# CONTENTS

# INTRODUCTION

5.1 As noted from the previous chapter, Section 38(6) of the Planning and Compulsory Purchase Act 2004 confers a presumption in favour of development proposals which accord with the Development Plan, unless material considerations indicate otherwise. The previous chapter has set out the relevant provisions of both national planning policy and the Development Plan, identifying how the proposals accord with the relevant policies.

5.2 Planning policy therefore plays an important role in determining any planning application. However, there are times when other 'material' considerations can over-ride the provisions of a particular policy, or when taken collectively, weigh in favour of a development, despite it being contrary to the Development Plan. Even when a proposed development is in accordance with the Development Plan, other material considerations can lend further support, such that the case in favour of allowing it becomes overwhelming. This process of weighing the relative benefits of an application is often referred to as the "*planning balance*".

5.3 The need for a development also is a material consideration which is to be balanced against the assessment of the acceptability (in terms of environmental harm) of the proposed development. In relation to Parc Adfer it would provide increased capacity for both the management of residual waste higher up the waste hierarchy and the supply of low carbon and renewable energy. In so doing, the ERF would contribute to tackling climate change, which is recognised as being one of the (if not the) key objectives of both the Welsh and UK Governments. The need for the development is therefore considered in the context of energy, climate change and waste recovery capacity.

5.4 This chapter sets out the national and strategies relevant to the development of Parc Adfer. Chapter 6 then looks at the numerical need for energy recovery capacity to manage residual waste arisings within the North Wales region.

# EUROPEAN POLICIES

## Landfill Directive

5.5 The purpose of the Directive (199/31/EC) was *"to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from the landfilling of waste, during the whole lifecycle of the landfill*".

5.6 Provisions cover location of landfills, water control and leachate management, water and methane emissions control, and protection of soil. The Directive sets targets to reduce biodegradable municipal landfill to 75% of 1995 amounts by 2010, 50% in 2013, and 35% by 2020.

5.7 Within the UK, the Directive is implemented through the Landfill (England and Wales) Regulations 2002.

5.8 However, the Welsh Government (WG), through its strategies "*Towards Zero Waste*" and the "*Sector Plans*" (see below) has imposed more stringent targets on the diversion of waste from landfill, and placed caps on the amount of waste that can be sent to high efficiency energy from waste facilities (such as Parc Adfer). Where a local authority fails to meet these national targets, financial penalties are imposed.

## Waste Framework Directive

5.9 Directive 2006/12/EC established the legislative framework for the handling of waste and it defines key concepts such as waste, recovery and disposal. It also established an obligation to handle waste in a way that does not have a negative impact on the environment or human health and the application of the waste hierarchy.

5.10 The 2006 Directive has been repealed and replaced by a new Directive 2008/98/EC on Waste (the revised Waste Framework Directive). The revised Waste Framework Directive (which came into force on 12 December 2008) establishes the overarching framework for the management of waste across the EU. It requires Member States to "*bring into force the laws, regulations and administrative provisions necessary to comply with this Directive*", within two years of its entry into force, *i.e.* by December 2010. The Directive brings together existing elements of waste legislation within a single Directive and introduces a new approach to waste management which focuses more strongly on the prevention of waste. This Directive has been transposed into UK law through the Waste (England and Wales) Regulations 2011 (SI 2011 No. 988).

5.11 Article 4 of the revised Waste Framework Directive sets out the modified waste hierarchy which applies as a priority order in waste prevention and management legislation and policy; this means that recovery takes precedence over landfill. This has been translated into UK legislation through Regulation 12(1) of the 2011 Waste Regulations, whereby:

"*An establishment or undertaking which imports, produces, collects, transports, recovers or disposes of waste, or which as a dealer or broker has control of waste must, on the transfer of waste, take all such measures available to it as are reasonable in the circumstances to apply the following waste hierarchy as a priority order*"

5.12 Waste planning authorities, along with the producers and carriers of waste are duty bound to apply this hierarchy as a priority. As such, it is not simply the operator of the proposed facility that needs to ensure the hierarchy is applied, which should mean that only truly residual waste is managed.

5.13 TAN21: Waste (refer to Chapter 4 above) has been reviewed by the WG to take into account the provisions of the revised Waste Framework Directive.

## Renewable Energy Directive 2009

5.14 Directive 2009/28/EC is part of a package of energy and climate change legislation which provides a legislative framework for Community targets for greenhouse gas emission savings. It encourages energy efficiency, energy consumption from renewable sources, the improvement of energy supply and the economic stimulation of a dynamic sector in which Europe is setting an example.

# NATIONAL STRATEGIES

## Towards Zero Waste

5.15 The '*Towards Zero Waste One Wales: One Planet*'[1] is the overarching waste strategy document for Wales. It sets out how the WG will build on the successes achieved through Wise About Waste - The National Waste Strategy for Wales (2002). It sets out a long term framework for resource efficiency and waste management between now and 2050. It identifies the outcomes the WG wish to achieve, sets high level targets and lays out the general approach to delivering these targets and other key actions. The key thrust of the strategy document is to recycle 70% of all waste by 2025 with an aim of zero waste to landfill or recovery facilities by 2050.

5.16 The Plan states that any waste that is produced, will be reused, recycled, composted (for green waste) or anaerobically digested (for food waste). Towards Zero Waste details ambitious national targets to be achieved by 2025 which include:

- reducing waste by around 1.5% (of the 2007 baseline level) each year across all sectors;
- all sectors recycling at least 70% of their waste by 2025;
- promote closed loop recycling;
- food waste to be collected and managed through anaerobic digestion; and
- minimise residual waste to less than 30% by 2025

5.17 The 2025 target is an intermediate step on the way towards 'zero waste', which the WG defines as an aspirational end point where all waste that is produced is reused or recycled as a resource, without the need for any landfill or energy recovery.

5.18 By 2025, Wales will have significantly reduced waste through actions on sustainable consumption and production and will manage any waste that is produced in a way that makes the most of its valuable resources. This will mean maximising recycling, minimising the amount of residual waste produced, and eliminating landfill as far as possible.

5.19 During the period up to 2050, it is envisaged that high energy efficiency energy from waste plants will replace landfill.

[1] Towards Zero Waste One Wales: one Planet. Overarching Waste Strategy Document for Wales. WAG. June 2010

5.20 The national waste strategy also sets out the "*Waste Hierarchy*", which has been considered above in Chapter 4 in connection with TAN 21. It indicates prevention being the most preferred option, with landfill the least preferred option. By meeting the '*R1 criteria'* Parc Adfer can be considered to be 'recovery' and not disposal, thereby elevating the management of residual waste. It also can be considered to be a high efficiency energy from waste facility.

5.21 It is possible to achieve high levels of recycling whilst also using energy from waste to manage the residual waste stream. Countries such as Holland, Denmark, Sweden and Germany all have high levels of recycling and high levels of energy recovery, but low levels of landfill. In stark contrast, at present the UK still landfills large quantities of waste. However, WG has imposed caps on the amount of residual municipal solid waste (ie the waste stream collected by the local authorities) that can be sent to energy from waste facilities (set at 42% in 2015 to 2016, reducing to 30% in 2024/25[2]) to ensure that recycling is not crowded out.

5.22 The contract for the management of residual waste collected by the local authorities will expire in 2043/2044, and the Authority has specifically requested a 12 month residual life at the end of the contract. As such the 25 year contract will expire some six years before the target date of 2050 and thus is consistent with Towards Zero Waste.

## Municipal Sector Plan Part 1

5.23 The Municipal Sector Plan[3] supports 'Towards Zero Waste', by detailing outcomes, policies and delivery actions for the municipal sector. It forms part of the suite of documents that overall comprise the waste management plan/strategy for Wales in accordance with the plan making requirements enshrined in UK and EU legislation.

5.24 The Sector Plan recognises the aims of the National Waste Strategy in terms of phasing out the disposal of residual waste to landfill through the diversion of residual waste to high efficiency energy from waste plants.

5.25 Section 3.5 of the Sector Plan (sustainable treatment and disposal) is directly relevant to Parc Adfer. Section 3.5.1 indicates that the treatment methods most likely to deliver the sustainable development outcomes identified in "*One Wales, One Planet" and "Towards Zero Waste*" include, for residual waste:

"*Use as a fuel of the residual municipal waste left after recycling in energy recovery plants with a high energy efficiency (preferably with a thermal efficiency of 60 per cent or greater, but at the least meeting the recovery threshold efficiency formula laid down in the revised Waste Framework Directive)*"

[2] Page 61, Towards Zero Waste
[3] Municipal Sector plan Part 1. (WAG10-11169). WAG March 2011

5.26 It then comments that this form of treatment yields significant reductions in greenhouse gas emissions. On page 118, the Plan comments:

"*The Welsh Assembly Government is satisfied that treatment of residual waste by high efficiency EfW facilities (where practical producing electricity and/or heat through associated Combined Heat & Power ("CHP") or heat only systems), is the best option for Wales in terms of its sustainable development obligations and reducing the impact of waste management activities on climate change."*

5.27 The Sector Plan therefore provides strong support for high thermal efficiency EfW plants, such as Parc Adfer[4].

5.28 It is also interesting to note that Specific Objective 3 (page 112) indicates that all recyclate/compost/digestate from Anaerobic Digestion facilities and other output products generated in Wales should be reprocessed and used in Wales as far as possible. This would seem to discourage the export of RDF or SRF (being the output from MBT plants) to facilities in England, as was considered in the former Regional BPEO. This would also seem to discourage the export of waste to energy from waste plants located in England.

## Collections, Infrastructure and Markets Sector Plan

5.29 The Collections, Infrastructure and Markets Sector Plan (CIMS Plan) was published on 10 July 2012 and is particularly relevant for the land use planning process. The CIMS Plan updates the picture of infrastructure requirements, in relation to technology choices and the best overall environmental option for specific waste materials. The waste assessments in the CIMS Plan establish the need for residual waste treatment and disposal, as well as describing the move towards higher levels of re-use and recycling.

5.30 The objective of the CIMS Plan is to create the conditions for proximity and self-sufficiency which enables the majority of residual waste to be managed in Wales and for as much as possible of the recyclates generated in Wales to be used in Wales

5.31 The CIMS Plan indicates that there is a need across Wales to develop more residual waste treatment and recovery facility capacity. It notes that the requirements cannot be predicted with any degree of complete certainty, but provides a "*range of best estimate capacity requirement*", which for the North of Wales (which will include Wrexham and Powys as well). This is considered further in Chapter 6 below.

5.32 In terms of "*Key Areas for Action*", the CIMS Plan identifies energy recovery from residual waste. Wastes that cannot be re-used, recycled or undergo other forms of recovery, are to be used for the optimised recovery of energy

[4] See Specific Objective 4 on page 112 and Action d) in Table 12, page 124

in local applications and to ensure that the retention of economic value in Wales from such operations is maximised. It goes on to state[5] that:

*"studies undertaken by the Welsh Government and the Wales Regional Waste Groups indicate that high efficiency energy from waste options are the optimal management route for these wastes that cannot be prevented or recycled".*

5.33 The CIMS Plan at section 3.6.4.3 indicates that the statutory recycling or local authority municipal waste effectively set a ceiling for the amount of energy from waste. As there is a target of 70% recycling for 2024/25, the maximum proportion of municipal waste that can go to energy from waste is 30%.

5.34 Parc Adfer aligns with the CIMS Plan by proposing:

- to develop up to 200,000tpa of residual waste treatment capacity, diverting waste from landfill. The capacity is therefore below the lower estimate of capacity needed in the CIMS plan; and
- to recover energy in the form of heat and power from the residual waste being treated, achieving the "R1" standard.

## The Industrial and Commercial Sector Plan

5.35 The I&CW Sector Plan, published in December 2013, provides policy interventions which will result in Wales meeting the aims and objectives of the 2008 Revised Waste Framework Directive and Towards Zero Waste for all of the I&C sectors.

5.36 The Sector Plan largely re-iterates Towards Zero Waste and the CIMS plan considered above. It recognises the need to reduce the reliance on landfill through diverting residual waste to other forms of recovery, such as high efficiency energy from waste facilities. In section 3.8.3, it sets out a number of objectives including:

2. *To eliminate the landfilling of waste, with a particular focus on biodegradable waste and hazardous waste.*

6. *To deliver good carbon reduction outcomes from residual waste treatment plants (e.g. high-energy efficiency EfW plants).*

5.37 The Sector Plan reiterates the ceiling placed on energy from waste in the CIMS plan of 30% in 2024-25. It also adds that:

"*The Welsh Government proposes to allow the recycling of processed Incinerator Bottom Ash (IBA) to count towards recycling targets as long as it meets an appropriate Quality Protocol (if one is agreed; work is underway to determine whether one can be developed), or relevant End of Waste criteria as agreed on a case by case basis with the Natural Resources Wales. If the*

[5] Section 3.6.5.1, page 224

*recycling of IBA is counted as recycling, then the ceilings on energy from waste would be net of any recycling of IBA*"

5.38 The Sector Plan indicates for non-municipal residual wastes that market forces would need to provide by 2025 annual treatment capacity of between 0.5 to 1.4 million tonnes (if recycling targets are met). It then adds that:

"*Through the Welsh Government supported Residual Waste Treatment Procurement Programme for local authority municipal waste, bidders are encouraged to provide additional capacity for residual industrial and commercial waste for the market, where this will provide better value for money for the local authorities through economies of scale*".

## Environment Strategy for Wales

5.39 The strategy ('ESW') was published in May 2006. It set out what the Welsh Government wanted to achieve in 20 years time (i.e. by 2026), and how to get there. Since the launch of the strategy, the following strategies have been published:

- One Wales: One Planet;
- The Climate Change Strategy for Wales; and
- Towards Zero Waste.

5.40 As such, and considering the nature of the development, it is not appropriate to consider this strategy.

## One Wales: One Planet

5.41 The Scheme, published in May 2009, sets out the Welsh Government's new vision of a sustainable Wales and the priority it attaches to sustainable development. The strategy sets out the overarching strategic aim of all WGs policies and programmes and is the central organising principle of the Welsh Assembly Government. On page 9, it recognises that "*achieving the vision of a sustainable Wales will require radical change in all sectors of society*".

5.42 The vision for "a sustainable Wales" is one where:

- lives within its environmental limits, using only its fair share of the earth's resources reducing the ecological footprint, and we are resilient to the impacts of climate change;
- has healthy, biologically diverse and productive ecosystems that are managed sustainably;
- has a resilient and sustainable economy that is able to develop whilst stabilising, then reducing, its use of natural resources and reducing its contribution to climate change;
- has communities which are safe, sustainable, and attractive places for people to live and work, where people have access to services, and enjoy good health;

- is a fair, just and bilingual nation, in which citizens of all ages and backgrounds are empowered to determine their own lives, shape their communities and achieve their full potential.

5.43 A central theme within the strategy is therefore addressing climate change. It comments that Wales needs to radically reduce by 80-90% its use of carbon-based energy, resulting in a similar reduction in greenhouse gas emissions. This supports the WG commitment to make annual 3% reductions in greenhouse gas emissions in areas of devolved competence and to move to producing as much electricity from renewable sources by 2025 as Wales consumes. Moreover, on page 18, the strategy indicates that Wales must:

*"have a radically different approach to waste management, moving towards becoming a zero waste nation. By this, we mean a society where we focus on eliminating waste, and waste that can't be eliminated must be recycled in "closed loop" systems that achieve the best reduction in ecological and carbon footprints. This will build on our stated goal of achieving 70% recycling across all sectors, and diverting waste from landfill by 2025"*

5.44 In delivering the strategy, two core principles and six supporting principles are set out on page 26. The two core principles (involvement and integration) must be central to all key decisions about an organisation's policies and programmes. The six supporting principles should be appropriately and proportionately applied according to the particular issue in question. Not all supporting principles will be relevant to each decision.

5.45 The first core principle is aimed at 'involvement' with people and communities being at the heart of sustainable development and as such, the WG will involve all stakeholders in the development of policies and programmes. Whilst this is predominantly aimed at the formulation of policy, the spirit has been applied with the proposals for Parc Adfer. Firstly, the proposals are in response to the need to manage residual municipal waste across the North Wales region. The North Wales Residual Waste Treatment Project has undergone extensive consultation. Secondly, following the appointment of 'Preferred Bidder' the applicant has undergone a programme of public engagement which is set out in Chapter 9 below. The second principle is aimed at integrating social, economic and environmental issues.

5.46 Turning to the supporting principles, the first, third and fifth are notable. The first seeks to reduce the ecological footprint, and in particular, reducing greenhouse gas emissions. The third advocates a precautionary approach, using evidence based approach to decision making. However, where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation. The fifth principle relates to the proximity principle in relation to managing waste and pollution, rather than passing them onto other places or to future generations. The purpose of Parc Adfer is to divert waste from landfill, which clearly has significant benefits in relation to reducing greenhouse gas emissions. The proposals have been thoroughly assessed though an EIA process, based on recognised and tested practices for determining the likelihood of significant impacts. Finally, as noted above,

the purpose of Parc Adfer is to manage residual wastes arising in the North Wales region.

5.47 Chapter 4 of the strategy addresses sustainable use of resources. Key themes are climate change (and the need to reduce greenhouse gas emissions) and waste (to increase recycling rates to 70% across all sectors by 2025). On page 36, the strategy indicates that the WG "*want energy recovery to be an option for a maximum of 30% of municipal waste by 2025, along with a maximum level of residual household waste per inhabitant of 150kg per year, and a maximum level of municipal waste going to landfill of 5%. We also want to see waste from all other sectors phased out of landfill sites.*"

## Wales Spatial Plan 2008 Update

*5.48* The "*Wales Spatial Plan 2008 Update – People, Places, Futures*" provides the context and direction of local development plans..

5.49 The WSP aims to promote sustainable development through its area strategies in the context of WG's statutory Sustainable Development Scheme. In regional terms, the WSP identifies Spatial Plan Areas that are not defined by administrative boundaries. The Site is located within the North-East Region.

5.50 The WSP is relatively succinct in respect of waste matters and has effectively been superseded by other strategies, such as the Sector Plans referred to above.

5.51 For the North-East Region, paragraph 16.58 comments that infrastructure (including energy and waste), are already facing constraints in some places. It is therefore key that partners across North East Wales:

*"take a strategic approach to this issue to identify opportunities for creative solutions to, for example, land use and water issues, that can improve our resilience to climate change and benefit wildlife while permitting development in appropriate locations".*

5.52 Paragraph 16.59 goes on to add that waste is a significant issue constraining the area, with landfill capacity rapidly reducing. It recognises that the whole hierarchy from waste minimisation through collection, recycling and residual disposal has spatial implications:

*"Working through the regional waste planning group, action will be taken to provide appropriate infrastructure and processes put in place to address the issues and provide opportunities for economic benefits from recycling and the development of new technologies".*

5.53 Parc Adfer is consistent with the WPS Update 2008 in the following respects:

- the ERF is being delivered to five local authorities in North Wales taking a joint approach to tackling the need for regional waste infrastructure to deal with residual waste arisings; and
- the ERF would offer a sustainable solution to the Partner Authorities for managing their resource, maximizing the value from residual waste.

## Climate Change Strategy for Wales (2010)

5.54 The Climate Change Strategy for Wales sets out where the WG will act to reduce the greenhouse gas emissions that Wales produces. It also explains how the WG will prepare for the impacts of climate change.

5.55 The WG's key target, to cut greenhouse gas emissions by 3% per year from 2011 in areas of devolved competence, is explained in Chapter 5 of the strategy. Details are also provided here on our specific targets for the transport, residential, business, agriculture and land use, public, and waste sectors.

5.56 Current and future actions will focus on reduction of emissions to defined levels by 2020. For the waste sector emissions reduced to between 0.64 and 0.95 MtCO2e against a baseline of 1.30 MtCO2e.

5.57 Chapter 12 specifically addresses resource efficiency and waste sector emission reduction. The thrust of the strategy is to:

- reduce greenhouse gas emissions from landfill sites;
- reduce indirect emissions associated with resource consumption by increasing reuse, recycling and composting; and
- implement the Waste Strategy and Sector Plans.

5.58 As such, the strategy provides a link between generating energy from waste and reducing the effects of climate change.

## Energy Wales: A Low Carbon Transition (2012).

5.59 The strategy sets out the WG actions to move towards a low carbon economy. Pivotal to this energy generation. Changes needed mean that energy generation is expected to:

- become increasingly decarbonised;
- meet other environmental standards such as those for pollutants and waste;
- provide energy security and resilience; and
- deliver, through energy markets, affordability and a credible framework for long term investment.

5.60 The strategy comments that "*In the short term, gas, nuclear and bio-energy will provide the energy to compensate for the intermittency in supply from renewable resources*". It then goes on to add (under the heading "*How will we make a difference"*)

*"Within our overall aim of achieving a low carbon economy and our ambition to ensure that in transition we deliver economic benefits and jobs, ensure real community benefits and manage the interface with our natural environment as set out above, we will …*

*Make the most sustainable use of Wales' resources by taking forward the work in our Green Paper Sustaining a Living Wales and our resource efficiency strategy Towards Zero Waste."*

5.61 As such, the strategy provides a further link between generating energy from waste and the transition to a low carbon economy.

## UK STRATEGIES ON ENERGY

5.62 The 2009 "*UK Renewable Energy Strategy*" (the RES) sets the strategy for increasing the amount of energy generated from renewable sources. The Executive Summary to the Strategy opens with the statement that "*We need to radically increase our use of renewable electricity, heat and transport*."

5.63 The RES considers all methods of renewable energy generation, including that from the biodegradable fraction of waste. This is specifically set out in Section 4 of the RES under the sub heading "*Using more Sustainable Bioenergy*" (pp 103 – 128).

5.64 Paragraph 4.120 comments that biomass is a versatile source of energy. Box 4.4 of the RES sets out the different types of biomass that can make a contribution to the generation of renewable heat and power this includes "*Biomass from biodegradable waste and other similar materials … that would otherwise be disposed of in landfill*". It is noted at paragraph 4.121 that:

"*Our analysis suggests that using biomass to generate heat and electricity is a cost-effective way to meet the 2020 renewable energy target……. Our analysis indicates that around 30% of the UK renewable energy target could come from bioenergy for heat and power, rising to around 50% if biofuels for transport are included. In addition, it can provide the feedstock for a wide range of sustainable low carbon renewable materials and products."*

5.65 Paragraph 4.130 of the RES comments that waste biomass is an under-used resource which could provide a significant contribution to the renewable energy targets and reduce the total amount of waste that is landfilled. In relation to municipal solid waste, paragraph 4.131 recognises that significant increases in renewable energy generation could be achieved if the biomass currently landfilled were diverted to suitable energy recovery facilities.

5.66 Finally, paragraphs 4.179 to 4.184 of the RES consider ways to encourage more energy infrastructure to use biomass. At the present time, a barrier to fully exploiting biomass waste for energy is the lack of WID compliant combustion facilities, such as that proposed within the planning application. Allied to this, the Westminster Government is aware that the public do not fully perceive the benefits of energy from waste plants. There is active encouragement, referring to the PFI process, to develop more WID compliant

energy plants to use waste biomass. Box 4.9 cites the example of the Greater Manchester Waste Authorities plans for the management of its waste, which includes a facility for generating heat and power from the residual waste stream.

5.67 The role that energy from waste is expected to play in delivering renewable energy is recently confirmed in the UK Renewable Energy Roadmap, July 2011 (the Roadmap). This confirms the commitment to increasing the deployment of renewable energy because it will make the UK more energy secure, it will deliver jobs and investment and it will help deliver the UK carbon reduction objectives. The Roadmap confirms that biomass electricity is one of the eight main technologies that are capable of delivering more than 90% of the renewable energy needed by 2020, and that this includes the biogenic fraction of waste and covers a wide range of conversion technologies including anaerobic digestion and pyrolysis. It is therefore directly relevant to the proposed development. The Roadmap also recognises that energy from waste has the added advantage of extracting the value from biomass at the end of its useful life and reducing the amount of waste sent to landfill, which reduces methane emissions - a powerful greenhouse gas.

5.68 Of particular note to this planning application is the section on Biomass Electricity[6]. It identifies that the UK currently has 2.5GW of biomass electricity capacity (2010) and indicates that this could increase to up to 6GW by 2020. The majority of this growth is predicted to come from conversion of coal plant, dedicated biomass generation, biomass waste combustion and anaerobic digestion. Projects such as the proposed development are therefore seen as a key part in delivering this growth in capacity.

5.69 It comments on page 67 that biomass electricity is a predictable and non-intermittent technology. Within 'Box 7' the characteristics and fuel types of biomass electricity are summarised. Firstly, the term includes the biogenic fraction of waste material, such as municipal solid waste, other biodegradable waste including food and landfill and sewage gas. The final paragraph adds:

*"Biomass electricity has the advantage that it is both predictable and controllable and so can be used for baseload or peakload generation. Energy from waste has the added advantages that it extracts value from biomass at the end of its useful life and reduces the amount of waste otherwise sent to landfill and thus reduces methane emissions"*

5.70 The Roadmap also identifies that energy from waste schemes can face strong opposition from local communities because of concerns relating to health, traffic and impact on recycling. However to address this the Government has confirmed its support for energy from waste as part of its 2011 Review of Waste Policy, as follows:

- prioritise efforts to manage waste in accordance with the waste hierarchy and reduce the carbon impact of waste;

[6] Pages 67 to 77

- support energy from waste where appropriate and for waste that cannot be recycled; and

- work to overcome the barriers to increasing the energy from waste which anaerobic digestion provides.

5.71 It is therefore patently clear that national energy policy confirms that there is an urgent national need for renewable energy generation capacity to firstly reduce carbon emissions and secondly diversify energy generation to reduce future risks to supply.

5.72 It is also clear that the Government sees the use of biomass from residual waste to generate energy has an important part to play in the overall achievement of the UK's renewable energy target. Moreover, the Government is actively encouraging more energy infrastructure that is capable of using waste biomass.

## National Policy Statements

5.73 National Policy Statements (NPSs), issued by DECC, principally relate to Nationally Significant Projects *i.e.* energy facilities generating more than 50MW. However, referring to paragraphs 1.2.1 of EN-1 and 1.2.3 of EN-3 the general principles are likely to be a material consideration in decision making for applications that fall under the Town and Country Planning Act 1990 within England and Wales.

5.74 The policy set out in the NPSs is for the most part intended to make existing policy and practice clearer and more transparent, rather than to change the underlying policies against which applications are assessed.

### *EN-1*

5.75 The NPS indicates that energy is vital to economic prosperity and social well-being, thus it is important for the UK to have secure and affordable energy. This will necessitate a significant amount of infrastructure, both small and large. Rapid change is required, and global emissions of greenhouse gasses must start failing as a matter of urgency.

5.76 Section 3 of EN-1 acknowledges that the UK faces a major challenge in moving towards a low carbon economy and industry will need to develop significant amounts of new energy infrastructure in the coming years.

5.77 At paragraph 3.2.3, all decision makers are urged to give substantial weight to considerations of need for renewable energy. The key points to draw from Section 3 of EN-1 are :

- as much as possible (i.e. no cap);
- as soon as possible (urgent);
- technology neutral; and
- market led.

5.78 The NPS also states (paragraph 3.3.10) that the Government is committed to increasing dramatically the amount of renewable energy capacity, which will increasingly include plant powered by the combustion of biomass and waste. Large scale deployment of renewables will help the UK tackle climate change. In relation to energy from waste, EN-1 states at paragraph 3.4.4:

*"Biomass and EfW can be used to generate 'dispatchable' power, providing peak load and base load electricity on demand. As more intermittent renewable electricity comes onto the UK grid, the ability of biomass and EfW to deliver predictable, controllable electricity is increasingly important in ensuring the security of UK supplies".*

*5.79* Within the NPS the Government notes[7] that it "*is aware that there are also a number of energy projects (approximately 9 GW in total as of April 2010) that have obtained planning permission, but have not as yet started to be built. As we cannot be certain that these projects will become operational, the Government considers that it would not be prudent to consider these numbers for the purposes of determining the planning policy in this NPS".*

5.80 Given that the government considers that it cannot be certain that all planned capacity will get built, this means that there is a clear need for any renewable generating facility, which is in construction, to be able to operate to the fullest possible degree in order to meet the need identified in EN-1

5.81 Section 4.6 of EN-1 (paragraphs 4.6.1 to 4.6.12) address combined heat and power (CHP). The benefits, in terms of carbon reductions, are set out, along with the Government's commitment to good quality CHP. The NPS advises that "*substantial additional positive weight should therefore be given by the IPC to applications incorporating CHP*"[8].

## *EN-3*

5.82 This NPS indicates that the policies and general principles should be applied by local planning authorities in determining planning applications for renewable energy facilities as far as practicable.

5.83 EN-3 acknowledges (paragraph 2.5.2) that the recovery of energy from the combustion of waste will play an increasingly important role in meeting the UK's energy needs, and the biomass fraction of waste can also contribute towards the UK's renewable energy targets.

5.84 In the context of transport infrastructure, the NPS comments:

*"Although there may in some instances be environmental advantages to rail or water transport, whether such methods are viable is likely to be determined by the economics of the scheme. …"*

[7] Footnote 36 *ibid*
[8] Paragraph 4.6.8, EN-1

# LOCAL STRATEGIES

## Flintshire Waste Management Strategy

5.85 The Flintshire Waste Management Strategy (FWMS)[9] outlines how Flintshire will manage the collection, treatment and disposal of Municipal Waste collected by Flintshire County Council (FCC) over the period 2009-2025. A key aim of the Strategy is to improve environmental performance and to reduce the FCC's ecological footprint whilst maximising the use of waste as a valuable resource in line with the targets set out in 'Towards Zero Waste'.

5.86 The FWMS seeks to reduce the amount of waste going to landfill and to enable FCC to meet its Landfill Allowance Scheme targets to 2020. It identifies that FCC will continue to work closely with its regional partners through the North Wales Residual Waste Treatment Project (NWRWTP).

5.87 The strategy identifies that various technologies could be utilised to recover value from waste and that, across North Wales, there is a need for Local Authorities to work in partnership, through the NWRWTP to develop a regional network of waste management facilities. This will increase the proportion of waste recycled and composted and increase recovery value from waste resources, through the procurement of a residual waste technology for North Wales.

5.88 The strategy identifies that potential residual wastes technologies may include waste to energy and combined heat and power and that these should maximise recovery of resources from the waste stream and generate alternative / sustainable energy.

5.89 Parc Adfer is in keeping with the FWMS in that :

- It offers a solution to five partner Authorities working in Partnership across the North Wales Region; and
- It maximises recovery of resources by generating sustainable energy from a waste stream.

# SUMMARY

5.90 In addition to planning policies at the national and local levels, there are a range of other documents that are material to considering the merits of a planning application. For Parc Adfer, the key documents are:

- Towards Zero Waste (2010)
- The Municipal Sector Plan (2011);
- The Collections, Infrastructure and Markets Sector (CIMS) Plan (2012);
- The Industrial and Commercial Sector Plan (2013)

5.91 There is a consistent message throughout each of the documents, in that there is a need to reduce carbon emissions. This is to be achieved by firstly

[9] Waste Management Strategy 2009 – 2025. Flintshire County Council. November 2009

diverting waste away from landfill and secondly, to decrease the amount of waste that is produced, together with increasing the amount of waste that is either re-used or recycled, As such, by 2025 virtually all residual waste will be diverted from landfill to high efficient energy recovery facilities, such as Parc Adfer. By 2050, there should not be a need for any energy recovery facilities.

5.92 Each of the documents recognise the role facilities like Parc Adfer will play in the coming years leading up to 2050 and in each case, great weight is given to high efficiency energy from waste facilities for managing the residual waste stream