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3rd January 2012
Tim Peppin



WLGA • CLILC

Abigail Phillips
Clerk to the Petitions Committee
National Assembly for Wales
Cardiff Bay
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Dear Abigail

Petition regarding Prosiect Gwyrdd

Thank you for your letter of 16th November 2011 requesting views on the petition received in relation to Prosiect Gwyrdd.

The petition makes three points. Comments on each of these are provided below. The questions suggested in your letter are addressed within these comments.

Localised facilities and council choice over waste technology and procurement

The EU Waste Framework Directive establishes the principle of 'proximity', requiring member states to establish an integrated and adequate network of installations for the disposal or recovery of mixed municipal waste collected from private households. It requires that waste is disposed of, or recovered, in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, to ensure a high level of protection for the environment and public health. In introducing the concept of 'localised facilities', however, the petitioners need to clarify their definition of 'local'. There are numerous factors that need to be considered in relation to what is 'adequate and appropriate', including the waste quantities involved and the technological choices available, budgets and costs, and geography and resilience:-

Quantities and technology: The quantity of municipal waste in Wales was 1.62m tonnes in 2010/11, with under 400,000t in any one quarter. This total has been falling slowly each year with an ongoing downward trend expected. Prosiect Gwyrdd accounts for around 40% of this waste. With up to half of this municipal waste currently being recycled or composted, some of the waste treatment technologies available would be capable of dealing with all of Wales' residual

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municipal waste in one or two facilities. Indeed, the recently withdrawn Covanta project in Merthyr Tydfil would have had a capacity of 750,000t per annum. Likewise, facilities operating and being developed in England are on a scale that could deal with a large proportion of Wales' waste.

Budgets and costs: From a sustainable development perspective the prospect of a range of community level facilities generating energy that is then used in the same community certainly has attractions. Furthermore, it is important to see costs and benefits of different options 'in the round': there would be many potential benefits of a community-level approach over and above waste considerations (e.g. reduced transport, improved energy resilience, local employment opportunities). However, local authorities have to deal with today's pressures and the budgets available as well as looking to the future. Moreover, sustainable development considerations must apply across all services and a disproportionately expensive solution for waste would take scarce resources away from other priority areas of local authority activity. Adopting technologies without a 'track record' would also carry a level of risk that would be unacceptable for authorities who – notwithstanding their successes with recycling and composting – are dealing with a regular and unrelenting stream of residual waste. For the moment, then, to achieve an acceptable level of costs there are likely to be economies of scale and/or certainty associated with using 'tried and tested' technologies currently available in the market place. As a consequence, local authorities have come together in a number of consortia across Wales to identify ways of dealing with their food and residual waste. Prosiect Gwyrdd is one of six such residual waste consortia.

Geography and resilience: Whilst there may be technologies capable of dealing with large tonnages it is important to consider the transport logistics of moving such volumes to a small number of facilities – and the level of resilience in the face of potential transport and weather disruption. Subject to guidance in the Welsh Government's municipal waste strategy (which has set out the Welsh Government's preferred approach in terms of waste treatment), local authorities have been relatively free to identify the spatial scale that works best for them. Sensibly, local authorities have agreed on a collaborative approach. The Welsh Government has established the Wales Waste Procurement Programme Office (WPPO) to help authorities work through the procurement process. Each consortium has been given advice to assist it through the Government's preferred process of competitive dialogue. The WPPO reports to a monthly Programmes Steering Group chaired by the Welsh Government and attended by WLGA. The procurement support has generally been welcome by the local authorities. The six consortia that have emerged to date are likely to continue to evolve as commitments to construct facilities are made, offering new opportunities, subject to capacity and cost considerations. Two consortia are currently in discussions with Welsh Government about the possibility of a different procurement approach that could see them working together. Whilst these discussions have yet to be concluded, the Government has demonstrated a willingness to engage with local authorities to identify geographical/scale configurations and procurement arrangements that are acceptable to all.

Overall, then, it is misleading to say that Prosiect Gwyrdd is 'against WG's policy of localised facilities' - 'localised' must be seen in context. There are grounds for arguing that the Welsh Government has limited the choice of local authorities in terms of waste technology and procurement. First, the Municipal Waste Strategy set out its preferred approach to waste treatment, supported by a 'blueprint' that recommends use of energy from waste with high energy efficiency for treatment of residual waste. Second, the

Government has made it clear that long term financial support for alternative approaches is unlikely to be agreed. Third, the Government has required a process of competitive dialogue to be followed in procurement. However, there is a fine line between 'giving leadership' and 'limiting choice'. Allowing 22 local authorities to pursue their own approaches could have resulted in an unstructured approach, being inefficient in terms of resource use (e.g. up to 22 sets of legal and financial advisors), taking much longer and, ultimately, potentially arriving at a very similar solution in light of market feedback. Whilst not always agreeing with all aspects of the Welsh Government's approach, WLGA is content that the approach being followed is a constructive and pragmatic way forward, provided there is a continued willingness to engage and reach consensus on issues that arise as the process unfolds.

Waste survey

The survey referred to is understood to be the *Public Attitudes to Waste in Wales* survey of 1,030 adults undertaken by GfK NOP on behalf of Waste Awareness Wales (WAW) in 2010/11. The petitioners argue that the survey was flawed and gave only a two-choice option on waste disposal.

To be clear and open, WAW is funded by Welsh Government and is hosted by WLGA. The survey was a wide-ranging one and looked in particular at recycling behaviour. It was not, therefore focused solely on waste disposal options. When asked, two thirds of respondents felt that burning waste for energy is better than land filling. This is a significant finding. Of those who did not favour 'energy from waste', their main concern was about pollution. Importantly, though, the research found that there is a poor understanding of the issue of 'recovery' from waste.

The suggestion contained within the petition' is that there are alternatives to landfilling or burning. It is misleading to suggest, however, that there are alternatives to landfilling that do not involve burning. On the WAW website there is information about waste recovery and the various broad categories of technologies that exist for non-recyclable waste – see:- <http://www.wasteawarenesswales.org.uk/recovery/index.html>. This shows that:

- **Advanced Thermal Treatment** – turns waste into a fuel. This fuel then has to be burned to create heat and electricity
- **Pyrolysis** – treats waste at 300-800 degrees Celsius to produce a gas which is then burned
- **Gasification** – operates at higher temperatures than pyrolysis but again produces syngas which is burned.
- **Mechanical and Biological Treatment** - this reduces organic waste into a material known as flock, while removing recyclable materials. The remaining material is used as a fuel which is burned in a thermal heating process. In any case, given the investment in separate recycle and food waste collections throughout Wales, there should be little organic or recyclable material in the waste going for treatment
- **Energy from Waste** – this burns waste at over 850 degrees Celsius. Energy is recovered through the incineration process by using the heat to create steam. This can be used for heating and power. The bottom ash from the incinerator is then filtered to remove any remaining metals while the rest can be used as an aggregate. Filters capture any residues or particles from the incineration process, known as fly-

ash, and this is sent to landfill. Waste is therefore recovered as a valuable source of heat and power.

In the Welsh Government's Municipal Waste Strategy it states: "In respect of projects receiving Welsh Assembly Government funding support, the 'reference solution' for dealing with municipal waste is to meet the recycling/composting targets set in Towards Zero Waste, treat the separated food waste via Anaerobic Digestion and **recover energy from the residual waste at an energy from waste (EfW) plant** with the capability to secure, and as far as possible actually realise, 60 per cent thermal efficiency" (page 75; emphasis added).

In terms of advantages and disadvantages of incineration/EfW:

Advantages/arguments in favour

- It provides a solution to the problem for local authorities of what to do with waste that cannot be recycled or composted
- Less space is required than via landfill and the volume and weight of waste are greatly reduced
- It avoids environmental damage associated with landfill such as from leachate and emissions of methane
- There is financial support on offer from Welsh Government
- Even non-recyclable waste still has a value – it is a resource that we can use beneficially to recover energy (as opposed to burying it in the ground)
- It therefore makes a contribution to energy security and may be attractive to energy-using industries (with potential knock on employment benefits)
- EfW plants are very tightly regulated by Environmental Permits issued by the Environment Agency. Emission controls have to meet EU Waste Incineration Directive limits that are currently far tighter than controls over other comparable industrial and power plants that do not use waste as a fuel.
- Health Impact Assessments (HIA) carried out for both the Regional Waste Plans and Towards Zero Waste concluded that modern well regulated waste treatment plants do not have a significant impact on health, and therefore should not be a cause for concern. The Health Protection Agency study of September 2009 "The Impact on Health of Emissions to Air from Municipal Waste Incinerators" reviewed research into links between emissions from municipal waste incinerators and effects on health. It concluded that "*any possible health effects are likely to be very small, if detectable*".

Disadvantages/arguments against

- Historically, EfW has been more expensive than landfill (especially to meet emission standards), although increases in landfill tax are tilting the balance back in favour of EfW
- Health studies cannot *totally* rule out a risk to health, however marginal this may be, with concerns in particular about dioxins
- Public perception of EfW is generally negative (based at least in part on the poor reputation of previous generation incinerators that were not designed for EfW)
- The larger the plant the greater the number of vehicle movements bringing waste to the facility which could cause local neighbourhood nuisance (although, conversely, if located near a densely populated area the waste can be dealt with more or less 'on site', minimising transportation to distant landfill sites)

- Existence of EfW capacity could deter recycling, especially if there are contractual tonnages that have to be supplied (however, the EfW cap and the statutory recycling targets effectively eliminate this risk in Wales)
- Employment generation will not be substantial as this is a capital intensive operation (as are the other technologies listed above); however, there is a need for continuous monitoring and this will require highly skilled individuals to be available at all times
- Finding a suitable location can be difficult – not only due to public opposition but also because of the need for it to be well linked by transport and, ideally, co-located with energy using facilities that can benefit from electricity/heat generated.

Overall, in light of the above information and the work already undertaken to enable separate food and dry recycling collection in Wales, WLGA agrees that Energy from Waste (EfW) offers the best option for disposing of non-recyclable waste. There is a cap on EfW use of 30% by 2024/25 – which is the ‘flip side’ of the 70% recycling and composting target. Therefore, contrary to the suggestion in the petition, the existence of EfW plants will not act as a disincentive to recycling – ultimately, they will be dealing solely with non-recyclable material (see below). Moreover, the need for EfW plant should reduce between 2024/25 and 2050 because (i) products and packaging materials should increasingly be chosen and designed for disassembly and preparation for reuse / recycling and (ii) collection services and facilities to recycle all of the material should be in place.

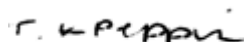
Recyclable waste post 2020

The petitioners argue for it to be “illegal to burn recyclable waste” by 2020. The Welsh Government’s statutory targets already require local authorities to be recycling 64% of municipal waste collected by 2019/20 – and 70% by 2024/25. There are financial penalties for not meeting these challenging targets. That means that local authorities already have a major incentive to maximise the amount of recycling they undertake. Indeed, councils have taken important steps to facilitate an increase in recycling and good progress is being made towards the next statutory target of 52% by 2012/13. At the point at which recycling levels of 70% are achieved there will be little if anything left in the waste stream that is capable of being recycled. The only material going forward to energy from waste plant for ‘burning’ would be residual waste. Therefore, WLGA believes there is no need for further legislation on this matter.

Interestingly the petitioners focus on councils’ role in recycling. In fact, municipal waste accounts for under 10% of all waste in Wales. There are challenges in terms of increasing recycling in other sectors too, including industry and commerce, construction and agriculture.

I hope that the information supplied above is of use to your Committee in considering the petition. WLGA would be happy to provide oral evidence to the Committee if required.

Yours sincerely



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