CORNWALL ENERGY RECOVERY CENTRE (CERC)

Cornwall has a looming waste management crisis because it depends on landfill which is rapidly running out. Even if alternative landfill sites could be found, rising landfill tax and potential fines imposed by European Directives means that disposing of waste in this way would become ever more expensive. Unless an efficient, reliable and deliverable solution is found to Cornwall's residual waste soon, taxpayers will face a multi million pound burden each year.

SITA Cornwall is fully committed to delivering the most appropriate waste management solutions for the residents of Cornwall to help overcome this challenge.

Utilising household waste recycling centres, material recovery facilities and the proposed Cornwall Energy Recovery Centre (CERC), we have the skills and expertise to help recycle Cornwall's waste while disposing of what is left in an environmentally sensitive way.

The proposed CERC would play a critical part in managing Cornwall's residual household waste by diverting it from landfill and saving taxpayers from expensive landfill costs. It would put waste to good use, producing enough energy to power around 21,000 homes and supplying heat to local industry.

Addressing the challenge of waste management is vital for all our futures and it's a challenge SITA Cornwall is working hard to meet.

David Buckle
Project Director
SITA UK

ABOUT SITA CORNWALL'S WORK IN CORNWALL

SITA Cornwall works in partnership with Cornwall Council to help manage more than 320,000 tonnes of household waste produced in the county each year.

The aim is to first minimise the amount of waste created, then reuse and recycle wherever possible in order to reduce the amount of residual waste that is sent to landfill.

Whilst the focus is to help Cornwall's residents reuse and recycle more and more of their waste, the reality is that a substantial amount of waste will still need to be disposed of every year. Cornwall currently recycles or composts around 38 per cent of its household waste, still leaving more than 60 per cent for disposal. Sending this waste to landfill is the last option and with rising landfill tax could cost Cornwall's taxpayers millions of pounds every year.

New waste infrastructure is urgently needed that will allow this waste to be disposed of in an environmentally sensitive and efficient way. The CERC would play an extremely important role in this process.

ABOUT THE CORNWALL ENERGY RECOVERY CENTRE (CERC)

As part of an integrated waste management strategy, the CERC will deal with approximately 240,000 tones of non-recycled residual household waste every year, diverting this waste from costly landfill.

Furthermore, being a combined heat and power facility (CHP), the CERC would also become an important source of energy. The CERC would generate around 16 MW of electricity, enough to power 21,000 homes, while heat would be provided for the nearby china clay driers helping to reduce the use of natural gas, safeguard jobs and save money.

THE PROPOSED SITE

Cornwall Council's adopted Waste Local Plan identifies central Cornwall as the suitable location for an energy recovery centre. The Council further identified Rostowrack Farm, near St. Dennis, as the most suitable site.

This followed a careful analysis of other sites in central Cornwall and was selected based on a number of key factors, including:

- Location next to a railway, offering future opportunity to use rail to transport waste
- Proximity to china clay driers that can use the heat generated from the plant
- Proximity to national grid to export the electricity that will be generated
- Proximity to the A30

Following an extensive selection process, SITA Cornwall's proposals proved the strongest and the company was successfully awarded the contract to manage Cornwall's residual waste which will include the development and operation of the energy recovery centre.

PROPOSALS FOR THE CORNWALL ENERGY RECOVERY CENTRE (CERC)

In line with the council's adopted Waste Local Plan, SITA Cornwall submitted a planning application to Cornwall County Council. Key elements of the proposal included:

DESIGN

- The CERC has been designed specifically to limit its visual impact. The curved wave like roof reflects the undulating nature of the local countryside. The stack (chimney) is located towards the lowest part of the site to reduce its impact.

- The light/neutral colour and the matt texture of the building materials will help to blend the buildings with the surroundings. Cornish stone will be used around the base of the buildings to further help blend into the landscape.

- A 'green roof', covered with sedum moss, will be developed on the administration building in order to further limit visual impacts.

EMPLOYMENT

- The CERC will bring new jobs to the area and, by providing heat to the adjacent clay driers, help to safeguard existing ones. A significant number of jobs will be created during the construction phase, and 48 full-time jobs will be created once the centre opens.

TRANSPORT

- Lorries will reach the site from the A30 via a dedicated, private haul road. This means lorries would avoid public roads and no waste lorries for the CERC would pass through St. Dennis or Treviscoe other than local collection vehicles.

- The layout of the site includes space for a rail siding on the adjacent minerals railway line, should it become possible to handle waste by rail in the future.

AIR QUALITY

- SITA Cornwall is fully committed to delivering a clean and efficient facility. Very strict national and European standards are in place to control emissions. The CERC is designed to utilise modern pollution control processes to meet or improve upon these.

- In order to ensure that the CERC would not have an adverse impact upon areas of important wildlife habitat, the facility would have additional pollution control processes fitted. If it were constructed, the CERC would therefore be one of the lowest polluting energy recovery facilities in the UK.

- A permit is required from the Environmental Agency (EA) before the plant can operate. This will only be awarded once the EA has gone through extensive public consultation and is satisfied that strict environmental standards can be met.

- Regular and ongoing emissions testing would be carried out during the operation of the CERC to ensure that emissions are kept within the targets set.

- Modern energy recovery centres operate successfully across Europe and the UK without impacting upon tourism or food production industries.

LANDSCAPE AND VISUAL

- While the CERC will be quite a large building and the stack about 120 metres tall from ground level, its design has taken this into account by trying to keep the building as low as possible, flowing with the landscape.

LIGHTING

- Low level lighting will be provided around the outside of the building for safety reasons. Special fittings will be used that direct light downwards to reduce the amount of light emission.

- Parts of the walls of the CERC buildings will have panels that are made out of translucent material (not clear, but allowing light through). This will allow natural daylight inside the centre, which will help reduce energy consumption.

NOISE

- All buildings will meet the strict noise standards required by Environmental Health standards. The design seeks to keep noise to a minimum by containing as much of the noisy activity as possible within buildings and by considering noise impacts carefully in our procurement of machinery.

- Screening will be provided along the access roads to minimise noise from traffic going to and from the CERC.

CONSERVATION AND WILDLIFE

- Studies have shown that the site has limited/little nature conservation value. However, there are important nature conservation areas nearby, including a Special Area of Conservation.

- There are no archaeological sites or listed buildings on the site. The proposals avoid impacts on the listed Trerice Bridge, due to the use of the haul road which means that heavy traffic will not pass over the bridge.

- Native species of tree will be planted around the building and a wetland area will be created which will benefit wildlife.

SITA Cornwall's planning application for the CERC was refused permission by Cornwall County Council in March 2009.

However, with the consent of the Council, SITA Cornwall has submitted an appeal to the Planning Inspectorate on the grounds that a successful appeal would provide the greatest chance of delivering this much needed facility that will provide a long term solution directly addressing Cornwall's mounting waste crisis (see also 'What happens next').

ABOUT ENERGY RECOVERY CENTRES (ERC)

ERCs are a tried and tested technology throughout Europe and are proven to be efficient, reliable and compatible with high levels of recycling and represent an important part of an integrated waste management system.

THE FACTS

Technology

ERCs are a proven technology in operation in the UK and all over Europe. Countries such as Denmark, Germany and Switzerland all extensively use ERC plants to divert waste from landfill and generate energy.

Health

The Health Protection Agency (HPA) is an independent UK organisation that was set up by the Government to protect the public from threats to their health. In its 2009 report, which reviews the latest scientific evidence on the health effects of modern municipal waste incinerators, the HPA concludes that 'any potential damage from facilities is likely to be so small that it would be undetectable.'

The Environment

All ERCs must meet stringent emission standards under the European Waste Incineration Directive. The Environment Agency has stated that the contribution to pollution from ERCs is very small compared to other sources, such as traffic, road development and other industrial sites.

Recycling

ERCs are proven to be compatible with high rates of recycling. Germany, for example, combines a 67 per cent recycling rate (one of the highest in the world) with a 32 per cent incineration rate and only 1 per cent of waste being sent to landfill.

Energy

In the next 20 years, it is estimated that a quarter of the UK's existing electricity generation plants will close, leaving us with a severe energy gap. The 2009 UK Renewable Energy Strategy points to ERC plants as playing a fundamental role in helping to bridge this gap and meeting the Government's aim of 20 per cent of all energy coming from renewable sources by 2020.

WHAT THE EXPERTS SAY

ERCs and health

"Modern, well-run and regulated waste incinerators do not pose a significant threat to public health…..any potential damage from facilities is likely to be so small that it would be undetectable."

Health Protection Agency, 2009

"All the research carried out to date shows no credible evidence of adverse health impacts for people living near incinerators."

Department for Environment, Food and Rural Affairs (Defra), 2009

"Examination of cancer incidence of over 14 million people living near to 72 municipal solid waste incinerators in Great Britain (from 1974-1986 (England), 1974-1984 (Wales), and 1975-1987 (Scotland) has failed to find any convincing evidence of an increase in cancer rates due to incinerators. This is despite the fact that emissions of dioxins from the older generation of incinerators are around ten to one hundred times greater than those from modern EfW plants."

Small Area Health Statistics Unit (SAHSU), Imperial College, London University, 1996

ERCs and the environment

"Emissions from incinerators make up only a fraction of one per cent of particulate emissions, whereas industry and traffic account for more than 50 per cent."

Health Protection Agency, 2009

"By converting waste into energy, incinerator plants contribute to saving four million tonnes of CO_2 annually in Germany."

German Federal Environment Agency, reported in ENDs Europe, July 2008

"Coal-fired power stations produce many more times carbon dioxide than incinerators. Whilst a coal-fired power station will generate energy more efficiently than an incinerator generating electricity only (i.e. no CHP) these stations are much larger than incinerators and use more carbon rich fuels."

Environment Agency, 2009

ERCs and renewable energy

"Waste to energy conversion is an increasingly recognised approach to resolving two issues in one - waste management and sustainable energy…..using waste as fuel can have important environmental benefits. It can not only provide a safe and cost-effective way of waste disposal but can also help reduce carbon dioxide emissions."

Renewable Energy Association, 2009

"The European target for 20% of energy to come from renewable resources by 2020 will not be achieved without EfW. Any compostable or biodegradeable waste is valuable resource that can be used for heat, transport and electricity."

Professor Ian Arbon, chairman of the Institute of Mechanical Engineers, 2009

“Energy from waste will play a central role in the path towards Britain becoming a 'zero waste' nation.”

Environment Secretary, Hilary Benn, 2009

ERCs and recycling

“'Waste incineration does not have a negative impact on recycling and waste reductions efforts, the German federal environment agency has argued in a report.”

“The agency says that countries burning significant amounts of waste such as Germany, have maintained high recycling rates and stresses that waste reduction is achieved through greener product design and more efficient production processes rather than reduced incineration rates.”

German Federal Environment Agency, reported in ENDs Europe, 2008

“Recycling can and should be increased. However, there will inevitably remain wastes that cannot be technically or economically reused or recycled. With declining landfill availability and landfill directive requirements alternatives are needed such as incineration or co-incineration to recover energy from residual wastes.”

Environment Agency, 2009

WHAT HAPPENS NEXT?

In line with the Council's adopted Waste Local Plan, SITA Cornwall submitted a planning application to Cornwall County Council. This planning application was then refused permission in March 2009.

However, with the consent of the Council, SITA Cornwall has submitted an appeal to the Planning Inspectorate on the grounds that a successful appeal would provide the greatest chance of delivering this much needed facility.

Overseeing the appeal, the Planning Inspectorate will impartially assess the application against local, regional and national policies, conducting an extensive investigation of the issues surrounding the CERC and coordinating a local Public Inquiry. However, the final decision regarding the CERC will ultimately be made by the Secretary of State – who will be guided by the advice of the Planning Inspector.

SITA Cornwall remains fully committed to the CERC and helping to ensure Cornwall's residents have in place the most appropriate solutions available to manage their waste.

CONTACT US

If you have any questions, concerns or comments regarding SITA Cornwall's proposals for the CERC, please call us on 08456 300 300.