



QUESTIONS AND ANSWERS

MARCH 2019

Thank you for taking the time to learn about our proposals for a like for like replacement of the Colnbrook-based Lakeside Energy from Waste (EfW) and High Temperature Incinerator (HTI). We appreciate there's lots of information to take in all in one go and you may have questions. We hope this document gives you some information on the scheme – but if you have any further questions please contact us directly on lakeside@newgatecomms.com and we will get back to you as soon as we can.

What is the Lakeside Energy from Waste (EfW) facility?

Lakeside EfW is a power station. It uses an unusual fuel – waste which can't be recycled – to generate sustainable electricity.

How does it work?

The Lakeside EfW works like most other power stations. It burns a fuel to heat water. This creates steam, which turns a turbine. The turbine generates electricity, which is distributed via the National Grid.

Doesn't burning waste create smoke and gases?

Most production processes create by-products. At Lakeside, gases are produced as a by-product of the EfW process. No smoke is produced. We carefully manage the gases by designing the facility to deal with these materials. The non-recyclable waste is burned at very high temperatures under controlled conditions. We clean and filter the gases within the facility and eventually release what's left through the chimney – known as a stack.

The gases that come out of the stack are called emissions. The Government has strict regulations which are very specific about type and volume of emissions from the EfW process. The site process and emissions are regulated by a government body called the Environment Agency. The gases coming out of the stack are monitored using an automatic system, which works 24 hours a day. The results are sent automatically to the Environment Agency, which makes sure our stack emissions are well within the limits that it sets.

How does EfW fit in with the wider picture for recycling?

We always seek to reduce, reuse or recycle waste. However, once we've exhausted these options, EfW is the best available technology for recovering energy from the remaining waste materials. The only available alternative for this waste would be landfill – but that results in by-products which can be very environmentally damaging.

So what actually happens at Lakeside EfW?

At Lakeside, the EfW facility takes around 440,000 tonnes of non-recyclable waste a year from local authorities and businesses and turns it into 37MW of sustainable power. That's enough to meet the needs of 56,000 homes every year – equivalent to the size of Slough.

We also use advanced techniques to use what's left over from the process. The residues left over after cleaning up the gases – and the ash from the combustion process – are both turned into building materials. That means that all the waste sent to Lakeside is diverted away from landfill. In other words, we don't produce any waste of our own which needs to be disposed of elsewhere.

What is High Temperature Incineration (HTI)?

HTI provides a safe and secure way of managing wastes which require total destruction, such as clinical and some very low hazard materials.

How does it work?

The HTI burns wastes at very high temperatures (up to 1200°C). This destroys the hazardous parts of the materials. By doing this, the HTI provides a safe and controlled method of managing such waste – and diverting it away from landfill.

Is the HTI safe if it's burning hazardous waste?

The HTI is strictly regulated and provides a safe and controlled route for such waste that might otherwise end up in landfill. We monitor what's released from the facility's stack 24 hours a day. The results are assessed by the Environment Agency to ensure we do not exceed the levels it has set.

What waste does the HTI at Lakeside take?

The HTI securely processes 10,000 tonnes of waste a year. Most of this is clinical and low hazard waste from NHS hospitals and other medical establishments as well, as from some industrial processes.

Do you really need to move the EfW and HTI?

The existing Lakeside EfW and HTI are on part of the land identified as being required for the proposed Heathrow expansion – and need to be moved to accommodate this.

We need to build and commission replacement facilities before the existing ones are demolished – so we can continue to meet local and regional waste management needs without any gaps.

Why do you want to replace Lakeside EfW and HTI?

The EfW processes non-recyclable waste from local businesses and a number of local authorities – including Slough, Reading, Wokingham, Bracknell and the West London Waste Authority. Any closure of the EfW facility, without a like for like replacement in the local area, would be disruptive and financially damaging to these authorities and risk waste ending up at landfill sites.

The loss of the HTI would mean significant disruption and higher disposal costs for local and regional hospitals, doctors' surgeries, dentists and other businesses needing secure disposal for these types of waste.

Will the proposed new facilities be the same as the existing ones?

We're proposing a like for like replacement for both the EfW and HTI. This means we would duplicate the design and performance of the existing facilities as much as possible, taking into account new, stricter environmental controls and standards that will be imposed by the Environment Agency.

We would have to make a small number of design alterations from the existing facility:

- Both the EfW and the HTI would continue to process the same amount of waste, but would do this more efficiently and effectively. The replacement facilities would use the latest technology to generate 46.7MW of sustainable electricity, more than the existing EfW
- To meet safety standards for the airport, the replacement stack would be 55 metres high. This is 20 metres lower than the existing one
- Improvements in gas clean-up technology and stricter Environment Agency emission controls mean emissions would be even lower than from the current facility, so a shorter stack would be just as effective
- The Lakeside Education Centre would be moved to the new site - but would be an integral part of the new building, rather than a separate facility as at present

Would reducing the height change what comes out of it?

We would use improved technology at both the EfW and HTI. This would mean that emissions are even lower than at the existing facility, so we could use a shorter stack. We would need to demonstrate that the shorter stack meets Environment Agency requirements before we could operate the new facilities.

Does moving the facilities change the areas affected by what comes out of the stack?

Moving the facilities would mean that what comes out of the stack may be dispersed over a different area. We're developing a detailed model of how the replacement facilities would release emissions – and how they would be dispersed. To understand any potential impacts, we would then compare this new model to the existing one.

Would the replacement facilities be noisy?

We're currently carrying out a range of environmental assessments, including noise, as part of our planning application. We don't expect the replacement facilities to create significant additional noise that would be heard by people living nearby.

Would the replacement facilities smell?

The existing facilities don't smell, because we carefully manage the waste reception process – this is where there is the greatest potential risk of smells. The facilities are designed so that air is drawn in to and through different parts of the buildings, controlling smells. Where appropriate, relevant parts of the buildings are fully enclosed. We regularly check the site and surrounding area for smells. As we are not proposing to change these parts of the replacement design, we don't expect this to change.

Would I be able to see the replacement facilities?

Even though the new facilities wouldn't be very far from the existing ones, they may be visible from different places. We'll carry out a detailed landscape and visual impact survey of the new site, so we can understand where the new facilities might be visible from. This will help us work out whether there are any new, significant visual impacts we need to think about.

Would the replacement facilities mean more vehicles on local roads?

As we would be processing the same amount of waste as we do at the moment, we don't expect the replacement facilities to create more traffic. However, we're evaluating how accessing the replacement site would affect local roads.

Would any jobs be lost as part of the replacement process?

All current jobs would be safeguarded by replacing the existing facilities.

What is the planning process for the replacement facilities?

We need to secure planning permission for the replacement facilities from Slough Borough Council. We also need the relevant Environmental Permits from the Environment Agency. We'll be seeking both of these later in the year.

When will you build the replacement?

We're committed to providing a continuous service as we replace these two significant facilities. To do this, we need to build the like for like replacement facilities by the end of 2023, before the current ones are demolished.

How can I share my views on the replacement?

We really value your feedback as it will help us understand the potential impacts of moving the facility – and assist us in developing a better scheme. We're consulting while we're still carrying out our environmental assessments and developing our proposals so we can benefit from local knowledge. You can share your views with us by filling in a feedback form, which is available at our public exhibitions as well as online – and returning it to us at:

- Post: Lakeside Replacement, FREEPOST ref: RTRB-LUJJ-AGBY, Sky Light City Tower, 50 Basinghall Street, London, EC2V 5DE
- Email: lakeside@newgatecomms.com

How can I find out more?

You can find out more by going to our website, www.lakesideefw.co.uk, or contacting us on 0800 0194 576 or lakeside@newgatecomms.com.