

Landfill Diversion Contract November 2005

Questions and answers

Background

Q. Why do we have to stop sending waste to landfill?

We will still continue to send some waste to landfill, but we need to considerably reduce the amount that we send. EU and UK government policy seeks a very significant decrease in landfill, particularly for municipal waste and particularly for the waste that is biodegradable, that is waste that will rot down. Landfilled biodegradable waste can have a major detrimental impact on the environment, through production of methane, which is a major cause of global warming, and liquids, known as “leachates”, which can pollute ground water, streams and rivers. In addition, the government has introduced two financial penalties for landfilling. The landfill tax is now set at £18 per tonne and will increase annually. From April 2005, waste disposal authorities like Wiltshire will also be subject to the Landfill Allowances Trading Scheme, or “LATS”. Under this scheme the amount of biodegradable waste that the County Council can send to landfill without incurring fines will decrease each year, from about 130,000 tonnes this year to about 40,000 tonnes in 2020. The fines for excess landfilled tonnage are currently set at £150 per tonne.

Fines can be avoided or reduced by purchasing surplus landfill allowances from any waste disposal authority (WDA) that can make them available. Allowances are available at present but are likely to become progressively less available as all WDAs experience the annual reduction in their allocated allowances. Currently, only a very small number of authorities that have invested heavily in incineration will avoid paying fines. Most authorities are in a similar position to Wiltshire, with a need to rapidly reduce their dependence upon landfill.

Q. How much will these contracts cost?

The two contracts have a currently estimated value in excess of £300 million over 25 years. The evaluation process undertaken by the County Council compares these costs with the cost of a “do nothing” alternative approach. The “do nothing” approach would be to continue to improve recycling and composting, but otherwise to send our growing tonnage of waste to landfill and incur fines.

Q. Is this option really cheaper than paying fines?

The cost comparisons carried out by the County Council conclude that the two proposed contracts would deliver significant savings, compared with the cost of landfilling and paying fines. The extent of savings will vary according to a number of factors, such as changes in the composition of waste which could affect "gate prices" and the degree to which the refuse derived fuel produced from the MBT plant at Westbury would be actually used as fuel. Any tonnage not used would need to be landfilled and this would raise costs. The cost "scenarios" investigated by the County Council take all these factors into account.

Q. Have you consulted local people?

There have been a number of consultations on waste issues in recent years. The Waste Local Plan process included extensive consultations and a public local inquiry, looking at the underlying principle of diverting more of our waste from landfill and the type of facilities that we might require.

The proposed development of an MBT plant at Brook Lane would be supported in principle by the adopted Waste Local Plan. The land in question is allocated as site L6 in the Local Plan, with recycling uses suggested. MBT was not included as a potential use-type in the Local Plan site appraisal, but shares characteristics with recycling. The reference to local scale activity implies a service concentrated within West Wiltshire District. The proposal complies with this. This allocation was subject to extensive public consultation and the public local inquiry.

As part of early work on the review of the Local Plan, officers have been carrying out updated appraisals of all potential waste management sites, including the land at Brook Lane. The appraisals have been discussed with the Wiltshire Waste Forum, as part of the process of early consultation under the new planning act. The appraisal of Brook Lane concludes that it is still an appropriate site for waste development, with a wider range of potential uses including MBT and composting. The appraisal adds that it would be potentially suitable for more strategic uses, subject to completion of the proposed road link through the nearby Northacre Business Park. Consultation on the first stage of the review of the WLP is about to commence.

The proposed MBT plant will need to obtain a planning permission from the County Council, and a licence from the Environment Agency. The planning application will need to address a number of issues, including the impact of traffic upon the local road network. Access to the site via Brook Lane is in the process of being replaced by a new road through the adjoining Northacre Business Park. (A planning application for any major development, whether it be for industrial or distribution uses or waste management, would need to undergo a traffic impact assessment.) Other issues that would need to be dealt with during the planning application process include protection of the Biss Brook and the underlying minor aquifer. Both the planning application

process and the EA licensing process will be subject to public consultation. In the case of the planning application, the applicant will be required to carry out a local consultation, including an exhibition and meetings.

Q. Will local people have the chance to comment on the Westbury proposals?

See previous response – last paragraph. Subject to contracts being finalised and signed, planning procedures are likely to commence in early 2006.

Q. How long is the contract for?

The two contracts – for incineration at Colnbrook, near Slough, and for MBT at Brook Lane, Westbury are for 25 years. The contract with Lafarge, Westbury, to accept Solid Recovered Fuel (SRF) created by the MBT process at the nearby plant would also be for 25 years.

Q. When will the contract start?

Both treatment processes are planned to commence receiving waste during 2008/09. Construction work has started at Colnbrook, whilst the Brook Lane MBT plant has not yet obtained planning permission.

Q. These landfill diversion contracts seem to be focused on Westbury – why there?

One of the two contracts is focused at Westbury. The contract to deliver municipal waste to the incinerator at Colnbrook, Slough will involve waste collected in Salisbury district and sent to the transfer station at Thorny Down, on the A30 to the east of Salisbury. This contract is not likely to affect West Wiltshire or Westbury.

Turning to the second contract, the proposal for an MBT plant at Brook Lane, Westbury offers locational advantages for two main reasons :-

First, waste collected from households has to make a relatively long journey to the landfill at Compton Bassett, east of Calne. Treatment of this waste locally would reduce its travel distance. Westbury is relatively central in West Wiltshire district and therefore well placed to meet this objective.

Second, opportunities to use refuse derived fuel (in this case solid recovered fuel or SRF) are currently rare in the UK. The proposed Brook Lane MBT plant is very close to the Lafarge cement works, where much of the SRF would be used.

Therefore, in both respects, the MBT proposal satisfies the “proximity principle” used in EU and UK guidance on waste management, which seeks the treatment of waste as close as possible to its area of origin.

The proposal to deliver waste to the Colnbrook Incinerator also satisfies the proximity principle. This is the nearest alternative to landfill available in the near future, apart from the Westbury MBT proposal.

Replacing fossil fuels at Lafarge

Q. Can you guarantee that using waste at Lafarge is safe for local people?

Environmental controls over industrial and waste treatment processes are the responsibility of the Environment Agency. Use of SRF (solid recovered fuel) at the Westbury cement works will not be allowed by the EA unless trials produce evidence that their required emission control standards can be met. The emission standards are those required by EU Directives, which have resulted in a general lowering of environmental pollution.

Q. Has the Environment Agency been consulted?

Yes the Environment Agency has been consulted by the contractors and has given initial guidance. The County Council will shortly consult with the EA on the project as a whole. Also, the planning application will be referred to the EA for comment on the need for pollution control at the MBT plant and any requirements relevant to the planning process.

Q. Will Lafarge have to carry out trials on the use of SRF as fuel?

Yes. The Environment Agency has stated that trials will be required before the plant can be permitted to burn the SRF.

The MBT plant will be commissioned to produce the SRF to specifications set down by Lafarge, to meet their requirements for the quality of the fuel.

Q. What will happen if the Environment Agency doesn't give its permission to burn SRF at Westbury?

The SRF would have to be landfilled, unless an alternative user could be found. The costs of this are being examined within a "worst case scenario" for this contract, by the County Council.

Q. Local people are already concerned about emissions from Lafarge, aren't you only making things worse?

The County Council understands that some people in the Westbury area have concerns about the content of emissions from the Lafarge cement works. Any change to fuels used and potential emissions will have to be agreed by the Environment Agency, as the government body primarily responsible for pollution control. The emissions will also need to be monitored, reported and scrutinised by the EA, as they are currently.

There are some general indications that changes to fuels may reduce, rather than increase, pollution levels. For example, a recent German report on the effect of introducing new EU standards for control of waste burning in the many incinerators operating in that country concluded that new controls and techniques had greatly reduced a wide range of emissions. The use of SRF at the Lafarge cement works would reduce the amount of coal required as fuel. This would represent a substitution of a natural resource with waste materials. It may also offer the opportunity to reduce emissions. However, this will be a matter for the Environment Agency to conclude on.

Q. When will you start using SRF at Lafarge?

When the trials are completed to the satisfaction of the Environment Agency. This is likely to be by 2009.

Q. Why can't you just burn rubbish at Lafarge without it having to be processed first?

The cement works previously burned unprocessed household waste, but this ceased during the 1980s. The main reason for ceasing to use waste as fuel is understood to be that it did not deliver enough heat to ensure the efficient production of cement, in the face of growing price competition.

The MBT process offers three related advantages in the context of this previous experience. First, it enables some materials to be diverted before the fuel is created. This leads to the second advantage that the content of the fuel can be controlled to meet Lafarge's requirements for potential energy content, by measuring and adjusting "calorific value" and moisture content. Finally, the treated material will be shredded and pelletised, making it more consistent and easier to use in the cement kilns.

Q. Are we paying Lafarge to use our waste as fuel?

Yes, there is an allowance within the contract for Hills, who will operate the MBT plant and deliver the SRF to Lafarge, to also make a payment for each tonne delivered. This payment is reflected in the contract price. The payment is subject to variation, if standards specified by Lafarge are not met.

Q. Is this option to use the waste as a fuel really more environmentally friendly than landfill?

Yes, provided that the burning produces energy which is used productively. This is what EU and Government policy states.

MBT

Q. Where else is MBT being used?

MBT is being used extensively in Europe to divert household waste away from landfill. In the UK, six plants are being built in East London, one in Dumfries

and Galloway and one has been completed in Leicestershire. Many other councils are considering this technology as they seek to divert waste away from landfill.

Q. Will there be any emissions from the MBT?

The small amount of emissions arising from the process originate from the biological treatment of the waste, but as this process is contained within the building before release to atmosphere they are all treated using a biofilter, the main component being water vapour. A biofilter takes advantage of the naturally occurring microbes in the filter bed (typically wood bark) to destroy the small amount of organic material emitted from the biological treatment process, in effect the microbes use this as food.

Q. Will there be any waste products from the MBT?

The MBT process aims to process waste so the products can be recycled and reused. Some residues may arise but these can be safely used in landfill engineering as they have been treated or are inert.

Q. How much waste will go through the MBT each year?

The MBT process has a nominal capacity of 60,000 tpa.

Q. Won't building the MBT in Westbury just increase the number of lorry movements through the town adding to the congestion?

The building of the MBT plant at Westbury will simply divert the collection vehicles from the landfill site to the MBT plant and is likely to decrease the overall mileage waste has to travel. The small number of lorry movements will be routed through the industrial estate.

Q. What happens at the MBT plant?

The MBT process is a combination of mechanical sorting and biological treatment, harnessing the naturally occurring microbes in the waste to decompose the organic material (like food scraps) but speeding this process up rather like "quick composting" such that within 10 to 14 days this organic material is sanitised, dried and significantly reduced in volume making it safe to handle and sort. This dried material is then refined to remove materials like metal for recycling and the remainder is manufactured into a solid recovered fuel (SRF) which will be used to replace coal in the cement manufacturing process.

Q. Is the MBT technology tried and tested?

MBT technology has been in use for over 10 years and the plant planned for Westbury has been operational in Italy since 2003. It has a very good track record and there are well over 100 plants operating in various parts of Europe.

Q. What will happen to the recycled materials collected at the MBT?

Any material that can be recycled, like metals, will be reused.

Q. Do they count towards Wiltshire's recycling targets?

The metals recovered will count towards the recycling targets.

Q. How will you transport the SRF from the MBT to Lafarge?

The SRF will be delivered in sealed containers. We expect 5 to 6 deliveries a day using standard artic vehicles.

Q. Will the MBT cause nuisance problems such as dust, pests and odour?

The process will cause no nuisance problems as it has been designed to contain all activities within the building; this is sealed all but for the delivery of waste. The building is also under a slight negative pressure which means that air will be drawn into the facility when the waste is being delivered. Dust and potential odours are filtered before release to the atmosphere.

Q. If people know recyclables will be separated in this process isn't there a risk they will stop recycling at home?

The prime aim of the facility is to divert waste away from landfill after the maximum amount of recycling has occurred, whilst some additional recycling is achieved, residents will still have to continue recycling.

EfW plant Lakeside at Colnbrook

Q. How will you get waste from Salisbury to the waste to energy plant in Berkshire?

General household waste (excluding materials collected separately for recycling and composting) is taken by District Council Refuse Collection Vehicles to the Waste Transfer Station at Thorny Down, on the A30 east of Salisbury. Currently it is bulked up and delivered to Hills' landfill site at Compton Bassett, east of Calne. During 2004/05 just over 40,000 tonnes of waste was handled in this way.

There is also a Waste Transfer Station at Everleigh, south of Pewsey, which serves the southern part of Kennet District in the same way. During 2004/05 just over 13,000 tonnes of waste was handled here.

Both these tonnages are likely to increase in line with current trends. By 2008/09 the tonnage is forecast to increase to about 46,000 tonnes at Thorny Down and about 14,000 tonnes at Everleigh

Under the new contract, 50,000 tonnes of this waste would be bulked up, mainly at Thorny Down, and delivered to the Colnbrook Incinerator near Slough. The waste would be delivered by road, normally via the A30, A303, M3 and M25. The normal volume of movement would be eight bulk loads per day.

Q. Surely it is not very environmentally friendly to take Salisbury's waste all the way to Slough?

The contract would increase the distance travelled by the waste. The road distance from Thorny Down to the Compton Bassett landfill is measured at about 38 miles (60 km), whilst the distance to Slough is about 67 miles (108 km).

However, the result would be that the waste would be used to produce electricity, rather than disposed of to landfill. In EU and UK government policy terms this is a movement up the "waste hierarchy" to a more beneficial management process than landfill. It also reflects the proximity principle which encourages waste to be dealt with at the nearest appropriate facility. Apart from landfill, which the County Council has to greatly reduce, this is the nearest facility available to the County Council.

Q. Isn't sending Salisbury's waste to Berkshire just dumping our problem on someone else?

Waste often has to be transported across local authority boundaries to the most appropriate treatment site. The incinerator under construction at Colnbrook has a planned capacity of about 440,000 tonnes per year, much greater than the local demand from Slough. Therefore, use by other customers was inevitable once the Borough Council permitted the incinerator.

Generally incinerators are large, because there are economies of scale. They will therefore tend to receive waste from a wide area. It is significant that no proposals to build a waste incinerator have been received in Wiltshire. This may well be because of the relative density of population, economic activity and waste arisings, compared with those of a major conurbation.

Q. What will happen to waste in North Wiltshire and Kennet?

In general, household waste from these areas will continue to be taken to Compton Bassett, for landfill, under the current waste disposal contract with Hills, which runs to July 2016. A small amount of waste arising in Kennet District and delivered to the Everleigh Waste Transfer Station, may need to be taken to the Colnbrook, Slough incinerator, depending upon the amount of waste available from Salisbury District (see above response to the question "How will you get waste from Salisbury to the waste energy plant in Berkshire?")

The two contracts under negotiation currently are likely to meet our need to divert waste from landfill for the period up to about 2013. Further diversion contracts may be needed, depending upon how much our municipal waste increases and how much we can increase our recycling and composting by. (Currently Wiltshire recycles / composts about 31.5% of household waste and our draft strategy proposes to increase this proportion to 40% by 2010/11 and 50% by 2020/21.)