



Rivenhall IWMF & Energy Centre Project update

Prepared November, 2021

Who is Indaver

Indaver offers high-quality, sustainable and cost-efficient 'total waste' management solutions to public authorities and large scale industry. For each type of waste Indaver offers a tailored solution thanks to our 30 years of expertise and wide range of in-house facilities and processing possibilities with third parties.

Over the years Indaver has become an international player in Europe, with facilities and operations in the UK, Belgium, Germany, Ireland, Netherlands, Italy, France, Spain and Portugal.

At Indaver, the entire team is working towards the same goal: leading the field in sustainable waste management. We achieve this through constant innovation, developing new and original sustainable waste management solutions for clients. Our passion for innovation leads to intelligent solutions, which in turn has placed Indaver in the vanguard of change as a key European player in sustainable waste management.

Through improved recycling and maximum recovery of energy from waste, Indaver is leading the way for communities to achieve sustainable waste management. Our mission is to make a lasting and ongoing difference to the global waste crisis.

The Rivenhall IWMF & Energy project will form part of Indaver's global project to maximise the recovering of materials and energy from waste.

Unlocking the potential of waste

The following Indaver projects give a flavour of the innovative waste solutions Indaver has promoted around the world. They highlight that the recovery of energy from waste through incineration is only one means through which we extract value from waste. Where there is a market for a particular means of recycling and recovering resources from waste, Indaver implements those solutions.



ECLUSE project

The 'ECLUSE' project in Antwerp's port is a pipe network that's been constructed by Indaver and its partners. It allows the creation of steam from Waste-to-Energy which is then provided to five companies allowing them to switch off their steam boilers. This results in a saving of 100,000 tonnes of CO₂ per annum.

Inda-MP Project

Inda-MP recycles precious metals from liquids. A large part of these liquids originate from reactions based on homogeneous precious metal catalysts, used in pharmaceutical and chemical industry. After the production process the catalysts end up in the liquid waste. During the recycling process the precious metals are recovered with very high efficiency while hazardous components are safely destroyed.



Re-light facility, Doel

The Indaver Relight facilities in Doel, Belgium, treats all mercury-containing lamps which are collected selectively in Belgium, half the fluorescent lamps, low-energy light bulbs and other gas discharge lamps collected in the Netherlands and a third of those collected in France. All together it accounts for around 30 million lamps a year. Up to 95% of the lamps are recycled, especially glass and metals which, cleared of mercury, are reused in the manufacture of new lamps or in the metal recycling industry.



Waste-to-Energy facility, Meath, Ireland



10MW electrolyser and hydrogen refuelling station at Meath Waste-to-Energy. This will allow the use of energy that would otherwise be wasted when asked to power down by the grid operator. This typically happens on windy days when there is more supply than demand for electricity. The hydrogen generation unit will assist in decarbonising the heat & transport sectors. Hydrogen as a transport fuel is a great step towards greener travel because hydrogen vehicles produce no tailpipe emissions.

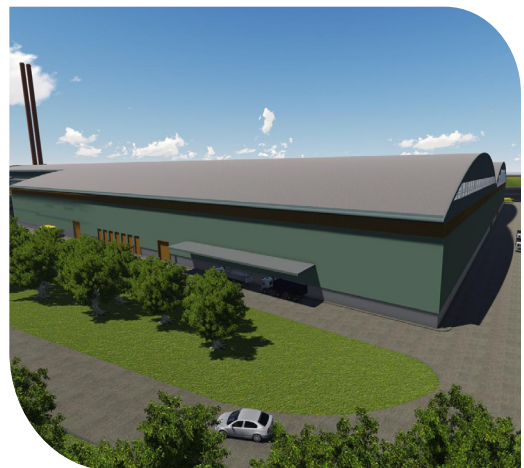
Bio Power, Alphen, Netherlands



This is Indaver's cutting edge vegetable, garden and fruit (VGF) digester. It is the only machine in South Holland that can both digest and compost vegetable, garden and fruit waste, green waste and biowaste from the food industry and processes organic waste into green gas for around 3,000 households. Indaver recovers three valuable products from the process: compost, green gas and liquid CO₂.

Rivenhall Integrated Waste Management Facility and Energy Centre, Essex

The Rivenhall Integrated Waste Management Facility (IWMF) & Energy Centre in Essex will treat local authorities residual waste as well as commercial and industrial residual waste from the private waste sector. The facility will include technology to turn waste to electricity - enough to power over 60,000 homes annually and over 50% of which is renewable. Additional integrated waste management operations would include ash recycling and bulky waste recycling, and Indaver is also looking into the possibility of providing heat distribution and carbon capture.



Options under consideration for the Rivenhall IWMF & Energy Centre

The IWMF Permission (ref ESS/34/15/BTE) granted on 26 February 2016 authorises the construction of a combined heat and power plant, anaerobic digestion plant, materials recovery facility, mechanical biological treatment facility, de-inking and paper-pulping plant, related infrastructure and the restoration and use of the listed Woodhouse Farm complex.

Indaver bought the Rivenhall site in 2021 in the hope that a viable commercial need for all elements of the IWMF Permission could be found, but recognising in the interim that it could still proceed to implement part of the development.

In addition to delivery of the Energy-from-Waste plant, Indaver:

- 1.1.1 is actively looking to locate a business on-site which would use the heat/steam generated by the power plant;
- 1.1.2 considers there is a commercial market for a bulky waste processing facility;
- 1.1.3 considers there is a commercial market for the recycling of ash on-site into a useable aggregate; and
- 1.1.4 wishes to provide for carbon capture infrastructure in future if space for this can be found on-site.

Indaver also hopes to achieve a greater output from the power plant (around 60-65MW, rather than the 50MW currently consented) without any increase to the throughput of waste. This increase would be achieved simply through greater plant efficiency. Any increase in capacity of a plant over 50MW would require Secretary of State's consent under the Planning Act 2008 regime for 'nationally significant infrastructure'. Indaver is at the early stages of exploring that route to consenting the capacity increase, via a 'development consent order' or 'DCO'.

When authorising a DCO project, the Secretary of State may include consent for development which is ‘associated’ with the core component of the project (the generating station in this case). Indaver will therefore consider whether some or all elements of the project which Indaver aspires to build on the site might be authorised as part of a DCO application to the Secretary of State. Alternatively consent will be sought from the local planning authority for any elements of development not authorised by the IWMF Permission.

As set out in the Condition 66 discharge letter of 1 September, Indaver cannot currently confirm exactly what will be built out on the Rivenhall site. This depends inevitably on: (i) commercial demand for the various elements in the IWMF Permission and the other options being explored by Indaver as outline above; and (ii) whether Indaver is able to obtain consent for facilities not authorised by the IWMF Permission, via either a DCO or further planning permissions.

The DCO process is long, with a great deal of pre-application consultation to be carried out and taken into account before an application is submitted. Such consultation cannot be carried out until sufficient environmental information is collated, ready to be made available as part of the consultation. This also takes time. Then, from submission of the application to a decision by the Secretary of State, there is a minimum time period of 15 months.

Indaver is starting to think about that process now, but in parallel will be progressing the discharge of conditions in respect of the existing IWMF permission, and intend to construct the energy from waste facility under that permission.

The ‘plan of action’ submitted by Indaver under the Condition 66 discharge letter seeks to set out openly the options Indaver may implement to develop the site, dependent on some of the factors discussed in this document.

Supplementary information relating to discharge of condition 66 of the IWMF permission

There is no legal requirement, either under general planning law or the IWMF permission itself, for the totality of the authorised development be built out. However, condition 66 requires that where there is 'incomplete implementation' within 5 years of commencement of development, a 'plan of action' for 'an alternative use' or a 'scheme of rehabilitation' must be submitted to Essex County Council and (once approved) implemented.

Given that there has not been complete implementation within the 5 year period, Indaver submitted an application to discharge condition 66 on 1 September 2021. In summary, that plan of action provides that Indaver's intention is either:

- 2.1.1 To build out the IWMF Permission in full; or
- 2.1.2 To build out some of the facilities authorised by the IWMF Permission; or
- 2.1.3 To submit an application for alternative waste management and/or energy generation uses.

Like any business, Indaver will only invest in facilities where there is a viable commercial use. The nature of what is viable commercially is constantly changing as local and national needs change and technologies develop.

The viability of the combined heat and power plant is not at issue, and Indaver has been clear that it intends to build out this element of the IWMF Permission, but Indaver also wishes to develop the rest of the site within the existing footprint of the authorised permission.