Objection by Nottingham Friends of the Earth to proposal by Uniper for a 500,000tpa waste incinerator at Ratcliffe on Soar (ES-4154)

(1) Nottingham Friends of the Earth strongly objects to this proposal and asks Nottinghamshire County Council to refuse the planning application.

(2) We support the objection submitted by UK Without Incineration Network.[1] In particular:

- Uniper has failed to demonstrate a need for extra incineration capacity. They have seriously overstated the quantity of residual waste and understated incineration capacity in the surrounding area.
- The proposed site is not near to urban areas where most waste is created. So it will promote unnecessary transport of waste into the Green Belt.
- It will generate large quantities of CO_2 (around 450,000 tonnes per year) with no realistic proposal to become carbon neutral (see calculation in (8) below).

(3) Waste Core Strategy Policy WCS3 requires proposals to accord with the aim to achieve 70% recycling or composting of all waste by 2025. Uniper's projections assume a failure to achieve this level of recycling. It is proposing a huge incinerator as an alternative to waste reduction and recycling. It therefore conflicts with Policy WCS3.

(4) Uniper's proposal does not adequately consider the implications of the EU Circular Economy Package or the Defra policy statement in support dated 30 July 2020.[2] It clearly fails to support the policy objectives of this package to minimise waste, promote resource efficiency and reuse waste as a resource. It also fails to adequately consider the implications of proposals in the Environment Bill (currently being considered by a Commons Committee), particularly the requirement for separate collection of food waste – which will greatly reduce the quantity of putrescible waste in residual waste requiring treatment.

(5) Policy WCS4 states that large-scale waste treatment facilities will be supported in, or close to, the built up areas of Nottingham and Mansfield/Ashfield. The site at Ratcliffe on Soar clearly conflicts with Policy WCS4.

(6) Policy WCS12 states that proposals which are likely to treat waste from outside Nottinghamshire and Nottingham will be permitted "where they demonstrate that: a) the envisaged facility makes a significant contribution to the movement of waste up the waste hierarchy, or b) there are no facilities or potential sites in more sustainable locations in relation to the anticipated source of the identified waste stream, or c) there are wider social, economic or environmental sustainability benefits that clearly support the proposal." UKWIN's analysis shows that Uniper have failed to identify much of the existing and planned incineration capacity within their "2-hour drive time catchment area". They have therefore failed to demonstrate compliance with Policy WCS12.

(7) Moving towards a net zero carbon future will require progressive reduction in waste and increased recycling, in accordance with a Circular Economy strategy.

[1] https://ukwin.org.uk/library/262-Objection-from-UKWIN-August-2020.pdf

[2] https://www.gov.uk/government/publications/circular-economy-package-policy-statement/circular-economy-package-policy-statement

This will mean that if the incinerator is approved it will have to source its waste from longer and longer distances.

(8) Uniper plans to export 43.4MW electricity to the grid for 7,884 hours per year – a total of 393,412 MWh/y. If the waste input has a calorific value of 10MJ/kg they plan to burn 472,094t/y with an estimated carbon content of 26.18%. Assuming all this carbon is emitted as carbon dioxide, that will be 453,179t/y CO_2 – an average of 1.15kg CO_2/kWh. That is around four times the current carbon intensity of grid electricity. Even if only fossil carbon is considered, they calculate 560g CO_2/kWh – over ten times the carbon intensity recommended by the Committee on Climate Change by 2030. (Slightly different figures would apply for a higher throughput of waste with a lower calorific value of 9MJ/kg.)

(9) Uniper estimates that the incinerator will work at an electrical efficiency of 26.1% (that is, just 26.1% of the energy in the waste will be exported as electricity) – worse than the efficiency of UK coal-fired power stations which is currently around 32%, though Uniper doesn't give a figure for the existing Ratcliffe on Soar power station.

(10) In order to further massage down the net carbon emissions, Uniper then deducts the amount of CO_2 which would be produced by a gas fired power station (rather than comparing with renewable electricity). And then deducts the greenhouse gas emissions from methane if putrescible waste was put in landfill. As UKWIN, argues, it would be more appropriate to bio-stabilise waste before putting it in landfill to reduce methane emissions. And proper account should be taken of the effect of taking food waste out of residual waste, as required by the Environment Bill, which will substantially reduce greenhouse gas emissions.

(11) Uniper does include a realistic discussion of how unrealistic it would be to apply "Carbon Capture and Use" to the incinerator. Given the complete lack of commitment to any realistic means of capturing CO_2, no weight should be given to this. In any case, they would intend to continue burning carbon-based material producing large quantities of CO_2 well beyond 2050 if given planning permission.

(12) Uniper also suggests that the incinerator could supply heat as well as electricity. Although vague possibilities are discussed, including supplying the surrounding site or housing planned for the area between Gotham and Barton in Fabis, there is no appraisal of costs or energy losses in distribution. Given the complete lack of commitment, no weight should be given to this. As a comparison is made with the combined heat and power provided by Eastcroft incinerator, it is worth looking at how inefficient that is. The last time we saw detailed figures was in a public inquiry in 2008 where figures were given for calendar year 2007.[3] Our calculation based on these figures showed that just 21% of energy in the waste was sold as heat through Enviroenergy. Only 10% was exported as electricity to the grid, and a further 2% was distributed through Enviroenergy's private grid. It demonstrates that providing some energy as heat requires a significant reduction in production of electricity.

(13) Uniper says that this development will cost around £330m and create 45 permanent jobs – that is £7.3m per job. That is very poor value for the local economy. Far more jobs would be created by investing this money in recycling

[3] Our calculations and background data are archived at https://nottfoe.gn.apc.org/oldfoe/200Eastcroft.html The City Council refused to tell us how much heat was actually sold by Enviroenergy until we paid £900 for five days work. (Would you believe that Enviroenergy doesn't know how much heat it sells in a year?) When the Information Commissioner ruled that they weren't allowed to charge for this, they refused to provide figures for subsequent years.

– which would also save more energy than is created by burning waste. Alternatively, investing that amount in energy efficiency for homes and businesses would save more energy than will be produced by incineration.

(14) Uniper falsely claims that its proposed incinerator will be “low carbon”. That is only true if most of the carbon dioxide coming out of the chimney is ignored. It also claims that it would provide greater security of supply than “intermittent” forms of renewable energy. However, it would create a different problem of intermittency – it would operate for only 7,884 hours out of a full year of 8,765 hours. And, of course, it would have the same problem created by nuclear power of generating power 24 hours per day including overnight when it isn’t needed – requiring significant energy storage capacity. It should also be noted that research for the Committee on Climate Change finds that intermittency of individual renewable forms of energy should not prevent full decarbonisation of power supply.[4]

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[4] https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-Technical-Annex-Integrating-variable-renewables.pdf