

Environment Agency welcomes new solar farm at former landfill site

- Environment Agency continues regulation of former landfill site
- The Environment Agency is working with site owner, City of Wolverhampton Council

The Environment Agency is continuing to carry out its regulation of a historic, non-hazardous landfill site in Wednesfield, where construction of a new solar farm is currently underway.

City of Wolverhampton Council, the current operator of the closed Bowmans Harbour landfill, is enabling The Royal Wolverhampton NHS Trust to develop the site to generate significant levels of renewable energy to power the nearby New Cross Hospital, in a step towards its goal of becoming net carbon zero by 2040.

As part of the planning process, City of Wolverhampton Council is required to manage the landfill in its closed state by retaining the existing landfill monitoring infrastructure and continuing to provide access for the Environment Agency to carry out its regulation of the site.

The Environment Agency has also highlighted to the council of the need to avoid damage to the cap of the landfill to prevent any issues going forward.

The site, which was formerly mined for coal, was operated as a landfill until it was closed and capped in 1996-1997. Since then, the Environment Agency has continued to regulate the site, ensuring monitoring and maintenance of the site is managed in accordance with the site's environmental permit.

The solar farm, which at 11 hectares, is the size of around 22 football pitches and is due to be operational by summer this year, even though the site will not be fully complete by this time. It is estimated that the solar energy will power the hospital for three quarters of the year – around 288 days of self-generated renewable energy.

Joe Craddock, Environment Officer at the Environment Agency said:

It's fantastic to see a former landfill being used in this way to provide a renewable energy source for the hospital.

We have taken the opportunity of working with the council to not only maintain but also improve the infrastructure of the closed landfill. We have required City of Wolverhampton Council to review and improve the leachate and gas wells on the site and make updates to the gas flare.*

We will continue to monitor and manage the site as it changes its use into a new source of renewable energy.

The improvements to the landfill infrastructure are important as they reduce the amount of greenhouse gasses being emitted from the site.

The solar farm is located approximately 1 mile to the north-east of Wolverhampton city centre and approximately 0.5 mile south of Wednesfield village centre.

The solar farm is planned to produce 6.9 megawatts-peak per annum which will be fed direct to New Cross Hospital. New Cross Hospital will be the first hospital in England to fully utilise and operate its own facility providing renewable energy.

The repository at Bowmans Harbour is the subject of an existing environmental permit issued to City of Wolverhampton Council by the Environment Agency in respect of environmental monitoring.

The Environment Agency regulates the environmental permits held by a landfill operator, including a closed landfill. Within the environmental permits there are conditions controlling the operations that the site can carry out, which cover emission limits and the location and frequency of environmental monitoring.

The conditions of the environmental permit are designed to prevent pollution and minimise impacts to the environment and human health. Appropriate measures are required to be taken by the holder of the environmental permit through the application of best practice.

There is a long-term monitoring contract in place with City of Wolverhampton Council to meet the conditions of the environmental permit.

Less potent greenhouse gasses are emitted if the landfill gas is burnt as opposed to being vented* so reducing the volume of gas being vented on the site will have a positive effect on the environment in terms of the greenhouse gases being emitted by the site.

- When the gas is vented, a higher percentage of methane is released to the atmosphere which has a greater greenhouse effect. Burning the landfill gas reduces the volume of more potent greenhouse gases being released.