Key points on Carbon Impact

October 2019

Delivering an Energy Recovery Facility (ERF)

- The existing facility at Edmonton EcoPark is reaching the end of its operational life after diverting 21 million tonnes of waste from landfill since 1971. A replacement facility is being built which could treat up to 700,000 tonnes of north London's waste.
- Our highest priorities are waste prevention and recycling however, there is still a significant volume of waste from 2 million people in north London which cannot be recycled or reused. To avoid landfilling we treat this waste through an energy from waste plant, in line with recommendations from the Committee for Climate Change.
- We're following the example of countries like Germany and Belgium, where over 50% of their waste is recycled, and a large proportion of the rest is treated in energy from waste plants.
- An Energy Recovery Facility (ERF) is the most proven, environmentally sound and cost-effective option for treating north London's waste. None of the alternative ways to treat non-recyclable waste, are proven at the scale we need in north London.
- The project will also deliver a Resource Recovery Facility (RRF) providing a Reuse and Recycling centre open to the public and businesses.
- In the context of a Climate Emergency, declared by north London Boroughs, the question is raised whether the carbon impact of a new ERF would be greater than the alternative of sending waste to landfill.

NLHPP Carbon Impact Study

- A new carbon impact study by Engineering Consultants Ramboll has found that significant carbon savings are made when using the ERF rather than landfill.
- The study identifies the total carbon impact of the new Edmonton ERF when in full commercial operation, comparing its carbon impact to the alternative for waste disposal which is landfill.
- The carbon impact is the sum of the emissions less any savings. Three key principles have been modelled to calculate the carbon impact of the ERF compared to landfill including upstream (input), direct and downstream (output) impacts.

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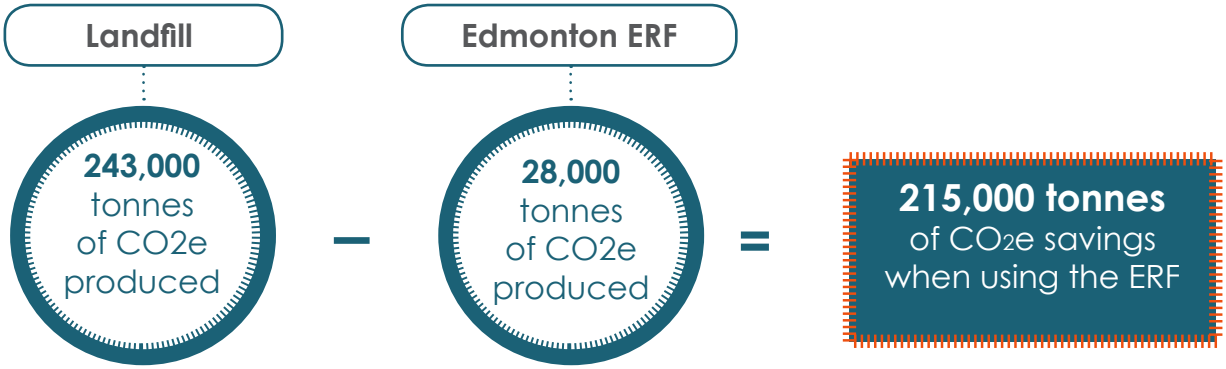
Significant carbon savings: ERF versus Landfill

- Sending waste to landfill produces over eight times the total carbon impact than treating waste at the ERF. Per tonne of waste, the ERF produces 40kg of carbon dioxide equivalents (CO_2e), compared to landfill which produces 347kg of CO_2e per tonne of waste.

- The ERF will save the equivalent of 215,000 tonnes of carbon dioxide being released each year when treating 700,000 tonnes of waste compared to sending the same amount of waste to landfill.



- The composition of household waste typically has over half of the materials as biomass or food waste. When treated at the ERF this doesn't produce methane, however, when 700,000 tonnes of waste decomposes naturally such as at landfill, it is expected to release more than 10,000 tonnes of methane. This methane is 25 times more potent than carbon dioxide and more damaging to the environment.

- Treating waste at the ERF saves on transport emissions as it is based locally to where waste is collected. Sending waste to landfill would mean having to transport waste out of London between 80 – 200km away.

Wider benefits of using ERF technology

- Significantly more low carbon energy is produced at the ERF compared to landfill. The ERF will generate 78 megawatts of electricity which can supply power and heat for up to 127,000 homes, displacing the need for virgin fossil fuel generated power.

- As recommended by the Committee for Climate Change avoiding landfill is a key part of Government's ambition for the waste sector to support achieving a Net Zero carbon economy. Our modern, efficient facility to recover energy from waste is part of this solution.

- The waste industry represents around 4% of greenhouse gas emissions nationally and the vast majority of these are from landfill sites (Department for Business, Energy and Industrial Strategy). Energy from Waste makes up less than 0.05% of this (Committee for Climate Change).

- The ERF will save the equivalent of 215,000 tonnes of CO2 being produced which is like taking 110,000 cars of the road each year.