



Application Reference: P/23/00822/F
Address: Canford Resource Park, Arena Way, Magna Road, BH21 3BW
Proposal: Demolition and Removal of existing structures and the erection of a Carbon Capture Retrofit Ready Energy from Waste Combined Heat and Power Facility with associated Combined Heat and Power Connection, Distribution Network Connection and Temporary Construction Compounds and associated buildings and ancillary car parking.
Case Officer: Senjuti Manna

Objection to APP/23/00822/F

It has never made any sense that the carbon capture aspect of MVV's proposed Canford incinerator should be regarded as separate from the application for the incineration plant itself, and therefore kicked down the road for determination by the LPA some time (perhaps...) in the distant future. The carbon capture element is an integral and highlighted aspect of the application, and the implications of such a facility must surely be considered as fundamental to APP/23/00822/F when determining its approval or refusal. It would be quite wrong to approve the incinerator and subsequently discover that carbon capture was either not viable on site or had too many negative consequences to be acceptable.

Whilst the BCP case officer who brought the application to the (deferred) planning committee in September 2024 seemed happy to exclude consideration of carbon capture facility¹, exclusion is surely no longer an option since the government issued new guidelines at the end of last year, with the requirement to demonstrate the ability to future proof:

For those energy recovery developments we do need, we will only support projects that offer the best efficiency and are future proofed towards supporting our net zero objectives. This means that further developments must be able to demonstrate that making use of the heat they produce is viable and that they can be built carbon capture ready.

Residual Waste Infrastructure Capacity Note (DEFRA, December 2024)

Given that the proposed incinerator is designed to burn 260,000 tonnes of residual waste a year, producing at least 260,000 tonnes of CO₂ emissions per year, and given, further, that "burning household rubbish in giant incinerators to make electricity is now the dirtiest way the UK generates power"², approval surely can only be given to APP/23/00822/F if the applicant can *demonstrate* that the a carbon capture facility is *feasible* in the near future as a

¹ "The proposal includes the retention of an area of land to enable the construction of a Carbon Capture plant which could be built in the future, subject to further planning permission. *While the technology is not feasible at present*, policy requires proposals to allow for future retrofitting ability as this has potential to become a requirement in the future." [Para 1.1.8] (My emphasis)

² According to a lengthy analysis, with research conducted nationally and over a period of time by the BBC, and published in October 2024.

technological concept and *possible* to build in accordance with planning law on the allocated Canford Magna site.

1. 'Feasible' Technology and Projected Timescale

When asked recently what type of carbon capture process they intended the facility to use and when it might come on stream, MVV replied³:

This has yet to be decided but it will most probably be one of the standard, technically proven liquid absorption systems. The timescale for implementation is between 2030 and 2035, subject always to gaining the necessary approvals at the time.

The current BCPD Waste Plan runs until 2033. Therefore it might be that, by the time a carbon capture facility is possible, new and cleaner policies are in place, leaving BCP saddled with a polluting, CO₂-pumping plant producing energy in the dirtiest way possible.

It may be that the carbon capture facility could come on stream sooner rather than later. In which case it is worth looking at the implications of the process for the site at Canford Magna.

2. Toxic and Bio-accumulative Emissions

Carbon capture relies on amine-based solvents, leading to emissions of nitrosamines and nitramines, which are toxic and bio-accumulative. Given the proximity of a SSSI, SNCI and a SPA/SAC site, the environmental impacts of harmful emissions need to be reconsidered.

3. Carbon Capture through Liquid Absorption

It should be noted that Liquid Absorption carbon capture technology increases water demand by up to 50%, straining local water resources, and that chemical emissions from amine degradation contribute to air and water pollution. It will also increase discharges into the sewerage system.

4. 26000 Extra Tanker Trips Per Year

20 tonnes of captured CO₂ will produce 20 tonnes of lend product, either liquid or mineralised CO₂. Disposal of 260,000 tonnes of mineralised or liquid CO₂ would require an *additional* 13,000 tanker trips per year, 26000 including return trips. The effect of these additional trips – undocumented in MVV's Environmental Statement – need to be addressed in terms of a) increased congestion on Magna Road and the local road network; b) an increase in traffic-related air pollution; and c) transport infrastructure on site. Given the location of the site, rail or pipeline infrastructure are not likely to be viable alternative transport options.

5. Spatial Strategy

One of the aims of the BCPD Waste Plan is to facilitate the *sustainable* movement of waste, in other words a reduction in transportation distances. It is unknown where the captured carbon would be delivered (either for use or sequestration), thereby leaving an unknown in the Spatial Strategy and possibly resulting in a net gain of distances travelled; regardless of option or location, additional movements will be inevitable.

5. Increased Land Usage

Any Carbon Capture System (CCS) requires an additional 1 to 2 hectares for CO₂ capture units, compression and liquefaction facilities, storage and transportation infrastructure. A further five to ten hectares is required if mineralisation on site is involved. MVV's *Design and Access Statement* states in para 4.3.8:

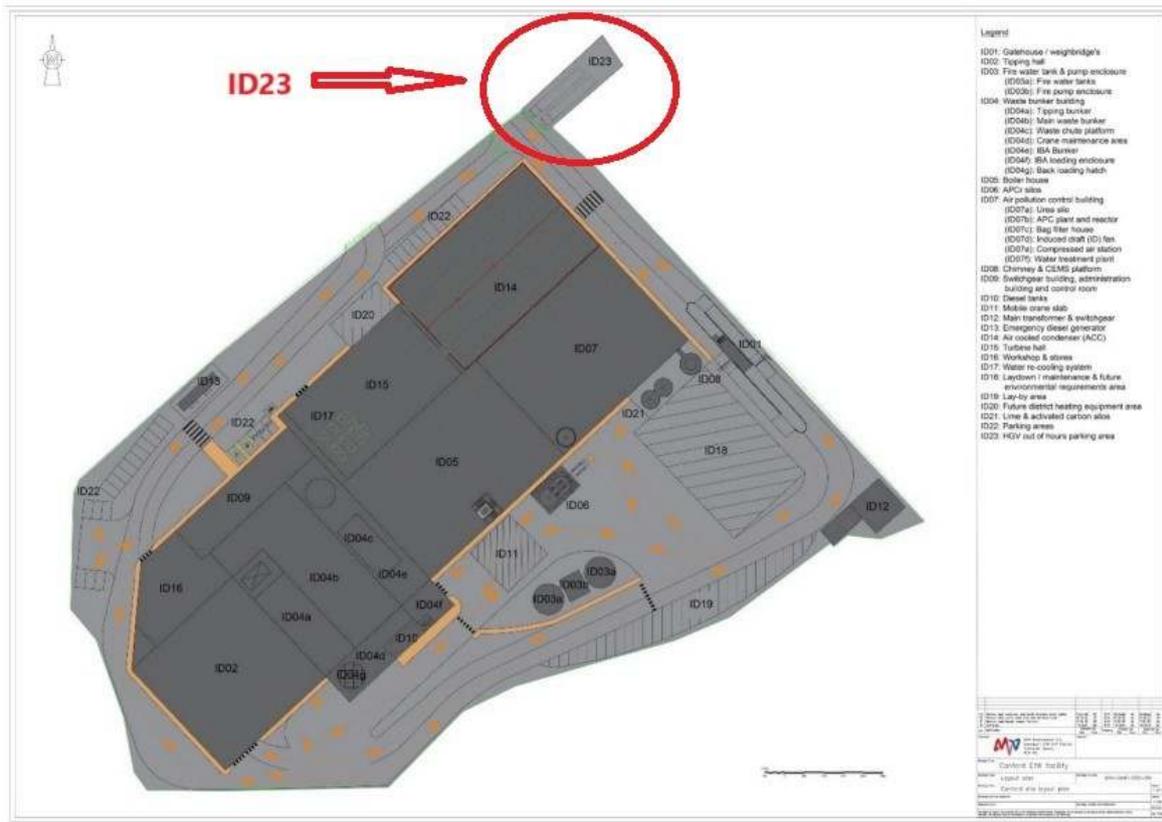
The layout includes an area identified as maintenance and laydown space which could also be used for future environmental requirements, that is carbon capture – ID23 on the above plan.

³ From recent correspondence with Jane Ford (MVV)

This is the plan referred to:



Figure 4-7: Preliminary EfW CHP Facility Site layout



It is evident that the amount of space allocated is wholly inadequate and offers no serious option of retrofitting a CCS, a point made by the Secretary of State for Housing, Communities & Local Government in her judgement on the Powerfuel (Portland EfW) appeal of 16th September, 2024:

The land in question appears to be around 900 square metres in area which is a fraction of what would be required for a CCS facility serving an ERF of the scale proposed. (Para 8.64)

Given that MVV's proposed site

- a) already extends beyond the site allocated in the BCPD Waste Plan,
- b) already extends into what is currently Green Belt designated land,
- c) is adjacent to the internationally known SSSI Canford Heath,

it is hard to see how a retro-fitted CCS can be accommodated within the current application site or how the site could be extended without being in breach of current planning guidance.

Conclusion

APP/23/00822/F is for "the erection of a Carbon Capture Retrofit Ready Energy from Waste Combined Heat and Power Facility". Determining the application for the EFW facility in isolation from the associated the "erection of a Carbon Capture Retrofit Ready" seems neither logical nor tenable, given that the Government now requires that new incinerators "must be able to demonstrate...that they can be built carbon capture ready". Therefore, the application must either be refused or the following must be obtained:

1. A detailed and feasible site plan showing the full CCS infrastructure's footprint, demonstrating that there is adequate space within the site allocated by the BCPD Waste Plan.
2. An updated air quality assessment to account for new emissions from the CCS process, including potential amine emissions.
3. A revised biodiversity impact assessment considering additional land requirements and operational effects, such as habitat loss, disturbance and damage.
4. An updated hydrological and ecological impact assessment, with full analysis of projected water use and contamination risks.
5. A thorough analysis of the traffic impact of the transportation of liquid carbon.

Alternatively, if the applicant insists that the carbon capture facility should be detached from the application for the EFW and considered separately somewhere down the line, then APP/23/00822/F should be refused on the grounds that its harms – most notably the dirtiness of its power generation and lack of genuine green credentials – outweigh its benefits, which appear very few beyond a nebulous claim to be fulfilling the Waste Plan's Spatial Strategy.

Frank Ahern
(on behalf of Magwatch)
10th February, 2024