



Stop Portland Waste Incinerator APPLICATION ORIENTATION SHEET 2

*Please note that objections which are factually incorrect will be discounted.
This sheet, and those that follow, aims to help you locate some of the arguments,
statements, and data in the application documents.*

Abbreviations

NTS	Environmental Statement Non-technical Summary
ES + chapter	Environmental Statement + chapter number
ES Appx	Environmental Statement Appendix + subject
SST	Support Statement
DAC	Design and Access Statement
Plan	with number and description
DC	Dorset Council
BCP	Bournemouth, Christchurch and Poole Council
CM	Canford Magna
PfP	Powerfuel Portland

A. **Carbon matters**

1. Waste Incineration on average generates one tonne of CO₂ per 1 tonne of waste burned:
https://www.ipcc-nggip.iges.or.jp/public/gp/bgp/5_3_Waste_Incineration.pdf ;
<https://ukwin.org.uk/facts/>
2. PfP state that the plant would burn between 183,000T of RDF a year and 202,000T: SST 2.33. This means that the plant would generate between 183,000T of CO₂ and 202,000T CO₂ every year; on average 579T per day on days when the plant is operational (between 329 and 335 days a year, SST 3.8).
3. PfP claim, via a group of arguments we examine below, that the plant would generate less carbon than is currently generated, NTS 45-51; SST S11.
4. PfP state that they will from 2038 (14 years after operations begin) 'offset' 'net emissions' generated 'in periods where the plant is net negative in operations'. SST S11, Achieving carbon neutrality, p.8.
5. It is now acknowledged that tree planting is not the answer to dealing with adverse climate change consequences from CO₂ emissions – the only answer is to reduce the emissions in the first place:
<https://www.imperial.ac.uk/grantham/publications/earth-and-life-sciences/what-role-can-forests-play-in-tackling-climate-change.php>
6. Estimates on how many trees would absorb 1 tonne of CO₂ over their lifetime vary from 1 tree to 15 trees: <https://carbonneutral.com.au/faqs/> ; <http://www.carbonify.com/carbon-calculator.htm>
7. PfP would only offset carbon generated from the (variable) proportion of non-biogenic (i.e. fossil fuel i.e. mostly plastic) RDF burned. However, the atmosphere does not distinguish between non-biogenic and biogenic CO₂, and the PfP position supposes that there are already enough trees to absorb all biogenic emissions, which there obviously are not. The increasing speed of the build-up of CO₂ in the atmosphere proves this: <https://www.esrl.noaa.gov/gmd/ccgg/trends/mlo.html>
8. We hope to look further into what type of offsetting PfP envisage and report on this in a later Sheet. However, the approach appears to be largely a convoluted one of 'banking' and 'purchasing' 'carbon credits'. See Achieving carbon neutrality pp. 12-25.

B. **PfP case for a net reduction in carbon emissions over current carbon emissions**

1. For the PfP arguments, see NTS 45-51; ES Cpt 5; ES appx E Carbon Balance; Achieving Carbon Neutrality report.
2. The PfP case relies heavily on the assumption of a future District Heat Network. However, contrary to the suggestion in the DC Scoping Opinion, **no plans appear to have been submitted for routes for the ducting of the underground heat pipes**. PfP say that 'potential customers have been identified' and include HM Prison The Verne: CHP Heat Plan 4.1. However, viable ducting of underground pipes to that location would be impossible. The land in between is a SNCI and works to dig this land up to duct underground pipes would be damaging to the ecology there. This then meets vertical cliffs: designated land of local landscape importance. The alternative of installing underground ducted pipes to the prison via the road network (which seems to be the suggestion at CHP Heat Plan 5.2) would not be viable as it would involve the pipes travelling along Castletown, Castle Road and Verne Common Road, a distance which would mean that most heat would be lost en route. In terms of carbon footprint, the construction footprint for both schemes, and indeed for any suggested scheme, would be huge and would cancel out any gain in terms of use of heat. The YOI is also identified as a 'potential customer' but again route for the ducting of pipes to that location is not specified and could be problematic given the distance and steep rise in the land.
3. At NTS 20, PfP seem to acknowledge the impracticality of attempting to provide a viable district heat network from their chosen site: 'will allow for future export of heat, should a practical off-site local user be identified'.
4. PfP's carbon calculations repeatedly include supply of district heat. This should be discounted.
5. PfP argue that the use of the electricity generated for shore power would somehow be more carbon positive than exporting it to the National Grid: NTS 45 and 49. This is just stated and there seems no reason to accept the statement. On the contrary, the enormous carbon footprint created by building this plant largely in order to provide shore power to cruise ships, combined with the associated growth in the cruise business with its carbon negative profile, points to the use of the electricity for shore power being net negative.
6. Of the 15.2 MW available power, 15MW would be available to moored ships, NTS 20. 46 cruise ships were expected to visit Portland Port in 2020. This means that during a normal cruise season, almost the entire power output would be diverted to cruise ships more than once a week. It is debatable whether this is a sustainable use of power.
7. PfP also claim that their plant would lead to an overall reduction in carbon emissions in comparison with the waste fuel being sent to landfill: NTS 46. However, very little of Dorset Council's waste now goes to landfill. The true comparison is with the actual situation which, from 1 September 2021, is that Dorset Council's RDF will go for incineration to Bridgwater in Somerset. Whilst this is indeed a longer journey from CM than the journey to Portland Port, against this must be weighed the fact that PfP wish free rein to import RDF from anywhere in the world (SST 8.6-9) and even RDF transported by road could come from as far afield as Gloucester, Hammersmith or Worthing (SST 8.7). Also, what must be added to this, is the huge carbon footprint of the construction of the plant.
8. Another argument is that the electricity the plant would produce would replace power produced from other fuels, NTS 45. However, waste incineration produces more carbon emissions than any other form of power generation apart from coal: 580g CO₂/kW - energy from waste; 340g/kWh - gas: https://zerowasteurope.eu/wp-content/uploads/edd/2019/09/ZWE_Policy-briefing_The-impact-of-Waste-to-Energy-incineration-on-Climate.pdf
9. At NTS 50, PfP attempt to justify not siting their proposed plant on one of the sites allocated in the Waste Plan 2019, claiming that the greater carbon emissions associated with transporting the RDF the greater distance to Portland Port would be offset by a DHN and by the provision of shore power. We argue above that these claims are not valid.