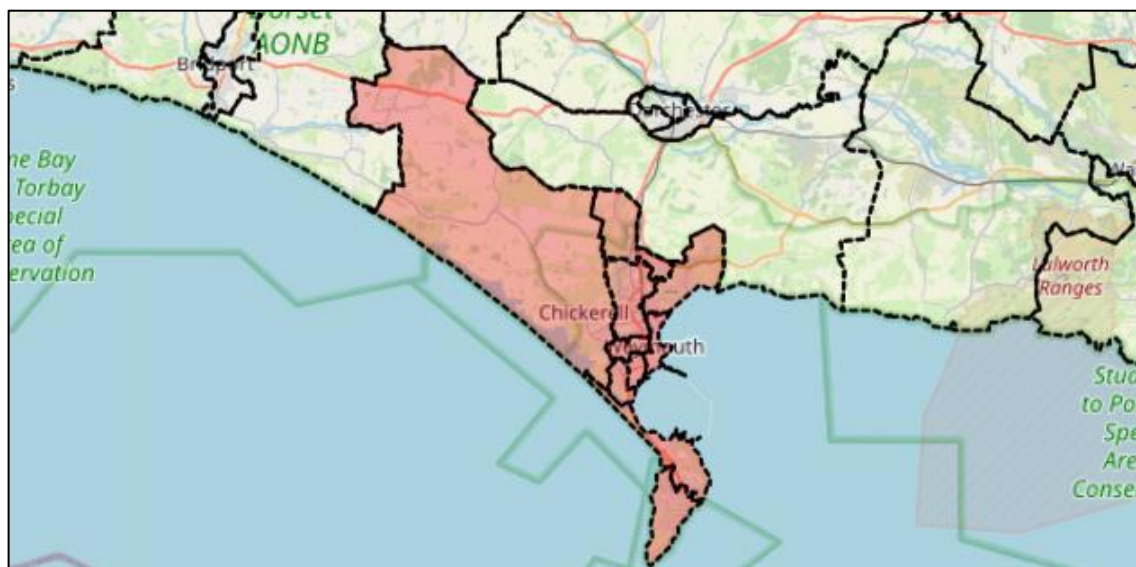
- *have a responsible and sustainable tourist offer including those based on activities such as water sports, climbing, walking and bird watching, that capitalises on its unique location; and*
- *have good education and skill levels that reduce the levels of multiple deprivation and support economic activity on the island.”*

3.0 Overview of the Local Economy

3.1 Introduction

- 3.1.1 In this chapter I will summarise the key strengths and weaknesses of the local economy, the context in which the socioeconomic effects of the Proposed Development should be assessed.
- 3.1.2 For the purposes of this assessment, I consider the local area to be tightly drawn around Portland and Weymouth (**Figure 3.1**). This fits well with the latest experimental data from ONS on commuting patterns¹ that indicate that 92.2% of Portland's commuting workforce (i.e., excluding those that usually work at or from home) live in this area. This is broadly consistent with the 2011 census².
- 3.1.3 I have used Dorset Local Authority (LA) area ((not the County as referred to in CD 1.37i) and England as the comparators to explain the state of the local economy in relative terms.

Figure 3.1: Local Study Area³



Source: NOMIS

¹ ONS. (23 June 2023). Dataset: Travel to work estimates using assumed pre-coronavirus travel behaviours.

² At the time of writing flow data from the 2021 census was unavailable and, in any event, would have been severely influenced by the pandemic.

³ The local study area is based on ten ONS Middle Super Output Areas (MSOAs): E02004280-289. MSOAs comprise between 2,000 and 6,000 households and usually resident population between 5,000 and 15,000 persons.

3.2 Residential Labour Force

- 3.2.1 **Table 3.1** sets out the economic activity status of the residential population for different age ranges. It shows that overall, the local study area, and Dorset LA as a whole, has a considerably lower economic activity rate when compared to the national average. This is not evenly distributed amongst the population however with those aged 16-24 in the Dorset LA having a considerably higher economic activity, particularly in the local study area, compared to the national average. These however only comprise approximately 11% of the workforce across all geographies.
- 3.2.2 Most notably, amongst those aged 25-64, which account for 83% of the workforce in the local study area, economic activity is 2.9% lower than the Dorset LA and 2.6% lower than the national average. In addition, unemployment is 2.1% higher in the local study area compared to the Dorset LA, although it is lower than the national average.
- 3.2.3 **Table 3.2** sets out economic inactivity in more detail. It shows that amongst those aged 25-64 there are particularly high rates of people that fall within the 'long-term sick/disabled' and 'other' categories in the local study area compared to Dorset LA and the national average. Many of those in the 'other' category will be people who are short-term sick (the census was undertaken during the Covid-19 pandemic) or are discouraged, usually by the lack of accessible employment opportunities locally.

Table 3.1: Economic activity status, 2021

Economic activity status	Age	Local Study Area		Dorset LA		England
		No.	%	No.	%	%
Economically active	16+	34,900	54.6%	174,700	54.3%	60.9%
Of which unemployed	16+	1,700	4.8%	6,900	4.0%	5.7%
Economically inactive	16+	29,000	45.4%	147,200	45.7%	39.1%
Total	16+	63,900	100%	321,900	100%	100%
Economically active	16-24	4,000	63.3%	19,100	63.1%	54.6%
Of which unemployed	16-24	600	14.4%	2,300	12.3%	17.3%
Economically inactive	16-24	2,300	36.7%	11,200	36.9%	45.4%
Total	16-24	6,300	100%	30,300	100%	100%
Economically active	25-64	29,000	77.0%	143,300	79.9%	79.6%
Of which unemployed	25-64	1,100	3.7%	4,300	3.0%	4.3%
Economically inactive	25-64	8,700	23.0%	36,000	20.1%	20.4%
Total	25-64	37,700	100%	179,300	100%	100%
Economically active	65+	1,900	9.7%	12,300	10.9%	11.0%
Of which unemployed	65+	0	1.7%	300	2.2%	2.4%
Economically inactive	65+	18,100	90.3%	100,000	89.1%	89.0%
Total	65+	20,000	100%	112,300	100%	100%

Source: ONS, 2021 Census (numbers rounded to the nearest hundred)

Table 3.2: Economic inactivity status, 2021

Economic inactivity status	Age	Local Study Area		Dorset LA		England
		No.	%	No.	%	%
Retired	16+	19,400	66.8%	107,400	73.0%	54.9%
Student	16+	1,800	6.3%	9,700	6.6%	14.4%
Looking after home/family	16+	2,400	8.4%	11,600	7.9%	12.3%
Long-term sick/disabled	16+	3,000	10.3%	10,600	7.2%	10.4%
Other	16+	2,400	8.2%	7,800	5.3%	8.0%
Total	16+	29,000	100%	147,200	100%	100%
Retired	16-24	0	0.2%	0	0.1%	0.1%
Student	16-24	1,600	68.4%	8,700	77.6%	83.5%
Looking after home/family	16-24	200	6.5%	600	5.3%	4.6%
Long-term sick/disabled	16-24	200	6.7%	600	5.0%	3.3%
Other	16-24	400	18.2%	1,400	12.1%	8.5%
Total	16-24	2,300	100%	11,200	100%	100%
Retired	25-64	2,100	24.0%	11,000	30.5%	18.1%
Student	25-64	200	2.5%	900	2.5%	5.2%
Looking after home/family	25-64	2,100	24.1%	9,800	27.1%	32.5%
Long-term sick/disabled	25-64	2,600	29.6%	8,600	24.0%	25.7%
Other	25-64	1,700	19.9%	5,700	15.8%	18.4%
Total	25-64	8,700	100%	36,000	100%	100%
Retired	65+	17,300	95.9%	96,400	96.4%	94.9%
Student	65+	0	0.1%	100	0.1%	0.1%
Looking after home/family	65+	200	1.1%	1,300	1.3%	1.3%
Long-term sick/disabled	65+	300	1.6%	1,400	1.4%	2.5%
Other	65+	200	1.4%	800	0.8%	1.2%
Total	65+	18,100	100%	100,000	100%	100%

Source: ONS, 2021 Census (numbers rounded to the nearest hundred)

- 3.2.4 **Table 3.3** sets out the highest level of qualifications amongst the resident workforce aged 16-64. It shows that amongst those in employment, there are fewer with Level 4+ qualifications (degree or higher) compared to Dorset LA or the national average. This is not surprising given that there is not a university nearby. There are however a considerable proportion with Level 3 qualifications (A-level etc.) or apprenticeships.
- 3.2.5 While the proportion of people in the local study area with no qualifications is lower than the national average, the proportion with only Level 1 or 2 qualifications is concerning. Amongst the unemployed of the local study area these account for 40.9%, compared to the national average of 32.2%. Similarly, amongst those that are economically inactive, 25.8 have Level 1 or 2 qualifications compared to the national average of 23.6%.

Table 3.3: Economic activity status by highest level of qualification (aged 16-64), 2021

Economic activity status	Highest level of qualification	Local Study Area		Dorset LA		England
		No.	%	No.	%	%
Economically active - in employment	None	2,500	7.5%	11,600	6.9%	8.7%
	Level 1/entry level	3,500	10.7%	16,300	9.7%	8.8%
	Level 2	5,500	16.6%	26,300	15.7%	13.3%
	Apprenticeship	2,000	6.1%	10,000	6.0%	4.7%
	Level 3	8,200	24.8%	39,400	23.5%	19.7%
	Level 4+	10,800	32.5%	61,300	36.6%	42.8%
	Other	600	1.8%	2,800	1.7%	2.0%
	Total	33,200	100%	167,800	100%	100%
Economically active - unemployed	None	200	13.3%	700	10.5%	13.6%
	Level 1/entry level	300	18.3%	1,100	16.3%	13.1%
	Level 2	400	22.6%	1,600	23.3%	19.1%
	Apprenticeship	100	5.3%	300	4.5%	3.8%
	Level 3	300	18.7%	1,300	18.4%	19.7%
	Level 4+	300	20.0%	1,700	25.1%	28.5%
	Other	0	1.8%	100	1.8%	2.3%
	Total	1,700	100%	6,900	100%	100%
Economically inactive	None	8,200	28.4%	38,500	26.2%	32.3%
	Level 1/entry level	3,600	12.5%	16,100	10.9%	10.7%
	Level 2	3,900	13.3%	20,400	13.9%	12.9%
	Apprenticeship	2,500	8.7%	11,600	7.9%	6.4%
	Level 3	3,300	11.2%	16,200	11.0%	12.6%
	Level 4+	6,300	21.6%	38,200	26.0%	21.3%
	Other	1,200	4.3%	6,200	4.2%	3.9%
	Total	29,000	100%	147,200	100%	100%

Source: ONS, 2021 Census (numbers rounded to the nearest hundred)

- 3.2.6 **Table 3.4** sets out a broad industrial profile for those residents in employment. Unsurprisingly, a notable proportion of the local study area work in the distribution, hotels and restaurants sectors, although this is still far lower than public administration, education and health. The limited proportion in the local study area in financial, real estate, professional and administrative activities is not unusual outside of commuter belts of major towns.
- 3.2.7 Similarly, **Table 3.5** sets out the occupations of employment, indicating a relatively balanced residential workforce. The one exception is the low proportion in the local study area that are in ‘professional occupations’, which reflects the lower proportion of residents in the financial, real estate, professional & administrative activities industrial sectors where they are most often present.

Table 3.4: Industry of employment (aged 16+), 2021

Industry	Local Study Area		Dorset LA		England
	No.	%	No.	%	%
A, B, D, E Agriculture, energy & water	800	2.6%	6,700	4.0%	2.3%
C Manufacturing	2,300	7.0%	12,600	7.5%	7.3%
F Construction	3,000	9.1%	16,500	9.9%	8.7%
G, I Distribution, hotels & restaurants	7,600	22.9%	33,800	20.1%	19.9%
H, J Transport & communication	1,900	5.7%	10,000	6.0%	9.8%
K, L, M, N Financial, real estate, professional & administrative activities	3,900	11.6%	25,000	14.9%	17.4%
O, P, Q Public administration, education & health	12,200	36.7%	54,700	32.6%	30.2%
R, S, T, U Other	1,500	4.4%	8,500	5.1%	4.6%
Total	33,200	100%	167,800	100%	100%

Source: ONS, 2021 Census (numbers rounded to the nearest hundred)

Table 3.5: Occupation of employment (aged 16+), 2021

Occupation	Local Study Area		Dorset LA		England
	No.	%	No.	%	%
1. Managers, directors & senior officials	4,000	12.1%	24,100	14.4%	12.9%
2. Professional occupations	5,000	15.0%	29,100	17.3%	20.3%
3. Associate professional & technical occupations	4,200	12.5%	21,200	12.6%	13.3%
4. Administrative & secretarial occupations	3,100	9.2%	15,600	9.3%	9.3%
5. Skilled trades occupations	4,500	13.7%	23,200	13.8%	10.2%
6. Caring, leisure & other service occupations	4,100	12.5%	17,200	10.3%	9.3%
7. Sales & customer service occupations	2,700	8.0%	11,900	7.1%	7.5%
8. Process, plant & machine operatives	2,100	6.4%	9,500	5.7%	6.9%
9. Elementary occupations	3,500	10.6%	15,900	9.5%	10.5%
Total	33,200	100%	167,800	100%	100%

Source: ONS, 2021 Census (numbers rounded to the nearest hundred)

3.3 Local Labour Force

- 3.3.1 The 2021 Census was undertaken during the Covid-19 pandemic when, in many cases, people were required to work at home. This means that it is highly unlikely to be representative of the labour force now working in the local study area, particularly given the disproportionate impact the pandemic had on the tourist sector. Consequently, I consider the ONS' 2019 (i.e., prior to the pandemic) Business Register and Employment Survey (BRES) as a better source.
- 3.3.2 BRES is not without its issues. It can be subject to sampling errors and rounded data at the MSOA level risks further error when they are combined to construct the local study area. However, as a broad indication of the local labour force profile it is still sufficient.

- 3.3.3 **Table 3.6** indicates that there were approximately 25,000 employees in the local labour force. This is lower than the 33,200 residents in employment that the 2021 Census suggests, but excludes voluntary workers, self-employed, working owners who are not paid via PAYE. Overall, it is probable that the total number of workplaces in the local study area is similar to the number of residents in employment. However, this is not an indicator of self-containment, it is likely that many commute out of the local study area to Dorchester while others in the rural area commute into Weymouth.
- 3.3.4 **Table 3.6** also suggests a greater emphasis in the distribution, hotels and restaurants sectors, possibly a result of the disproportionate impact of the pandemic on these sectors with many businesses making redundancies despite the measures such as the furlough scheme.

Table 3.6: Industry of employment of local labour force, 2019

Industry	Local Study Area		Dorset LA		England
	No.	%	No.	%	%
A, B, D, E Agriculture, energy & water	0	0.8%	5,000	3.1%	1.7%
C Manufacturing	3,000	10.4%	15,000	10.2%	8.0%
F Construction	1,000	5.6%	10,000	6.8%	4.8%
G, I Distribution, hotels & restaurants	9,000	34.9%	40,000	27.1%	22.6%
H, J Transport & communication	1,000	3.2%	5,000	3.4%	9.5%
K, L, M, N Financial, real estate, professional & administrative activities	3,000	12.8%	23,000	15.6%	23.4%
O, P, Q Public administration, education & health	7,000	27.8%	42,000	28.5%	25.4%
R, S, T, U Other	1,000	4.6%	8,000	5.4%	4.5%
Total	25,000	100%	148,000	100%	100%

Source: ONS, BRES (numbers rounded to the nearest thousand)

3.4 Indices of Deprivation

- 3.4.1 The English Indices of Deprivation 2019 (IoD2019) measures the relative deprivation across England at the Lower Super Output Area (LSOA) geographic level⁴. It comprises seven 'domains', including 'Income', 'Employment' and 'Education, Skills and Training'. All seven domains are weighted and combined to provide a definitive Index of Multiple Deprivation (IMD).

⁴ LSOAs comprise between 400 and 1,200 households and have a usually resident population between 1,000 and 3,000 persons. There are usually four or five LSOAs in each MSOA.

There are 32,844 LSOAs covering England. These are ranked with '1' being the most deprived area in the country.

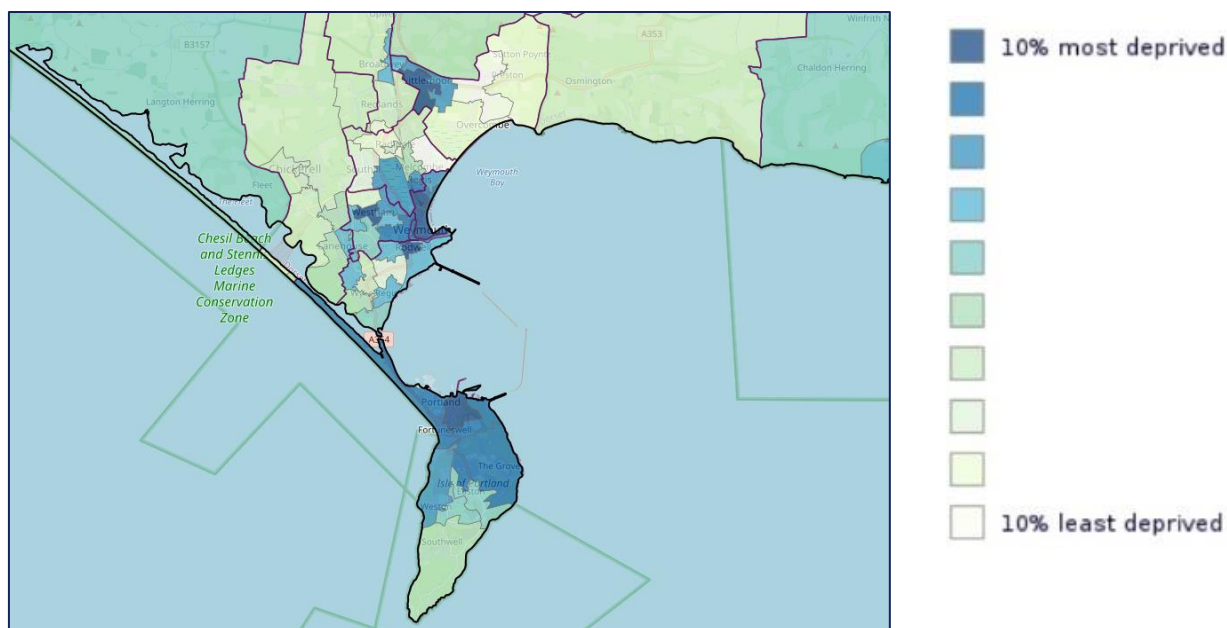
3.4.2 **Figure 3.2** shows the IMD for the local study area. It shows significant areas of deprivation both on Portland and in parts of Weymouth – the nine most deprived areas in Dorset LPA are located here of which six are within the 10% most deprived areas in England.

3.4.3 **Figure 3.3** shows the income deprivation domain, which measures the proportion of the population experiencing deprivation relating to low income, including those people out-of-work, and those in work who have low earnings. There is little difference in the geographic distribution of this domain and the IMD, indicating the income is a particular issue for the local study area.

3.4.4 **Figure 3.4** shows the employment deprivation domain, which measures the proportion of the working age population in an area involuntarily excluded from the labour market. This includes people who would like to work but are unable to do so due to unemployment, sickness or disability, or caring responsibilities. Again, all nine most deprived areas of Dorset LPA are within the local study area with seven within the 10% most deprived areas in England. Clearly access to employment opportunities is a key issue.

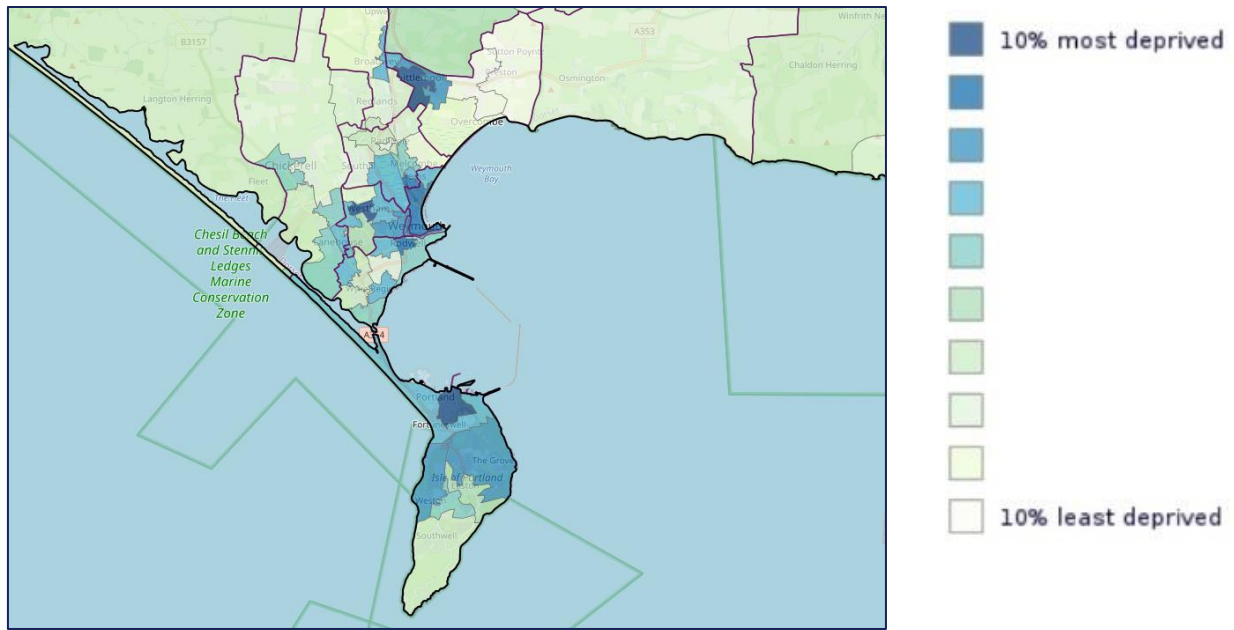
3.4.5 **Figure 3.5** shows the education, skills and training domain, which measures the lack of attainment and skills in the local population. This echoes the 2021 census data on the level of qualifications (**Table 3.3**) with five areas in the local study area falling within the 10% most deprived in England.

Figure 3.2: Index of Multiple Deprivation, 2019



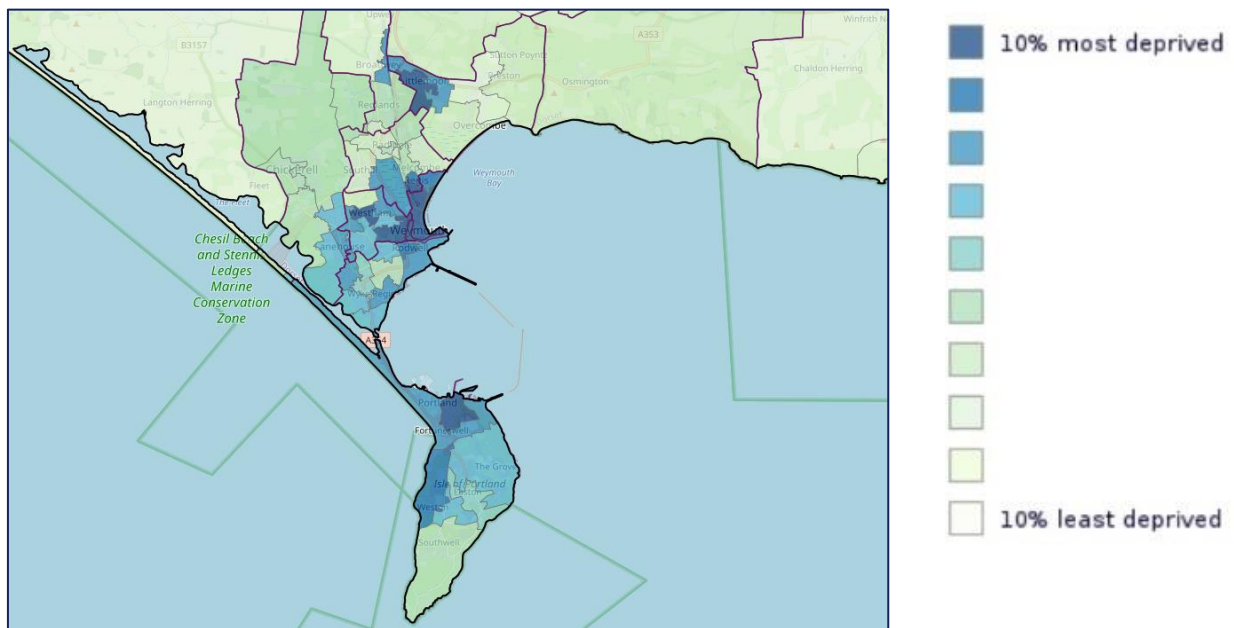
Source: DLUHC

Figure 3.3: Income Deprivation Domain, 2019



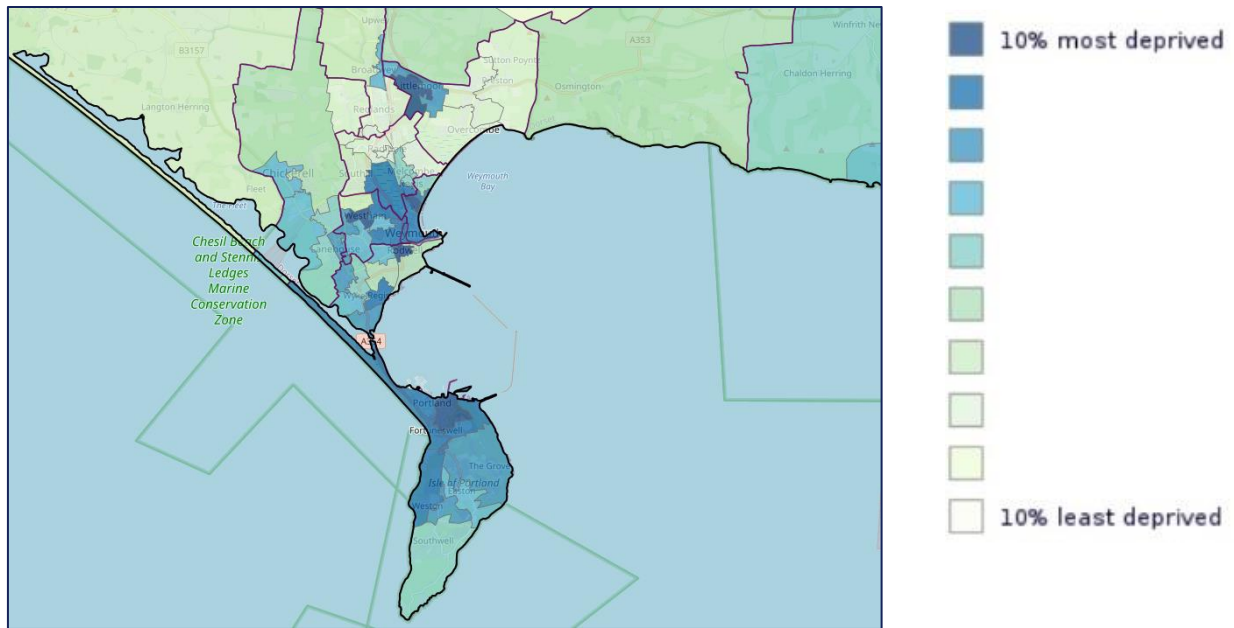
Source: DLUHC

Figure 3.4: Employment Deprivation Domain, 2019



Source: DLUHC

Figure 3.5: Education, Skills and Training Domain, 2019



Source: DLUHC

3.5 Conclusions

3.5.1 The most recent statistical evidence for the local study area clearly indicates that it suffers considerable deprivation compared to Dorset LA as a whole and national averages. While there are other factors, such as health, it is clear that economic deprivation including the availability of employment and the income this derives is particularly acute.

4.0 Energy Security

4.1 Introduction

4.1.1 I consider energy security to effectively take four forms:

- The most obvious form is to ensure that the UK is not overly exposed to the vagaries of the international energy markets and other external influences that can influence supply and cost. Broadly, the higher the proportion of our own energy needs that we can generate ourselves, the better our energy security.
- Second is to ensure that the energy that the UK generates is sufficient for our current and future needs, at an acceptable cost. Key to this is the moving away from non-renewable sources of energy, which not only have a limited lifespan, but also come with a significant environmental-led cost.
- Third is to ensure that the mix of energy sources is balanced so that the amount of energy is uninterrupted. Improvements in battery technology will continue to benefit this, but it does not remove the fact that, for example, an overabundance of solar panels would be heavily reliant on sunlight at a time when climate change is making the weather more difficult to predict.
- Fourth is to ensure that the distribution of energy generation across the UK is sustainable, that it is generated where it is needed.

4.1.2 In these chapter I will explore these issues and their relevance to the Proposed Development in socioeconomic terms.

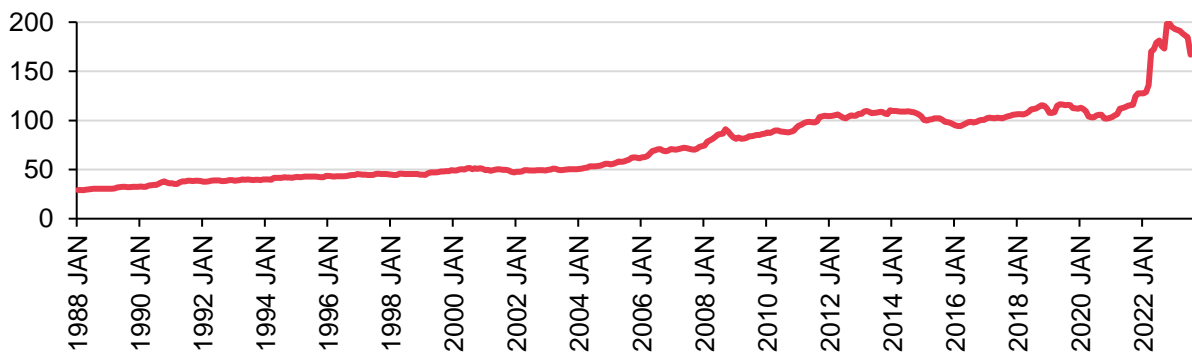
4.2 International Energy Markets

4.2.1 In recent years we have seen a series of international events that have shaped the UK economy directly through the cost of energy, including Brexit, COVID-19, and particularly the war in Ukraine. This has led the Government to re-tasking the Department for Business, Energy and Industrial Strategy (DBEIS) as the Department for Energy Security and Net Zero (DESNZ) in February 2023 (Appendix SE9). DESNZ's first task was to publish the Powering Up Britain: Energy Security Plan (March 2023, (Appendix SE10)), which followed on from the British Energy Security Strategy (April 2022). This explains that:

“Since the end of February 2022, average wholesale gas and electricity prices have been over three times higher than their average over the preceding four years. Economies have slowed or contracted, inflation has risen, and household energy bills have soared across much of the western world.”

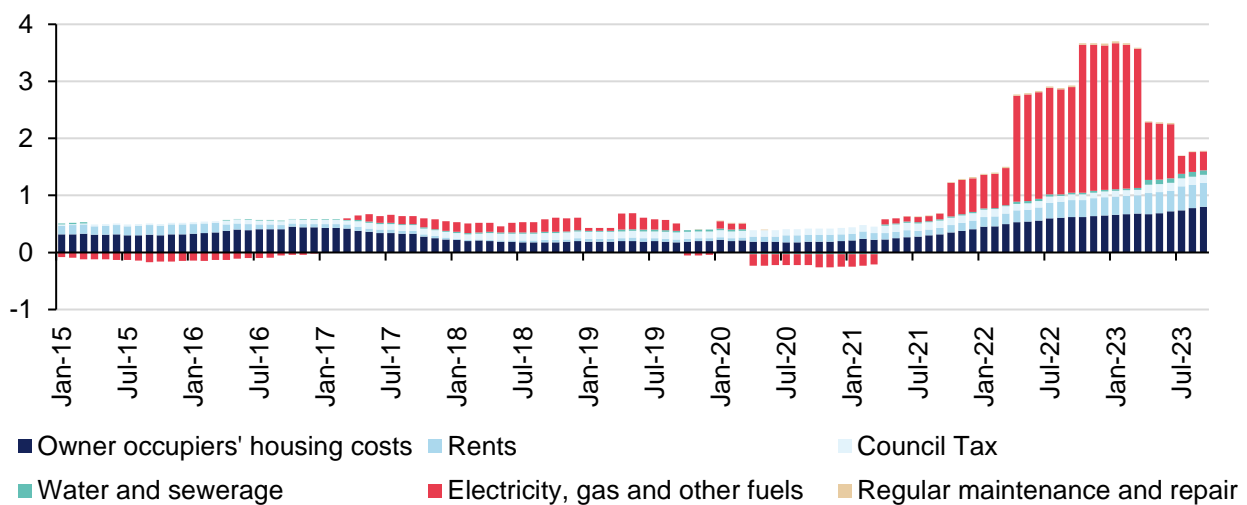
4.2.2 The impact of the UK’s exposure to international energy markets is best summed up in **Figures 4.1 and 4.2**. The CPI for energy shows that energy costs were already increasing just before Russia invaded Ukraine, simply the expectation of war was affecting the markets. At the point of invasion, the response was rapid resulting in an immediate impact on households’ energy costs, followed by a sustained increase in owner occupiers’ housing costs, also impacted by energy costs, that has continued to rise even after the initial impact on energy prices.

Figure 4.1: Consumer Price Index (CPI): Energy (2015 = 100)



Source: ONS. (18 October 2023). CPI INDEX: Energy (G) 2015=100.

Figure 4.2: Contributions of housing components to the annual CPIH inflation rate, UK, January 2015 to September 2023 (%)



Source: ONS. (18 October 2023). Consumer price inflation, UK: September 2023.

4.2.3 Such sharp shocks to the economy, particularly household bills, are not sustainable and risk placing many vulnerable communities into poverty. I would identify the local study area as such a vulnerable community that would be directly affected by greater security from the vagaries of the international energy markets.

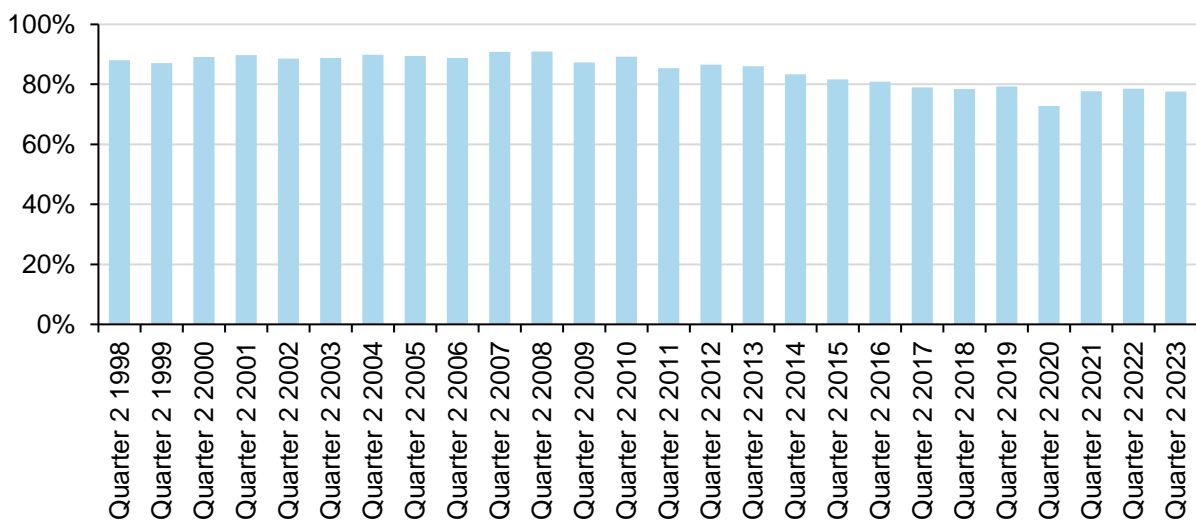
4.3 Transition Away from Fossil Fuels

4.3.1 The Energy Security Plan (Appendix SE10) explains that:

“After decades of reliance on imported fossil fuels, the new department’s mission is to replace them with cheaper, cleaner, domestic sources of energy. We will be powered by renewables including wind and solar, hydrogen, power with carbon capture, usage and storage (CCUS) and new nuclear plants - while recognising the vital role that UK oil and gas will play in the transition. This will make us much more energy independent, to protect us from volatile international energy markets, while underpinning our clean energy transition, so the UK becomes a net zero economy by 2050. It will also help us make sure the UK has among the cheapest wholesale electricity prices in Europe by 2035.”

4.3.2 Simply replacing our reliance on imported fossil fuels with indigenous fossil fuels is unlikely to be an acceptable approach (recent opposition to new coal mining in Cumbria, North Sea oil and gas licences and fracking for example) and, while it may improve energy security in the short term, it is not sustainable in the long term given the growing environmental cost. Provisional data for the second quarter of 2023 shows that the UK is still dependent on fossil fuels for 77.6% of our energy needs, **Figure 4.3**.

Figure 4.3: UK fossil fuel dependency (Q2 2023 is provisional)



Source: DESNZ. (28 September 2023). Energy Trends UK, total energy tables, Table 1.3.

4.3.3 While progress was made between 2008 and 2018, the subsequent five years have not seen any sustained improvement. There are various reasons for this, but the UK needs to make a step change in its efforts to reduce its dependency if it is to become a net zero economy by 2050.

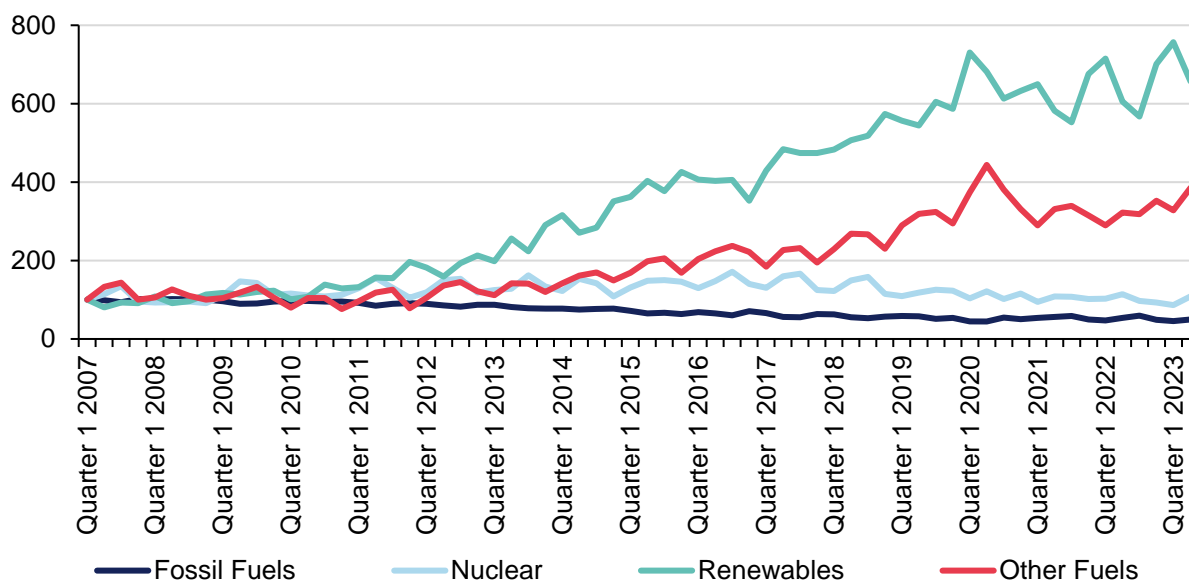
4.4 Balance of Energy Generation

4.4.1 In the first quarter of 2007, fossil fuels accounted for 78.3% of the electricity generated in the UK. Nuclear accounted for 14.5% and renewables 6.5%. Other fuels, including waste, accounted for just 0.7%⁵.

4.4.2 Provisional results for the 2nd quarter of 2023 suggest that, in terms of electricity generation, our reliance on fossil fuels has reduced to 38.8%. Nuclear power has remained relatively static at 15.7% and renewables have increased to 46.6% Other fuels, including waste, has grown to 2.9%.

4.4.3 While 2.9% may not seem to be a substantial component, it represents substantial growth since 2007, see **Figure 4.4**.

Figure 4.4: Change in contribution to electricity generation (Q1 2007 = 100)



Source: Derived from DESNZ. (28 September 2023). *Energy Trends UK*, Table: Fuel used in electricity generation and electricity supplied.

⁵ The remainder of the 'Other Sources' are from recyclable or recoverable fuels such as slurry or coal residue.

4.5 Geographical Distribution of Energy Generation

4.5.1 The Policy Connect⁶ paper 'No Time to Waste' (14 July 2020, Appendix SE11) explains that:

"...co-locating an EfW near to an industrial park and exporting heat/energy to power the industrial processes, provides an opportunity to also help reduce the carbon impact of the industry. This future proofing of communities and existing infrastructure is key both to net-zero, but also to keeping the public on board and maintaining community ties."

4.5.2 It then explains that (emphasis added):

"The most resource efficient method of extracting value from waste through EfW is to directly utilise this heat." *This is because less energy is lost through heat export than through electricity generation. The Z Ratio or Z-factor calculation determines this, by comparing heat export and reduction of electricity generation for CHP plants. A high result demonstrates greater efficiency through heat supply.⁷*

EfW heat displaces virgin energy - usually gas - by using wasted heat from a partly renewable source.⁸ If communities do not harness this heat, it will continue to be produced by EfW plants but will instead be lost into the atmosphere as waste heat. Before thinking about generating new sources of low-carbon heat, it would be more resource efficient to harness existing heat already produced. Using EfW generated heat should be the first action taken by Government.

4.6 Conclusions

4.6.1 In terms of the four forms of energy security I set out at the top of this chapter:

- The Proposed Development will increase indigenous energy generation, reducing the UK's exposure to the vagaries of the international energy markets. This is a material economic benefit of the Proposed Development.

⁶ Comprising the All-Party Parliamentary Sustainable Resource Group (APSRG), The Sustainable Resource Forum, All-Party Parliamentary Climate Change Group (APPCCG), Carbon Connect, and the Westminster Sustainable Business Forum (WSBF).

⁷ Environment Agency. (2013). CHP Ready Guidance for Combustion and Energy from Waste Power Plants.

⁸ Defra. (2014). Energy recovery for residual waste A carbon based modelling approach.

- The Proposed Development will provide a valuable alternative energy source to fossil fuels, both in terms of electricity generation and heat. This is a further material economic benefit of the Proposed Development.
- The Proposed Development will further diversify the mix of energy sources, providing a regular and sustained level of electricity and heat that helps to balance the peaks and troughs often seen in renewable energy production from wind and solar. This is a further material economic benefit of the Proposed Development.
- The Proposed Development can contribute to the energy security of both the Port through the supply of electricity to facilitate onshore power and HMP The Verne through the supply of heating. This is a further material economic benefit of the Proposed Development.

4.6.2 In any other location, I would consider the net material benefit of the Proposed Development as carrying moderate weight. However, with the known constraints to energy supply to Portland (see Mr Roberts' Proof of Evidence) and the clear need to increase energy supply to serve the Port (the socioeconomic need for onshore power is set out further in my next chapter, with the technical requirements set out in Mr Othen's Proof of Evidence), the Proposed Development's importance to the economic sustainability of this location is significant. As such I consider the Proposed Development's contribution to energy security to be of substantial weight.

5.0 Local Tourism Effect

5.1 Introduction

- 5.1.1 In this chapter I will assess the net effect of the Proposed Development on the local tourism industry, including the concerns of the Rule 6 Party.

5.2 Direct Effect on Tourism Appeal

- 5.2.1 The Rule 6 Party raise concerns in their SoC with the compatibility of an ERF close to a cruise ship port, in that it would deter cruise ships from visiting Portland. The Council has not raised the same concerns in their SoC and instead considers the economic impact of the Proposed Development to be positive as set out in the committee report (CD 5.1). The LEP in their response to the application also did not consider there to be any economic harm. Finally, Carnival PLC, a major cruise line operator, stated in their response to the application (15 December 2022, my Appendix SE2) that (emphasis added):

*“We understand that certain objector parties have claimed that the presence of the ERF would significantly reduce Portland Port’s attractiveness and reduce cruise calls. **Our ships already visit a number of ports globally where power stations are co-located and we do not expect that the presence of the Powerfuel Portland ERF would dissuade Carnival, its customers or other cruise ship companies from visiting Portland.** By way of example, Southampton was one of the first UK Port’s to offer shore power, provided by a private wire supply from the Veolia Marchwood Integra Energy from Waste facility (a 220,000 tonne pa EfW plant) which is located directly across the River Test from the cruise terminal⁹. The presence of the Marchwood plant in the port location has not changed our approach to calling at Southampton and Carnival’s ships have benefited from shore power from the Marchwood EfW plant.”*

- 5.2.2 At **Figure 5.1** I have provided an aerial photograph of the Marchwood EFW, the round silver building at the bottom. This also shows a cruise ship docked on the other side of the River Test. Fundamentally, **Figure 5.1** shows that cruise ships share docks with a variety of inherently industrial uses. For example, immediately to the left of the cruise ship is an aggregates depot

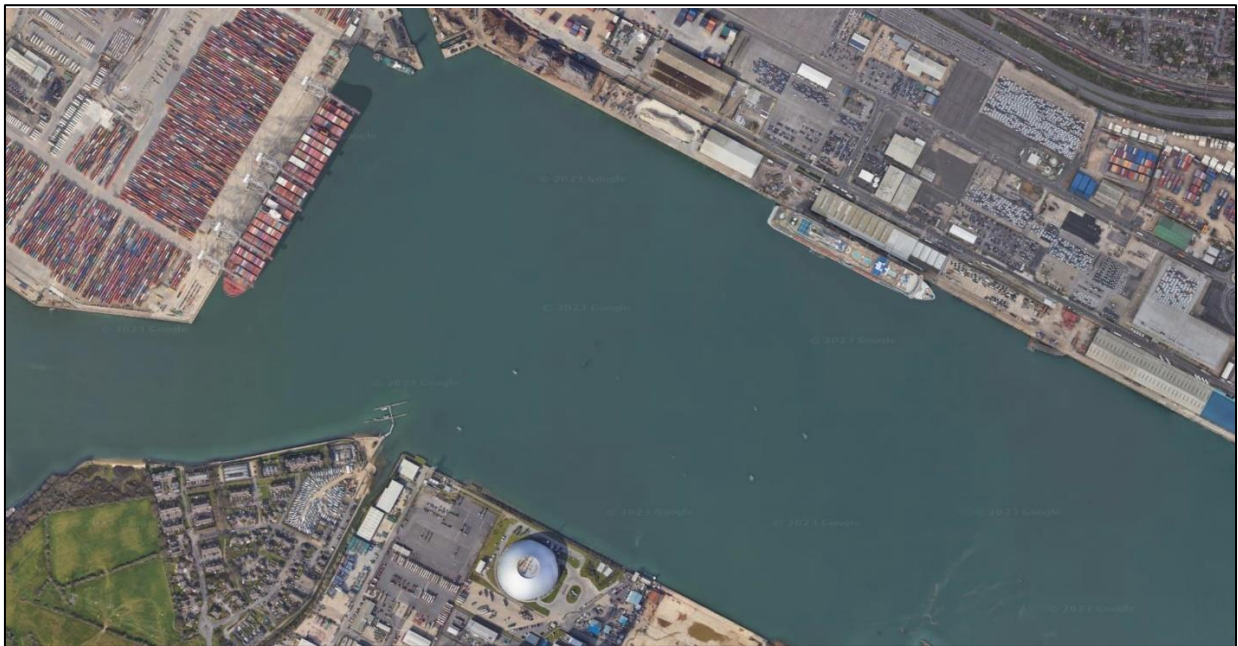
⁹ Note that this is in error, there is not a private wire which Carnival corrected in their follow-up letter of 6 February 2023.

while on the far left of the photo is a large container port. Most large ports have similar characteristics – they are large areas of brick, concrete and steel, often in a patchwork that reflects the sum of their long and complex histories.

5.2.3 In **Figure 5.2** I have included a recent photo of the Amager Bakke ERF in Copenhagen, as seen from across the crowded marina from the south. Not only does this ERF appear to have had no adverse impact on the use of the marina, it is also a tourist destination itself with a dry ski run, hiking trail and climbing wall. The public health concerns previously associated with ERFs is receding such that Amager Bakke ERF is expected to have 42-57,000 visitors annually.

5.2.4 Consequently, I do not believe that the Proposed Development is an unsuitable use within the Port, and I agree with Carnival PLC that it is unlikely to be a material consideration for their customers, wanting to visit Portland or Weymouth.

Figure 5.1: Juxtaposition of the Marchwood EFW to the Southampton Cruise Terminal



Source: Google Earth

Figure 5.2: Amager Bakke ERF, Copenhagen



Source: Google Earth; F. Mortensen, October 2019

5.3 The Cruise Ship Industry

- 5.3.1 In 2018, 29 cruise ships visited Portland with a total capacity of 34,945 passengers – an average of 1,268 passengers per ship. In 2019, this increased to 43 cruise ships with capacity for 67,949 passengers – an average of 1,580 passengers per ship¹⁰. Then the Covid-19 pandemic started in early 2020, effectively ceasing cruise ship tourism worldwide for 18 months.
- 5.3.2 Cruise ship tourism restarted hesitantly in August 2021, with a few visits to Portland, but it wasn't until 2023 that the sector gained momentum. For Portland, this was significant, with the construction of the £26m deep-water berth improvements that enabled the port to receive larger cruise ships. Over the course of this year, the Port (and online itineraries) anticipate that some 56 cruise ships will visit Portland with a total capacity for 132,446 passengers – an average of 2,365 passengers per ship. This is a 50% increase in the average size of visiting ship since 2019.
- 5.3.3 The Port estimates that in 2024 and 2025, approximately 60 and 65 cruise ships respectively are likely to visit. Already, travel websites are advertising itineraries for 43 ships in 2024 and 25 ships in 2025 so the Port's projections seem entirely reasonable given the overall strength of the sector.
- 5.3.4 Average ship sizes are also likely to continue to increase. In their September 2023 Update on the State of the Cruise Industry (my Appendix SE3), the Cruise Line International Association (CLIA) identified 44 new ships likely to enter service by 2028 with an average capacity of 2,749 passengers. This includes several smaller ships for the river cruise market that draw down this average; the eight ships projected to enter service in 2025 are anticipated to have an average capacity of 3,978 passengers.
- 5.3.5 While the very largest ships are likely to continue to operate in the US and Caribbean markets, Northern Europe is a growing market with most ports capable of also accommodating the biggest ships. On average smaller ships are likely to remain in use in the eastern Mediterranean, Asian and Australasian markets.

¹⁰ I have used data provided by the Port to understand the number of cruise ships that visited each year and then used ship itineraries available online from multiple press and trade websites to determine the name and operator of each ship. Some itineraries included the size of each ship, and these were cross-referenced with Wikipedia and other online sources to ensure the estimates were as accurate as possible. The capacities used are 'low berth' figures, i.e., do not include pull-out beds etc. that are appropriate for children only.

- 5.3.6 For the purposes of this assessment, I have assumed that average ship capacity will continue to increase in line with the trajectory seen between 2018 and 2023, reaching an average of 2,802 passengers in 2025. This is borne out by the ships already expected to be visiting by 2025 with, for example, the Princess Cruises' 3,600-capacity Regal Princess expected to visit four times in 2024 and five times in 2025.
- 5.3.7 Determining the value of the cruise ship industry to individual ports is a complex issue. CLIA refer to an estimate made in 2019 that worldwide, on average, passengers spent \$750 USD in port cities over a typical seven-day cruise, which approximates to £89 per day. By contrast Cruise Britain suggests an average of £100 per visitor across the whole of the UK.
- 5.3.8 I feel that both estimates are optimistic for Portland. Expenditure is highly dependent on the opportunity to spend, with Portland and Weymouth in no way competing with the opportunities available in the largest European ports such as Barcelona, Civitavecchia (Rome), Marseille and Genoa. Consequently, it is inevitable that Portland will see expenditure towards the lower end of the spectrum.
- 5.3.9 A report prepared on behalf of the EU by the Maritime Institute of Gdansk in 2017 (my Appendix SE4) suggested that in Tallinn the average visitor spent €71 during a 4.2-hour visit, which would equate to £62 per visit. An academic paper from 2021 (my Appendix SE5) found that on average visitors spend €51.10 per visit to the Canary Islands, equating to £45 per visit.
- 5.3.10 Possibly the most useful report is for VisitScotland, Scottish Enterprise, Highlands and Islands Enterprise and the Scottish Government in October 2020 (my Appendix SE6). This provides estimated expenditure per visitor in 21 ports across Scotland with the lowest being £29 per visit in Tobermory on the Isle of Mull and the highest being £50 per visit in Lerwick on Shetland.
- 5.3.11 For simplicity, I have selected £50 per visit for this assessment, at 2022 prices so that it is consistent with other available economic data. Given the inflation seen in the UK over 2022, this would suggest slightly less spend than seen in Lerwick in 2020.
- 5.3.12 In addition, each cruise ship has a significant crew, many of which will disembark in port. A CLIA study in 2017 (my Appendix SE7) suggest that 40% of crew disembark at European ports (either as part of tours or during time off), spending on average €24.50 per visit, which equates to £21 per visit. The number of crew per passenger is dependent on the size of the ship with the larger ships providing better economies of scale. My analysis of the 42 ships that have visited Portland since 2018 and are still in service for which I have both passenger and crew numbers suggests that ships of an average of 2,802 passengers are likely to have on average 0.46 crew per passenger.

5.3.13 I have assumed that on average ships have 95% occupancy, reflecting several competing factors. First, bookings regularly exceed 100% with evidence that on average bookings achieve 102%. In most cases this is because the stated capacity of the ship does not include bunks ('upper berths') intended for children. As such, particularly in the summer months, it is entirely plausible that many cabins will be occupied by twice as many people compared to the assumed capacity. However, bookings do not necessarily equate to the final occupancy. There are many reasons why people will cancel their holiday plans and therefore to reflect a robust position I have applied 95%.

5.3.14 On this basis, for 2025, I have estimated that:

- 65 ships with a capacity for 182,103 passengers would deliver 172,998 visitors to Portland, which would on average £50 spend each. This would result in a gross visitor expenditure of £8.65m.
- The 65 ships would also have a total crew complement of 83,767 of which 28,581 would visit the area ship either on tours or shore leave. Each would on average spend £21 resulting in a gross crew expenditure of £0.70m.
- Combined, this would result in a total gross expenditure of £9.35m.
- Based on ONS' latest estimates of worker output per hour and an average hours-worked per week, it is estimated that on average £71,184 per year of expenditure is required to support one employee job¹¹. Therefore, the total gross expenditure of £9.35m would directly support 131 employee jobs.

5.3.15 As this is expenditure into the economy, I do not expect displacement or substitution to be factors (my methodology on geographic distribution of socioeconomic effects is set out in my Appendix SE8). Most of the expenditure, and therefore employment, will occur in Weymouth and Portland as most visits will be limited to a few hours, thereby limiting the opportunity for excursions further afield. Therefore, I have assumed 30% leakage from the local study area and 10% from Dorset LPA. Most of the 10% lost from Dorset LA will be to key attractions such as Stonehenge, which is 2-hours away by coach.

¹¹ This is extremely robust as most of the expenditure will be directly into the retail, restaurant and entertainment sectors, which all tend to have a lower worker output per hour than the national average.

- 5.3.16 Given the importance of tourism to Dorset and particularly Weymouth and Portland, a relatively high economic multiplier is justified (multipliers are explained in my Appendix SE8). This is because of the critical economic mass that the sector has, which makes this part of the economy more efficient. I have therefore applied a multiplier of 1.2 to the local study area and 1.4 to Dorset LA.
- 5.3.17 This would indicate that in 2025:
- Weymouth and Portland are estimated to see the equivalent of 92 employee jobs directly supported by cruise ship visitors and crew, with a further 18 employee jobs supported indirectly in the wider economy.
 - Dorset LA (including Weymouth and Portland) is estimated to see the equivalent of 118 employee jobs directly supported by cruise ship visitors and crew, with a further 47 employee jobs indirectly supported in the wider economy.
- 5.3.18 From 2025 onwards however it is anticipated that the availability of onshore energy will progressively become a more important factor in the selection of ports to visit. **Figure 5.3** is an excerpt from the CLIA September 2023 Update on the State of the Cruise Industry (my Appendix SE3) indicating the level of investment that that is currently going into onshore energy capabilities. Fundamentally, this document identifies 14 Northern European ports (including Southampton) that already have this capability with a further eight being funded (including Portsmouth) and another 13 where it is planned (including Tyne). Consequently, for Portland to remain competitive as a cruise ship destination, even amongst ports along the southern English coast, it must find a solution to provide onshore power as soon as possible. I will leave explanation of the constraints to deliver onshore power by alternative means to Mr Othen, but clearly the Proposed Development provides a solution now when no other alternative has been found practicable.
- 5.3.19 To reflect the issues around onshore power, I have considered two scenarios:
- No onshore power scenario: based on IMO policy objectives to reduce maritime emissions by 50% by 2050, the number of ships visiting Portland decreases to 24 in 2034 and zero by 2050.
 - With onshore power scenario: it is assumed that growth in the cruise industry will continue, but that the number of new ships entering service is likely to be a limiting factor. Therefore, I have assumed that growth would be limited to 70 ships in 2034 and 75 ships in 2050.

Figure 5.3: Excerpts from September 2023 Update on the State of the Cruise Industry

CRUISE LEADERSHIP IN RESPONSIBLE TOURISM

The number of CLIA-member cruise ships with shoreside power capability will more than double by 2028*

Every CLIA-member ship being built today through 2028, except expedition, is scheduled to be fitted with shoreside power capabilities

- Currently, 30% of ships, representing 40% of capacity, is plug-in ready; 30% to be retrofitted

29 cruise ports worldwide have at least one berth with onshore power; 20 additional ports funded or planned (by 2025)

- Less than 2% of the world's cruise ports have on-shore power; by 2025, 3% will have shoreside power

*Based on scheduled orders as of the February 2022 order book



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Plugging into shoreside electricity allows ship engines to be switched off, reducing emissions by up to 98%, depending on the mix of energy sources, while a ship is in port, according to studies conducted by a number of the world's ports and the U.S. Environmental Protection Agency.

ACTIVE 34	FUNDED 24	PLANNED 16
CANADA Halifax, NS Montreal, QC Vancouver, BC CHINA Guangzhou Qingdao Sanya Shanghai Shenzhen Tianjin Xiamen DENMARK Aarhus FINLAND Turku GERMANY Hamburg Kiel Rostock ICELAND Hafnarfjörður LATVIA Ventspils NORWAY Ålesund Bergen Fredrikstad Karmsund (Haugesund) Kristiansand Lyngdal Skjolden (Sognefjord) SOUTH KOREA Incheon (Seoul) SWEDEN Verkö UK Southampton USA Brooklyn, NY Juneau, AK Long Beach, CA Los Angeles (San Pedro), CA San Diego, CA San Francisco, CA Seattle, WA	AUSTRALIA Sydney CANADA Victoria, BC FRANCE Marseille Toulon GREECE Piraeus (Athens) Heraklion ITALY Genoa La Spezia Livorno Civitavecchia (Rome) Savona MALTA Valletta NETHERLANDS Amsterdam Rotterdam NORWAY Flåm Oslo Stavanger Tromsø SPAIN Barcelona Bilbao Cádiz SWEDEN Stockholm UK Portsmouth USA Miami, FL	DENMARK Copenhagen Fredericia Skagen ESTONIA Tallinn FINLAND Helsinki Mariehamn FRANCE Le Havre GERMANY Bremen ICELAND Reykjavik NORWAY Arendal Trondheim SWEDEN Goteborg (Gothenburg) Helsingborg (Scania) UK Tyne USA Fort Lauderdale, FL Galveston, TX <i>Onshore power supply (OPS) is also referred to as shoreside electricity (SSE), shore connection, shore-to-ship power (SSP), alternative maritime power (AMP), high-voltage shore connection (HSCV), or cold ironing.</i> Source: CLIA port analysis (15 September 2023)

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Source: CLIA

5.3.20 All other variables set out above remain fixed. This results in the following:

- In the no onshore power scenario, by 2034, the combined visitor and crew expenditure will have declined to £3.45m, which would only be sufficient to support 41 net direct and indirect employee jobs, a reduction of 69 employee jobs from 2025. By 2050, all 110 net direct and indirect employee jobs would be lost.
- In the with onshore power scenario, by 2034, the combined visitor and crew expenditure will have increased to £10.07m, which would be sufficient to support 119 net direct and indirect jobs, an increase of nine jobs from 2025. By 2050, the combined visitor and crew expenditure will have increased to £10.79m, which would be sufficient to support 127 net direct and indirect jobs, an increase of 17 jobs from 2025.

5.3.21 The difference between the two scenarios is stark: either lose all 110 employee jobs by 2050 or gain 17 jobs by 2050. There are likely to be near infinite alternative scenarios from far higher growth in the number of cruise ships visiting through to an alternative solution to onshore power being found in a decade from now. The latter however would mean that Portland would already be losing business to competitor ports with no guarantee that the cruise liners could be enticed back from newly established routes. This would particularly be the case if the tourist offer in Weymouth and Portland diminished in the meantime as a result of reduced visitors.

5.4 Cumulative Effect on the Local Tourism Industry

5.4.1 In section 5.2 above I have concluded that the concerns regarding the direct adverse economic impacts of the Proposed Development are illogical and cannot be sustained. Therefore, I given them no weight.

5.4.2 The current and growing contribution that the cruise ship industry makes to the socioeconomically deprived local study area is material. Proposed Condition 42 is clear that the provision of onshore power is an integral part of the Proposed Development. Furthermore, its provision is fundamental to the long-term viability of cruise ship visits to Portland and therefore must be implemented in short order, irrespective of the Proposed Development. There is no alternative to the Proposed Development with reinforcement of the existing electricity network being prohibitively complex and costly. Mr Othen explores this in more detail.

5.4.3 Consequently, the two are intrinsically linked: if the Proposed Development does not proceed, the economic benefits of the cruise ship industry will be materially adversely affected. Given the socioeconomic deprivation seen in the local study area, I consider the long-term energy security that the Proposed Development provides the Port with attracts substantial beneficial weight.

6.0 Operational Employment

6.1 Introduction

6.1.1 In this chapter I explain the socioeconomic impact of the employment generated and supported because of the operation of the Proposed Development.

6.1.2 The Policy Connect paper ‘No Time to Waste’ (my Appendix SE11) explains that:

“An EfW facility creates a range of skilled jobs, whether these are plant operators, engineers, drivers, managers, educators and tour guides or others. As is historically often the case with large industrial employers, the local communities can develop close links with the facility, through long-term employment often spanning multiple generations. Market analysis shows potential for the creation of both direct and indirect jobs for regions, with plants typically creating around 50 permanent skilled jobs, as well as hundreds of further jobs during the construction phase.”¹²

6.2 Operational Employment Estimates

6.2.1 The Appellant has estimated that the Proposed Development would likely directly employ 30 Full Time Equivalent (FTE) employees onsite (CD 1.37i). This is entirely reasonable given the scale and nature of the Proposed Development.

6.2.2 According to the ONS BRES for England, in 2021, approximately 10% of employees in the ‘Electricity, Gas, Steam and Air Conditioning Supply’ sub industrial sector (SIC35) are part-time. Assuming that on average part time employees work half the hours of a full-time employee, 30 FTEs equates to 32 employees (three part-time and 29 full-time).

6.3 GVA, Occupation and Wage Profiles

6.3.1 The Appellant has also estimated that the Proposed Development’s FTE occupation profile would comprise (CD 1.37i):

- Managers and directors = 3 (10%)
- Professional occupations = 3 (10%)

¹² Cambridge Econometrics. (2019). The economic impacts of a new energy from waste facility.

- Administrative and secretarial = 4 (13%)
- Skilled trades = 8 (27%)
- Process, plant and machine operatives = 12 (40%)

6.3.2 The 2021 census for England suggests a similar profile for the ‘Electricity, Gas, Steam and Air Conditioning Supply’ industrial sector but with notably higher percentages in professional and skilled trades compared to process, plant and machine operatives.

6.3.3 The discrepancy is likely to be largely a result of changes made to the SOC in 2020, which led to many operative occupations becoming recognised as being skilled and several skilled occupations becoming recognised as professional occupations. This reflected changes in these roles with many becoming more complex and specialised. Consequently, I broadly prefer the 2021 census profile, although I have adjusted this to take account of some discrepancies such as the 0.6% it suggests are caring, leisure and other service occupations, which is most likely a reflection of niche roles in the sector or even errors in the survey. As such, I believe the following occupation profile is most appropriate (based on 32 employees rather than 30 FTEs):

- Managers, directors and senior officials = 4 (12.6%)
- Professional occupations = 8 (24.0%)
- Administrative and secretarial occupations = 3 (9.3%)
- Skilled trade occupations = 11 (34.4%)
- Process, plant and machine operatives = 6 (19.7%)

6.3.4 In terms of salaries, under section 1.5.2.2, CD 1.37i states that:

“Salaries will be competitive, with senior positions likely to be remunerated in the range of £70k and mid-level positions paid in the region of £40k per annum. Process, operative and administrative roles are likely to be pitched at around £25k pa.”

6.3.5 This is entirely reasonable given that the most recent data from ONS ASHE¹³ on indicates that in the ‘Electricity, Gas, Steam and Air Conditioning Supply’ industrial sector, in 2022, the UK median average gross annual earnings were £44,303 while the mean average was £57,154. By applying the median as best reflecting onsite employment by reducing the influence of the most senior positions in the sector, I estimate that the Proposed Development is likely to generate £1.4m in gross annual earnings.

6.3.6 By comparison, the ONS ASHE indicates that the median and mean average gross annual earnings in 2022 for the South West of England were £26,381 and £29,738 respectively. Indeed, a median wage in the ‘Electricity, Gas, Steam and Air Conditioning Supply’ industrial sector would fall within the 80th percentile for all earnings in the South West. Consequently, I consider the value of these employment opportunities to vastly outweigh their relatively small number.

6.3.7 To calculate the Gross Value Added (GVA) by the Proposed Development, I have used the ONS output per hour worked¹⁴ for the ‘Electricity, Gas, Steam and Air Conditioning Supply’ industrial sector, averaged over 2018-2022. I have used an average (£131.00 per hour) because there has been rapid growth in output over this period (£87.28 per hour in 2018 to £215.05 per hour in 2022), most likely due to global pressures on energy prices, which I discuss further in Chapter 6.

6.3.8 Over the same period, ONS data¹⁵ estimated that full-time employees worked on average 35.6 hours per week while part-time employees worked on average 15.7 hours per week. Therefore:

- Full-time employees (29 employees x 35.6 hours x 52 weeks x £131.00) = £7,230,257
- Part-time employees (3 employees x 15.7 hours x 52 weeks x £131.00) = £320,845
- Total annual output (GVA) = £7,551,102

¹³ ONS. (1 November 2023). Dataset: Earnings and hours worked, UK region by industry by two-digit SIC: ASHE Table 5.

¹⁴ ONS. (24 October 2023). Dataset: Output per hour worked, UK.

¹⁵ ONS. (12 September). Dataset: HOUR01 SA: Actual weekly hours worked (seasonally adjusted).

6.4 Distributional Analysis

- 6.4.1 As I have set out in Chapter 3, 92.2% of workers on Portland (excluding those that work from or at home) live in the local area. Applying this to the 32 employees directly employed at the Proposed Development indicates that 29 employees are likely to live within the local area. The other three employees are likely to live very close by, certainly within Dorset.
- 6.4.2 Within the local area, it is probable that there will be an element of displacement with employees leaving their existing jobs to take up opportunities at the Proposed Development. However, it is unlikely that most of those jobs would remain vacant for long. Therefore, I propose only applying a displacement rate of 25%, consistent with the approach set out in CD 1.37i. This would result in a net local direct effect of 22 employees.

6.5 Induced and Indirect Local Effects

- 6.5.1 The HCA Additionality Guide refers to an Oxford Economics 2012 research paper (see my Appendix SE8) that found that, at the national level, the electricity production and distribution sector has a composite output multiplier of 2.8 compared to an economy average of 2.2. This would suggest that the 32 employees of the Proposed Development could induce and/or indirectly the equivalent of 58 employees nationally.
- 6.5.2 However, very few of these induced and indirect jobs will be located within the local area, they will be spread across the UK. I consider a local multiplier of 1.3 is appropriate given the higher-than-average wages supported by the Proposed Development and notably higher than average output nationally. Consequently, the net local direct effect of 22 employees would support a further 7 employees locally.

7.0 Construction Effects

7.1 Introduction

7.1.1 I have reviewed ERM's analysis of the construction economic effects (CD 1.37i) and find the estimate of 295 FTE jobs directly supported by the Proposed Development to be entirely reasonable based upon my professional experience. In considering this I have considered the rising cost of the project resulting from inflationary pressures, but these do little to the overall employment supported. I do however have some comments on the distributional analysis, principally so I can determine the economic effect specific to the local study area.

7.2 Distributional Analysis

7.2.1 ERM assume that there would be 38% displacement at the sub-regional level (i.e., Dorset County) and 75% at the national level. Displacement in construction jobs is different from permanent operational jobs as it tends to result in delay rather than preventing another project from proceeding entirely. While it is correct to consider displacement when looking at the net sum of construction employment in a particular year for the purposes of national accounting, I think this approach does a disservice to the economic impact of a single project. Consequently, I consider that displacement should be disregarded.

7.2.2 Table 1.5 of CD 1.37i suggests that 32% of the construction cost would be spent directly in the Dorset County economy with a further 4% spent elsewhere in the UK. The remaining 64% would be spent overseas. Table 1.6 then converts these costs into FTEs directly supported by the Proposed Development, totalling 295 FTE jobs in the UK, with 276 in Dorset County and 19 elsewhere in the UK.

7.2.3 This is a workplace-based estimate in that the estimates of employment are based on where the expenditure occurs. However, it does not necessarily follow that employees will live within the same geographic area, which is important when considering the socioeconomic impact upon a particular area.

7.2.4 The distribution of construction employment will be highly dependent on the availability of workers, particularly specialists. A particularly complex project such as this is likely to draw employment from wider afield compared to typical housing or commercial projects.

7.2.5 According to the 2021 census, Dorset LA has a particularly strong construction workforce, accounting for 9.9% of residents in employment compared to the national average of 8.7%. The local study area sits between the two at 9.1%. With 16,500 residents working in construction,

Dorset LA clearly has the workforce to meet the needs of the Proposed Development, specialist requirements notwithstanding. Therefore, a 'very high' leakage of 75% and a 'medium' leakage of 25% is robust for the local study area and Dorset LPA respectively.

7.2.6 This would indicate that the net employment effect in the local study area would be 73.8 FTE construction jobs and 221.3 FTE construction jobs in Dorset LPA. The remaining 73.8 FTE construction jobs would be commuters from outside Dorset LPA.

7.3 Induced and Indirect Local Effects

7.3.1 It is well documented that the construction industry results in some of the highest indirect economic multipliers, at the national level. However, these do not necessarily translate to smaller geographies as it is highly dependent on the availability of key sectors such as quarries (Portland stone being a case in point) and steel fabrication. It can also result in higher induced economic multipliers through construction workers requiring accommodation, food etc.

7.3.2 ERM suggest in Table 1.6 of CD 1.37i that the Proposed Development would indirectly (I assume that this is also induced employment) of 272 FTEs nationally. This equates to a combined multiplier of 1.92 at the national level, which is entirely reasonable. However, ERM avoid breaking this down into smaller geographic units.

7.3.3 Analysis previously undertaken by BIS suggests that on average capital projects have a 1.46 combined economic multiplier effect at the sub-regional level. Applying this to Dorset LPA would indicate a net indirect and induced employment effect of 101.8 FTEs. At the local study area level I have assumed a nominal 1.15 multiplier, which indicates a net indirect and induced employment effect of 11.1 FTEs.

7.4 Materiality

7.4.1 I do not dispute that in EIA parlance, the Proposed Development would have only a 'slight' economic effect during the construction period, as ERM suggest in CD 1.37i, when considered purely in numerical terms. However, particularly in the local study area, I think that this underestimates the overall impact.

7.4.2 Complex construction projects are relatively rare and enable local construction workers to experience and learn skills that they would not otherwise have an opportunity to gain. These skills will be transferable, increasing their competitiveness in a very competitive market. This can quickly translate into improved job opportunities and salaries. Given the vulnerabilities of the local economy I contend that this should be given moderate weight in the planning balance.

8.0 District Heat Network

8.1 Introduction

8.1.1 In this chapter I consider the potential economic benefits associated with a District Heat Network (DHN). The Proposed Development will be 'DHN ready', planning permission will be required for heating pipes to extend to the customer(s) but the Proposed Development itself would only require minor modifications.

8.1.2 In July 2020, Policy Connect published their paper 'No Time to Waste' (my Appendix SE11). It argued that (emphasis added):

*"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.***

*The inquiry concluded 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.** Our firm conclusion is that Government needs to play a greater role to realise this opportunity, working collaboratively with industries and local government to determine suitable sites and potential heat customers.*

*This inquiry has 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.**"*

8.2 Reasons to Export Heat to a DHN

8.2.1 The reasons are very simple. Residual heat is created by the ERF that requires dissipating. There are three options for this:

- It can be emitted via the stack, which results in a significant loss in energy and has no commercial benefit to the operator.

- It can be converted to electricity through a secondary system. However, this is an expensive process that can be commercially viable, but only marginally so.
- It can be channelled through a DHN to paying customers for use in central heating, water heating etc., at a cost that is significantly less than that of using onsite gas or electric boilers. Since there are no expensive processes involved for the ERF, this is considerably more commercially attractive to the operator.

8.3 Prospective Customers

- 8.3.1 Most ERF's do not export heat simply because there is not a clear customer base for it. In the UK, basing DHNs on private housing is very difficult, not least because ERFs are usually set remote from urban areas. Instead, it is only really viable where there is at least one major customer ('cornerstone offtaker'), such as an industrial estate or an institution such as a hospital or prison, as is the case here. These cornerstone offtakers would receive most of the heat, agreed through a long-term contract, sufficient to justify the expense of the DHN. Subsequent expansion of the DHN is then possible, should there be sufficient heat remaining.
- 8.3.2 In this instance the cornerstone offtakers are likely to be HMP The Verne and HMP YOI Portland. Both are large established institutions with high heating demands. As part of the Government estate, they are central to the Government's objectives for a low to zero carbon economy, and, of course, constantly looking at ways to minimise the cost to the public purse. A DHN has the potential to help achieve all these objectives.

8.4 Conclusions

- 8.4.1 It is not possible as yet to determine what the annual savings would be to HMP The Verne and HMP YOI Portland. This would require understanding their current expenditure on heating and heating infrastructure (DHNs a generally easier and cheaper to maintain). However, it is expected to be substantial.
- 8.4.2 While there is an element of uncertainty, the commercial benefit to both the operator and the customer is such that I consider there to be a high probability of its implementation.
- 8.4.3 The socioeconomic benefit here will be to the Ministry of Justice. This may trickle down to the local study area through greater investment in staff funded by savings on heating, but the constraints of the public purse are such that this is likely to be minimal. Therefore, I consider this component of the Proposed Development to attract moderate beneficial weight in the planning balance.

9.0 Conclusions

9.1.1 In this Proof of Evidence, I have determined that:

- The energy security that the Proposed Development brings to Portland and the Port is a socioeconomic benefit that attracts substantial weight in the planning balance.
- Facilitating onshore power and thereby safeguarding employment in Weymouth and Portland reliant on cruise ship tourism is a socioeconomic benefit that attracts substantial weight in the planning balance.
- The employment directly supported by the Proposed Development during its operation is a socioeconomic benefit that attracts moderate weight in the planning balance. This is consistent with the Case Officer's view (CD 5.2).
- The employment directly supported by the Proposed Development during its construction is a socioeconomic benefit that attracts moderate weight in the planning balance. This is consistent with the Case Officer's view (CD 5.2).
- The potential for a District Heat Network, facilitated by the Proposed Development is a socioeconomic benefit that attracts moderate weight in the planning balance. This is consistent with the Case Officer's view (CD 5.2).

9.1.2 The Case Officer considered that providing energy security to Portland attracted only moderate weight (CD 5.2 or my paragraph 1.3.8) while the provision of onshore power attracted 'full' weight. I consider this to be internally inconsistent as onshore power and the employment generation cannot be realised without energy security. It follows therefore that energy security must be given at least the same weight as highest subsequent benefit.

9.1.3 I also find no socioeconomic harm, which despite the unsubstantiated misgivings of the Rule 6 party, has been echoed by the following:

- The Case Officer in their report to committee found there to be a positive economic effect.
- The LEP in their response to the planning application gave their full support to the Proposed Development.
- The Port itself is fully supportive of the Proposed Development, particularly its ability to implement onshore power capabilities and provide future energy security.

- The world's largest cruise ship operator, Carnival, is highly supportive of the Proposed Development.

9.1.4 Finally, I cannot find any inconsistency between the Proposed Development and any socioeconomic policy pertinent to this case, particularly with regards to the NPPF and NPPW.



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