prosiect gwyrdd

PROJECT GREEN

A Partnership for Sustainable Waste Management

www.prosiectgwyrdd.co.uk

CAERPHILLY CAERFFILI

CARDIFF CAERDYDD

monmouthshire COUNTY COUNCIL sir fynwy

Newport City Council Dinas Casnewydd

Procurement Stages for the Contract

The following stages have or will take place before the contract is awarded. Prosiect Gwyrdd has to abide by European Procurement Law to deliver a service for this waste.

Market testing exercise: November 2006

- Information Notice published in the European Journal.
- 22 companies responded identifying 7 different technical solutions.

Business Case prepared: July 2007

- Reports submitted to 4 Councils (exception of Caerphilly which as that time wasn't part of the partnership.)

Outline Business Case approved by the Welsh Assembly Government: January 2009

- A reference technology was chosen to ensure that a single option had the potential to provide and affordable and deliverable solution for each partners' waste strategy.

Five full Councils approve the Outline Business Case: June/July 2010

- Stakeholder event on the evaluation criteria – Local Councillors, Assembly Members and Statutory Bodies were invited.
- Questionnaire to all Council Members, MP's and AM's representing known sites.
- Random postal survey to 15 000 properties, seeking views on elements of the evaluation criteria that were not set by law of a decision made by the Councils.

Notice issued in the European Journal (OJEU): November 2009

- Detailed Contract Notice which stated: 'The partnership does not intend to specify a particular technology solution and will therefore consider any technology solution that meets the partnerships' requirements.'

Pre-Qualification Questionnaire (PQQ) made available: November 2009

- The PQQ is backward looking process to evaluate whether the Participants have demonstrated their ability to deliver a project of this scale and complexity. Technical ability, health and safety, legal and financial issues were evaluated. At this stage no technology proposal or site was being evaluated.

Joint Committee approved the evaluation criteria and weightings: January 2010

- The Joint Committee approved the overall methodology criteria and weightings (marking scheme) for the duration of the procurement.
- The methodology (marking scheme) will be given to the participants at each stage of the procurement process.
- The methodology will be released to the public through **www.prosiectgwyrdd.co.uk** after each stage is complete.

Invitation to Participate in Dialogue (ITPD): May 2010

- Amongst other detail, this is the invite to submit 'Outline Solutions' and is the first stage of the competitive dialogue procedure.
- The participants invited to submit 'Outline Solutions' were:

1. Covanta Energy Ltd
2. MVV Umwelt Gmbh
3. Shanks Group Plc
4. Sita UK Ltd
5. Urbasser Ltd
6. Veolia ES Eurora Ltd
7. Viridor Waste Management
8. Waste Recycling Group Ltd.

Shortlist announced: December 2010

- The ISOS questionnaire was part of the ITPD and gave each Participant the opportunity to present their 'Outline Solutions'.

- The 'Outline Solutions' were evaluated using the pre-set marking scheme (evaluation methodology)

- The following areas were evaluated, Technical and service, Deliverability and integrity of proposed solution, financial and commercial and legal and contractual.

- The participants invited to submit 'Detailed Solutions are:

- Covanta Energy Ltd: Covanta Energy Ltd is proposing a merchant Energy from Waste (EfW) facility at Brig y Cwm, Merthyr Tydfil.

- Veolia ES Aurora Ltd: Veolia ES Aurora Ltd is proposing an Energy Recovery Facility (ERF) located at Bowlease Common, South of the existing Corus Llanwern Steelworks, Newport.

- Viridor Waste Management Ltd: Viridor Waste Management Ltd is proposing a merchant Energy from Waste (EfW) with Combined Heat and Power facility located at Trident Park, Cardiff.

- Waste Recycling Group Ltd: Waste Recycling Group Ltd is proposing an Energy from Waste (EfW) facility located at Cardiff Road, Dow Corning, Barry.

Invitation to Submit Detailed Solutions (ISDS)

- Requires the participants to provide details on their 'outline solution' and submit a detailed proposal.

Invitation to Submit Refined Solutions (ISRS)

- Prosiect Gwyrdd has reserved the right to include a refined solution stage, for further discussion or clarification with Participants.

Closure of dialogue

- This is when the Partnership is satisfied the solutions meet the requirements of the project.

Call for Final Tenders (CFT)

- It is anticipated that two participants will remain in the process at this stage.
- Preferred bidder will then be identified.
- Mandatory 10 day standstill period.

Award of Contract

- A contract Award Notice will be advertised in the European Journal within 48 days of contract award.

Regulation by the Environment Agency

What does the Environment Agency do before making a decision on the permit application?

- The EA examines the proposal to ensure it meets the requirements of the EPR Regulations, ensuring:

    1) All preventative measures are taken against pollution, in particular through the application of Best Available Techniques (BAT) and

    2) No significant pollution is produced.

- The EA critically review the design of the plant, how it will be operated, the emissions that will occur (to air, water and land), the wastes that will arise, how the emissions will disperse into the local environment and the effect that will have on people and natural habitats.

The EA evaluate:

1) Proposed operations and how they compare with best industry standards.

2) Proposed management of the facility, including maintenance of the plant and staff training.

3) Energy efficiency and options for using heat.

4) Potential pollution of residential areas and the local environment.

5) Emissions to air land and water and if they meet levels set by European Legislation.

6) Proposals for how these emissions will be monitored and reported.

7) Potential to cause odour.

8) Potential to cause noise.

- The EA obtains the views of statutory consultees and the public and take these into consideration when making their decision.

Lakeside EfW Colnbrook, Control Room - Viridor

What is the Waste Incineration Directive and what does it achieve?

- The Waste Incineration Directive (WID) is an EU Directive which aims to:

"Prevent or limit, as far as practicable, negative effects on the environment, in particular pollution by emissions into air, soil, surface and groundwater, and the resulting risks to human health, from the incineration of waste".

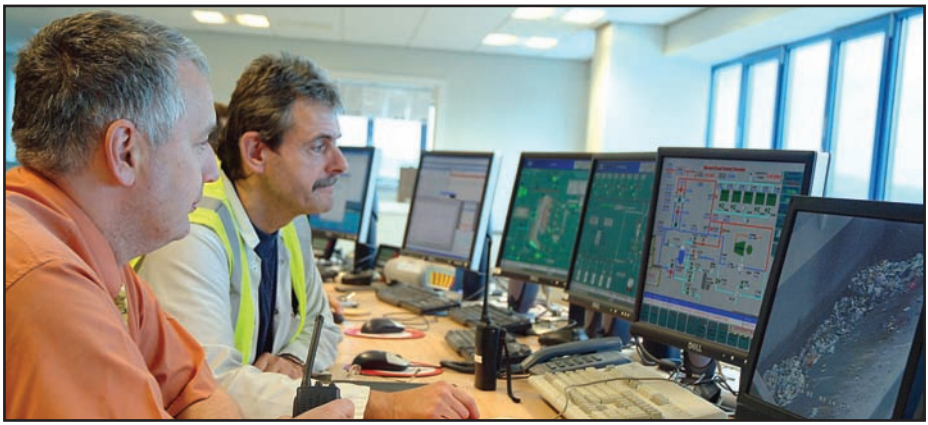

EfW control room, Ruedersdorf, Austria - WRG

- The Directive was transposed into the UK regulations in 2002 and is enacted through the EPR permitting regime.

- The WID imposes stringent operational conditions and emission limit values for all waste burning facilities, specifically looking at, the quality of ash produced and the way that emissions must be monitored.

- The implementation of the WID led to a reduction in emission limits from existing municipal waste incinerators, e.g. dioxin limits reduced ten-fold from 1 ng/m3 to 0.1 ng/m3. All new EFW facilities must meet the WID requirements from day one.

- The incineration of municipal waste historically was a major source of dioxins and furans, but these were reduced by 99% between 1993 and 2004, and now account for less than 0.5% of the total UK emissions.



Two Veolia Employees working in the Sheffield ERF Control Room - Veolia

Lee County Facility, Florida - Control room operations - Covanta

What will be emitted by an EFW facility?

The biggest (in terms of amount) emissions from burning of waste are:

- Carbon dioxide.
- Oxides of nitrogen and water vapour.
- Ash residues .

Standard products of combustion are also released, including:

- Carbon monoxide.
- Volatile organic compounds.
- Particulate matter (dust).
- Trace levels of dioxins and furans.
- polycyclic aromatic hydrocarbons and polychlorinated biphenyls are also included in the combustion gases.

There will also be products from the incinerated wastes, including:

- Acid gases.
- Small amounts of heavy metals.

Two types of ash are produced:

- Bottom ash from the incinerator grate – majority of this ash can be used as aggregate (when shown to be non-hazardous).
- Flue gas treatment residue - Will be sent to a landfill or other waste disposal facility unless a suitable reuse option can be identified.

Lakeside EfW Colnbrook - Bottom Ash conveyor - Viridor

Bottom Ash Stock Pile, ready for use as secondary aggregate - WRG

BP - Use of bottom ash aggregate, Felixstowe - Covanta

How are the emissions controlled?

- Good combustion control .
- Effective air clean up technology.
- The combustion conditions and emissions to air are continuously monitored.
- Strict conditions and emission limits are imposed through an EPR permit.

How are the emissions monitored?

As a minimum, the following emissions monitoring will be required:

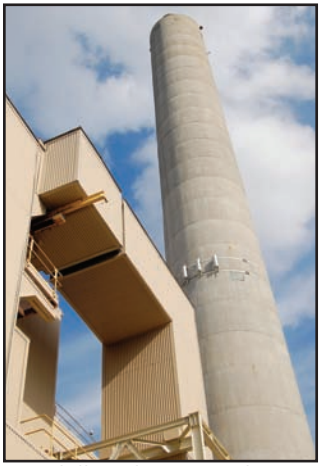
- Continuous monitoring of oxides of nitrogen, carbon monoxide, volatile organic compounds, sulphur dioxide, hydrogen chloride and particulate matter.

- In the first year of operation, every three months monitoring takes place of heavy metals, dioxins and furans, polychlorinated biphenyls and polycyclic aromatic hydrocarbons.

- After the first year of operation, bi-annual measurements take place for heavy metals, dioxins and furans, polychlorinated biphenyls and polycyclic aromatic hydrocarbons.

The EA can require additional monitoring of other substances and monitoring at greater frequencies than the minimum requirements above.

Marchwood Bag House Filter - Veolia

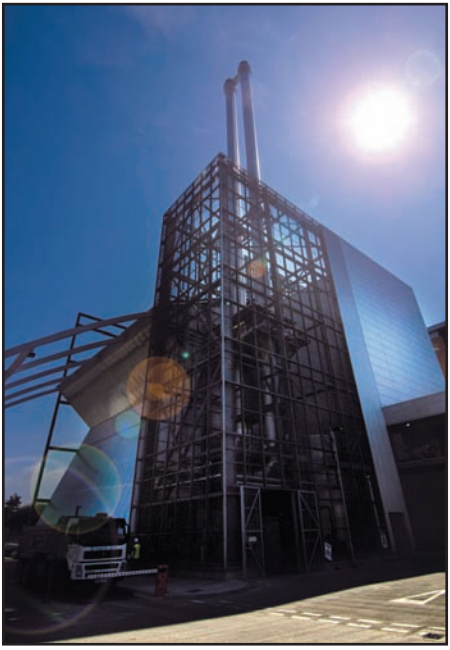


Haverhill Facility, Massachusetts - Stack and bag house for Flue Gas Treatment - Covanta

What happens if the air clean up equipment breaks down?

- A modern EfW facility is equipped with alarms which alert the operator to any problems on the plant, either with combustion control, the air clean up equipment or high readings on the emission monitors.

- Prompt action will be taken in response to all alarms, and in some cases an automatic controlled shutdown would take place.



Example of stack at Portsmouth - Veolia

CNIM Villejust-Chevreuse EfW Plant France - flue gas treatment - Viridor

- Air clean up equipment is operational at all times that waste is being burned.

- The WID includes a few dispensations to this under very specific circumstances and for strictly limited periods, but in practice these periods of "abnormal operation" are rarely seen. All such operation must be notified to the EA without delay.

How does the Environment Agency regulate EFW facilities?

The EA regulates the performance of EfW facilities by:

- Continuous monitoring of the main pollutants where limits are set.
- Carrying out audits of the operator's procedures and methods for emissions monitoring.
- The option to carry out 'Check Monitoring' by the EA's own independent contractors.
- Regular announced and unannounced inspections.
- If required, adding or changing conditions in the permit.

- Requiring operators to inform the EA if they exceed any of the emission limits in the permit, or if they fail to comply with any operating conditions.
- Investigating non-compliance with any condition of the permit.
- Taking enforcement action if needed, including issuing notices, prosecuting serious breaches or potentially revoking the permit.

If the Environment Agency grants a permit, what will it cover?

The permit would have legally binding conditions and requirements that would include:

- Limits on emissions to air, water, sewer, land and groundwater.
- Minimum operating conditions.
- Total tonnages and types of waste which can be burned.
- Monitoring techniques, standards, frequencies and reporting requirements.
- Conditions to prevent emissions from raw materials and ash handling.
- Conditions to achieve control of noise, accident prevention and energy efficiency.
- Management requirements, staff training, operating instructions etc.
- Notification of any breaches of emission limits and other incidents.

How will I be able to get information on the performance of an EfW facility if it becomes operational?

All information submitted as a result of a condition in an EPR permit is placed on the Public Register and is available to view free of charge.

A WRG operator checking the grate at Eastcroft Energy from Waste plant, Nottingham - WRG