

Consultation on petition P-04-341 Waste and Incineration
Response from Stop Newport Incinerator Campaign

Welsh Assembly Petitions Committee - P-04-341 Waste and Incineration

To : Abigail Phillips, Clerk to the Petitions Committee

SUBMISSION ON BEHALF OF THE STOP NEWPORT INCINERATOR CAMPAIGN (SNIC)¹

Introduction (including Role of SNIC)²

SNIC is an entirely voluntary group established in May 2011 by concerned residents to oppose the construction of a waste disposal incinerator in Newport or elsewhere in South Wales. Our agreed mission statement is **“To peacefully oppose plans to use incineration as a solution to domestic waste generated in Newport and to seek safer and greener alternatives including a substantial increase in recycling targets “**. SNIC is non party-political, and includes supporters from all the main political parties in Wales.

SNIC has published two leaflets and several posters; compiled an ongoing petition against incinerators; debated our anxieties direct with Veolia’s senior management; met with our local MP and AM; written individually to every one of the 10 Councillors who comprise the Project Green Executive; issued a brief to the Councillors on the Project Green Scrutiny Panel; addressed meetings of Community Councils in the Newport area; held public meetings; protested at PG propaganda “roadshows” in Llanwern and Magor; joined our colleagues in South Wales to bring our case to the steps of the Welsh assembly; and, above all, mobilised hundreds of supporters throughout the area who are ready to oppose Veolia’s planning application and demand that Project Green acts on behalf of the people of Newport and South Wales instead of multinationals seeking lucrative contracts.

We have also worked tirelessly to establish that there are viable, cleaner and safer alternatives to incineration. SNIC members helped organise and participated in a tour of the pioneering Mechanical and Biological Treatment (MBT) plant in Avonmouth which has been processing all black bag waste from Bristol, Bath and neighbouring areas since April. As a direct result of our pressure, the WAG Environment Minister and officials are to visit the plant in December 2011.

¹ Our response addresses those Questions within the petition and those suggested by the Committee where we feel we have relevant knowledge and views to transmit. On other Qs (such as the Wales waste survey) we would support the views expressed by other bodies opposing incinerators, including Friends of the Earth, and South Wales Without Incineration. We have also framed other related questions and incorporated them in our response, for example on the lack of democratic accountability in Prosiect Gwyrdd.

² Further information about SNIC on our website : <https://sites.google.com/site/stopnewportincineratorcampaign>

MBT is not perfect – nothing is – but its superiority to incineration is clear on the key criteria – public health, recycling, greenhouse gas and capital cost for the taxpayer. It is also far more flexible – a modular system which can keep pace with changing waste technology instead of a PFI-inspired gamble which would freeze Newport in the grip of a primitive incinerator and its acute dangers to health, recycling and CO2 emissions for the next 30 years.

SUMMARY

We believe that PG is seriously flawed. It operates as an undemocratic, officer- driven instrument of mass-burn incineration to the exclusion of solutions for waste disposal which are safer, greener, cheaper and more attuned to the future needs of Wales Alternative technologies are modular and able to respond to changes in waste quantities and composition. The range of modules available includes mechanical, biological, autoclaving and advanced thermal treatments (pyrolysis, gasification, plasma gasification). The new MBT plant which opened at Avonmouth in April 2011 to process and recycle black bag municipal waste from Bristol and the surrounding area, is one model : we would urge members of the Committee to visit the plant. We believe that a plant - or plants - of this type could conveniently serve the needs of the Prosiect Gwrydd area; could be built at a fraction of the cost of an incinerator and be operational in 2012-3 instead of the planned start date of 2016 for the incinerator, and have a contract term of 10 years instead of the 25/30 years for incinerators

We believe that PG has been geared towards the building of a large incinerator from the start and regard the repeated assertions that PG is ‘technology neutral’ and that other technologies such as MBT have had “a fair chance to bid” as disingenuous or misleading. By the time bids were sought in 2009/2010 PG had already been transformed, primarily by local authority and WAG officials, into an incinerator procurement board. The business and technical criteria set for bidders were biased towards large solutions like incineration which could provide a “one stop” PFI-style solution which the taxpayers of South East Wales would be required to finance for an astounding 25 years. Extensive subsidies from WAG to the “gate fee” were agreed – and subsequently increased – *subsidies for which only EfW facilities like incinerators were intended to qualify*. Medium sized, locally based technologies favouring recycling, and with lower capital costs, were seemingly excluded from the start. The fact that four similar incinerator proposals formed the shortlist of bidders was a direct outcome of the biased criteria in the PG specification. When two of the 4 bidders dropped out voluntarily, it came as no surprise to us that PG officials refused even to contemplate reopening the bidding process, pleading EU competition rules, while in reality using them as an excuse to avoid a bid from an alternative technology which would be attractive to Councillors who are now aware that they are being forced to choose between two costly and harmful incinerator plants.

In relation to the proposals at Llanwern, SNIC also objects in the strongest terms to the attempt to pressurise local people into trading off their future health – and that of their children – against the survival of existing jobs at the Llanwern steel rolling mill. Insult is added to injury in that the incinerator itself will be funded by the residents of Newport (and the other LAs) over the project’s lifespan. Ultimately they want to take our money and use it to ruin our health.

Historically the Welsh people have been co-erced before into sacrificing their health for jobs. We hope there is no repeat here and that Ministers, AMs and Councillors will not be duped by this disgraceful attempt to apply further pressure for a waste incinerator. If Prosiect Gwyrdd dropped its obsession with mass-burn incinerators and built a modern, modular, mechanical and biological waste treatment at Llanwern, with pyrolysis/gasification of the final residues, this would produce substantial amounts of much cleaner power for the steel mill and could be working in just 18-24 months.

Should Councils collaborate on waste disposal ?

The top priority for Councils should be to consider how they can secure waste disposal systems for their residents which are safe, green, affordable, and also promote citizens’ responsibility for the waste they create. That should be the starting point, and not a financial straightjacket like PG which forces Councils to form partnerships irrespective of whether they are the optimal solution for their own area. The PG framework was weighted towards large, capital-intensive, centralized solutions in general, and incineration in particular. Until the advent of PG the individual unitary authorities were considering a range of local solutions, including MBT and Autoclaving³. The PG approach was not a local authority initiative. It was urged on authorities by the WAG with the aid of cash inducements, and by implication financial penalties or losses for any Council who declined.

By definition, insisting on multiple LA partnerships will favour large scale solutions which are less likely to be environmentally responsible. They require the transport of waste over longer distances to process it, whether by incineration or recycling or a combination of methods. The transportation of household waste between local authority areas by lorry or even by rail is likely to increase Greenhouse Gas (GG) emissions and other vehicle-derived pollution. It is likely to reduce the scope and economic viability of locally-based recycling and other re-use initiatives, in both the commercial and non-profit sectors, and it will not educate residents and local businesses into taking responsibility for their own waste and recycling potential.

The main and often unspoken motive for LA collaboration is that it provides a sufficient scale of operation to make large, mass burn incineration financially viable. Whilst we would not dispute

³ for example Sterecycle already has planning permission and an environmental permit for an autoclaving plant in Wentloog

that incineration is hopelessly uneconomic on a small scale (and perhaps for most individual LAs in Wales) there is nothing to show convincingly that even if large-scale incineration was acceptable on safety and environmental grounds, it would in the long term save taxpayers money compared with other waste disposal systems. On the contrary a fatal combination of a PFI-style financial regime and the rising costs of health and other environmental standards, will make incineration more costly than its main technological competitor in UK – Mechanical and Biological Treatment. The gradual reduction in black bag waste generated by households will make incineration less competitive still – *either* “shortfalls” in waste fuel (black bag waste) will have to be made up by burning recyclable waste, losing revenue from its re-use and increasing GG emissions *or* local authorities will have to pay “fines” to the incinerator operators, as is already happening in some English authorities such as Stoke, Nottingham⁴ and Hampshire⁵.

Our conclusion would be that unitary authorities are already established at a sufficiently large scale to be able to deal with their own waste disposal economically, and flexibly, and in a way which creates local green jobs. They should be encouraged to do so. Any partnerships should be voluntary, limited to two neighbouring unitary authorities in Wales and clearly justified on environmental as well as cost grounds.

Democratic Control of Prosiect Gwyrdd (PG) and similar LA partnerships

There is a dramatic democratic deficit in both theory and practice within Prosiect Gwyrdd. All 10 Councillors on the PG Executive are from ruling groups in the 5 authorities. As result Labour

⁴ Nottingham City Councillors have admitted that long term contracts agreed in 1973 on their municipal waste incinerator are now causing serious losses. The Council is required to underwrite payment for all heat produced by the incinerator, which is used to heat 5,000 council homes and 100 businesses as well as produce electricity. The Council will have to carry on paying until 2016. But income from the heat has been seriously reduced, mainly due to energy efficiency improvements carried out by the Council to their council homes. Council taxpayers are having to meet the shortfall of £100,000 per month. Another part of the contract allows the operator (now WRG) to demand that up to 100 per cent of all municipal waste collected by the City Council is brought to the incinerator until 2032. This has seriously constrained recycling by the City Council which is now one of the worst councils in the region for recycling.

⁵ Three new incinerators have been built in Hampshire since 2003, by Veolia, the PG bidder for Llanwern, Newport, The majority of local authorities in Hants are now failing to meet their recycling targets, and recycling rates are stagnating across the county, with incinerators now absorbing virtually all residual waste in the region. This is in contrast to the rapid increase in recycling that been happening in other areas. It was reported in 2006 that the contractor Veolia was topping them up with recyclables from recycling centres to help meet shortfalls in intake of household waste. "We do take material from household waste recycling centres if there is a shortfall of black bag waste" admitted the Project Director, Steve Read.

is totally excluded from the Executive at present despite having gained 30% of the seats in the PG region at the last elections in 2008 – a situation which contrasts sharply with the election system for AMs. It is axiomatic that LA partnerships operating at regional scale on an issue as sensitive as this should be more representative of the entire electorate.

Party political control is not the most serious criticism. The key problem with PG is that in practice officers who should be serving the PG partnership in fact control it – not the Councillors on the Executive. Executive councillors are not reporting back to any clear democratic line of control in their own Authorities. When reports are made to the individual Councils on PG's progress they are made by the same officers who run PG on the ground, and not by the Councillors, who are really figureheads rubber-stamping the officers' decisions. Many key decisions appear to be taken in practice by the PG Executive Board, which comprises only officers. The Joint Scrutiny Panel of Councillors, which has no executive power in any event, has been largely left in the dark, a state of affairs which produced a chorus of criticism from its members at the last JSP meeting in Caerphilly in November 2011, and a belated insistence on reviewing the health and environmental implications of the project at the last possible moment (ie when officers have already placed two incinerator companies on the final shortlist by default after the withdrawal of two other incinerator bidders) and following an absence of any public discussion of the quality or cost of the bids. When confronted with this at the meeting in Caerphilly, PG officers said that they would even be prepared to consider a shortlist of one incinerator company. This is reckless to say the least for one of the largest forthcoming public sector infrastructure investments in Wales, estimated to cost £1.1 billion of public money.

A culture of secrecy and misinformation characterize PG, which tries to mask the reality behind a programme of “drop-in” meetings and “roadshows” which are often badly publicised. PG's website is uninformative and downright misleading in implying that it has ever been genuinely open to non-incineration technologies. Decisions are routinely made behind closed doors under a certificate of exemption signed by local government officers. The working assumption is that most Councillors will not object to the exclusion of the public and the media from any meeting making significant decisions. As result no one is clear on the actual judgements made in arriving in 2010 at a shortlist comprising 4 bidders offering essentially the same incineration technology. Even the selection of sites is shrouded in mystery. The proposed site at Llanwern, Newport emerged very late (only at the end of 2010) after a previous one near Nash had been dropped without explanation. No attempt was made by the Newport City Council or PG to inform local residents especially in the villages around Llanwern that a new site had emerged. Community Councils were deliberately kept in the dark. Even now there has been no official communication

from Newport City Council, as a partner in PG, to the Community Councils whose villages would be most affected by the proposal. Most local people only became aware of the proposals when the contractor, Veolia, began to carry out wind and air quality tests at the Llanwern site in spring 2011. It is unarguable that PG officials deliberately tried to fly in the proposal “under the radar” to ensure that an alternative site to Merthyr and Cardiff could be established before local residents were aware enough to object.

Another example of PG’s mode of operation is that most of those interested in joining the PG Focus Group – the mechanism set up to provide resident-input to the project – were excluded⁶, resulting in the Group now being cancelled “due to lack of interest”. There is clearly plenty of public interest in the project, as demonstrated by the petition which instigated this consultation, the public demonstrations and media coverage. Yet the public and media have been constantly excluded from meetings on grounds of “commercial confidentiality” - as once again exemplified by the Joint Scrutiny Panel planning to meet on 5 December behind closed doors.

Another serious criticism is that each Council was asked to sign up to a Joint Working Agreement which committed any LA withdrawing from the partnership to pay up to £3m in compensation ; this was a clear attempt by officers to suppress democratic management and responsibility for the project by deliberately creating a framework which could later be used to pressurise councillors to accept an incinerator against the wishes of their electors.

We would also point out the way in which PG has been used in SE Wales as a substitute for PFI and the fact that it mimics many of PFI’s worst features, notably by giving large multinational waste companies licence to milk profits from the taxpayer at extortionate real rates of return, and at no commercial risk, in exchange for keeping the capital costs off the public borrowing balance sheet.

Advantages and disadvantages of Incineration ?

Incineration compares unfavourably with other options notably on health, cost, recycling rates, greenhouse gas emissions and job creation. We deal with each of 5 criteria in turn, and in some detail as this is the heart of the argument :

⁶ See emails dated 22/1/2010 and 4/2/2010 and minutes of meeting held with MCC 6th October 2009. In the event, Suzannah Evans of Newport FoE and Mike Pitt of Cardiff FoE were allowed to join the Focus Group. Requests from Rod Walters, Janet Rawlings, Max Wallis and Chris Brown were turned down and Haydn Cullen-Jones’ invitation was withdrawn when he said he was unavailable for the first meeting with only 36-hours notice.

(1) Health

Incinerator chimneys emit organic “ultrafine” substances such as dioxins, heavy metals such as cadmium and mercury, dust particles and acid gases such as sulphur dioxide and hydrochloric acid. These can have the following health effects:

- **Dioxins** – dioxins are associated with cancer, hormonal effects such as endometriosis in women and reduced sperm counts in men, and reduced immune system capacity. They may also affect foetal development. Dioxins are one of the most carcinogenic (cancer causing) chemicals known to science. They accumulate in the human body where they remain for ever. There will be no continuous on-line monitoring of dioxins which are the single most poisonous and risky emission from a waste incinerator. Dioxins flow through a chimney at a rate of 30m³/second. Without frequent monitoring excessive emissions are likely to go undetected. Independent studies suggest start-up dioxin emissions can exceed EU emissions limits by 1000 times.⁷ This is of major concern to SNIC, as breaches of dioxin emission levels have already occurred at existing incinerators, including the only existing municipal waste incinerator in Wales at Crumlyn Burrows.
- **Heavy metals** – cadmium may cause lung and kidney disease, and mercury can affect the nervous system.
- **Dust particles** – exacerbate lung diseases such as asthma or chronic bronchitis, and heart disease.
- **Acid gases** – also exacerbate lung disease.

In May 2004 a DEFRA report on the environmental and health effects of waste management compared figures for emissions of various substances by the various types of waste management operations and found that incineration resulted in the highest emissions of nearly all of the substances including CO₂, nitrous oxides, particulate matter, arsenic, hydrogen chloride dioxins and furans as compared with other waste management options. Many of the most serious problems are attributed to the smallest, invisible particles, particular those of PM2.5 and PM1 size. The Environment Agency has conceded that the vast majority of particles of this size are not captured by the filter systems in waste incinerators. In practice this means that emissions limits are based on what the companies believe is affordable and not what is safe for human health.

⁷ *Influence of Start-up on PCDD/F Emissions of Incinerators*, Wang et al. Chemosphere 67 (2007) pp 1346-1353

EC Directive 2008/50/EC regulating PM 2.5 came into force in July 2010 in UK and states:

*"Fine particulate matter (PM_{2.5}) is responsible for significant negative impacts on human health. Further, there is as yet no identifiable threshold below which PM_{2.5} would not pose a risk. As such, this pollutant should not be regulated in the same way as other air pollutants. The approach should aim at general reduction of concentrations in the urban background to ensure that large sections of the population benefit from improved air quality"*⁸

Urban areas such as Cardiff and Newport are required to have reduced levels to below 20ug/m³ by 2015. It appears that no PM 2.5 air monitoring devices have yet been installed in either city. AMs may wish to ask the Government *why not* ?

A number of scientific, peer-reviewed reports have set out the health threats posed by incinerators, and challenged the unconvincing, anonymous, outdated and incomplete conclusions of the HPA which are quoted or misquoted, by the pro-incinerator lobby. We quote two key examples here :

- (i) An important new study funded by the EC European Regional Development Fund was published earlier this year⁹. It looked at the health impacts of two waste incinerators in the municipality of Forlì (107,827 inhabitants in 2001) which is located in the Po valley of Northern Italy. It concluded that heavy metals concentrations, an indicator of air pollution from the incinerators, were "related to cancer mortality in women, in particular for stomach, colon, liver and breast cancer". A combined analysis of men and women suggested an increase in soft-tissue sarcoma mortality related to exposure to incinerators. The results were adjusted for socioeconomic status and allowed for effects from pollution due to other sources. Although this is a pilot study and - as the authors state - further research is needed to build on its results, the initial findings are so serious that they should lead all supporters of mass-burn incineration to reconsider their constant assertions that incineration is not a serious threat to human health. This is all the more true since the Forli report is consistent with previous detailed studies on incinerators in France and in Italy which suggest an increased risk for non-Hodgkin's lymphoma¹⁰, soft-tissue sarcoma¹¹ and urinary tract birth defects¹².

⁸ Article 11 (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:152:0001:0044:EN:PDF>)

⁹ **Mortality and morbidity among people living close to incinerators: a cohort study based on dispersion modelling for exposure assessment** Andrea Ranzi, Valeria Fano, Laura Erspamer, Paolo Lauriola, Carlo A Perucci and Francesco Forastiere, *Environmental Health* 2011

¹⁰ Viel JF, Arveux P, Baverel J, Cahn JY: **Soft-tissue sarcoma and non-Hodgkin's lymphoma clusters around a municipal solid waste incinerator with high dioxin emission levels.** *Am J Epidemiol* 2000 Floret N, Mauny F, Challier B, Arveux P, Cahn JY, Viel JF: **Dioxin emissions from a solid waste incinerator and risk of non-Hodgkin**

- (ii) Another relatively recent study published in 2009¹³ examined the published, peer-reviewed literature addressing health effects of waste management between 1983 and 2008. The study revealed the limitations of earlier research, and the difficulty of distinguishing with sufficient certainty between the effects of incinerators and other factors including the socio-economic status of the population. However it still concluded that “there is limited evidence that people living in proximity of an incinerator have increased risk of all cancers, stomach, colon, liver, lung cancers” and that “there appears to be a limited risk of congenital malformations among people living close to incinerators but there are no consistencies between the investigated outcomes.”

One point which is clear is that most of the studies undertaken do find that (a) residents living near and especially downwind of incinerators suffer increased rates of many different types of health complaints¹⁴ and (b) it is extremely rare to find that health levels are *better* than the norm in areas near incinerators. We are concerned that the problems of distinguishing “cause and effect” with 100% certainty are being used by pro-incinerator supporters to claim that there are no proven adverse impacts on health from incinerators. This is where the work of Professor Vyvyan Howard¹⁵ is particularly instructive.

lymphoma. *Epidemiology* 2003, Viel JF, Daniau C, Gorla S, Fabre P, de Crouy-Chanel P, Sauleau EA, Empereur-Bissonnet P: **Risk for non Hodgkin's lymphoma in the vicinity of French municipal solid waste incinerators.** *Environ Health* 2008

¹¹ Comba P, Ascoli V, Belli S, Benedetti M, Gatti L, Ricci P, Tieghi A: **Risk of soft tissue sarcomas and residence in the neighbourhood of an incinerator of industrial wastes.** *Occup Environ Med* 2003 Zambon P, Ricci P, Bovo E, Casula A, Gattolin M, Fiore AR, Chiosi F, Guzzinati S: **Sarcoma risk and dioxin emissions from incinerators and industrial plants: a population-based case-control study (Italy).** *Environ Health* 2007

¹² Cordier S, Lehébel A, Amar E, Anzivino-Viricel L, Hours M, Monfort C, Chevrier C, Chiron M, Robert-Gnansia E: **Maternal residence near municipal waste incinerators and the risk of urinary tract birth defects.** *Occup Environ Med* 2010

¹³ **Systematic review of epidemiological studies on health effects associated with management of solid waste** Daniela Porta, Simona Milani, Antonio I Lazzarino, Carlo A Perucci and Francesco Forastiere *Environmental Health* 2009,

¹⁴ Maps plotting the location of incinerators and the incidence of high rates of health problems (eg stillbirths, heart attacks, cancers) have been produced for London, Coventry, Wolverhampton, Kirklees and elsewhere. London's infant mortality in area downwind of incinerators is 7 times higher than it is in upwind areas – data taken from article by Dr D van Steenis which has full references)

¹⁵ “Vyvyan Howard MB. ChB. PhD. FRCPath. is a medically qualified toxicopathologist specialising in the problems associated with the action of toxic substances on the foetus and the infant. He is Professor at the University of Ulster. He is a Fellow of the Royal College of Pathologists. He has recently completed 6 years as a toxicologist on the UK Government DEFRA Advisory Committee on Pesticides. A large part of Professor Howard's current research is the investigation of the toxicology of nanoparticles. He has co-edited a book entitled 'Particulate Matter: Properties and Effects upon Health'.

As an acknowledged international expert on ultrafine particles Professor Howard quotes extensive evidence to show that they are more probably toxic than larger particles, although currently less regulated. Chlorinated organics, including dioxins, tend to be concentrated on the smaller particles. He notes that about 2 million excess deaths per year on a global scale are likely to be due to particle inhalation. Children and even the foetus are particularly vulnerable to particulate air pollutants – a factor largely overlooked in setting current standards and controls. Prenatal exposure to immunotoxic fine particles may impair the immune function of the foetus and subsequently may be responsible for an increased susceptibility of newborns and young infants to respiratory infections. He quotes studies from France and Sweden as examples to show that modern incinerators are a major source of fine particulate emissions in urban areas. He argues that the levels of heavy and transition metal inputs in municipal solid waste are very much higher than with conventional fuels. Such increases must inevitably be associated with an increase in toxicity and consequently the likelihood of adverse health effects among the local receptors.

Professor Howard states that *“medical science has been rather slow to fully recognize and explore the serious problems that particulate emissions cause. In spite of the thousands of papers that have been published over the past decade on the issue of UFPs it will inevitably be many years before the answers to all the questions posed are available. Meanwhile it is sensible that particulate emissions, especially those produced in conjunction with toxic chemicals, are reduced so far as possible and that new sources are avoided.”*

Avoiding new sources of fine particulate pollution means avoiding the construction of mass-burn incinerators. As Professor Howard notes, many people including the Royal Commission on Environmental Pollution have reminded us that *“the historical record is replete with unexpected toxicological impacts arising following the use of anthropogenic chemicals.”* He advocates the application of the precautionary principle in the field of waste disposal, just as it is already used (including by WAG) with other aspects of sustainable development. Moreover he considers that the principle *“should be regarded more seriously when considering incineration processes, where there is significant scientific uncertainty and serious risks of harm.”*¹⁶

¹⁶ The European Commission advised the inclusion of public health in 2000 saying that the precautionary principle should be applied where *“there are reasonable grounds for concern that potential hazards may affect the environment or human, animal or plant health, and when at the same time the lack of scientific information precludes a detailed scientific evaluation”*. “ The EU Treaty Article 174(2) as amended at Nice 2004 recognized that scientific evaluation can be inconclusive and accorded priority to public health: a precautionary approach must be paramount, as opposed to acting only where proof or very strong suspicion of harm can be demonstrated. The Precautionary Principle should be applied where the possibility of harmful effects on health or the environment has been identified and preliminary scientific evaluation proves inconclusive for assessing the level of risk. Account should be taken of social and environmental costs in examining the level of risk, but the protection of public health, including the effects of the environment on public health, must be given priority.

On particles, we would draw AMs' attention to an official report¹⁷ published by a partnership comprising relevant agencies (including EPA) in England, Wales, Scotland and N Ireland in December 2010. It contains new information about the health impacts of small (<2.5) particles and the fact that we have to reduce concentrations under existing EU legislation by 2020. There is so much material in the report which negates the case for waste incinerators that it is difficult to know which to highlight but below are some direct quotations:

“Industrial sources and power stations contribute most to national, primary, man-made emissions (35%)”

*“Both short- and long-term exposure to PM2.5 causes a range of detrimental health effects. Exposure to PM2.5 reduces life expectancy by around six months averaged over the whole of the UK. **For those individuals who are particularly sensitive the reduction in life expectancy could be much greater.**”*

“There is no recognized threshold below which there are no health effects.”

“There is no clear evidence as to which PM2.5 component(s) produce these harmful effects. Therefore, all components must be treated as culprits.”

“The effects of long-term exposure are more significant than those of short-term exposure, in terms of the overall impact on the nation's health.”

“Interventions to reduce exposure to PM, such as the ban on coal burning in Dublin, have been shown to be beneficial in health terms, with fewer respiratory and cardiovascular deaths following the interventions.”

“It is estimated that eliminating exposure to man-made PM2.5 would yield greater benefits than eliminating road traffic accidents or exposure to passive smoking”

“The key driver for action to control exposure to PM2.5 will be the exposure-reduction targets that have been established. The UK target is for a 15% reduction in annual mean PM2.5 at background locations across the major urban areas [by 2020]”

“Consideration should be given to ways of using the planning system to require reductions in PM2.5 emissions to be incorporated into the planning of all new developments.”

¹⁷ PM2.5 in the UK, December 2010, Environment Agency & other authors
http://www.sniffer.org.uk/Webcontrol/Secure/ClientSpecific/ResourceManagement/UploadedFiles/ER12%20Project%20Summary_electronic.pdf

There has been a deafening silence about this official report from relevant WAG Ministries (including Health and Environment) and the local authorities comprising Prosiect Gwyrdd. It is impossible to ascertain whether they have even bothered to read it. Ever-ready to quote or misquote outdated HPA advice to justify incinerators, these bodies have nothing to say about a more recent report which illustrates that small particles largely emanate from large industrial plants (and NOT road traffic), are potentially dangerous, are only partially controlled, and are certain to require further statutory reductions in the coming years.

We are aware that there are other views, which seem to downplay the health risks of incinerators. However they are all based on the assumption that incinerators operate within the laws regulating emissions. Experience shows this assumption is ill-founded. In 2006-2007 English incinerators broke the law almost 1400 times.¹⁸ Recent breaches at modern incinerators include the Isle of Wight, Nottingham, Swansea, Stoke, Wolverhampton, Birmingham, Bolton, Sheffield, Grimsby, Tees Valley, and Coventry. In Scotland, the modern Dundee EfW incinerator released dioxins well above the legal limit in 2008, but received no fine. Soils were tested and dioxins were found. A Freedom of Information Act response shows the modern Dumfries EfW plant has breached its permit for carbon monoxide, nitrous oxides, VOCs, and ammonia emissions, and also for non-reporting, late reporting, insufficient reporting and its failure to adequately control waste. It only started operation in October 2009, but the local press report 172 emission breaches in this short period. The experience at Crymlyn Burrows suggests that Wales will follow this pattern if it insists on building a new generation of waste incinerators.

Finally on the health aspect we would draw attention to the views of the official advisory body in Ireland (the Irish Government Health Research Board). Their comprehensive review concluded that *“there is some evidence that incinerator emissions may be associated with respiratory morbidity”* and that *“acute and chronic respiratory symptoms are associated with incinerator emissions”*. The review also confirmed that *“a number of well-designed studies have reported associations between developing certain cancers and living close to incinerator sites. Specific cancers identified include primary liver cancer, laryngeal cancer, soft-tissue sarcoma and lung cancer”*. The responsible agencies in US also take this less favourable view of incinerators : as a result much tighter regulation by the EPA virtually no incinerators are now being built in America.

(2) Cost

Cost comparisons between different waste disposals are hindered by the culture of secrecy, in many projects where large scale incinerators are involved. Commercial confidentiality is regularly invoked to prevent the public from obtaining comparable data.

What is clear is that

¹⁸ 2006-2007 EfW Thermal Breaches, Environment Agency. Freedom of Information Request in 2010

- (a) MBT is the cheapest of the alternatives to landfill in terms of capital investment. The new MBT plant at Avonmouth cost £25m, versus Viridor’s £220m capital budget (ie around 1/9th the capital cost of a mass-burn incinerator). It was built in 18 months including planning permission, permitting and construction – this compares with a minimum period of 5 years for an incinerator. This means savings on landfill tax and benefits from recycling can be generated earlier. The plant processes 170,000 tonnes of MSW serving Bristol, Bath, S Glos and Somerset and handles the same composition of black bag waste which PG seeks to incinerate. The MBT contract in Avonmouth is for 9 years, with a break clause. It is thus far more flexible than an incinerator contract. Modular additions can be made in a matter of weeks/months. MBT plants are far more flexible in dealing with changes in waste volumes and composition

- (b) Incineration incurs extremely high initial capital costs, and can only compete when projects are deliberately drawn over a very long timescale (typically 25 years) which locks Councils into one form of technology and a commercial contract for an extensive period. Such contracts are based on English PFI prototypes (despite WAG’s stated opposition to PFI), and mean that taxpayers are effectively being charged penal interest rates to avoid capital costs being charged to the public sector.

- (c) Technology moves so quickly (and has done so since PG was conceived) that a rigid 25 year time-scale dictated by PFI principles is clearly inappropriate for waste planning

- (d) Incineration budget estimates also seem to depend on assumptions about the income generated by heat and electricity sales from incinerators, which we believe are over-optimistic, especially for heat.

(3) Recycling Rates

Incineration is demonstrably incompatible with high rates of recycling.¹⁹ Statistics for UK and the EC show a clear and negative correlation between recycling and increased use of incineration, i.e. the more incinerators are built, the lower the % of waste is recycled. MSW statistics published by DEFRA in November 2010 showed that none of the top five UK incinerator authorities rank in the top 100 recycling authorities. The latest data on municipal waste from the UK Statistics Authority²⁰ illustrates this :

¹⁹ This is widely accepted in the world beyond pro-incineration lobbies. For example, in January 2010 the House of Commons Environment Committee, in reference to the English Waste Strategy said ‘Waste should only be used for energy recovery if it is not possible to re-use, recycle or compost it’

²⁰ Welsh Government | Municipal Waste Management Report, 2010-11; 2010/11 National Statistics on Local Authority Collected Waste Management in England - Defra Statistical Summary

| | | |
|---------------------|----------------|--------------|
| (2010/11) | <i>England</i> | <i>Wales</i> |
| % Waste Recycled | 40.0 | 45.6 |
| % Waste Incinerated | 13.6 | 2.4 |

The pattern elsewhere in the EU is similar. For example regional data for household waste from Denmark below shows that regions with high incineration have lower recycling and regions with lower incineration do more recycling:

| (2005) | Recycling | Incineration | Landfill |
|-------------|-----------|--------------|----------|
| Hovedstaden | 21% | 77% | 2% |
| Nordjylland | 29% | 63% | 8% |
| Sjælland | 31% | 59% | 10% |
| Midtjylland | 40% | 53% | 7% |
| Syddanmark | 41% | 52% | 6% |

The negative correlation between incineration and recycling has been accepted by Ministers in the past. For example the previous Labour Energy Minister in Westminster turned down an application in 2002 to expand the incinerator at Edmonton in North London on the grounds that a larger incinerator would give North London Waste Authority little incentive to do more recycling over and above the statutory minimum; and that matching or bettering recycling targets would lead to a shortfall in the waste stream for the plant and therefore lead to waste being imported from other areas, in contradiction to the proximity principle.

(4) Greenhouse Gas

It is often claimed that incinerators produce renewable energy, implying that they are part of the solution to climate change. This is incorrect - incinerators burn a mixture of fossil-fuel derived materials (e.g. plastics) and biological materials. A waste to electricity incinerator actually releases 33 per cent more fossil-fuel derived CO₂ per unit energy produced than a gas-fired power station. Incinerators also compare very unfavourably with other waste disposal options.

A study²¹ published by DEFRA earlier this year as part of the Westminster Government's waste policy review reached the conclusion that " MBT (mechanical biological treatment)-landfill provides the best [greenhouse gas] emissions performance in terms of the treatment/disposal of residual waste. It essentially involves landfilling somewhat stabilised wastes with some

²¹ *The Economics of Waste and Waste Policy*, Waste Economics Team, Defra June 2011

material recovery. The magnitude of the environmental impact depends on the extent to which the waste is stabilised.” This conclusion is supported by the league table in *Greenhouse Gas Balances of Waste Management Scenarios*²², in which incinerator options occupy 4 of the bottom 5 places above landfill while all the top 10 places are taken by MBT and gasification disposal methods. We would add that these conclusions probably underestimate the contribution of incinerator to greenhouse gas because they ignore the extra costs of transporting waste over longer distances to mass-burn incinerators as proposed under Prosiect Gwyrdd to serve five Welsh counties.

GG from incinerators has to be counted against statutory ceilings for all GG under EU rules. This is another crucial drawback with incineration. The Treasury consultation document on future carbon Tax sets out three separate proposals for the carbon floor price, outlining how the price in 2020, delivered through the combination of the new tax and the ETS, would reach £20, £30, or £40 per tonne. Under each scenario, the price would then continue to rise to reach £70. Carbon taxes could come into force in 2013. It is unclear whether Carbon Tax has been taken into account in the costing of proposals under PG, and if so, whether the scenarios have been rigorously and independently tested.

(5) Employment

Incineration contributes fewer jobs in the longer term than solutions like MBT which are based on recycling waste. The table below gives estimates. Most jobs created by incineration are in the initial construction phase. Much of the work is specialist or likely to be allocated to overseas workers, so the impact on employment levels in SE Wales even from the construction phase is likely to be small. Thereafter, incineration employs fewer people per tonne of waste than MBT, and is likely to cut the number of jobs in the recycling industry (see Sub Para 3 (*Recycling Rates*) above. Staff at Newport WasteSavers, who currently handle kerbside recycling for the City, have already expressed concern about their current jobs if an incinerator is installed.

Estimated Jobs per one million tons of waste processed

| Type of waste disposal | Number of Jobs |
|------------------------|----------------|
| Landfill | 40 - 60 |
| Incineration | 100 - 290 |
| Composting | 200 - 300 |
| Recycling | 400 - 590 |

²² *Eunomia Consulting, Jan 2008* Defra and GLA’s use of this comprehensive report illustrate that it is widely accepted as the definitive assessment of the relative performance of different types of waste disposal process in relation to greenhouse gas emissions, and hence contribution to climate change. Note Eunomia’s conclusions that “*Scenarios incorporating MBT (AD with maturation) perform most consistently well both under our central assumptions and in each form of sensitivity analysis.....Under our central assumptions and the five forms of sensitivity analysis, incineration with CHP reaches a high of only 15th place in the scenario rankings.*”

The effect of an incinerator on other local jobs may also be negative. Llanwern is designated under Newport's development plan as the largest single site for housing over the next 20 years. Most of this will be private development for sale. The presence of an incinerator, and the associated traffic, is likely to dampen demand for housing, and thus reduce construction jobs. A negative impact on other existing industrial users (and the jobs they provide) is also possible, particularly companies involved in the food and drinks industry. There is a large brewery at Magor, for example. In Merthyr a confectionery manufacturer had threatened to pull out of the area if the Covanta incinerator was built, rather than pay the costs of installing additional filtration/ purification systems.

Looking at the national picture, for an achievable recycling target of 70% for municipal waste achieved by 2025, Friends of the Earth estimate (conservatively) that across the UK this could create 29,400 new direct jobs in recycling²³.

(6) Energy generation

The rebranding of waste incinerators as 'energy from waste plants' is seductive. It suggests that incineration is somehow uniquely or especially able to recover energy from waste. Yet all alternatives to incineration can deliver energy from waste. The energy efficiency of incinerators is low. Optimum 'recovery of energy' comes from maximisation of waste reduction and recycling. According to the Environment Agency, "energy to waste plants that produce only electricity are about 25% efficient." Most of the energy produced in larger quantities by incineration is in the form of heat which has to be used more or less *in situ* or very close to the incinerator. Secure markets for this heat are increasingly difficult or impossible to find. Combined Heat and Power (CHP) is yesterday's solution from an era of investment in heavy industry and large public housing estates. It is unsuitable for tomorrow's Wales. By contrast, other treatments of waste such as MBT in combination with anaerobic digestion and pyrolysis / gasification can deliver energy to the grid or to local users with greater efficiency, less environmental damage, and with much lower risks to public health.

There is also a built-in conflict between energy and recycling : the higher the level of recycling the lower the level of energy delivered by incineration since combustion depends on the presence of high calorific-value materials such as paper and plastics in the feedstock. The demands of incinerators are thus in direct competition with sustainable resource management.

²³ , 14,700 indirect jobs in supply chains and 7,300 induced jobs in the wider economy relative to 2006. Of these potential 51,400 total new jobs some 42,300 might be in England with an estimated 4,700 in Scotland, 2,600 in Wales and 1,800 in Northern Ireland.

http://www.foe.co.uk/resource/reports/jobs_recycling.pdf

At Llanwern there is an extra dimension relating to the steelworks . Veolia have said they will sell heat from the incinerator to Tata for use in the surviving steel rolling mill which has so far continued to operate since the end of primary steel manufacture at the site in 2002. However Veolia is not a charity, and it must be planning to charge Tata for the energy. If it is charging commercial rates, it is difficult to see what the extra benefits are to Tata. If it is not charging commercial rates, then this risks being contrary to EU subsidy rules because of the Welsh Government’s promised annual subsidy of the incinerator gate fee of £9m.

The announcement of this link was accompanied in November 2011 by media reports²⁴ – apparently emanating from anonymous WAG/PG sources – trying to suggest the future of jobs at the Tata Llanwern steelworks might depend on an incinerator being built. The statement was deliberately intended to foster anxieties in the workforce and local community. However it was specifically NOT confirmed by Tata who said in later statement that “there was no connection between employment at the steelworks and the [incinerator] project²⁵”.

The credibility of the entire concept of supplying heat to Llanwern steel works was severely undermined by the announcement on 2 December that Tata were mothballing the hot strip mill which was intended to be the main customer for heat from the incinerator.²⁶ The hot strip mill has been mothballed before – for 9 months in 2009. Two closures in 2 years hardly suggest that Veolia can rely on the steel mill as a consistent customer for the heat, and there is no guarantee that the hot mill will be functioning in 2016.

Over-optimistic claims to be able to supply heat are often made by incinerator companies during planning applications : the announcement by Tata on 2 December has already placed the claims for Llanwern firmly in this category. The historical record elsewhere shows that such undertakings are seldom fulfilled and there is no enforcement mechanism to implement them once planning permission is given. While the PG waste incineration contract with the 5 Councils would be for 25 years, Tata are clearly in no position to enter into a 25 year contract, starting in 2016 when the incinerator is supposed to start up. What would happen to all the waste heat generated at an incinerator if the contract with Tata never comes to fruition, or is suspended or terminated before 2041? No one knows what Tata's situation, and market conditions for steel, will be in 2012, let alone 2016 or 2040.

²⁴ See Western Mail online - <http://www.walesonline.co.uk/news/local-news/newport/2011/11/11/steel-jobs-worry-if-incinerator-plan-is-rejected-91466-29757153/>

²⁵ South Wales Argus, 2 Dec 2011

²⁶ See for example <http://www.bbc.co.uk/news/uk-wales-south-east-wales-16003797>

What are the best methods of waste disposal?²⁷

On health grounds MBT, autoclaving, plasma gasification and even conventional landfill are superior to incineration because they do not simply covert the most toxic black bag waste into emissions of billions of particulates which, as illustrated earlier, many experts and public bodies consider to be a serious risk to human health and likely to have a cumulative impact which shortens the lives of many people.

For recycling, incineration is only marginally superior to landfill. MBT is the best available option, offering the opportunity to extract and reuse an increasing range of materials including metals, plastics and organic waste.

MBT is also the cheapest of the alternatives to landfill in terms of capital investment. Incineration incurs extremely high initial capital costs, but its exponents claim it is cheaper than MBT to run. It is hard to test these claims as it is almost impossible to obtain comparable information about the actual costs of municipal incineration projects because they are cloaked in secrecy and claims about “commercial confidentiality”. Crucially, these claims depend on the artificially low tax on incinerator ash which is unjustified in environmental terms and unlikely to be retained²⁸. Some of the alleged cost advantages for incinerators also depend on claims about the income generated by electricity and heat sales, which we believe are over-optimistic, because subsidies for electricity generation are falling and markets for heat are difficult to find and guarantee over the life span of projects (25 yrs) – as illustrated by last week’s news about the mothballing of the Tata hot steel mill. Finally, comparisons made by pro-incineration lobbies also underestimate the potential value of materials recovered or produced by competing technologies such as MBT, and the electricity generation capabilities of plasma gasification of the 13% residual materials which cannot be recycled.

Residue from MBT plants can be turned into compost which the Environment Agency is already licensing for use as landfill on forestry, biomass or other non-food producing sites in England. There has clearly been a delay in applying this standard in Wales, and we have reason to believe

²⁷ In answering this we assume that kerbside recycling deals with other organic and non—organic waste sorted by households, and that we are addressing the disposal of black bag waste which is not sorted by households for recycling

²⁸ A major factor in the ‘low running costs’ of incinerators is that landfilling of incinerator bottom ash is charged at a basement rate - £2.50 per tonne - compared to £56 per tonne for MBT residues. This unfair differential has been lobbied for by Energy from Waste (EfW) companies, and is unlikely to survive.

this is because certain officials in Wales who support incineration have tried to create the erroneous impression that MBT compost like material is too dangerous to spread anywhere. This impression needs to be eradicated once and for all – equality of regulation between England and Wales on an issue like this is essential.

MBT residue can also be turned into Refuse Derived Fuel (RDF) and either incinerated or gasified. Many incinerator exponents try to use this fact to claim that MBT is just as vulnerable to health and other arguments made against incinerators in general. In response we would point out that

- (a) RDF produced in modern MBT plants by definition comprises a much smaller amount of waste in absolute and relative terms when compared with the thousands of tonnes of black bags which are fed annually into incinerators; this is because under MBT a high proportion of the original content of the black bags has been extracted for reuse (eg metals and plastics) or transferred for anaerobic digestion or composting (in the case of organic waste)
- (b) Emissions produced from RDF are also much less risky to human health than emissions from black bag incinerators, because so many of the toxic components of the waste have been extracted through the MBT process
- (c) RDF can be disposed of economically in much smaller plants which gasify rather than incinerate the fuel – this will reduce emissions still further and produce useful energy as a by-product²⁹.
- (d) Incineration itself produces large residues of up to 30% of initial waste inputs, in the form of bottom ash and flue ash³⁰. Incinerator operators use or sell some of the less toxic ash for aggregates and building blocks, but the market is already saturated and it is likely that a significant proportion of the ash will have to be transferred elsewhere by road or rail for storage, or disposal in landfill (at an artificial cheap rate which we believe has been set to encourage incineration at the expense of other

²⁹ A pyrolysis-gasification unit is due to be installed at the new MBT plant at Avonmouth serving Bristol and Bath. In the longer term plasma gasification is probably the best method for RDF treatment on safety grounds.

³⁰ Incinerator ash contains toxic heavy metals and dioxins. This particularly applies to ash which is caught by pollution abatement equipment and prevented from going up the chimney, known as 'fly ash'. However, the main volume of the ash - 'bottom ash' - also contains some toxins, including heavy metals which are present in ash in a form more liable to leach than if they were in unburnt waste.

technologies like MBT). Moreover the flue ash’s toxicity (notably in dioxins), means that it cannot be used in any manufacture or even disposed of in conventional landfill site. Instead it has to be transported over long distances for disposal at special sites for hazardous wastes. It would appear that no undertaking for disposal of this hazardous waste has been formalised, and specifying its’ disposal route of such does not appear to be part of the PG brief.

The costs of plasma gasification are likely to change in a favourable direction as the technology becomes more widely established. Plasma Gasification also has the potential to be used in small scale gasification plants in tandem with MBT (to dispose of final MBT residues): under this scenario MBT can be seen as a first stage to maximise recycling and reduce landfill, while Pyrolysis/Gasification or more conventional gasification is seen as a second or optional stage instead of composting or conventional incineration of RDF.

Can we rank the various options ?

Below is a ranking table for each main technology, assessed against 7 criteria. Such a table is a judgement and does not claim to establish the definitive solution scientifically. However where difficult policy decisions have to be taken, the technique of ranking options can help to exclude those which are unlikely to be optimal in any event. In the case of waste disposal we believe that incineration falls into his category. Whilst it is possible to argue about the precise ranking given under each of the criteria (and indeed whether the criteria should all be ranked equally), we do not believe that the gap between incineration and MBT can be bridged under any reasonable assessment of the facts.

Waste Treatment Method³¹ Ranks -----

| | Co2 | Health | Recyc- -ling | Cost | Jobs | Relia- -bility | Energy |
|-----------------------------------|--------------|--------|-----------------|------|------|-------------------|--------|
| Incineration with Power | 5 (worst) | 4= | 4= | 3 | 5 | 2 | 2 |
| Incineration with Heat & Power | 4 | 4= | 4= | 1= | 4 | 3= | 1 |
| Mechanical & Biological Treatment | 1= | 2= | 1 (best) | 1= | 1 | 1 | 3= |

³¹ In the interests of clarity the many sub-options eg of MBT or gasification have been boiled down to 4 main alternatives to landfill.

| | | | | | | | |
|---------------------|----|----|---|---|----|----|----|
| Autoclaving | 3 | 2= | 2 | 4 | 2= | 3= | 3= |
| Plasma Gasification | 1= | 1 | 3 | 5 | 2= | 4 | 3= |

TOTALS (Lowest=Best)

| | |
|---|---------------|
| Incineration with Power | 25 (worst) |
| Incineration with Heat & Power | 21 |
| Mechanical & Biological Sorting + (An)aerobic Digestion | 10 |
| Autoclaving | 19 |
| Plasma Gasification | 19 |

Ranks will involve some degree of value-judgment³². Nevertheless the totals give a very clear bottom line – incineration is considerably inferior to MBT. Plasma gasification is already superior to incineration, and will outrank it (and perhaps also MBT) when its cost and reliability are fully assured.

Did WAG back incineration from the start ?

There appears to be a network of officials in WAG, Prosiect Gwyrdd, the Environment Agency and the local authorities who are sympathetic to incineration, and have influenced the procurement process in this direction from the outset. This outlook may have been further entrenched by contacts with the main companies selling incineration, including the early contacts with Covanta mentioned below. The project’s habit of employing expensive outside consultants is also relevant.³³ These included financial advisers with experience of PFI, and who helped ensure Prosiect Gwyrdd was modelled on PFI counterparts in England, while avoiding use of the name to avoid the prohibition on PFI projects introduced by Welsh Ministers.³⁴ They

³² The table is arguably OVER-generous to incineration, particularly on cost and energy generation

³³ PG spent £634,000 on consultants in 2009-11, an overspend of over £250,000 on the e[project’s’ original estimates

³⁴ The initial financial consultants were Partnerships UK who were well known as promoters of PFI. One of the members of this firm who initially acted in an advisory role was subsequently recruited into WAG to lead procurement in the Waste Procurement Programme Office (WPPO). The use and role of consultants for PG replicated the interchange between business and the civil service revealed in the BBC Panorama expose of PFI *Who's Getting Rich on your Money?* broadcast on 28 November 2011 .

also included technical advisers who were close to the corporate sector including the multinationals who wanted to sell incinerators to Wales.

An example of WAG's bias is the treatment of incinerator ash. To help promote incineration, current Welsh Government policy has illogically agreed to include bottom ash in municipal recycling figures ! Over its life a municipal mass-burn incinerator will literally destroy millions of tons of material including plastics and paper-based products which are capable of being extracted for re-use – ie genuinely recycled. Counting the ash as recycle when it comprises an often toxic residue of a process which has destroyed this recycling potential is absolutely perverse. England does not classify ash in this way and WAG should desist from this approach if it wishes to maintain credibility.

In addition it has been established that close and inappropriate contacts took place in 2007 through to 2010 between the senior WAG Ministers then in post, their officials and the American incinerator company Covanta. SNIC draws attention to the evidence on this point which was obtained by Fol requests, and is set out in other submissions to this enquiry.

The PG bid documents also used EfW Incineration as the “reference model” for the bid process which was a clear indicator to the bidding companies that incineration was the preferred technology.

Endpiece

In conclusion, SNIC feels that there is overwhelming evidence to support our claim that Prosiect Gwyrdd is deeply flawed. The health effects alone are reason enough to question the sense of selecting the most heavily contaminating process above all other possibilities. EU Directives will impose penalties on the level of ultrafine particles in the ambient atmosphere which should lead to a moratorium on any avoidable development which emits these dangerous particles

The two remaining PG bidders, having selected themselves for the final shortlist by default, are attempting to extract £1.1 billion from Welsh taxpayers to run a high-risk incinerator when there are cleaner, safer and greener alternatives readily available from British companies which would provide more jobs in Wales through the recycling industries.

The sensible move to localisation and citizen responsibilities points firmly to a neighbourhood solution for waste, and positive action to increase recycling. Prosiect Gwyrdd, with its regional attempts at a solution and questionable selection of incineration - which has been proven to

drastically reduce recycling rates - has not been democratically accountable, and throws the burden of unnecessary cost firmly in the lap of the uninformed taxpayer. It is our firm opinion that no more money should be spent on the irresponsible project artfully misnamed as Project Green.

Finally, Prosiect Gwyrdd and its supporters in WAG are very fond of hiding behind the EU Directives on landfill to justify incinerators and the EU Directives on competition to prevent disclosure of the bids received to run incinerators, and to exclude the public from many of the meetings. However they are much less inclined to refer to the measures coming forward from the EC which will require more action to control the billions of small particulates emitted by incinerators, or to quote the views of the Commission on waste incinerators.

The EU Environment Commissioner is on record as stating that *'incinerators are not the answer to waste management Incinerators only reduce the volume of waste but the environmental impact of incineration is significant.'* The senior EC official (Head of Waste Management) has also stated that incinerators need enormous input in order to be economic and that in many countries they are now considered similar to nuclear power stations and should be avoided. He added *'The Commission does not support incineration. We do not consider this technique is favourable to the environment or that it is necessary to ensure a stable supply of waste for promoting combustion over the long term. Such a strategy would only slow innovation. We should be promoting prevention and recycling above all. Those countries who are in the process of drafting their planning should not base it upon incineration'*. National governments have been warned : do not adopt policies based on incineration. If WAG continues to do so, it will not be able to complain if Welsh taxpayers are landed with a huge bill for retro-fitting extra pollution control mechanisms, or having to close incinerators before the end of their planned life. The disastrous incinerator at Crumlyn Burrows which has already landed the ratepayers of Neath and Llanelli with large bill, and should be a lesson from which WAG and Prosiect Gwyrdd learn lessons instead of repeating the same mistakes on a grander scale.

The first step is for WAG to cease its outdated and deceitful policy based on the re-branding of incineration, as "Energy from Waste". Wales is actually well-placed to outlaw incineration as a timely response to new EC rules on emissions, especially of small particulates. The country could then move forward with the UK's greenest waste disposal policy based on recycling, mechanical and biological processing with energy-from-gasification. Such a policy would create desperately needed new jobs. It would be light on capital investment, and flexible enough to modify economically as and when technology improves further. SNIC hopes that the AMs' enquiry can be a catalyst for an overdue change of approach.

SNIC

4 December 2011