

A. Targeted Call for Evidence

Ref	Name	Organisation	Date of Submission	Summary of Issues Raised
1.	Gareth O'Shea Area Manager – South East	Environment Agency (EA) Wales	29 December 2011	The response outlines the regulatory role of the EA in relation to waste incineration plants. Developers must satisfy the EA that the Energy from Waste plant will not adversely effect the local environment or human health. Any plant must operate in line with the conditions and limits set out in any permit issued. The EA rely on advice from the Health Protection Agency who state that “modern, well-managed waste incinerators will only make a very small contribution to background levels of air pollution” and “provided they comply with modern regulatory requirements such as the Waste Incineration Directive, they should contribute little to the concentrations of monitored pollutants in ambient air.”
2.	Dr David Russell Head of Centre for Radiation, Chemicals and Environmental Hazards Wales	(CRCE Wales)	No response	No response
3.	Jasper Roberts Deputy Director for Waste and Resource Efficiency Division	Welsh Government (WG)	23 December 2011	<p>WG policies are informed by the Health Dept of WG, Health Protection Agency and Environment Agency Wales. Health Impact Assessments have been undertaken. WG has considered the environmental impacts of waste management options at waste strategy/planning levels and conclude that the management of residual waste through optimised use of Energy from Waste technologies should not give rise to significant health or environmental inputs when undertaken in compliance with appropriate controls.</p> <p>A 6 page briefing document has been provided, giving further detail about the evidence underpinning WG policy in respect of health and the environment. The document addresses Waste Policy, Health and Environmental issues.</p>

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4.	Dr Ronnie Alexander Chief Environmental Health Adviser	Welsh Government (WG)	29 November 2011	<p>WG is advised by the Health Protection Agency (HPA). The HPA maintain that modern, well managed incinerators make only a small contribution to local concentrations of air pollutants but advise that community concerns remain.</p> <p>The EA, UKHPA & CIWEM have produced formal position papers on the health effect of energy from waste facilities. It is concluded that well managed and regulated waste incineration processes contribute little to the concentrations of monitored pollutants in ambient air and that the emissions from such plants have little effect on health.</p>
5.	Tracy Moffitt	Chartered Institute for Waste Management	No response	No response
6.	Julie Barratt	Chartered Institute of Environmental Health (CIEH)	24 November 2011	<p>CIEH state that there is no credible scientific evidence that a well run waste incineration plant poses any significant risk to either human health or to the environment</p> <p>The regime of emission limits and monitoring required by the Environmental Permitting (England and Wales) Regulations 2007 is sufficiently rigorous to protect both human health and the environment from harm from such emissions to atmosphere as are generated by modern well run incinerators.</p> <p>Absence of studies which point to a credible risk being posed by such emissions.</p> <p>The CIEH endorses the view expressed in the Health Protection Agency (HPA) paper 'The Impact to Health of Emissions to Air from Municipal Waste Incinerators' (2009)ⁱ which in its conclusion states that 'Modern, well managed incinerators make only a small contribution to local concentrations of air pollutants. It is possible that such small additions could have an impact on health but such effects, if they exist, are likely to be very small and not detectable'.(A copy of the HPA document referred to has also been submitted).</p>
7.	Matthew Farrow Director of Policy	Welsh Environmental Services Association (WESA)	3 January 2012	WESA has submitted a review of the research evidence covering health/environmental concerns with Energy from Waste/incineration plants.

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				<p>The 20 page review highlights key issues which give rise to concerns resulting in research with regard to Energy from Waste facilities such as Process Emissions & Health Outcomes. The evidence discusses the small contribution made to environmental levels of ultra fine particles by Energy from Waste facilities and the low levels of dioxins and furans emitted. It is concluded that well designed Energy from Waste facilities are unlikely to have effects on cancer, adverse birth conditions or respiratory disease.</p> <p><i>(Note: on 3 January 2012, Viridor's External Affairs Manager stated that, as a provider of essential recycling and waste management services in SE Wales, Viridor fully supports the response provided by their trade sector body, the Environmental Services Association.)</i></p>
8.	Prof V. Howard	Nano Systems Biology Centre for Molecular Biology University of Ulster	5 January 2012	Professor Howard has provided a proof of evidence prepared for an Inquiry in 2009 (Ringaskiddy Cork Port Waste Incinerator) for consideration by the Panel. This addresses the toxicity of ultra fine (nano) particles. He highlights the absence of any testing of the relative toxicity of the effluvia from waste incineration compared to other combustion processes. He considers that the conclusions set out in his 38 page Ringaskiddy proof are relevant to the current PROSIECT GWYRDD incineration proposals and advocates a precautionary approach to developments like waste incineration, which emit large quantities of nanoparticles.
9.	Professor Jim Swithenbank	Department of Sheffield University Waste Incineration Centre	No response	No response
10.	Dr T P Jones School of Earth and Ocean Sciences	Cardiff University	No response	No response
11.	Andrew Porteous and Ray Paylin	Energy from Waste Association	11 November 2011	Andrew Porteous now retired and no longer active in the field.
12.		Friends of the Earth Cymru	No response	No response

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13.	Janet Rawlings Waste & Recycling Campaigner	Chepstow Friends of the Earth	2 January 2012	<p>Chepstow FOE highlight the damaging effects on health and public finances. The evidence highlights the need for any waste treatment plant to be adaptable to a variable waste stream. The witness questions the validity of the project in the light of cheaper, more efficient solutions and is concerned that it is geared towards incineration as a preferred option and towards larger waste companies at the expense of others.</p> <p>The project has inflated its tonnage estimates, ruled out smaller, more innovative companies and declared its willingness to commit to a long, 25-year contract. The procurement process should be re-commenced in truly technology-neutral manner with the aim of letting a 10-year contract.</p>
14.	Rod Walters	Abergavenny and Crickhowell Friends of the Earth	1 January 2012	<p>Prosiect Gwyrdd's procurement exercise has favoured Energy from Waste to the disadvantage of alternative technologies. Health and environmental concerns are also outlined in this 14 page submission, which includes the following Executive Summary:</p> <ul style="list-style-type: none"> • Current Welsh Government strategy enjoins 'energy from waste' as the treatment for residual waste and discourages all alternatives. It has favoured incineration in its funding policies and actively promoted it – sometimes in questionable ways. • Prosiect Gwyrdd, whose decisions have not been open to proper scrutiny, has claimed that it is 'technologically neutral', but there is evidence that it has favoured 'energy from waste' incineration applicants from the start to the disadvantage of other technologies. • A waste incinerator, if permitted, would be a heavy greenhouse gas emitter over the 25 years of its contract, when action to combat Climate Change is of critical importance. • The argument that CO2 emissions are 'offset' by energy generated is unacceptable, and calculations are in any case flawed since among other things they assume a high rate of heat supply to nearby users, which is difficult to achieve in practice. • Despite claims to the contrary, waste incineration is likely to have an inhibiting effect on waste reduction and recycling programmes. • Incinerators do no recycling other than recover low-grade metals from the bottom ash. Use of incinerator bottom ash is <u>not</u> recycling and should not be categorised as such. • 'Energy from waste' efficiencies of incineration are low and would get lower if plastics, paper etc needed for the combustion process decrease in the waste stream – an illustration of how the needs of incinerators are in conflict with waste reduction & recycling.

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				<ul style="list-style-type: none"> • Mass-burn incinerators are inflexible in their ability to respond to changing composition and volumes of waste, in contrast to modular systems of waste management containing mechanical separation of recyclables or autoclaving, biological treatments and advanced thermal treatments of final residues. • There is a clear health risk from waste incinerators: fine and ultra fine particles escape an incinerator's pollution control equipment; such emissions from incinerators are poorly monitored and regulated in the UK; and ultra-fine particulate matter, which is hazardous to human health via inhalation or ingestion, can be carried in the air for several miles. • Authorities responsible, the Environment Agency and Health Protection Agency notably, are complacent. They do not admit that fine and ultra-fine particulate emissions are not well monitored and regulated or constitute a health risk. • There have been numerous breaches of emissions from modern incinerators in the UK, and these are only the 'tip of the iceberg' since they only relate to what the Environment Agency <u>can</u> monitor, not the fine and ultra fine particulate emissions which they cannot. • There should be a ban on new incinerator building until key studies are carried out. There are fast developing, more environmentally friendly technologies available which should be employed instead.
15.	Edmund Schluessel, Secretary	Cardiff Against the Incinerator	3 January 2012	This 15 page submission discusses peer-reviewed and "grey literature" (ie papers, reports, technical notes or other documents produced and published by governmental agencies, academic institutions and other groups that are not distributed or indexed by commercial publishers) on incineration: the current understanding of health impact. The submission states that current, peer-reviewed evidence supports the hypothesis that living near a waste incinerator increases risk of cancers and other illnesses.
16.	Pipa Bartolotti (Health issues) Rob Hepworth (Environmental issues)	Stop Newport Incinerator Campaign	21 December 2011 (Health issues) 2 January 2012 (Environmental issues)	<p><u>Health</u> SNIC highlight the harmful effects of incineration, favouring safer, greener and cheaper solutions which are more attuned to the future needs of Wales.</p> <p>The submission highlights the detrimental impact on human health, with particular reference to the impact on unborn children and the effects of fine particulates and dioxins produced by the incineration process on health and mortality. The evidence explains how the incineration process produces toxic metals, heavy metals and other chemicals and gasses.</p>

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				<p>SNIC state that not all emissions from incinerators are monitored or measured and explain how hazardous waste such as fly ash and bottom ash is produced by the incineration process.</p> <p>SNIC challenge the reliability of methodology used by Prosiect Gwyrdd and cite potential health costs of £57million pa based on 40,000 tonne incinerator. The 17 page submission is supported by reference to a series of studies, research findings and further sources of evidence. It concludes by advocating, at the very least, a more cautious approach to incineration in view of the weight of evidence about its harmful effects.</p> <p><u>Environmental</u></p> <p>The 10 page submission addresses Recycling Rates. Greenhouse Gas Emissions & Carbon Footprint, Energy from Waste, Alternatives to incineration and Environmental Assessment Criteria. It includes the following Executive Summary</p> <ul style="list-style-type: none"> • Mass-burn incineration is incompatible with a waste policy based on recycling and re-use as other local authorities have discovered to their cost; • The total “carbon footprint from mass-burn incinerators is inferior to other options such as Mechanical and Biological Treatment and only marginally better than landfill; • Policies to generate high levels of energy from incinerators are also in conflict with recycling; • Virtually no existing mass-burn incinerators are successfully utilising heat. The proposals to use it at Llanwern have been undermined by the recent mothballing of the hot steel mill; • MBT is a superior option to mass-burn incineration on environmental as well as health (and cost) grounds; • Prosiect Gwyrdd officials are using an assessment system which grossly undervalues environmental and health factors; • The European Commission have specifically advised authorities in Europe against the use of waste incinerators. If this advice continues to be ignored, taxpayers may well have to foot a large bill as a combination of tightening controls on emissions of greenhouse gas, and of the smallest particles (which are currently barely controlled) render incinerator technology obsolete and unacceptable on both environmental and health grounds.

B. "Open" Call for Evidence

Ref	Name	Organisation	Date of Submission	Summary of Issues Raised
1	Dr D.van Steenis	n/a	17 December 2011	The submission points to the absence of validated scientific evidence showing that Energy from Waste plants are safe to health and highlights evidence re PM2.5 particles. He cites examples of health risks from various installations and provides a 4 page report explaining the impact on health of the proposed plant at Llanwern. Experience and practices in other countries is quoted along with statistics relating to health risks.
2	David Roman	n/a	28 December 2011	The submission discusses the make up of items sent for incineration. The witness believes that more waste could be recycled or composted and quotes examples of countries with over 80% recycling rates. He refers to Environment Agency findings (2010) in discussing the suitability of items passed for recycling or composting. Most of the small amount of unavoidable, non-recyclable waste arising during the lifetime of the project could also be sent to landfill. Incineration of some materials in some circumstances is the best option in environmental and health terms if carried out to suitable standards but the technology must be adaptable to changes in the composition of the waste. Witness also cites the debate about health implications.
3	Joyce Giblin	n/a	3 January 2011	The submission refers to Veolia's activities abroad and around the UK, including Caerphilly and Swansea and expresses concerns in relation to human rights. The witness asks that these matters be taken into account in relation to the award of any contract, citing appropriate international law and UN resolution.
4	Tim Pippin Director, Regeneration & Sustainable Development	WLGA	3 January 2012	It is important to acknowledge that health and environmental implications have been looked into extensively as part of the process of developing the Municipal Sector Plan (MSP). The environmental, social and economic implications have been examined and consideration of the environmental impacts formed part of the assessment process as specific proposals were developed. The preparation of Equality Impact Assessments by bidders is a requirement of the planning process for any detailed proposals. The WLGA refers to evidence which conclude that modern, well-regulated waste treatment plants do not impact significantly on health and is unaware of any validated, scientific evidence that Energy from Waste facilities operating within the current statutory framework would cause environmental damage.

				The submission also refers to the role of the Environment Agency in monitoring emissions and their enforcement powers permitted emissions exceed permitted limits.
5	Max Wallis	South Wales WIN "Without Incineration Network"	9 January 2012	<p>South Wales WIN supports the environmental and health objections submitted by other groups and put them in context, referring specifically to PROSIECT GWYRDD's Outline Business Case, which WIN believe has never been subject to significant scrutiny. WIN challenge the methodology and evidence base used by Prosiect Gwyrdd and draw attention to substantial risks and costs associated with the project.</p> <p>In a 9 page statement, South Wales WIN suggests a series of questions which it is believed the Panel should ask. These relate to the requirement to recycle incinerator bottom ash, flyash, potential CHP options, carbon footprint/low carbon impact.</p>
6	Jason Conibeer Project Administrator	Prosiect Gwyrdd	3 January 2012	<p>The statement outlines the rationale for the procurement process in the light of public concerns. It explains how the partner authorities are working towards waste reduction and recycling rates of 70%. Technologies which promote further recycling are unlikely to succeed as all recyclable materials would have been removed already. The procurement seeks a modern, safe, environmentally sustainable solution to dealing with the residual waste left behind after all recyclable materials have been removed.</p> <p>The statement describes the highly regulated framework surrounding the development of Energy from Waste facilities and the role of the Environment Agency and the Health Protection Agency (HPA) in protecting the environment, promoting sustainable development and providing expert advice. The operators of any facility would be required to comply with any legislative changes which emerged during the life of the contract.</p> <p>The evidence draws attention to the advice of the HPA that modern, well-managed incinerators make only a small contribution to local concentration of pollutants.</p>