Ref: Planning application: WP/20/00692/DCC

OBJECTION TO THE POWERFUEL PORTLAND LTD PLANNING APPLICATION
Powerfuel Portland will not reduce the need for Landfill Sites by Dorset Waste Services, but will increase their own profits by diverting the pre-processed waste "RDF" to their own waste incinerator; a Landfill vs Waste Incinerator comparison

Although disposal of waste in landfill sites is no longer the preferred option for waste management, landfill will remain a necessary part of the UK waste strategy into the foreseeable future for wastes that cannot be re-used, recycled, or recovered.

A major argument from Powerfuel Portland is that there is a great "need" for a waste incinerator in Dorset to divert Dorset's residual waste away from landfill.

But is waste incineration the lesser of two evils?...

1. **The Waste Hierarchy:** A disposal facility is at the bottom of the waste hierarchy, and a recovery facility is one step up.
   a. **Disposal facility:** Landfill Sites and Waste Incineration are both at the bottom of the waste hierarchy as both are concerned with the disposal of waste, yet despite this, landfill is taxed and waste incineration is currently untaxed.
   b. **Recovery facility**: Modern Landfill sites can capture landfill gases and produce biogas, however landfill with a biogas recovery facility remains at the bottom of the waste hierarchy as a disposal facility. Modern Waste Incinerator operators who want their incinerator to be classed as an energy recovery plant must apply to the Environment Agency and justify that it is an R1 recovery operation. To qualify the incinerator must be dedicated to municipal waste (MWI). If a Waste Incinerator that burns municipal waste, produces power at the required efficiency level to gain R1 status it goes one step up the waste hierarchy and becomes a "recovery facility" - however unless R1 status is gained, it remains a "disposal facility" - currently there is **not enough evidence provided by Powerfuel to back their claim that the Portland Port plant will reach the required energy efficiency level, so it may not get off the bottom waste hierarchy tier, and may be classed as "disposal".**
2. **Municipal Waste:** includes both household waste and that from other sources which is similar in nature and composition, that will include a significant proportion of waste generated by businesses and not collected by Local Authorities. Powerfuel quote waste figures that over dramatise the situation, such as "in 2015 around 1.6 million tonnes of waste was produced in the plan area", however only a limited proportion of this waste is Municipal Waste and suitable for processing into the RDF that the Powerfuel plant is designed to incinerate. There may possibly be a proportion of non-hazardous, non-recyclable residual waste in Dorset that is suitable for processing into RDF, rather than be sent to landfill; but if so, it is not due to a lack of waste incinerators that waste is landfilled, but possibly due to the limits of Dorset's current RDF processing capability, **as the Powerfuel waste incinerator cannot incinerate any of the raw untreated municipal Dorset residual waste that might be destined for landfill, PfP cannot claim to be capable of diverting any Dorset waste from being landfilled.**
3. **Emissions:** Modern day Landfill sites emit 50% methane, 35% CO2, 15% other gases during the decomposition of organic waste, which can be captured and turned into biogas and used as a fuel to provide power. Waste incineration releases tonnes of CO2 daily (1 tonne of waste = 1 tonne of CO2 emitted into the atmosphere) which, unlike landfill gases, cannot be captured - incinerators also release permitted, but not safe, levels of Oxides of Nitrogen, Hydrogen Chloride, Sulphur Dioxide, Ammonia, Carbon Monoxide, Particulates, Mercury & compounds, Cadmium & Thallium, Heavy metals, Dioxins and Furans, Hydrogen Fluoride, and although the waste incinerator gases do go through a filtering system to ensure emissions stay within permitted levels set by EU Directives, these limits are restricted to "Best Available Techniques" and are not set by health safety limits, but by the limits to which the filters are currently technically able to capture the emissions.

4. **Residues:** apart from Landfill Site gases such as methane and carbon which can be captured and used as a biogas, another problem is leachate which can cause a significant risk to humans, wildlife and ecosystems if it is not contained and managed effectively. Like landfills, Waste Incinerators emit gases, however these cannot be captured and tonnes of GHGs are emitted into the atmosphere. Waste Incineration also has another residue in the form of ash, incinerator bottom ash (IBA) and fly ash from the flue (known as APCr) which will produce around 180 tonnes per day of ash, that due to the hazardous nature of ash residues has strict rules regulating the handling and treatment of it. Powerfuel hope that this will be recycled into aggregates, if not it will need to be landfilled, therefore adding more waste into landfill.

5. **Waste and the Circular Economy:** Landfill Mining and Reclamation (LFMR) has the potential to release some of the materials that have been sent to landfill, as opposed to Waste Incineration where that resource is gone for good even though the majority of the material that is currently incinerated is readily recyclable. Neither methods of waste management are acceptable, the only way forward is to reduce the non-recyclable single use goods manufactured, reuse what we buy and recycle wherever possible.

6. **Renewable - sustainable:** Landfill is not deemed a sustainable form of waste management, due to the emissions, toxins and space required to accommodate the waste; however, it could be argued that the organic waste decomposes at around the same rate as new plants grow, thus organic matter that is landfilled is "renewable". Although Powerfuel claims Waste Incineration is a sustainable way to manage waste, incinerators need a constant source of their feedstock to work at full capacity, and as recycling targets are reached, less non-recyclable waste will be available, it has been shown in counties with high capacity waste incineration this has acted as a disincentive to recycling. Organic waste included in the RDF such as wood, paper, cardboard are all regarded by the Waste Incineration industry as renewable, therefore justifying a "partially renewable" tagline, however the rate at which wood and wood products are destroyed, is at a rate that is far too great for plant growth / mother nature to keep apace with, and therefore incineration is neither a sustainable way to deal with organic waste, nor can it be regarded as renewable.

7. **The future:** For a long time after it was introduced, the landfill tax seemed to be very effective at diverting waste from landfill, however it is now clear that the main achievement has been to divert waste straight into incineration. This was not the aim of Landfill Tax, the aim was to increase recycling, reduce waste and reuse where possible - the intention was not to simply destroy finite resources through incineration, as a way to achieve zero-waste. The government recently stated that it would consider an Incinerator Tax in the future, if long-term waste ambitions to maximise the amount of waste sent for recycling are not met.

8. **Conclusion**: Whichever is the lesser of two evils, there is doubt that the Powerfuel waste incinerator will manage to achieve R1 status and thus will be at the same disposal level as landfill. Also **the Powerfuel plant cannot incinerate any of the raw untreated municipal Dorset residual waste that is destined for landfill, so cannot claim to be capable of diverting any Dorset waste from being landfilled, thus there is no need for the Powerfuel plant.**

The final words go to the industry expert Professor Ian Boyd, the former Chief Scientific Advisor at Defra, who at a presentation to EFRACOM on waste incineration, said:

"If there is one way of extinguishing the value of the materials fast, its to stick it in an incinerator and burn it. Now it may give you energy at the end of the day, but actually some of those materials, even if they are plastics, with a little bit of ingenuity, can be given more positive value. And one of the things that worries me is that we are taking these materials, we're putting them in incinerators, we're losing them forever, and actually we're creating carbon dioxide out of them as well, which is not a great thing, when in fact we could be long-term storing them until we have the innovative technologies to re-use them and to turn them into something that is more positively valued.

And this brings me to a more general point about landfill… landfill is actually a very low marginal-cost method for storing materials – highly resistant materials such as plastics and metals – for a long period of time. If we cannot extract the value from them now, so one caveat I would put around the current direction of travel on landfill, is that we shouldn't lose sight of the fact that in a few decades time, or maybe a bit longer, we might be mining our landfill sites for the resources they contain, and rather than put some of those resources into incinerators and just lose them forever we might want to think differently about the landfill sites."

Debbie Tulett - Portland Resident - [redacted]