

FULL COUNCIL MEETING: TUESDAY 13 JANUARY 2009

CONSULTATION FROM THE SECRETARY OF STATE FOR ENERGY AND CLIMATE CHANGE ON AN APPLICATION TO BE DETERMINED UNDER SECTION 36 OF THE ELECTRICITY ACT 1989

08/01081/ELE: ENERGY PARK, LAND OFF STOREYS BAR ROAD, PETERBOROUGH

APPLICANT: PETERBOROUGH RENEWABLE ENERGY LIMITED (PREL)

DEPARTURE: YES

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- The subject of this report is a consultation from the Secretary of State for Energy and Climate Change (DECC) under the Electricity Act 1989.
- Peterborough City Council has been consulted by the Secretary of State as the Local Planning Authority, and must provide its response in respect of acceptability or otherwise or otherwise with planning policy. It has had four months in which to respond to this consultation. This period expires on 20th January 2009 and a short extension of time has been agreed to 9th February 2009 in order to enable this proposal to be considered by the Council and Cabinet. The Secretary of State has consulted Go-East and is also required to consult the Environment Agency and Natural England.
- It should be noted that the City Council is not the determining authority in this instance. It is for the Secretary of State to decide whether or not permission should be granted under the Electricity and Planning Acts for this proposal. If this approval is given then the proposal will also have deemed planning permission and can be implemented subject to the discharge of any outstanding conditions the Secretary of State adds, the issue of an Environmental Permit by the Environment Agency and any other approvals that may be required. If this Council, or any substantial objector, objects to the proposal then it is likely that there will be a public inquiry into the scheme.
- An application was previously submitted in 2005 for a Global Olivine Sustainable Resource Facility in a similar location. The City Council raised 16 objections to the Secretary of State on this proposal which differed significantly from the current one in scale of built development, throughput of waste materials and scale of energy generation. The applicant has now reduced the size of the development and sought to address the concerns previously raised by the City Council.
- Due to the scale of the proposal, and in the interests of ensuring that the recommendation is based on informed and impartial advice, the Council has employed consultants, ERM, to advise on a number of matters including the fit with national, regional and local policy, the efficacy of the Environmental Statement, the nature of the technology and the availability of waste/biomass in the wider area.

ERM were previously employed to review the application submitted in 2005 to the Secretary of State for a sustainable Resource Recycling Facility.

- This report considers:
 - a. the development in the context of national, regional and local planning policy;
 - b. site specific issues, and
 - c. the views of consultees and the representations of the public

Procedure at Extraordinary Council meeting

The extraordinary meeting is to enable a full and open debate on the proposal. Those members of the public and the consultees who have submitted a representation to the proposal have been invited to the meeting and will be able to speak to the proposal.

Following the consultation exercise, the views expressed will be referred to Cabinet for a formal response to the Secretary of State.

Executive summary

The proposed Energy Park would provide an innovative approach to the management of a range of waste and biomass that specifically targets recycling, reprocessing and recovery and eliminates the need for landfill. It is capable of handling municipal, commercial and agricultural waste and meeting the needs of the local Peterborough market. The facility would also provide an opportunity to encourage renewable energy generation that might be used to power new development proposed within the City. There are synergies with the adjacent power station and other industrial development nearby. By reducing emissions created by disposing of waste to landfill it would also have a positive role in respect to climate change.

That part of the development that falls within the allocated site (for waste management and energy related development) accords with policy. It is considered that the remaining development on land outside the allocated area and currently within the countryside could be justified subject to other planning issues satisfactorily being addressed as there are potentially positive benefits in terms of waste management, reduction in landfill and associated emissions, increased recycling and recovery of products, and the production of renewable energy to provide power for the National Grid or for new development. The overall benefits would need to outweigh the potential loss of farmland.

The development would contribute towards the diversification of Peterborough and would bring economic benefits to the City including the creation of new jobs. The development itself would also be well designed and landscaped into its setting, communicate its message and would bring biodiversity benefits. An extension to the Green Wheel is proposed. Other concerns, such as the potential impact on Flag Fen, have been addressed.

The proposal lacks the information necessary to make a positive recommendation on the proposal at this stage. Some fundamental information would need to be submitted (most significantly in respect of highways access; proximity to gas pipelines; development in the countryside contrary to the Local Plan) prior to determination of the application. Other information can be required to be submitted either prior to determination if it is critical to the grant of permission or through a planning obligation and conditions.

On current assumptions, the view could be taken that there is sufficient waste/biomass within the wider Peterborough area to fuel the facility and as a commercial operation. It would be for the operator to source appropriate materials within the catchment area proposed. The technology is relatively unproven at the scale proposed – but that is a commercial decision and risk for the operator – as in land use terms it is acceptable.

The Council's retained consultants, ERM comment on the lack of clarity of some of the processes. They also query the validity of some of the assumptions being made. Whilst these are valid to raise, the volumes of waste required broadly comply with research at county and regional level into the volumes of waste generated in the Peterborough area in the future.

Overall, if the proposed development was implemented, this would bring positive benefits for Peterborough. However, critical detail remains outstanding without which permission should not be granted for the facility.

1 SUMMARY OF THE MAIN ISSUES

The main considerations are:

- Sustainability, Climate Change and Renewable Energy

- Location of the site and justification of need
- Policy issues relating to the volume and sourcing of waste and biomass
- Policy relating to technology
- Mineral Safeguarding
- Economic and Employment Considerations
- Landscape and visual impact
- Biodiversity
- Archaeology and Flag Fen visitor centre
- Highways
- Amenity of nearby occupiers
- Flood Risk
- Pollution risk
- Health impact
- Security and safety of power station and utilities

Due to the scale of the proposal, and in the interests on ensuring the recommendation is based on informed and impartial advice, the Council has employed consultants, ERM, to advise on a number of matters including the fit with national, regional and local policy, the efficacy of the Environmental statement, the nature of the technology and the availability of waste/biomass in the wider area.

1 Recommendation

The Head of Planning Services recommends to the Executive that:

1. Peterborough City Council, as Local Planning Authority, submits a **HOLDING OBJECTION** to the proposal until such time as the matters set out in Appendix D are satisfactorily addressed by the Applicant
2. If the matters set out in Appendix D can be resolved to the satisfaction of the Secretary of State then prior to determination the application be referred to the Secretary of State for Community and Local Government as a departure from the development plan as it is contrary to policies LNE1 and LNE3 as only part of the site falls within land allocated in the Cambridgeshire and Peterborough Waste Local Plan for major waste management purposes (policy WLP18(h)) and for energy development in the Peterborough Local Plan (First Replacement) 2005 (policy U15) it constitutes development outside the urban area which would result in the loss of best and most versatile agricultural land and does not fall within the categories of development allowed in the countryside.
3. If, following referral, the Secretary of state for Energy and Climate Change is minded to grant permission for the proposal it is requested that this is subject to:
 - a) the imposition of appropriate conditions including those set out in Appendix E, and
 - b) a planning obligation with Peterborough City Council on the basis of the matters set out in Appendix F. (Waste catchment area and monitoring of waste imports, hydrological monitoring for Flag Fen, long term landscape management and maintenance, long term management of wildlife areas to maintain and enhance biodiversity interest, highway contribution, contribution and components of Travel Plan, creation of new cycleway as an extension to the Green Wheel and long term maintenance).

2 PLANNING POLICY

In order to comply with section 38(6) of the Planning and Compulsory Purchase Act 2004 decisions must be taken in accordance with the development plan policies set out below, unless material considerations indicate otherwise.

Relevant national policy documents:

Waste Strategy for England 2007 (Waste Strategy)
Planning Policy Statement 1: Delivering Sustainable Development (PPS 1)
Planning Policy Statement: Planning and Climate Change Supplement to PPS1 December 2007 (PPS1 Supplement)
Planning Policy Statement 7:Sustainable Development in Rural Areas (PPS7)
Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9)
Planning Policy Statement 10:Planning for Sustainable Waste Management (PPS10)
Planning Policy Guidance 13: Transport (PPS13)
Planning Policy Guidance 16: Archaeology and Planning (PPG16)
Planning Policy Statement 22: Renewable Energy (PPS22)
Planning Policy Statement 23: Planning and Pollution Control (PPS23)
Planning Policy Statement 25: Development and Flood Risk (PPS25)

Relevant Regional Planning Documents

The relevant policies are set out below:

East of England Plan 2008

SS1 – Achieving sustainable Development (accords with the principles)
ENG1 – carbon dioxide emissions and energy performance
ENG2 – renewable energy targets
ENV2 – landscape conservation
ENV3 – biodiversity and earth heritage
ENV4 – agricultural land and soils
ENV7 – quality of built environment
WAT1 – water efficient developments
WAT4 – flood risk management
PB1 – Peterborough Key Centre for Development and Change
WM1 – waste management objectives
WM2 – waste management targets
WM3 – reduction of imported waste
WM4 – waste to be managed within sub regions
WM5 – capacity to manage apportioned waste
WM6 – sustainable waste management procedures in construction projects
WM7 – hazardous waste management
MW7 – possible hazardous waste and other regionally significant facilities

Development Plan Policies

Relevant policies are listed below with the key policies highlighted.

The Peterborough Local Plan (First Replacement) 2005

DA1 – townscape and urban design
DA2 – Effect of development on Amenity and Character of an area
DA3 – Materials
DA7 – Design of the Built Environment
DA11 – Design for Security
DA12 – Light Pollution
DA13 – Noise
DA15 – development in the vicinity of hazardous installations
CBE1 –Archaeological remains of national importance
CBE2 – other areas of archaeological importance
LNE1 – Development in the countryside
LNE3 – Loss of Agricultural Land
LNE4 – Layout and design to safeguard landscape character
LNE9 – landscaping implications of development proposals
LNE10 – Detailed elements of landscaping scheme
LNE13 – Ponds, wetlands and watercourses
LNE14 – Sites of International nature Conservation Importance

LNE15 -Sites of National Nature Conservation Importance
 LNE17 – Other sites of Nature Conservation Importance
 LNE19 – Protection of Species
 OIW1 – General Employment Areas (includes OIW1.03 Eastern General Employment Area)
 OIW7 – Employment Uses Outside Identified Areas
 T1 – Transport Implications of new development
 T3 – Accessibility to development by pedestrians and those with mobility difficulties
 T5 – accessibility to development – cyclists
 T7 – Public transport accessibility to development
 T8 – connections to the existing highway network
 T9 – cycle parking requirements
 T10 – car/motorcycle parking requirements
 U1 – Water supply, sewage disposal and surface water drainage
 U2 – Sustainable surface water drainage
 U3 – Development in the Padholme Surface Water Catchment
 U5 – Floodland and Washland
 U6 – development at Risk of Flooding
 U8 – Access to Watercourses
 U12 – Protection of Utility Mains and Plant
 U13 – Efficient use of Energy
 U14 – Energy from renewable sources
 U15 – Site for Renewable Energy Production
 IMP1 – Securing satisfactory development

Consultation has recently been completed on both the Preferred Options stage of the Peterborough Core strategy DPD and the Issues and Options stage of the Peterborough Site Specifics DPD.

Cambridgeshire and Peterborough Waste Local Plan 2003

WLP1 – sustainable waste management
 WLP2 – Resource Recovery –Materials and Energy
 WLP3 – Need for waste facilities, and restrictions on catchment areas
 WLP4 – highways
 WLP5 – transport of waste – proximity principle
 WLP7 – protection of landscape character
 WLP9 – protecting surrounding occupiers
 WLP11 – protected species
 WLP12 – archaeology and the historic environment
 WLP15 – water resources and pollution prevention
 WLP16 – land drainage and floodplain protection
 WLP18 – major waste management facilities
 WLP21 – inert waste recycling
 WLP23 – non-inert materials recovery facilities
 WLP21 – inert waste recycling
 WLP27 – Energy from Waste

Also Location and Design of Major Waste Management Facilities SPD

Cambridgeshire and Peterborough Minerals and Waste Development Plan Documents – Core Strategy (C&PM&W CS) and Site Specific Proposals (C&PM&W SSP) – Preferred Options 2 consultation September/October 2008

Planning Obligations

Planning decisions can be influenced by material planning considerations when dealt with prior to the application being decided.

The applicant has indicated its willingness to enter into a Planning Obligation to address a number of matters fundamental to the success of the proposed facility and which cannot be addressed by condition. These include:

- Peterborough catchment area restriction for the sourcing of waste and biomass (not biomass crops), and monitoring of waste imports;
- off site landscaping to screen Flag Fen;
- long term management of biodiversity areas beyond the 5 years following implementation;
- extension to Green Wheel Cycleway areas from Storeys Bar Road to Flag Fen;
- Hydrological Monitoring outside site boundary (Flag Fen);
- Contribution for and implementation of a Travel Plan; and
- Highway contribution.

The applicant's solicitor has been instructed on S106 on the basis of the above heads. These matters would otherwise be of concern to the Council and any permission granted by the Secretary of State should be subject to a planning obligation to address these matters as well as appropriate conditions.

The planning obligation can be justified as there are 'off site' requirements, including the need to ensure that the site is adequately landscaped and integrated into the surrounding area by planting off site, particularly to screen Flag Fen visitor centre from the development, and to ensure the long term management and maintenance of that planting. Additionally there are areas proposed to produce biodiversity benefits and these areas need to be maintained in the longer term. This accords with policies WLP7 and LNE10 which provides for a scheme for the provision and retention of landscape and ecological features on the site. The provision of an extension to the Green Wheel cycleway to serve Flag Fen accords with policy T5. It is also appropriate in sustainability terms to restrict the distance within which waste and biomass would be sourced to limit the impact of transport on the surrounding area and this accords with policy WLP4.

3. DESCRIPTION OF THE SITE, ITS SURROUNDINGS AND THE PROPOSED DEVELOPMENT

The Site and the Surroundings - The overall site is some 13.7ha in extent and is accessed off Storeys Bar Road. Approximately 10ha of the site lies to the south of Storeys Bar Road adjacent to the Peterborough Centrica gas fired Power Station to the west. This area is where two process buildings, the WEEE/Re-use building and the workshop would be located. The proposal also includes a further 3-4ha of land currently located to the north of Storeys Bar Road which will be required to undertake the proposed realignment of the road and within which the visitor centre would be located.

The land, the subject of the application, is open and flat and is currently in agricultural use (best and most versatile – grade 2/3a. Only 35% of the site (5ha) is currently allocated in the local plan for either waste management or energy related development (policy WLP18(h) and policy U15). The allocated site is located within the Fengate Industrial Area west of the power station and settling pond and to the north of the Anglian Water operational land and would contain one of the process buildings. The unallocated part of the site extends eastwards and northwards from the allocated area into open farmland.

Further to the east lies the Flag Fen Visitor Centre the grounds of which also lie to the south of the development beyond the Cats Water Drain. The hinterland to the north, south and east is currently agricultural although the land to the north of Storeys Bar Road, known as Red Brick Farm, has been put forward as an urban extension in the Peterborough Site Specifics DPD and is currently the subject of planning and development discussions with the landowners.

The Padholme Drain runs through the site in a west/east direction and separates what would be the operational area from the visitor centre. The National Grid gas pipeline runs through the site in a north east/south westerly direction to the west of the proposed visitor centre and between the process buildings.

The Proposed Development - The proposal is for an energy park which would take in up to 650,000 tonnes of waste (household, commercial, some industrial, agricultural and also elements of construction and demolition) and biomass per annum. The recyclables would be separated out and the remainder would be turned into reusable products or renewable energy by a gasification process. Under the promoter's plans there would be no residual waste to be taken to landfill.

The facility would generate up to 66MW of electricity per annum. Of this 18MW would be used on site to power the plant and the site as a whole, and the remaining 42MW would be exported to the national grid or to be utilised for combined heat and power (CHP) on nearby development areas, such as Red Brick Farm.

The facility would be able to take unsorted commercial, industrial or municipal waste; segregated recyclables; bespoke biomass crops; agricultural waste and combustible waste from construction and demolition work. Water required for the process would be sourced from the Flag Fen Sewage Treatment Works.

The maximum process capacity of 650,000 tonnes represents the amount of mixed household waste that would be needed for the stated energy conversion process. Where material has already been sorted, then the typical biomass from waste capacity for the facility is 4-500,000 tonnes per annum as the energy content is higher. The minimum design tonnage, at which the plant is stated to run at an optimum loading, is 360,000 tonnes per annum. The larger plant has further economies of scale which is important to the applicant's business model.

Based on current market availability, the annual throughput would comprise some 350,000 tonnes of segregated biomass and 165,000 tonnes of mixed waste. This business model is based on a smaller scale of operation than that previously proposed for the Global Olivine scheme submitted in 2005 but it is still dependent on this scale of input and composition of the waste/biomass, to be viable.

A catchment area restriction is proposed which would require no more than 20% of the waste to be sourced beyond Peterborough, Cambridgeshire and a radius of 32km from the site. This would not apply to biomass crops. The applicant has stated that the promoters have letters of intent to supply 350,000 tonnes of segregated biomass and biomass crop which is about 75% of the annual combustion requirement for the Park.

The food bio-reactor has a capacity of 35,000 tonnes per annum. This would be used to either produce heat or fertiliser.

The facility has the ability to produce 160,000 tonnes of recyclables per annum (assuming that 600,000 tonnes of waste are handled).

The Energy Park would comprise:

- two fully enclosed materials recycling, conversion and manufacturing buildings (comprising materials receipt and recycling hall, recycled material store and biomass storage, food waste bio-reactor/digester, biomass energy conversion area with 9 stacks; dry cooling system; plasma enhanced vitrification area and remanufacturing processes), These have been named 'Ethel' and 'George' and both would be constructed in one stage;
- Research and development centre with visitor space;
- WEEE and Furniture Re-use Building;
- Administration Building;
- Vehicle Store/Workshop;
- Weighbridge and access roads;
- Landscaping and habitat creation (including lakes, reed beds, brown and green roofs, tree belt and meadow border); and
- Carbon sequestration facility.

The proposal also includes the realignment of Storeys Bar Road between Edgerley Drain Road and Vicarage Farm Road and the site access, a new pelican crossing, shared footpath/cycleway on Storeys Bar Road and an extension to the Green Wheel cycle network to serve Flag Fen visitor centre. A total of 131 on site vehicle spaces are proposed for employees and for visitors.

During the construction phase 200 – 300 people would be employed in developing the site. Once operational the facility would employ some 129 people in jobs ranging from scientists and laboratory staff to charge hands, engineers and cleaners. There would be a three shift pattern (6am – 2pm; 2pm – 10pm

and 10pm – 6am) so that most employees would be entering and exiting the site outside peak hours and there would be shift overlap.

All the processes would take place within buildings. The eaves of the two main process buildings vary between 15 and 17m. in height with the highest ridge height being 19m. Each of process buildings would include stacks of approximately 35m. in height (6 on Ethel and 3 on George). The R&D building would be four storey at its highest point.

The R&D building has been designed to be an iconic building, to reinforce the scientific technology in the plant, with a sloping glass roof and includes solar active sails for shading and use of heat from the main plant for cooling and heating. The central space has been designed as visitor space with learning walls and interactive media. There would also be a restaurant, a library, lecture facilities and classrooms. The expo space would be used to showcase low carbon technologies employed in the industry. The applicant has confirmed that the development will be constructed to BREAMM/Eco building assessment 'good' standard or better.

The WEEE building will be used to repair and re-use donated or returned equipment such as fridges and washing machines. It is aimed to remove 500 tonnes from landfill each year.

There would be a comprehensive landscape scheme for the site and opportunity is also being taken to incorporate elements to encourage biodiversity. The proposals include a meadow corridor in the middle of the site between the two main process buildings (underground services restrict use), a woodland corridor to the east which should soften the lines of the development when viewed from Flag Fen and to the northern side of the site wetland habitat incorporating ponds and reed bed. Areas of brown and green roofs are also proposed.

The company is proposing a Community Cohesion Fund which would create an annual £300,000 community fund administered by a trust. This would be used to support community cohesion and education within the environmental sector across the City.

The Process – On entering the site all mixed wastes would go to Building George and taken to the waste recycling centre to go through an advanced Materials Recycling Facility to clean and separate out the recyclables. Recyclables include glass, plastics, metals, textiles and grits. The biomass left will be treated to destroy bacteria and converted to a biomass fuel, which will be containerised. It is then fed into one of the combustion units, where it is combusted under gasifying conditions and then fed into a steam turbine.

The biomass would go directly to Building Ethel and would be compacted into a container if loose.

Batteries, light bulbs and other similar materials will processed via plasma vitrification. Each building contains a unit which will recover

- Glass from waste and from vitrified ash
- Separate ferrous and non-ferrous metals
- Separate for recycling plastics
- Recycle normally non recoverable metals
- Sulphur in colloidal form
- Mercury
- Recover chlorine as hydrochloric acid

The output will be renewable electrical energy, glass products, colloidal sulphur and hydrochloric acid, metals, fertiliser and low grade heat as saleable products.

The Previous Proposal – An application for a larger 'Global Olivine' facility, with a design capacity of 1.2 million tones of waste per annum and an installed electrical capacity of 126MW, was submitted to the Secretary of state in 2005. Peterborough City Council resolved to object to this proposal due to conflict with 16 policy areas. This application was due to be considered at a public inquiry in autumn 2007 but was deferred as the applicant wanted to make changes to the proposal to take into account the Council's

concerns. This has resulted in the submission of the current application. However, the original application is still pending.

The current application is materially different from the previous proposal:

- The footprint of the buildings is smaller, the overall height of the buildings is much less (up to 19m. instead of 37m. with chimneys of 36m. instead of 72m.) The design of the buildings is more sympathetic to its location and landscaping and biodiversity improvements are incorporated in the scheme;
- The throughput was previously proposed as 1.2m. tonnes of waste materials whereas the maximum throughput is now 650,000 tonnes of waste materials and biomass crops;
- Energy generation was previously proposed to be 126MW per annum whereas it is now reduced to 66MW;
- The facility will employ 109 people rather than 70 previously proposed;
- The archaeological issues and relationship with Flag Fen Bronze age site have been addressed; and
- the biodiversity issues have been addressed and the technology now proposed is operating in this country, albeit at a smaller scale.

4 PLANNING HISTORY

This is set out in appendix A.

5 CONSULTATIONS/REPRESENTATIONS

These are summarised here with the LPA response and set out fully in Appendix B

INTERNAL

Archaeological Officer: the archaeological potential of the site has been clarified. There will be some impacts on Flag Fen but these can be mitigated.

Head of Planning comment: *Issues relating to hydrological monitoring and screen planting can be addressed through a planning obligation. Other matters such as the effect of construction operations on Flag Fen can be addressed by condition.*

Transport and Engineering Services: Object. Many matters of detail still to be addressed and no safety audit supplied.

Head of Planning comment: *The resolution of outstanding highway issues is fundamental to the success of the scheme and it is considered that permission should not be granted for the development until these are fully addressed, a safety audit undertaken and the Secretary of State should be advised accordingly. Some matters such as the Travel Plan can be dealt with through the Planning Obligation and other matters by condition.*

Pollution Team: Further information required on vibration, construction noise, dust and lighting.

Head of Planning comment: *The Secretary of State should be asked to request further information to support the Environmental Statement. Some matters such as the Construction Management Plan and lighting details can be dealt with by condition.*

LPA Landscape Architect: Landscape and visual assessment thorough and no objections to findings. Flag Fen is an important receptor.

Head of Planning comment: *Planting to screen Flag Fen can be addressed through a planning obligation.*

LPA Wildlife Officer: A thorough assessment of onsite ecology has been undertaken and positive biodiversity enhancement proposed.

Head of Planning comment: *The details of the biodiversity enhancement can be addressed through a condition and long term wildlife management through a planning obligation.*

LHA Rights of Way officer: Would prefer a different route for the proposed cycleway to Flag Fen that avoids traffic on Storeys Bar Road.

Head of Planning comment: *This has been explored but Anglian Water has objected to an alternative route as landowner and there are also LHA objections to the use of Fourth Drove. However, the route proposed does need to be secured by planning obligation as it is only offered on the basis that the Environment Agency does not object to a bridge over the ditch.*

LPA Policy and Research: It is considered that the proposed development would, on balance, make a positive contribution to the delivery of regional policy aims, objectives/targets; and a significant contribution to the delivery of local policy objectives/targets with particular regards to climate change; renewable energy and waste management.

External

East of England Development Agency: Proposal will contribute positively to regional ambitions to reduce CO2 emissions, create new jobs, generate energy from renewable sources and to commit to environmental technologies.

Opportunity Peterborough: Supports the PREL scheme as it can make a valuable contribution to Peterborough's environmental capital aspirations.

HSE: Land use planning is based on risks to people near high pressure gas pipeline.

National Grid (gas and electricity): Object. There are concerns about the proximity of the development to high pressure gas mains and the need for access to carry out essential maintenance.

Head of Planning comment: *The HSE and National Grid comment both relate to the same issue and will need to be addressed before permission is granted as there may be a need to amend the design to accommodate the concerns raised. It is felt that the design can be modified to accommodate this objection. The Secretary of State needs to be advised of this.*

Natural England: Based on information provided Natural England is satisfied that the development is unlikely to have a significant effect, either alone or in combination, on either the Nene Washes SPA/SAC or Orton Pit SAC. No Appropriate Assessment is required and no objection is raised.

RSPB: Welcomes a renewable energy development and the opportunity to enhance UK Biodiversity species. Long term management is required of habitats created on the site to continue to provide optimal biodiversity benefits.

Head of Planning comment: *Long term management of habitats would need to be included in a planning obligation.*

Anglian Water: Positive comments in support and there is capacity to deal with foul drainage.

Architectural Liaison Officer: Applicant needs to demonstrate that crime risk can be dealt with including boundary treatment, parking and security and how the buildings themselves will be protected.

Head of Planning comment: *This can be dealt with by condition. The 24/7 staffing will assist this objective.*

Environment Agency: No objection subject to condition for the submission of surface water drainage scheme conforming to Padholme Strategy. During permit determination a detailed assessment of operational performances, together with the environmental impact of the emissions, will be undertaken.

Atkins Water: A detailed surface water drainage scheme is required prior to commencement.

Head of Planning comment: *Condition required on surface water drainage. This authorisation process runs in parallel with the planning process.*

Eye Parish Council: No objections.

Cambridgeshire County Council: No objections in principle to waste catchment as proposed but monitoring should be secured by condition. Municipal waste in Cambridgeshire is already comments to the MBT plant near Cambridge. Consideration of alternatives should have included Alconbury Airfield.

Head of Planning comment: *The waste catchment area and waste monitoring would be secured through a planning obligation. This plant, like the others, will have a market share which will be eroded by others at the margins but will be developed through the success or otherwise of its business operations.*

Flag Fen Archaeological Site: Specific concerns about mitigation of development impact: visual impact; construction impact; and traffic routing. Welcomes new spike to the green Wheel and considers that the scheme has a smaller impact footprint than previous one and that concerns over monitoring and management of hydrology have been addressed.

Head of Planning comment: *Screen planting, implementation of Green Wheel cycleway extension and hydrological monitoring can be part of the planning obligation. The submission of details of hydrological scheme can be conditioned.*

Defence Estates: No safeguarding objections

Civil Aviation Authority: Do not object as facility will not involve flaring or gas venting or cause danger to aircraft.

Summary of Head of Planning comments: *The only fundamental concerns are those raised related to the details of site access and arrangement by the Highway Authority and the National Grid. Until these are addressed permission should not be granted but there is a strong probability that they can be met. Other matters can be addressed through a planning obligation or through the imposition of conditions. In contrast to the previous proposal, there are no fundamental objections from statutory consultees, with many consultees positive about the proposal or raise no objections.*

REPRESENTATIONS

The Council has notified over 5000 local residents and businesses located within 2km of the site and site notices were placed in the vicinity of the site. This was due to the previous precedent. The applicants also advertised the proposal in accordance with the EIA Regulations. Additionally there were articles in the local newspaper about the proposal.

There have been fewer than 70 responses from the public – the majority of which are positive about the proposal. The details of the nature of these responses and the issues raised are set out in Appendix B together with the Head of Planning comment. Most of those objecting tend to live in the Parnwell area and have concerns about an increase in HGV traffic on local roads, and the possibility of amenity impacts. These matters are addressed elsewhere in the report but overall it is considered that any impact is likely to be relatively small if the requested conditions are met.

ERM Conclusions Advising the LPA

ERM has carried out a review of the application package and the Environmental Statement to consider the adequacy of the submitted a report in respect to:

- policy, and

- compliance with the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000 (the EIA Regulations) and EC Directive 85/337/EEC as amended by Council Directive 97/11/EC.

This is set out in appendix C.

ERM's main conclusions are:

Review of Policy: A high level review of waste management and energy generation policy indicates that the proposal could be useful in delivering key national policy objectives. However, it is necessary to look more closely at the submitted details in order to understand whether the level of contribution that could be made would be appropriate; and how the potential benefits would be realised.

The submitted details state that the strongest possible support is given to schemes of this nature in national policy and therefore it is not necessary to demonstrate either overall need or to justify the chosen location. This interpretation of policy is only partially correct.

ERM would agree that sincere and significant support is given to those proposals that would enable waste to be managed sustainably, and would generate renewable energy. However, it is insufficient for the applicant to simply state that these benefits will occur without demonstrating their case, and how any adverse outcomes can be successfully mitigated.

The PPS1 Supplement identifies |(paragraph 11) that information sought from applicants should be proportionate to the scale of the proposed development. The application submitted by PREL proposes a very large facility that requires land beyond the urban boundary – it is correct that an appropriate level of detail is provided within the application to enable a proper understanding of its benefits and burdens.

Waste need: The application details do not present unambiguously the waste tonnage required by, or available to, the proposed facility. The waste arisings forecast in the *Planning Statement* are broadly consistent with those of the recently published *WMS for Cambridgeshire and Peterborough 2008*.

It is not possible to conclude whether these required inputs are available, or whether the proposed facility would make an appropriate level of contribution to waste management needs within sub region, or more widely.

Biomass need: The Planning statement does not contain any information on current biomass arisings within the catchment area. The headline figures discussed above are an indication of what biomass could potentially be available to the proposal. At this level of assessment, there would appear to be sufficient biomass arisings available to the proposed facility.

However, there is limited information on how this feedstock is currently being managed or where it would be sourced from. Further, the Planning statement does not clearly identify how, in practical terms, this feedstock would be secured and delivered.

Technological Assessment: On first inspection, the PREL application seems to present a series of plausible processes, as each of the unit operations are being offered in the UK. If the plant can operate as envisaged, it would be a major technical breakthrough, offering the ultimate combination of significant recycling, clean and efficient energy recovery, and no waste to landfill.

However, the application does not demonstrate that the plant can operate as envisaged. As such, ERM has some significant reservations about the proposed development. Several of the unit processes are largely unproven for treating mixed waste at a commercial operating scale. ERM are aware of other examples of energy park developments (such as Enviroparks' proposal at Hirwaun in Wales). However, these also serve to demonstrate that the combination of new technologies, and their high level of integration, presents an increased risk that difficulties will arise.

Their fundamental concern is the lack of mass and energy balances, showing a default feedstock split into the plant and its outcome. Ideally, a few alternatives would also be provided, to account for possible

variations in the balance of feedstocks, as there would typically be considerable uncertainty at this stage about what the plant will receive. The fact that this information is not provided is a serious cause of concern, and raises the question of how well PREL understands its proposition.

In addition, in preparing this assessment, ERM has had to make a number of fairly fundamental assumptions and inferences – notably that less than a third of the plant feedstock will be waste (as opposed to energy crops) and that the bioreactor is an anaerobic digester. More details are required on the process in general and for the unit operations (dry autoclave, bioreactor, gasifiers, plasma arcs) in particular.

It is important for these processes to be understood within the planning arena. It is appropriate for the planning system to have confidence that it understands the development being proposed and that it will result in the predicted benefits and burdens, and the timescale within which these impacts will be felt. This is particularly important in circumstances such as this where the submitted details appear to overestimate the potential benefits that would be gained.

Environmental Statement (ES): The overall finding is that the ES and the supporting documents are comprehensive and is clear in conveying the significance of the impacts described throughout all of the topic assessments. It is considered that it is unnecessary to request further information in respect to Regulation 19(1) of the EIA Regulations although some clarification is required to enable PCC to make a more informed and robust decision.

Head of Planning comment: *It is considered that the proposal as submitted permits an understanding of the project and its business case in broad terms, it does not to fully satisfy all the planning tests. Further information will need to be submitted prior to the determination of the application (as set out in the recommendation) and that permission should only be granted after the pre-conditions are satisfied.*

In respect to the catchment area the applicant has stated that it is satisfied that there is sufficient waste and biomass available within the area (all of PCC, CCC and a 32km radius from the site). The proposed catchment also provides for 20% of the feedstock and any biomass crops to be sourced outside these boundaries – and this does not appear to be fully taken into account by ERM and they also understate the ability of the promoter to flex the business to meet varying market conditions.

The LPA should not be overly concerned with the detail of technology proposed as these are fundamental to the business model adopted and if incorrect will fail the business.

ERM comments on the sourcing of waste and the mix of waste/biomass to be imported takes no account of the commercial basis of the development and its operation within the market place. It is likely that over time the mix of waste/biomass will change depending on commercial arrangements made and what contracts are available, the competition for these and the need to ensure the continuing viability of the facility. The lack of this information does make it harder to check potential validity of some assumptions made by the applicant but, nevertheless, the volumes of waste required seem to broadly comply with research undertaken at regional and county level into the volumes of waste generated in the Peterborough area in the future.

6 REASONING

a) Introduction

The Council's response must be framed in respect of its conformity or otherwise with planning policy, given that Section 38 (6) of the Planning and Compulsory Purchase Act 2004 states that 'regard is to be had to the development plan unless material considerations indicate otherwise'. PPS1, 10 and 222 also advise that in considering energy and waste planning applications, planning authorities must have regard to the policies in these PPS's as material considerations, which may supersede the policies in their

development plan as may be the case in the interim period whilst local plans are being updated and replaced by Local Development Frameworks.

Sufficient information is required to determine whether or not the proposed development is consistent with national, regional and local policy considerations. This submission contains numerous inconsistencies and errors, some of which have been amended and are relevant to consideration of the proposal. There is also a misunderstanding of the status of the site in planning policy terms and a lack of justification of some relevant policy matters such as loss of agricultural land and mineral safeguarding. There is a lack of sufficient information in the areas highlighted in Appendix D, which are considered to be crucial to a positive determination. These should be addressed and submitted for assessment prior to determination of the application by the Secretary of State.

b) Policy issues

Sustainability, Climate Change and Renewable Energy

Renewable Energy

The planning system is expected to contribute to UK and global sustainability through providing the infrastructure needed by communities and securing resource and energy efficiency; both of which can be achieved through creating an attractive environment for innovation and investment in renewable and low carbon energy technology. Renewable and low carbon energy is defined in the PPS1 Supplement as energy produced from biomass and energy crops and energy from waste. The proposed facility would be instrumental in delivering these objectives.

PPS22 identifies that '*Increased development of renewable energy resources is vital to facilitating the delivery of the Government's commitment on both climate change and renewable energy.*' The proposed facility has the potential to contribute to all four elements in the Government's sustainable development strategy' contributing to the nations energy needs; reducing emissions of greenhouse gases; reducing reliance on diminishing supplies of fossil fuels; and creating jobs directly related to the development of new technologies.

Policy ENG1 (EoEP) states that local authorities should encourage the supply of energy from decentralised, renewable and low carbon sources.

Policy ENG2 supports the development of new facilities for all forms of renewable power generation and, in accordance with PPS22, sets regional targets to be achieved. The PREL Energy Park installed generating capacity represents 5% of the 2010 target. Export capacity of renewable electricity is given as 420,000 MWh per year.

However, there is a considerable level of investment required to deliver power and it is considered essential that the applicant demonstrates how the facility would be connected to the grid to a standard necessary for the amount of power it is proposed to be exported, the upgrading required to substation and connections to facilitate this and the timescale for undertaking this in relation to the construction of the plant. It is considered that this should be a pre-condition to any grant of permission as it is essential that the applicant demonstrates how the renewable energy benefits will be achieved from day one of operation.

The heat will potentially be made available through dedicated systems to neighbouring users such as the employment area proposed at Red Brick Farm development. Otherwise it would be fed into the National Grid.

It is considered that the proposal accords with policy U13 and policy U14 as the development itself would maximise energy efficiency without harming living conditions of local residents or harming the character or appearance of the surrounding area. The applicant has confirmed that the development will be constructed to BREAMM/Eco building assessment 'good' standard or better. It is considered that if permission is granted then there should be a condition imposed requiring this to be to BREAMM/Eco building 'Excellent' standard of construction to be met, including energy performance. Additionally the development would facilitate the production of energy from renewable sources. The merging

Peterborough Development Plan encourages the generation of heat and power to serve development areas although not currently allocating particularly sites for such development.

Head of Planning comment: it is considered that the proposal accords with national, regional and local planning policy to encourage the development of renewable energy and also to have energy efficient buildings. However, the applicant needs to demonstrate how the facility will connect to the grid so that the renewable energy benefits can be achieved.

Waste Management Policy

In the context of national waste management policy as set out in pPS10 and Waste strategy 2007, the application would make a major contribution to driving waste management up the waste hierarchy. Allowing waste to be disposed of at the nearest appropriate facility, co-location of waste and energy facilities, reducing reliance on and diverting waste from landfill (particularly biodegradable materials).

Local Plan policies WLP1, WLP2 and WLP3 also aim to achieve sustainable waste management by :

- Promoting regional self-sufficiency and the waste hierarchy (WLP1)
- Encouraging integrated proposals that recover resources from waste (WLP2), and
- Permitting proposals for major new waste development or major extension of existing waste development where there is a demonstrated need within Cambridgeshire and Peterborough (WLP3).

Whilst these policies are primarily concerned with sustainable waste management the potential for energy recovery is also recognised.

Head of Planning comment: The proposed Energy Park would make a significant contribution to achieving sustainable waste management, including diverting waste from landfill and increasing recycling and resource recovery, together with energy recovery within Peterborough and the East of England Region.

Site and Need

The current status of the site has been described previously.

In the Peterborough Development Plan Site Specifics DPD this site allocation has currently not been taken forward although there is a generic policy within the Core Strategy (Preferred Options) to encourage renewable energy in new development. There is also currently no proposal to alter the boundary of the industrial area to the north.

PREL have now made representations to put forward the site identified in this application as a proposed allocation in the Site Specifics DPD. A last representation has also been made by PREL in respect to the extent of the site identified in the Cambridgeshire and Peterborough Minerals and Waste Site Specifics DPD for waste management purposes

The proposed site is some 13ha in extent. The area, to the south of Storeys Bar Road, occupied by the two process buildings and actively used for the processing of waste and biomass, recycling and energy generation is approximately 10ha which is approximately double that currently allocated for waste management or renewable energy purposes in the local plans. Only one of the process buildings sits on the allocated area. The remaining 3ha is for the R&D/visitor centre, the alterations proposed to Storeys Bar Road and pond/reedbed areas which are an integral part of the development.

The area which is currently identified within the Waste Local Plan and Peterborough Local Plan under policies WLP18(h) and U15, is within the Fengate Industrial Estate and is within the urban area. The remainder of the site is not only outside the area allocated for major waste management development and/or renewable energy development but it is also outside the boundary of the urban area and is subject to policies that restrict development in countryside areas. It will also result in the loss of high grade best and most versatile agricultural land and as such is contrary to PPS7 which seeks to conserve such agricultural land. Nor does it comply with any policies for development in the open countryside such as LNE1. On this basis that part of the facility on the site currently allocated for major waste

management/energy development would accord with policy whilst that situated outside the designated area would be contrary to the development plan unless there are overriding materials considerations to overcome this conflict with policy.

Nevertheless PPS10 states that unallocated areas should be considered favourably when the proposals accord with its policies and those of the waste core strategy. This is broadly the case in this instance. However, the applicant has currently not acknowledged the loss of high grade best and most versatile land or made a case for its loss or for development to extend into a countryside area where very restrictive policies apply to development at a national and local level.

There is no particular justification for allocating a site of 5ha for waste management purposes. It is likely that this size of site was based on a generic site profile for a EfW plant or other type of major waste facility when the Waste Local Plan was prepared and technology has moved on since that time. The proposal now put forward indicates that the site is far too small for the type of technology and ancillary facilities proposed quite apart from the need for highway improvements.

It has been suggested to the applicant that it might be more acceptable in policy terms to agree to build the facility on a phased basis so that the process building within the currently allocated area was built first. However, the two process buildings have different functions – one would take mixed waste and the other segregated biomass. Also there is a lead in time of some 3 years following permission and the allocation in the Development Plan may have changed in that time period.

The Waste Local Plan acknowledges that EfW could be a source for combined heat and power and on this basis should be sited near built development – as would be the case here when the Red Brick farm development is constructed to the north. Assuming this development is built to the north of the proposed PREL site then the boundary of the urban area would be extended eastwards to that proposed by the PREL development.

Head of Planning comment: There is a case to be made for developing a larger site than that currently allocated in either local plan for major waste management/energy purposes. However, it is for the applicant to justify the need for a site of the size and in the location proposed and the resultant loss of agricultural land and development in what is countryside where restrictive policies apply. The development of the allocated site complies with local plan policy but it is considered that an objection should be maintained to development beyond the boundary of this area, contrary to policy LNE1 and PPS7, until the applicant has adequately justified the overriding need for this. It is proposed that the submission of this information is a pre-condition of any permission being granted.

Volume and Sourcing of waste and biomass

The Companion Guidance to PPS10 states that it is necessary to ensure that there is sufficient biomass within an agreed catchment area as this is a low value bulky material which is sensitive to transport distance. About 40km from the site is considered to be the maximum distance. In this instance the applicant has stated that there are letters of intent indicating that 350,000 tonnes of segregated biomass and biomass crop, which is about 75% of the annual combustion requirement for the Park, could be made available each year. This currently comprises straw, wood chippings and MDF chippings, all sourced from within 20 miles (32km) of the facility.

To ensure that excessive provision is not made with the Waste Local Plan area, policy WLP3 states that planning permission is dependent upon applicants entering into binding restrictions on catchment area, tonnages and /or types of waste. However, WLP3 also states that planning permission may be granted for waste development involving the importation of waste where this is demonstrated to be the best practicable environmental option (BPEO). Taking into account regional self-sufficiency, the proximity principle and the waste hierarchy. Following publication of PPS10 BPEO is no longer referred to but waste should be taken to the nearest appropriate facility.

The Companion Guide also states that the catchment should relate both to fuel crops and waste products. The applicant is prepared to have a catchment area restriction for waste but not for crops.

Head of Planning comment: The applicant has indicated that they are prepared to enter into a catchment area agreement and that there is a significant volume of waste/biomass within it and the energy Park would be the nearest appropriate facility to manage its disposal/recycling/recovery. Within this broad framework, the plant will operate as a commercial business, exploiting this market and taking market share from other operators which is not a matter for planning.

The development of new facilities for renewable energy accords with policy ENG2 which states that such development should be supported to facilitate the switch to renewable and low carbon sources. For the purposes of this policy, the means of generating electricity include energy crops and biomass otherwise destined for landfill and energy from agricultural plant, animals as well as domestic and industrial waste. It also states that the delivery of energy sources such as biomass and biofuels can bring significant economic benefits but the issue of location and scale needs careful consideration.

EERA have expressed concern that the scale of the proposal is such that there is unlikely to be sufficient feedstock without depressing the move towards waste reduction or recycling in the locality or otherwise taking waste from significant distances. Nevertheless they consider that if the catchment area restriction is applied their concerns will have been addressed.

The proposal relies on the figures in the East of England Plan, which is an adopted plan, but no reference is made to the work undertaken by Jacobs Babtie on the waste management statistical basis of the Cambridgeshire and Peterborough Development Plan 2001-2026 which would supersede information used in the planning statement and which was available before the application was submitted. This background work estimates that, for controlled waste, there was 1,166,000 tonnes of commercial and industrial waste and 328,000 tonnes of agricultural waste in 2006. This is 1,494,000 tonnes of waste excluding municipal, inert and hazardous waste. On the basis that the split between Cambridgeshire and Peterborough is approximately 70/30 then that makes 448,200 tonnes of waste available for disposal in the Peterborough area. Whilst this is, perhaps, a simplistic way of looking at it does give some indication that sufficient waste would be available in this part of the Plan area for a development such as that proposed at the energy Park especially as the actual catchment area would be drawn more widely than the city boundary and would extend into adjoining authority areas. ERM have made the point that the proposed 32km extension to the catchment area in addition to sourcing waste from PCC and CCC does not include many built up areas from which most waste is sourced. Nevertheless rural areas are sources of both biomass waste and biomass crop.

ERM have confirmed that there would be limited opportunity to process much municipal waste as Cambridgeshire has a contract with Donarbon to use its new MBT plant at Waterbeach near Cambridge. Peterborough is progressing its own waste facilities and adjoining authorities in Lincolnshire, Rutland and Northamptonshire either have their own facilities or produce limited volumes of waste. Indeed the Council, as waste management authority, is to submit a planning application for an Energy from Waste facility on a site to the south of the power station. This facility would be sized to process mainly municipal waste and it is considered that both facilities could co-exist due to the different markets that they would serve. The Energy Park is not dependent on municipal waste and is likely to be taking mainly commercial and industrial, agricultural or construction and demolition (wood etc) waste. Each proposal needs to be considered on its merits but the commerciality and procurement aspects of the market suggest considerable scope for change with all plants.

The commercial and industrial waste stream is likely to be the most significant and if the Energy Park is sourced solely from this waste stream it could manage up to 54% of the total arisings from this source. This waste stream is forecast to grow significantly through to 2026, the proportion falling to 30% of the total by 2026.

Simplistically about 66% of C&I waste is currently recycled or composted via Materials Recycling facilities or sent directly to reprocessors whilst 34% is landfilled. The Energy Park could, in capacity terms, provide a facility that could reduce the landfill element to nothing though it is actually likely to

displace existing recycling activity whilst making significant inroads to meeting and possibly exceeding recovery targets (75% by 2015) EoE WM Strategy and the 20% reduction in landfill, against 2004 figures, indicated in the Waste Strategy for England 2007.

Head of Planning comment: In reality, the Energy Park is likely to take waste from a number of streams partly determined by cost and availability. Whatever combination of waste streams are used it is considered that there should be sufficient quantities of waste materials from within the proposed catchment area.

The proposal may be able to process some of the residual wastes imported from London destined for landfill, thereby reducing the speed with which existing sites are filled, and therefore reducing the speed with which new sites have to be identified (EoE policy WM03). While this could be beneficial; providing the catchment area restriction for waste sources is implemented effectively and it does not lead to unnecessary increase in imported wastes their business model is not predicated on it.

The scale of the Energy Park is significant enough to influence/develop markets for recycled and recovered materials and products. The associated research facilities and proposed links to the university could be central in the development of the 'environmental technologies cluster' locally but also for creating markets for recycled materials/by products (EoE WM08).

The applicant has stressed that the Energy Park is not a waste management facility. Nevertheless it is likely that a significant component of the feedstock would be waste or biomass that is sourced from waste materials though it is acknowledged that biomass crops would also be used. The council has sought to consider the proposal in terms of its ability to dispose of different types of waste whilst maximising recycling and obviating the need for landfill but also as an opportunity for renewable energy generation.

New Technology

PPS10 states that the local authority can indicate the nature of the technology that a site may be suitable for but without being specific. In this instance the site was identified for Energy from Waste and also for a range of major waste facilities.

The process is a gasification process although the facility would also utilise a number of other relatively unproven and evolving technologies such as plasma enhanced vitrification and carbon sequestration. Some of these processes are relatively new in the UK and there are no other facilities operating at a comparable scale.

Head of Planning comment: It is not for the planning authority to specify the precise process or be restrictive and it is sufficient in local plan terms to indicate the general suitability of a site.

Mineral Safeguarding

The extended site lies within a Mineral safeguarding Area as identified in appendix D of the C&PMW Site Specific Proposal DPD. The Energy Park is classified as a 'major development'. The development of this land needs to be justified and if a case is made as to why it should be here rather than on land not affected by the safeguarding then every effort should be made to make best use of the available sand and gravel resources on site and minimise sterilisation of this limited resource. There is no reference to whether this has been taken account of in the selection process or, if it has, whether there is any intended use of on-site existing mineral resource. The extraction of mineral could assist in the creation of sustainable drainage in the form of balancing ponds/lakes and areas for biodiversity enhancement.

Head of Planning comment: Development within a mineral safeguarding area should be given due consideration prior to the grant of any permission for the development.

Economic and Employment Considerations

From the regional perspective the location contributes to achieving sustainable development by being located within one of the region's major urban areas (Peterborough) which is designated as a Key

Centre for Development and Change (EoE SS1, 2, 3 and E3) The location provides an opportunity to make the most of existing infrastructure and the potential to deliver improvements or extensions to it.

EEDA has comments positively on the proposal indicating that it will create new jobs in Peterborough and assisting with diversification of the economy as well as making a significant contribution to the reduction in carbon dioxide emissions over its lifespan.

Peterborough is identified regionally as having significant areas of deprivation (EoE SS5). The site is located close to deprived parts of the City. (EoE CS8 Regeneration).

Head of planning comment: The Energy Park has the capacity to deliver long and short term employment, training and educational benefits to the Central and East Peterborough Neighbourhood Investment Areas.

Site Specific Issues

Landscape, visual impact and design

There are open views from the site to the agricultural fields to the north and north east. Vehicles using Storeys Bar Road and Pearces Road are openly visible but beyond Halfpenny Toll farm only the tops of high vehicles are visible. The rooftop of Flag Fen visitor centre can be seen over intervening vegetation. The 5.9m. chimneys of the Whittlesey brickworks to the south east are visible above the intervening vegetation as are the 120m. high wind turbines at the McCain's factory. A series of power lines and pylons cross the fields. To the north there are no buildings within 1km up to Oxney Road.

The Council's landscape architect considers the landscape proposals to be well conceived and that the impact on landscape character will be insignificant in the longer term. It is acknowledged that there will be some adverse impact on Flag Fen but this will reduce in time as planting matures between this facility and the Energy Park. This will be dependent on screen planting off site which would be achieved through a planning obligation.

The issue of built development within the countryside has not been specifically addressed and if the scheme is built the edge of the urban area will extend further into what is currently open countryside. Nevertheless it is considered that the scheme complies with policies LNE4, LNE9 and WLP7 and with the SPD. Further the applicant has indicated its willingness to enter into a planning obligation in respect to the long term maintenance of the planting for the duration of the development – which accords with policy LNE10.

The external walls of the process buildings are proposed to be faced in cladding in various greys and oatmeal whilst the visitor centre/R&D building, which is more iconic, would be largely glass fronted. Overall the complex of buildings would have a relatively light appearance that would blend with the grey skies and the grey colour of the power station. It is proposed that the details of the facing materials are conditioned. Also that the applicant is required to build to BREAMM 'excellent' standard – again this can be conditioned.

Head of Planning comment: The landscape proposals are well conceived and the buildings are well related to the site and the surrounding area.

Biodiversity

A number of measures have been put forward to enhance the biodiversity of the site – currently mainly agricultural land and of limited diversity value other than for the ditches. A reedbed, lake, meadow area, brown and green roofs are proposed. Some concern has been expressed that these areas are not large enough to be significant. Nevertheless the opportunity has been taken to enhance the biodiversity of the area within the site boundary.

The Council's Wildlife Officer considers that the assessment of on site ecology has been thorough and ecological protection and enhancement can be addressed through the submission of detailed schemes.

Initially Natural England were concerned that there was insufficient information to decide whether or not an Appropriate assessment would be required because of the proximity of the site to the Nene Washes and to Orton Pit. Additional information has now been supplied in respect to predicted impacts of nitrate and acidity deposition and natural England are satisfied that there will not be a need for an Appropriate Assessment as it is not considered that there will be material impact on the integrity of a European site.

Head of Planning comment: Opportunity is being taken to enhance the biodiversity value of the site by the creation of new habitats and these can be maintained through a scheme drawn up as part of the Planning Obligation. It has been confirmed that no Appropriate Assessment will be required

Archaeology and Flag Fen visitor centre

Flag Fen is a Bronze Age site of international renown which is located only 600m. to the south east of the site.

An archaeological evaluation of the development site has been carried out to identify the possible continuation of the Flag Fen ceremonial landscape identified to the south and east. A 5% trenching was undertaken. No stratified ancient artefacts were recovered. The evaluation has confirmed that the site does not contain an extension to the activity on the Flag Fen site or during excavations in advance of the construction of the power station.

It would appear that the concerns raised by Flag Fen trustees to the impact of the previous proposal have been addressed in that the current proposal has a smaller footprint and is situated further away from Flag Fen visitor centre. There are also proposals to actively monitor and manage water levels so that recharging can take place if this is necessary. The impact on visitors is also addressed by the provision of a new cycleway extension to the Green Wheel, a commitment to ensure that noisy activity at the Energy Park does not conflict with visitor events and landscape screening. Nevertheless there could be some adverse effect on tourism during the construction phases of the development. Mitigation measures can be addressed by condition or through a planning obligation.

The proposal accords with policies WLP12 and CBE1 and CBE2 and the provisions of PPG16 as it provides for the protection of an existing archaeological site of international and national significance. An evaluation that was undertaken on site in accordance with agreed procedures resulted in little of interest being found on the site. However, it is recommended that a condition is imposed on any permission requiring an ongoing watching brief during the development stages and also that the proposed mitigation measures are clarified. This can be done by planning obligation requiring the submission of a detailed scheme and its implementation and monitoring.

Head of Planning comment: The archaeological evaluation of the site found little of interest although a watching brief is recommended during construction. Measures would be put in place to protect the archaeological value of Flag Fen and to limit any adverse effect on tourists as a result of the construction of the facility.

Highways

A Transport Assessment has been undertaken which takes into account existing development although not the Council's own waste management proposals on Fourth Drove.

A routing strategy has been devised so all HGVs would arrive and leave via the Storeys Bar Road and Vicarage Farm Road/Edgerley Drain Road junction to access the strategic road network (junction 5 of the A1139 Frank Perkins/Boongate) which would result in an insignificant impact on the residents of Parnwell.

Currently there are many errors and omissions in the transport assessment and the local highway authority has expressed concern about this and the lack of a stage 1 safety audit. On the basis of the current proposals it is considered that until the outstanding matters are resolved they do not accord with the requirements of policies WLP4 or T1.

PPG13 seeks more sustainable transport modes. This proposal seeks to include sustainable transport modes within the proposed Travel Plan by setting out alternatives to car use and proposing to reduce the amount of car parking spaces available on site each year. However, the view of the LHA is that it is impracticable to expect most shift workers to arrive at the site other than by car. It is also impracticable to transport waste or biocrop by other than road as the nearest rail siding is in the town centre and the material would still have to be transported from the siding to the site or visa versa.

Head of Planning comment: Further work needs to be undertaken to address inconsistencies in the Transport Assessment and to demonstrate that there is sufficient capacity on the highway network to enable this facility to be adequately served by road. Until such time that this is demonstrated it is considered that permission should not be granted and the submission of the outstanding information and a stage 1 safety audit should be a pre-condition.

Footpaths/Cycleways

The Council's Green Grid Strategy seeks to promote greater access to historical sites such as the Flag Fen site. The creation of a new cycleway which would give direct access to the rear of the Flag Fen visitor centre would accord with the implementation of this policy. The Rights of Way officer has expressed some concern about the route proposed, which exposes cyclists to traffic on Storeys Bar Road, and an alternative route was investigated that would have utilised the historic Cats Water Drain as a local corridor for landscape enhancement and biodiversity interest. However, a landowner has objected to the use of this route.

Head of Planning comment: Whilst the creation of a new cycleway is to be commended its provision is subject to the agreement of the Environment Agency. It is proposed that the creation of this cycleway should be included within the planning obligation and required to be provided as part of the development together with long term maintenance.

Amenity of nearby occupiers

All the waste store and recycling activities will take place within enclosed buildings which have a slight negative pressure. Additionally all waste would be placed within containers. By taking these measures the developers anticipate that smell from organic waste would not be an issue for local residents.

There will be emissions from the plant. However, limits will be imposed through the Environmental Permit which would be issued by the Environment Agency and without which the facility could not operate. The Agency has not indicated any specific concerns in respect to the operation of this facility and it is not the role of the Planning Authority to duplicate the role of the Agency.

Some residents in Parnwell have raised concerns about an increase in the number of HGV's in the vicinity as a result of the development. There will be some increase but steps would be taken to ensure that the transport impact on the area is minimised on local roads and most traffic is directed towards the Frank Perkins Parkway.

There is no reason why the facility should attract rats and other vermin if the waste is contained and there is a site management plan in place. This would be dealt with under the Environmental Permit.

A high quality of design and materials is proposed for the visitor centre and the scheme as a whole would be well landscaped and, over time, would blend into the surrounding area. Whilst the implementation of the proposal would mean that there is built development within a rural area it integrates visually as an extension to the industrial area and it is considered that the visual impact would not be materially detrimental to the amenity of local residents.

Head of Planning comment: It is considered that overall the proposal accords with policies WLP9 and DA2 and would not adversely affect the amenity of local residents.

Health impact

PPS10 states that modern, appropriately located, well run and well regulated waste management facilities operated inline with current pollution control techniques should pose little risk to human health. Detailed consideration of this is the responsibility of the pollution control authority (The Environment

Agency). Planning is in the public interest and health is material to this. If there are health concerns then the advice of the appropriate authorities should be drawn upon. In this instance few health concerns have been raised. A very limited number of residents have raised concerns about smells and emissions. However, this will be an enclosed process and any waste will also be containerised within buildings. The likelihood of nuisance from smell is limited. Emissions would also be within agreed limits. No response has been received from the Health Authority.

Head of Planning comment: Little concern has been raised to the proposal on health grounds. Whilst it is a material consideration for the planning authority any particular concerns are the responsibility of the pollution control authority.

Pollution risk

The Environment Agency is the appropriate pollution control authority and would ensure that any emissions are kept within acceptable limits.

If permission is granted for the Energy Park it will also be necessary to obtain an Environmental Permit from the Environment agency which will ensure that the facility meets all the standards in respect to emissions, water pollution and that the risk of flooding has been addressed and the detail of day to day operations on the site.

Head of Planning comment: The planning and pollution control regimes are separate but complementary with the planning system focusing on whether this is an acceptable use of land and the impacts on other uses rather than the control of processes or emissions. Planning authorities should work on the assumption that the relevant pollution control regime is properly applied and enforced.

Flood Risk and Hydrological Issues

A flood risk assessment was undertaken in accordance with the requirements set out in PPS25. This has demonstrated that the site is not a functional floodplain due to the presence of flood defences on the River Nene. The Environment Agency has requested that a scheme for surface water drainage for the site, based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development be submitted which must conform to the Padholme Strategy and must ensure that there is no increase in the risk of flooding post development, both to the site and third parties. Assuming that the applicant is able to comply with this requirement it is considered that the scheme will comply with PPS25 and local plan policies U3, U5 and WLP16.

The development is also intended to be highly water efficient and has the ability to utilise treated effluent from the Flag Fen sewage works. The applicant is also investigating supply options from the power station so as not to take infrastructure across Anglian Water land leased to Flag Fen. The alternative is tankered grey water supplies from the sewage works in Fengate.

The development includes green roofs and brown roofs to slow down rainwater runoff.

There is a maintenance margin to the Padholme Drain.

Head of Planning comment: Flooding is not an issue due to defences on the River Nene.

Security and safety of power station and gas pipeline

No concerns have been raised by either the Environment Agency or Centrica itself in respect to safety or security. However, significant concerns have been raised by the National Grid in respect to the proximity of the process buildings in particular and the realigned road to high pressure gas mains and the safety and maintenance implications of this. For example, the minimum distance required between a building and a high pressure gas main line is 31m. but only 16m. is proposed.

The only references to these services that can be found are in relation to the landscaping and construction constraints – even though the overhead power lines/pylons pass over the site and a gas pipeline cuts through the site. Policies U10, U11 and U12 are not mentioned at all. There is little reference to the provisions being made for these features, whether it is a reference to height or depth,

access for maintenance, appropriate safety procedures/distances within the construction phase or operations phase.

Head of Planning comment: Until such time as concerns about the proximity of built development to gas mains and electricity lines is addressed this is considered to be contrary to policy U12. It is recommended that it should be a pre-condition prior to the grant of any permission to address this issue as it may result in the need to relocate buildings.

Other issues

Alternative Sites

Five sites, including Storeys Bar Road, were considered in the Environmental Statement. These are all preferred sites listed in the existing Waste Local Plan. The alternative sites have been rejected with limited analysis and Cambridgeshire county Council have suggested that there should have been a more comprehensive approach with sites such as Alconbury Airfield being considered. It is also considered that the site at Whittlesey Brickworks should have been given more detailed consideration as this is still proximate to Peterborough and waste and biomass sources but is also, potentially to utilise the rail network for transportation in addition to using the road network. However, the applicant has selected an allocated site and therefore this is the main matter to be addressed.

None of the alternative sites would encourage a rail based solution and therefore the road based local access arrangements are common matters to be addressed.

Head of Planning comment: Whilst an alternative site assessment was undertaken it is considered that no in depth analysis was made and the sites assessed was not as comprehensive as, arguably, it should have been.

8 CONCLUSIONS

The proposed Energy Park would provide an innovative approach to the management of a range of waste and biomass originating in the Peterborough area, that specifically targets recycling, reprocessing and recovery and eliminates the need for landfill. It is proposed to be capable of handling municipal, commercial and agricultural waste and meeting the needs of the local market. The facility would also provides an opportunity to encourage renewable energy generation that may be used to power new development proposed within the City. There are synergies with the adjacent power station and other industrial development nearby. Through this and by reducing emissions created by disposing of waste to landfill it also has a positive role in respect to climate change.

That part of the development that falls within the allocated site (for waste management and energy related development) accords with policy. It is considered that the remaining development on land outside the allocated area and currently within the countryside could be justified as there are positive benefits. These include effective waste management using an allocated site, reduction in landfill and associated emissions, increased recycling and recovery of products, and the production of renewable energy to provide power for the National Grid or for new development. These benefits could outweigh the potential loss of farmland if they are substantiated and proven to be deliverable. However, it is necessary for the applicant to make this case prior to determination.

The development if proved viable would contribute towards “sustainable” City of Peterborough and would bring economic benefits to the City including the creation of new jobs. The development itself would also be undertaken in an attractive modern building complex. The scheme would bring biodiversity benefits and an extension to the green Wheel, improve the landscape context as well as having a benign impact on Flag Fen.

The issues listed at Appendix D require resolution prior to determination of the application. Other information can be required to be submitted either prior to determination if it is critical to the grant of permission or through a planning obligation and conditions.

It is considered, from information available, that there is sufficient waste/biomass within the wider Peterborough area to fuel the facility and as a commercial operation it will be for the operator to source appropriate materials within the catchment area proposed. Competing plants will capture market share and modify their catchments, as the waste and biofuel market develops. The technology is relatively unproven at the scale proposed – but that is a commercial risk for the operator although it does impact the scale of operation and the land required.

7 RECOMMENDATION

The Head of Planning Services recommends to the Executive that:

1. Peterborough City Council, as Local Planning Authority, submits a **HOLDING OBJECTION** to the proposal until such time as the matters set out in Appendix D are satisfactorily addressed by the Applicant
2. If the matters set out in Appendix D can be resolved to the satisfaction of the Secretary of State then the proposal constitutes a departure from the development plan as it is contrary to policies LNE1 and LNE3 as only part of the site falls within land allocated in the Cambridgeshire and Peterborough Waste Local Plan 2003 for major waste management purposes (policy WLP18(h)) and for energy development in the Peterborough Local Plan (First Replacement) 2005 (policy U15) it constitutes development outside the urban area which would result in the loss of best and most versatile agricultural land and does not fall within the categories of development allowed in the countryside.
3. If, following referral, the Secretary of State for Energy and Climate Change is minded to grant permission for the proposal it is requested that this is subject to:
 - a) the imposition of appropriate conditions including those set out in Appendix E, and
 - b) a planning obligation on the basis of the matters set out in Appendix F. (Waste catchment area and monitoring of waste imports, hydrological monitoring for Flag Fen, long term landscape management and maintenance, long term management of wildlife areas to maintain and enhance biodiversity interest, highway contribution, contribution and components of Travel Plan, provision of cycleway as extension to Green Wheel and long term maintenance).

APPENDIX A

PLANNING HISTORY

Application Number	Description	Date	Decision
P0318/77	Erection of farm building	13 June 1977	permitted
P0319/77	Erection of cattle feed store	13 June 1977	permitted
P1199/89	Industrial development (outline)	30 May 1990	refused
92/P0067	Industrial development for B1, B2 and B8 use classes	19 January 2004	refused
05/00678/ELE	Sustainable resource and recycling facility	PCO	20.5.2005
92/00003/OUT	Industrial development for B1(c), B2 and B8 use classes	REF	22.1.1992
06/00216/ELE	Overhead line modification and underground cable connection	COM	10.2.2006
08/01081/ELE	Energy Park comprising two fully enclosed materials recycling, conversion and manufacturing buildings (comprising materials receipt and recycling hall, recycled material store and biomass storage, food waste bio-reactor/digester, biomass energy conversion area with 9 stacks; dry cooling system; plasma enhanced vitrification area and remanufacturing processes), research and development centre with visitor space, WEEE re-use building, administration building, vehicle store/workshop, weighbridge, landscaping and habitat creation (including lakes, reed beds , brown and green roofs , tree belt and meadow border) and the realignment of Storeys Bar Road between the junction with Edgerley Drain Road and Vicarage Farm Road and the site access, pelican crossing, shared footpath /cycleway on Storeys Bar Road and extension to the Green Wheel cycle network.	PCO	21.9.2008

INTERNAL

Building Control Surveyor	25/11/08	No comments received
Archaeological Officer	1/12/08	<p>Preliminary Comments</p> <p>1. The archaeological evaluation has helped to clarify the archaeological potential of the application site. The entire site, with the exception of a triangular area north of Padholme Drain, was sampled by trial trenches. It is apparent that there are no large ancient structures or otherwise extensive archaeological remains on the site. Nevertheless, palaeoenvironmental remains survive in good states of preservation and any isolated artefacts and archaeological features are also likely to survive in good states of preservation. In order to address the remaining area of un-evaluated land and to secure opportunities for further archaeological recording during the construction process, it will be necessary to apply a standard archaeological PPG16 condition to consent.</p> <p>2. It is clear that there will be some impacts to the operation and setting of the Flag Fen Bronze Age Centre (noise, visual intrusion, traffic, etc.) and some possibility of detrimental hydrological changes. Suggested mitigation measures, such as on and off site monitoring of water levels and quality, have been put forward, but details have yet to be agreed. It would be appropriate to clarify the details of the proposed mitigation measures and secure their implementation through formal conditions and agreements. In addition to resources for monitoring and re-charge schemes the proposed mitigation measures mention 'S106 Agreement support for Flag Fen Trust' (para 15.6). This needs to be clarified.</p>
Transport and Engineering Services	11/12/08	<p>General comments –</p> <ul style="list-style-type: none"> a, Shift patterns are not conducive to using sustainable modes of transport especially in winter months. b. Conflicting information throughout this document, e.g staff numbers, parking spaces, etc. c. No justification provided regarding reduction in speed limit on Storeys Bar Road to 50mph. d. It is mentioned several times that the impact from this development will increase queue lengths at a number of junctions that are already at capacity but given the extent of existing queuing the impact from this development is negligible / marginal. This is not acceptable justification for no mitigation at the affected junctions. e. Straightening out of the existing bend to the east of the site access on Storeys Bar Road will only serve to increase speeds along Storeys Bar Road. This will not assist with the proposed reduction in speed limit to 50mph. f. Following on from the speed survey request and justification towards the reduction in speed limit, the LHA are concerned that if a speed survey were to be carried out on the existing carriageway, this would not be representative of the road once the realignment (and

		<p>straightening out) of Storeys Bar Road has been implemented. It is likely that speeds will be higher after the proposed realignment.</p> <p>g. Having visited site, the LHA are not convinced that the applicant owns sufficient land to carry out the widening of the carriageway to 7.3m, implementation of a shared use footway cycleway plus space for adequate waiting area at the Toucan crossing, plus adequate verges. It is apparent that a large drain runs adjacent on the south side of Storeys Bar Road and a ditch along the northern side of Storeys Bar Road with very little verge. The existing carriageway is approximately 6m wide. It would appear that one or both of the existing drains will be affected. If so, the EA will need to be notified.</p> <p>More inconsistencies within the Transport Assessment.</p> <p>22.12.08 The LHA is now satisfied that the land required for the proposed/required off-site highway improvements is shown either within the site edged red or land which is public highway. As such, the LHA no longer raise any objection in this respect.</p>
Travel Plan	9/12/08	<p>Contribution sought to enhance Local Link bus service. Two bus stops nearest development should be upgraded to bus shelters with Real Time Information. Raised kerbs should be installed by bus shelters. The proposal to link the cycleway from this development to Flag Fen is supported. A travel plan is required and has been submitted – comments made on the proposals.</p>
Senior Engineer (Drainage)	25/11/08	<p>No comments received.</p>
Pollution Team	25/11/08	<p>Noise –appropriate that 2008 data is used to assess this proposal.</p> <p>Construction noise – piling would have a significant impact at Red Brick Farm and complaints are likely. At Halfpenny Toll House the impact is substantial/major. The selection of piling methodology/equipment should be justified to demonstrate best practicable means. Vibration impact assessment should include predications for assessment of human response to vibration and for structural damage. Should development proceed then construction noise impacts will be inevitable and a construction management plan should be formulated to minimise impacts.</p> <p>Operational Noise – some consideration required of low frequencies. Reversing alarms could be a significant issue.</p> <p>Vibration – no information to support assertion that unlikely to have a detrimental effect on receptors outside boundary.</p> <p>Dust control – impact of dust during construction activities requires consideration.</p> <p>Lighting – recommend obtrusive light limitations</p> <p>Construction Management Plan required.</p> <p>Dust impacts and mitigation measures set out in Minerals Planning Statement 2 Annex 1</p>
Landscape Architect	10/11/08	<p>Landscape and visual assessment has been thoroughly carried out and no objections to findings. Description of visual impacts are thorough and fair. Landscape proposals are well conceived although the birds eye visualisations do not accord with their details.</p> <p>it is agreed that:</p> <ul style="list-style-type: none"> initially the local landscape impact will be slightly adverse, then moderate then minor beneficial later,

		<ul style="list-style-type: none"> it will have an insignificant effect on landscape character <p>Flag Fen will be the most important receptor with major moderate adverse on construction, diminishing as planting matures. Off site planting is critical to minimising the impact on Flag Fen and should be built into any consent.</p> <p>Comments: Para 10.15 reservations about using the standard growth rate for planting on bunds as typically these are much drier than surrounding areas and growth rates usually less. car parking to the west of the R&D building might be better to the east behind the building, and at the entrance to the site it would be interesting to have some arching detail on the internal bridge to reflect the R&D building.</p>
Waste Management Team	25/11/08	No comments received
Wildlife Officer	21/10/08	<p>Thorough assessment of onsite ecology undertaken. If permission granted then the approach outlined in the ecology chapter and appendices should be secured by condition. e.g. an ecological protection and enhancement scheme to be produced, agreed and implemented; working practices and habitat creation/positive biodiversity enhancement measures as outlined in the ES. Should include measures to minimise impact of lighting on wildlife; fencing of Adderley and Storeys Bar Road Drain CWS to prevent unintended impacts from construction activity, and nutrient poor soils/subsoils should be utilised for creation of grassland areas which are intended to be species rich /of ecological significance.</p> <p>Surface Water Drainage - many of the ecological receptors could be impacted by surface water drainage/water quality issues e.g. Adderley and SBR Drain, grey heron, kingfisher and dragonflies. Exact detail of surface water drainage not yet determined but if discharge to Padholme Drain required then water from roads and vehicle parking areas should go through a SUDs system designed to attenuate water quality prior to discharge. This could include measures such as swales or balancing ponds to attenuate water quality as well as discharge rates. Water purely from run off is less likely to require water quality attenuation prior to discharge</p> <p>Off site ecology/SSSI - advice required from statutory adviser.</p>
Rights of Way Officer	25/11/08	Has expressed concern at the proposed route of the footpath/cycleway from the entrance of PREL eastwards and then southwards towards Flag Fen. Would prefer a route from Fourth Drove along Cats Water Drain to Flag Fen as avoids the traffic and means that no bridge is required.
Planning Policy & Research	22/12/08	It is considered that the proposed development would on balance, make a positive contribution to the delivery of regional policy aims, objectives / targets; and a significant contribution to the delivery of local policy objectives / targets with particular regard to climate change, renewable energy, and waste management.

EXTERNAL

East Of England Development Agency	20/11/08	<p>Regional Economic Strategy (RES) ambitions include a target for reduction of regional CO2 emissions by 60% by 2031. The energy park will provide a significant contribution to this regional target as almost 12 million tonnes of carbon dioxide will be saved over the project's 20 year life. The RES also sets targets for the employment rate by 2031 with an indicative 20,000 new jobs in Peterborough by 2020. The energy park would create 109 full time jobs and local economic benefits throughout the construction period. The RES also sets challenging targets around resource efficiency and has a target of 20% of energy to be generated from renewal sources by 2020. The energy park could provide 20% of the 2010/2011 renewable energy target. Moreover this would be generated from renewable biomass and with no residual process waste. The proposal is a highly innovative advanced materials recycling facility and will provide a potentially important example of the region's commitment to environmental technologies and will bring with it an annual operation, maintenance and research budget of £12M/year. The Spatial Economy section of RES sets out key aspirations for Peterborough as an engine of economic growth. This includes diversification of the economy, access to education and improvements to the city centre. It is also important to strengthen the environmental technology cluster in the sub-region and reinforce the Environment City Status. Whilst it is clear that the proposal should have a positive impact on a number of RES ambitions there are local planning issues to be considered. A proportion of the site falls outside the allocated area in the WLP and PLP and is within open countryside. The site allocations review as part of the LDF may provide an opportunity to address this issue. The site is also adjacent to Flag Fen and there should be no adverse impact on this or related tourism. EEDA supports the application as it will contribute significantly to regional ambitions.</p>
EERA	16.12.08	<p>Regional policy is in the East of England Plan (RSS) which was formally adopted on 12 May 2008. The Peterborough Local Plan (First Replacement) was adopted in July 2005 and some of the policies within that Plan have been saved included some waste-related policies. Cambridgeshire and Peterborough Waste Development Framework is currently under preparation and consultation on the Preferred Options, Second Stage closed in October 2008. RPP Standing Committee 4 discussed this at their meeting on 10th October 2008. In assessing this application, virtually all policies within the Regional Spatial Strategy were considered. The application documentation refers to the Proposed Changes to the East of England Plan and the policies are cited incorrectly. In particular, the amounts of waste to be managed within the Waste Planning Authority Area of Cambridgeshire and Peterborough not correctly referenced. Development of new facilities for the management of waste in the East of England is usually welcomed to support the management of waste further up the waste</p>

		<p>hierarchy and to reduce reliance on landfill. However, the size of this facility is greater than would be needed simply to support the waste arising in the Waste Planning Authority Area of Peterborough and Cambridgeshire and there are therefore concerns that waste will need to be imported from significant distances to supply feedstock for the facility.</p> <p>Publicly available data sources show that this amount of waste will not be available from these sources in either Peterborough, Cambridgeshire, or indeed from the neighbouring counties.</p> <p>In many ways, the proposal is innovative and the development of such a facility would be welcome as an important contribution to the waste management capacity in the Region. However, the scale of this proposal is such that it seems unlikely that the feedstock could be supplied without either depressing the move towards waste reduction and more recycling in the locality, and/or otherwise importing the feedstock from a significant distance away</p>
Opportunity Peterborough	23/12/08	Currently Peterborough suffers from a lack of significant decentralised low carbon/renewable energy supply and therefore, provided that the PREL scheme does not create any additional significant environment, social and economic impact; we would suggest that the PREL scheme can make a valuable contribution to Peterborough's environment capital aspiration and OP would support it.
Chemical & Hazardous Installations	08/07/08	HSE's land use planning advice is based on the risks to people at the proposed development presented by the high pressure gas pipeline. Three zones determined by an assessment of risks.
The Wildlife Trust	25/11/08	No comments received
Natural England	06/11/08	<p>Information insufficient to undertake an appropriate assessment. Therefore it is not possible to ascertain whether there will be an adverse effect on the integrity of the European site. Permission cannot be granted at this stage.</p> <p>Natural England is supportive of renewable and clean energy developments in appropriate locations to reduce the rate of climate change.</p> <p>Natural England is of the opinion that the development is likely to have a significant effect on the European and international site either alone or in combination with other plans and projects. An appropriate assessment should be carried out. Likely impacts on the large drainage channel supporting spined loach by increased nitrogen and acid deposition, and seasonally flooding wet grassland supporting internationally important numbers of birds due to increased nitrogen and acid deposition. No information relating to deposition of nitrogen or acidifying pollutants. It is not possible to ascertain that there will not be an adverse effect on the integrity of a European site and permission cannot be granted at this stage. Natural England require to</p>

		<p>be consulted again once the requisite information is available. It may be necessary to consider the impact of this project in combination with other plans and projects i.e. ERRF on Fourth Drove.</p> <p>Duty to further the conservation and enhancement of SSSI. Advice on Nene Washes also applies to SSSI. It includes lowland ditch systems and vascular plant assemblage. Dogsthorpe Star Pit SSSI contains a variety of habitats and increased nitrogen deposition may impact. Development area includes non statutory Adderley and Storeys Bar Road Drains CWS. It is suggested that as a minimum a construction method Statement will be required to ensure that construction activities do not impact on this site.</p> <p>Sufficient survey information. A Management Plan and commuted sum required for long term maintenance of wildlife features within the site.</p> <p>18.12.08 - Additional information has been received regarding the predicted impacts of nitrogen and acidity deposition from the proposed EfW facility on internationally and nationally designated sites in the vicinity. Based on the information provided in the Nitrogen and Acidity Modelling Report Natural England concurs that the development is unlikely to have a significant effect , either alone or in combination, on either the Nene Washes SPA/SAC or Orton Pit SAC. Natural England raise NO OBJECTION to the proposal.</p>
RSPB	13/11/08	<p>Renewable energy sources offer opportunity to modify or reverse the deleterious changes associated with climate change and the RSOB is supportive of such projects provided that adverse impacts on wildlife are avoided by appropriate design and siting. The site is approx. 1km from the Nene Washes and 20km from the Ouse Washes 0 both designated for their importance for breeding and wintering waders and waterfowl.</p> <p>Operations are fully enclosed and so no putrescible waste to attract gulls and increase predation threat to breeding birds on Nene Washes.</p> <p>Share NE's concerns that ES has insufficient information to carry out an appropriate assessment and recommend that the council requests additional evidence in the form of assessments of nitrogen and acid deposition critical loads for the Nene Washes, and the predicted increase of this deposition and effect on the critical load of the site that will result from the development.</p> <p>RSPB recommends that any biocrops to be used should be sourced from sustainable supplies only.</p> <p>RSPB welcomes enhancements to UK Biodiversity Action Plan species and Birds of conservation concern which is compatible with adjacent arable/industrial land cover. The proposed enhancement and extension of the existing reedbed and creation of woodland block on the site is not sufficient to attract significant numbers of raptors and will not therefore increase the threat to the breeding waders associated with the Nene Washes. RSPB believes that the biodiversity benefits in section 9.13 of ES could be augmented. i.e nest boxes for tree sparrows and varying</p>

		<p>the age, species and structure of scrub and hedgerow will benefit a range of farmland birds.</p> <p>If minded to grant permission long term management (with funding) of habitats created on site (hay meadow, reedbed and hedgerow enhancements) required as they require regular management to continue to provide optimal biodiversity benefits.</p>
DEFRA	22/12/08	The land is best and most versatile
Go East	14/10/08	Is unable to comment as it may come before the Secretary of State for consideration and to do so may prejudice any decision reached.
Anglian Water Services Ltd	22/10/08	<p>Keen to support the spatial planning process.</p> <p>Flag Fen sewage treatment works has capacity to deal with foul drainage from this facility.</p> <p>To discharge trade effluent an application is required to Anglian Water. Petrol/oil interceptors required. Installation of fat traps on catering areas.</p> <p>No assets owned by Anglian Water in the site.</p> <p>There is sufficient water resource capacity to supply this development but would wish the developer to ensure high water efficiency standards.</p> <p>Water supply network - no demand profile supplied but it is likely that the development can be supplied from the network system which has adequate capacity at present.</p> <p>Wastewater - system at present has adequate capacity.</p> <p>Surface water system - surface water drainage not to public sewer and so not under jurisdiction of Anglian Water.</p>
North Level District Internal Drainage Board	25/11/08	No comments received
PowerGen	25/11/08	No comments received
EDF Energy	25/11/08	No comments received
National Power	25/11/08	No comments received
Architectural Liaison Officer	20/10/08	<p>A number of observations to make:</p> <p>PPS1 states that new development should create safe and accessible environments. No information as to how crime risk is dealt with. The applicant needs to demonstrate their intentions in relation to boundary treatment to deter unauthorised access; parking and security of visitor, staff and delivery vehicles; how the buildings themselves will be protected, and how crime targets on site will be protected.</p> <p>The proposed R&D centre is a major concern. The arched metal roof would be easy to scale and also the large expanse of glazing as the building is remote and there is little natural surveillance. The issues could be addressed by being constructed to 'Secured by Design' standards.</p>
Environment Agency	25/11/08	<p>No objection subject to a condition being imposed for the submission of a scheme for surface water drainage for the site, based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development. This must conform to the Padholme Strategy and must ensure that there is no increase in the risk of flooding post development, both to the site and third parties.</p> <p>During the permit determination a detailed assessment of the operational performance of the plant, together with the</p>

		environmental impact of the emissions released, will be undertaken.
Peterborough Local Access Forum	25/11/08	No comments received
Eye Parish Council	25/11/08	No objection
Fenland District Council	17/10/08	No comments
Cambridgeshire County Council	27/10/08	<p>Development needs to be assessed in relation to the policies and allocation of the development plan. Since the previous consultation the RSS has been adopted and its waste management policies are an important material consideration. Compliance with the saved policies of the Waste Local Plan are an important material consideration. Proposed site does not fully accord with policy WLP18(H) as part of the site lies outside the boundary of the allocation.</p> <p>WLP3 Catchment Area - noted that source materials (biomass and waste streams) are to be secured largely from within a defined catchment area with only 20% being sourced outside. No objections in principle to this catchment. However, all Cambridgeshire municipal waste is committed to a new MBT plant near Cambridge and is not available in an unprocessed form. Catchment area should be secured by condition with a mechanism for monitoring waste inputs.</p> <p>Highway Matters - proposal will involve a significant number of HCV movements during operation with access via principal highway network. The council supports the proposal to construct the site access to make it difficult to turn right as the rural route through Whittlesey is not suitable. Signage required.</p> <p>Sensitive receptors - the site lies to the north of the Nene Washes which is a European protected site. Natural England should be consulted. Whilst it appears that no residential areas of Cambridgeshire are at significant risk from a reduction in air quality associated with the proposals it is noted that Flag Fen is close to the site. It is a significant tourist attraction and the amenity of visitors should be taken into account and mitigation secured by condition. No landscape objections are raised subject to careful selection of external finishes and the implementation of new landscaping which should reflect the objectives of the Design Guide SPG.</p> <p>Consideration of alternatives should have included the Area of Search at Alconbury Airfield.</p> <p>In principle the proposal is welcomed.</p>
Atkins Water	17/10/08	<p>Key issues to be taken into account when appraising application :</p> <ul style="list-style-type: none"> _ a detailed surface water design should be provided and agreed prior to commencement of works. Should contain details of the operation and maintenance to ensure that surface water flood risk is not increased as a result of the development. _ the site boundary encroaches into the newly constructed improvement works undertaken to the Padholme Drain in line with the Padholme Catchment Strategy. _ prior written consent of the Environment Agency is

		required for works within 9m of the top of the newly constructed bank for Padholme Drain.
Peterborough Primary CareTrust	25/11/08	No comments received
National Grid (gas and electricity)	23/10/08	<p>Based on the information provided and the proximity and sensitivity of the operational electricity transmission and national gas transmission network to the proposals we have concluded that the risk is high</p> <p>There are a number of issues that concern regarding this development.</p> <p>1) The current proposal is in very close proximity to the two High pressure gas pipelines within the site. The BPD (Building Proximity Distance) is 31 metres either side of the pipelines. I understand that the buildings are being proposed at 16 metres either side of the pipeline. The 31 metres BPD (Building Proximity Distance) refers to the corridor where the pipeline is safely routed when it is initially laid. This is with the full approval of the HSE and Secretary of State. If this distance is subsequently encroached by buildings, or other structure, they will then constitute an infringement of the BPD for the respective pipeline. The infringement can be risk assessed, and mitigation measures applied if necessary, however this will be a retrospective application once the building is already in closer proximity than the original routed pipeline was afforded.</p> <p>2) A vehicular access road is planned which is proposed to lie directly over the pipeline. Vehicular access would require concrete slab protection to protect the pipeline throughout its length. This would prevent our access to maintain the safety and integrity of the pipeline We need to be able to monitor the Cathodic Protection system from the surface, and a concrete impact protection slab would inhibit our ability to carry out this task. Short crossings with impact protection could be tolerated.</p> <p>3) We have met with Mr Williams and discussed rerouting traffic around the perimeter of the buildings.</p> <p>4) One of the pipelines is subject to our procedures P18. It involves X-Raying of the welds to determine if there are any minor defects in the welds. If there are the developer will need to pay for the repair of the girth welds prior to any commencement of work on the site. Extensive testing of the similar pipelines has revealed that, providing the pipelines are left alone, they are perfectly safe and fit for purpose. However, if the pipelines are subjected to any external form of stress, then the minor defects may propagate and cause a failure of the pipeline.</p> <p>4) The research centre and visitor centre appears to be very close to the pipelines. As this is designated as a Public Access building it should receive an AA (Advise Against) under Land Use Planning rules when using the PADHI software programme.</p> <p>5) The realignment of Storeys Bar Road, gives me great concern, the tie in from the existing to diverted position is directly over where the two pipelines cross and major road works would be taking place. If this is the preferred</p>

		<p>location of the crossing, then major works may be required to upgrade the pipeline at a huge cost to the applicant. This would need further investigation.</p> <p>6) Site roads also give concern and the crossing points within the site would need careful consideration and design.</p> <p>7) The pipelines are protected by a Deed of Grant of Easement and as such no works will be permitted within the easement strip without a National Grid representative or my consent.</p>
Flag Fen Archaeology Site	16/10/08	<p>Some specific concerns:</p> <p>Inadequate assessment and mitigation of development impact on potential archaeology,</p> <p>Inadequate consideration of delicate hydrology within and adjacent to PDA,</p> <p>Inadequate consultation on proposed water feed for the cooling towers shown running directly across land leased by Flag Fen from Anglian Water which contains the bronze Age post alignment at Flag Fen.</p> <p>changes to road systems and noise could impact on visitor attraction,</p> <p>growth of development outside allocated local plan area, visual impact and socio-economic impacts.</p> <p>Current scheme is an improvement on previous as it has a smaller footprint, stacks are lower, all operations are in buildings less than 20m high, and concerns over monitoring and management of hydrology addressed.</p> <p>Construction noise -wants a 6pm finishing time during the summer and restrictions on heavy piling or noisy commissioning work.</p> <p>Visual impact - character of Flag Fen depends on it's fenland setting which may be compromised by planting along the drains.</p> <p>Traffic - FAT recommends that construction and operational traffic is not permitted to use Oxney Road and Pearces Road and that visitors are directed this way.</p> <p>Green Wheel - welcomes a new spoke to the cycleway.</p> <p>Archaeology - concerns over monitoring and management of hydrology have been satisfactorily addressed. A recharge facility must be available. FAT recognises that archaeological trenching found nothing of significance. However, there should be archaeological supervision of the construction groundworks and for the developer to strip back the topsoil and sample across the whole development area with close supervision where there are deep foundations. It is not clear how foundations are to be constructed. - is it piling or rafting?</p> <p>PREL has proposed a package of measures that would address the socio economic impact.</p>
Defence Estates	2/9/08	No safeguarding objections to the proposal.
Civil Aviation Authority	29/9/08	Chimneys are 35m. So no observations other than no need for en-route aviation lighting, no civil aviation promulgation issues. It is anticipated that the facility will not involve the flaring and venting of gas either routinely or as an emergency procedure to cause danger to flying aircraft.

REPRESENTATIONS

23 Letters of objection or expressing concerns have been received from local residents raising the following issues:

- The incessant noise and pollution on the very busy roads of Fengate
- Toxic fumes by vehicles and the process
- Potential smells
- Additional traffic
- Concerned about safety and health and air quality
- Should be built away from populated areas
- Site is on a flood plain
- Already smells and smoke from the brickworks and this will add to it
- No faith in the assessments undertaken
- Will become an eyesore
- Too close to housing and industry – people could be affected by fumes/ health problems
- This part of the city is becoming a ‘dumping area’ - the Council MRF is already in Fengate
- Parnwell is already affected by Tesco 24 hour working
- Will attract rats and vermin
- Contamination of water system
- Cathedral is already damaged by pollution
- Noise
- Large units built in rural area
- Development of industrial units within industrial areas
- Needs high fence to stop noise and animals going into residential areas
- Greater weight restrictions required to limit lorries near residential areas

44 Letters have also been received in support on the basis:

- Peterborough is an environment city and needs projects such as this if it is to be taken seriously
- Fantastic solution to the waste problem
- Zero waste and no landfill needed combined with production of renewable energy, recovery and reuse of materials that would otherwise go to landfill
- More favourable footprint than previous scheme
- Do not believe that the extension of the site beyond the local plan allocation for waste/energy purposes merits a refusal. Policy compliance for most of the site.
- It is at the forefront of technology
- Requires little or no financial input from local or central government
- Opportunity to lead with a local hydrogen economy
- PCC scheme and PREL scheme not necessarily competitive and could be complementary
- There is a need for alternative ways of producing energy
- It may be the way forward to process waste if this can be done safely
- The scheme may address landfill concerns
- Benefits the community and the wider environment
- Creates jobs during construction and once operational
- Clean electricity
- Green energy from renewable biomass sources
- Divert biomass from landfill
- Recycling reduces need to use raw materials
- Smell nuisance from municipal/commercial landfill sites
- Modern plasma technology is impressive
- Positive effect on climate change
- Recycling in an environmentally friendly way

- The research and development centre is an exciting addition and a positive step in promoting sustainability. A good facility for schools
- Process will clean the air and not pollute it
- Reduce carbon footprint
- Investment in the city
- Habitat creation
- Locally produced electricity without the need to burn fossil fuels

Two letters expressing neither support nor objection.

Friends of the Earth support the proposal - superior to other types of incinerator; will reduce emissions considerably; will extract plastics upfront for recycling and only burn small amounts reducing dioxin pollution, up-front separation of black bin waste of recyclables; enables processing of dangerous materials; toxic emissions and particulates will be much lower than those produced by other incinerators; plasma will enable almost totalling of waste; carbon sequestration will enable a further reduction in greenhouse gases; it will generate 48MW of electricity from mainly sustainable fuel sources; it will increase water content of the adjacent site to facilitate the protection of historical artefacts; it will assist biodiversity with the inclusion of wildlife areas in the landscaping; attractive architecture, and the proposal is primarily aimed at processing commercial, industrial and agricultural waste b- so it addresses an existing problem.

Peterborough Civic Society – proposal has the potential to address disposal of Peterborough’s waste whilst generating electricity and heat in the process. Does not object provided that: adequate conditions are imposed to ensure highest standards of emissions monitoring; greater clarity is obtained and limitations imposed on the geographical area from which waste is sourced; the High Pressure gas main is protected; more extensive screen tree planting is required to the east close to Flag Fen; measures to be implemented to ensure there is no threat to the water table at Flag Fen archaeological site and the offer to extend the Green Wheel should be formalised in an agreement.

Peterborough for Responsible Waste Management – support the application on the basis that it will improve the existing unsustainable means of waste disposal, reducing landfill and increasing recycling rates and generating renewable electricity; technology is available for the facility to operate within agreed limits; there will be an Environmental management Plan in place; funding of a Social Responsibility Committee; establishment of a Community Cohesion Committee, new cycleway proposed, mitigation of loss of agricultural land by creation of wildlife habitat, creation of glass reduces need for building aggregate and withdrawal of Global Olivine application is this one is successful. Reservations about heavy metals including mercury and cadmium; could potentially have local traffic problems; ‘no landfill’ only associated with this scheme; stack heights should be calculated according to current EA guidance; concerns about fly ash and fugitive emissions; visual impact of the plant – though trees will be planted; unclear how many jobs available and types of jobs; concerns about local hydrology and potential to damage local archaeology and loss of agricultural land.

Centrica (operators of Peterborough Power Station) – request that the applicant is required to submit an implementation/construction plan to ensure that there are responsible construction practices that do not unduly affect Centrica’s operations. Based on good practice Centrica recommend that this plan includes the following:

- Confirmation that construction traffic will access from Storeys Bar Road only and not from any other route. Advanced notification is required of any plans to divert traffic or pedestrian movement during the realignment of the surrounding highway network,
- Confirmation that the proposed methodology of exporting power from the site will not undermine Centrica’s operations in particular,
 - How the applicant intends to connect to the existing electrical network,
 - That during the period of construction, the existing overhead export power lines/electrical infrastructure, crossing the application site, are not interrupted, and

- Centrica's operations should not be interrupted should there be a need to connect into the sub-station on Centrica's land

That the site is maintained in a clean and tidy condition. In particular that wheel washers are deployed to prevent the spread of mud on the road and that sprinklers are used to reduce dust transmission,

- Hours of Operation for construction are limited to a standard working day to avoid the aforementioned problems from being exacerbated.

COUNCILLORS

No comments received from councillors

INFORMATION TO BE PROVIDED PRIOR TO DETERMINATION OF THE APPLICATION

Information on Highway and Access Issues

1. Detailed plan showing the off-site highway works along Storeys Bar Road consisting of 7.3m wide carriageway, 3m wide shared use footway/cycleway plus 1m min verge on south side, a minimum of 1m verge on north side, toucan crossing facilities over Storeys Bar Road at the signalised junction of Storeys Bar Road/Vicarage Farm Road/Edgerley Drain Road, the junction of the private access road with Storeys Bar Road, the re-alignment of Storeys Bar Road and a right turn facility in Storeys Bar Road at the access. Where the road/footway/cycleway runs adjacent to the existing/proposed drain/ditch, cross sectional details must be provided in order for an assessment to be made on the location of the road in relation to the adjacent ditch/drain, the concern being slippage of the bank and subsidence of the carriageway. Pedestrian fencing will also be required between the footway/cycleway and the drain.
2. Iterated Stage 1/2 Safety Audit and Designers Response of the above scheme.
3. **Either** a detailed scheme of mitigation to Junctions 5 and 8 of Frank Perkins Parkway (A1139) to address capacity issues **or** an agreement by the applicant to a contribution under S106 based upon £2,000 per vehicle of additional vehicles generated by this development in the worst case peak hour. This contribution would be based on 44 two-way vehicles in the am peak resulting in a maximum contribution of £88,000 towards improvement works.
4. Justification of the reduction in speed limit to 50mph along Storeys Bar Road. This must include accident assessment/analysis and speed surveys to be undertaken in accordance with DfT Circular 01/2006, support of the local constabulary and the Traffic Management Team at PCC. A Design Statement will also be required on how the realignment (straightening out) of the road will affect the final speeds, i.e. How will a speed survey undertaken on the current road be representative of the realigned road? Without this, the speed limit will remain at 60mph and the required vehicle to vehicle visibility splays increased accordingly to 2.4m x 215m from 2.4m x 160m shown. This higher speed must be reflected in the design of the new highway works, e.g. super elevation may be required on the bend.
5. Clarification on parking.

Mineral safeguarding

Information is required to be submitted to justify the development of land that is designated as being part of a mineral safeguarding area for sand and gravel as this potentially compromises an economic resource of mineral. Currently there is no consideration of this in the submission, or any indication that there would be prior working of mineral deposits. Until this is undertaken the proposal fails to comply with the requirements of MPS1.

Loss of best and most versatile agricultural land and extension of built development into rural area

Information is required to be submitted to justify the extension of the site beyond that identified by policies WLP18(h) and U15 and the extension of development into the rural area resulting in the loss of best and most versatile agricultural land and development of a type not normally permitted in the countryside and until such time as this is done the development is considered to be contrary to LNE1 and LNE3 and PPS7.

Proximity to gas pipelines and proper consideration of the potential impact and mitigation requirements on overhead lines, utility mains and plant and telecommunications

There have been significant safety concerns flagged up by the National Grid in respect to the proximity of buildings to gas pipelines and the difficulty in undertaking maintenance due to the construction of roads and hard surfaces close to these pipelines. Information is required to be

submitted, following discussions with National Grid and other relevant parties, to demonstrate that these issues have been resolved.

Until such time as these are resolved the proposal is contrary to policies WLP9 and U12.

Information on security of the development

A number of issues have been raised in respect to the security of the development, and in particular the visitor centre, and information is required to demonstrate that these have been resolved.

Until these are satisfactorily resolved the proposal is contrary to policy DA2.

Information on methodology for exporting power from the site

Confirmation of the proposed methodology of exporting power from the site is required to confirm that the development would not undermine Centrica's operations in particular,

- How the applicant intends to connect to the existing electrical network,
- That during the period of construction, the existing overhead export power lines/electrical infrastructure, crossing the application site, are not interrupted, and
- Centrica's operations should not be interrupted should there be a need to connect into the sub-station on Centrica's land

Information on the methodology and detailed arrangements for exporting power from the site, confirmation that this is sufficient for the level of power indicated to be exported off site and confirmation that these works will be undertaken prior to the commencement of operations at the facility.

Routing of Cycleway to Flag Fen

Confirmation is required that the proposed cycleway can be provided between Storeys Bar Road and Flag Fen (as its implementation is subject to the agreement of the Environment Agency) and if this is not practicable an alternative route for an extension to the Green Wheel to serve Flag Fen should be agreed with the local planning authority

Until this is resolved the proposal is considered to be contrary to policy T5 of the Peterborough Local Plan and the Green Grid Strategy

Hydrological Recharging Scheme for Flag Fen

A scheme is required to be submitted to demonstrate how the recharging of the adjacent land at Flag Fen will be achieved to mitigate any impact on archaeological remains of national and international value.

Until such time as this can be demonstrated the proposal is considered to be contrary to policies WLP12 and WLP15 of the Waste Local Plan, policy CBE1 of the Peterborough Local Plan and PPG16.

Air Quality

There is no assessment of the cumulative impact of this proposal and existing and proposed facilities including the brickworks area and the Council proposal at Fengate.

Until this is provided the proposal is contrary to policies DA2 and WLP9.

Vibration Assessment

Vibration impact assessment should include predications for assessment of human response to vibration and for structural damage.

Until this information is provided the proposal is contrary to policy DA2 and WLP9.

Conditions

Commencement

The development hereby permitted shall be begun before the expiration of three years from the date of this permission.

Reason: To comply with Section 91 of the Town and Country Planning Act 1990 as amended.

Standard of Construction

The buildings shall be constructed to BREEAM/Eco building assessment 'Excellent' standards.

Reason: To ensure that the energy efficiency of the development is maximised in accordance with emerging development plan policy .

Details of External Facing Materials

No development shall take place until details and samples of all materials to be used on external surfaces of the development hereby permitted have been submitted to and approved in writing by the LPA. Development shall be carried out in accordance with the approved details.

Reason: To ensure a satisfactory external appearance , in accordance with policies DA2 and DA3 of the Peterborough Local Plan (First Replacement) 2005.

Landscape details (hard and soft landscaping works)

No development shall take place until full details of both hard and soft landscaping works have been submitted to and approved in writing by the LPA and these works shall be carried out as approved. These details shall include the means of enclosure of the site; trees, shrubs and hedges to be retained; car parking areas, vehicle and pedestrian circulation areas; hard surface materials; minor artefacts and structures; proposed and existing functional services above and below ground (e.g drainage power, communication cables, pipelines etc indicating lines, manholes, supports etc); retained historic features and proposals for restoration, where relevant.

Any shrubs dying, being severely damaged or becoming seriously diseased within 5 years shall be replaced with trees and shrubs of such size and species as may be agreed with the LPA in the planting season immediately following any such occurrences.

Reason; In order to improve the visual amenity of the areas in accordance with policies DA1, DA2, LNE9 and LNE10 of the Peterborough Local Plan (First Replacement) 2005 and policies WLP7 and WLP9 of the Cambridgeshire and Peterborough Waste Local Plan 2003.

- Planting Specifications
- Landscape Management Plan
- Hours of operation – limitations on visitor centre, possible restrictions on hours of operation of HGV's accessing site
- Construction requirements – hours of operation, routing , noise etc
- Noise
- Dust mitigation and management plan in accordance with MPS2 Annex 1
- Detailed landscaping scheme including hard landscaping, management and maintenance for 5 years
- Detailed wildlife scheme for the creation of wildlife habitats and areas, green roofs, brown roofs, management and maintenance for five years
- Travel Plan

- Traffic Management Plan – to restrict routing of HGV's and prevent use of Pearces Lane and Oxney Road and to require HGV's to access the site entrance to and from junction with Vicarage Farm Road and Adderley Drain road
- Hydrological monitoring for the five years after completion of the scheme and within the site boundary
- Construction requirements – hours of operation, routing, noise etc
- Limits on hours of operation during construction
- Submission of Site Waste Management Plan
- Submission of Site Construction Plan
- Submission and approval of a stage 2 safety audit for the new access, widening of Storeys Bar Road and shared use footway/cycleway and the signalised junction of Edgerley Drain Road, Vicarage farm Road and Storeys Bar Road and the toucan crossing prior to construction
- Archaeology – provision for ongoing watching brief etc
- Submission of surface water drainage scheme for the site based on sustainable drainage principles and an assessment of the hydrological and hydrogeological context of the development to be submitted to and approved in writing by the LPA. The scheme shall be implemented in accordance with the approved details (see EA letter dated 2/12/08)
- Fencing or means of enclosure of the site
- Hydrological monitoring for the five years after completion of the scheme and within the site boundary

Highway related conditions

Off-site Highway Works

Prior to commencement of development a fully detailed scheme of works including a 7.3m wide carriageway, 3m wide shared use footway/cycleway plus 1m min verge on south side, a minimum of 1m verge on north side, the junction of the private access road with Storeys Bar Road, the re-alignment of Storeys Bar Road, right turn lane facility in Storeys Bar Road at the access, cross sectional details and anchorage proposals (if found necessary) of the adjacent drain shall be submitted to and approved in writing by the Local Planning Authority. Such details shall include lighting, construction, drainage, safety fencing, pedestrian fencing, street furniture, signing and lining, and an iterated Stage 2 Safety Audit together with a designers response. The works shall be fully implemented in accordance with the approved details prior to occupation of the development.

Reason: In the interests of highways safety and to allow safe and convenient access in accordance with Policies T1, T3 and T5 of the Peterborough Local Plan (First Replacement) 2005.

Provision of Toucan Crossing

Prior to commencement of development a fully detailed scheme of works for the provision of a toucan crossing at the junction of Storeys Bar Road/Vicarage Farm Road/Edgerley Drain Road over Storeys Bar Road together with an iterated Stage 2 Safety Audit and Developers Response. The works shall be fully implemented in accordance with the approved details prior to occupation of the development.

Reason: In the interests of highways safety and to allow safe and convenient access in accordance with Policies T1, T3 and T5 of the Peterborough Local Plan (First Replacement) 2005.

Cause danger or inconvenience (highway safety)

Lighting shall be arranged do that no danger or inconvenience is caused to users of the adjoining public highway. Details of the proposed lighting shall be submitted to the Local Planning Authority and approved in writing prior to its first use.

Reason: To avoid glare/dazzle which could lead to danger to highway users, in accordance with policy T1 of the Peterborough Local Plan (First Replacement) 2005.

Provision and retention of access, parking, turning, loading

The buildings shall not be occupied until the access roads, footways/cycleways, parking areas, turning areas, loading areas have been provided in accordance with details submitted to and approved in writing by the Local Planning Authority, and those areas shall not thereafter be used for any purpose other than those uses, in connection with the use of the buildings.

Reason: In the interest of Highway safety, in accordance with Policies T9, T10 and T11 of the Peterborough Local Plan (First Replacement) 2005.

Provision and retention of cycle parking

No building shall be occupied until space has been laid out within the site in accordance with the approved plan for 60 bicycles to be parked, and that area shall not thereafter be used for any purpose other than the parking of cycles.

Reason: In order to protect and safeguard the amenity of the local residents or occupiers, in accordance with Policy T9 of the Peterborough Local Plan (First Replacement) 2005.

Bridging/Culverting details to be approved

Development shall not commence before details of the means of bridging /culverting the ditch/dyke/watercourse along the frontage of the site have been submitted to and approved in writing by the LPA, and the use of the site and/or building shall not commence before the ditch/dyke/watercourse has been bridged/culverted in accordance with the approved details.

Reason: To provide for the efficient drainage of the adjoining land and public highway, in accordance with policies T1 and T8 of the Peterborough Local Plan (First Replacement) 2005.

Construct access before occupation

The buildings shall not be occupied until all means of access, vehicular/pedestrian/cyclist, have been constructed in accordance with the approved plans.

Reason: In the interests of Highway safety, in accordance with Policies T1, T3 and T5 of the Peterborough Local Plan (First Replacement) 2005.

Construction Management Plan

Prior to the commencement of the development unless otherwise agreed in writing with the Local Planning Authority, a Construction Management Plan shall be submitted to and approved in writing by the Local Planning Authority. This shall include amongst other matters:

- a noise management plan including a scheme for the monitoring of construction noise;
- a scheme for the control of dust arising from building and site works;
- a scheme of chassis and wheel cleaning for construction vehicles including contingency measures should these facilities become in-operative and a scheme for the cleaning of affected public highways;
- a scheme of working hours for construction and other site works;
- a scheme for construction access from the Parkway including measures to ensure that all construction vehicles can enter the site immediately upon arrival, adequate space within the site to enable vehicles to park, turn and load and unload clear of the public highway and details of the haul routes across the site.;
- a scheme of temporary traffic management for Storeys Bar Road during its reconstruction, realignment and all other off-site highway works including any proposals for road closures.
- a scheme for parking of contractors vehicles;
- a scheme for access and deliveries including hours.

The development shall thereafter be carried out in accordance with the approved plan, unless otherwise agreed in writing with the Local Planning Authority.

Reason: In the interests of highway safety and residential amenity in accordance with policies T1 and DA2 of the Peterborough Local Plan (First Replacement) 2005.

Swept Path Analysis

Prior to commencement of development, swept path analysis of the largest anticipated vehicle entering the site, travelling through, exiting the site, passing others and entering and exiting loading/unloading areas shall be submitted to and approved in writing by the Local Planning Authority.

Reason: In the interests of Highway safety, in accordance with Policy T1 of the Peterborough Local Plan (First Replacement) 2005.

Visibility splays to be provided before commencement

The visibility splays of the following dimensions 2.4m x 215m at the junction of the access road with the proposed public highway shall be provided before the commencement of the development.

Reason: In the interests of highway safety, in accordance with Policies T1 and T8 of the Peterborough Local Plan (First Replacement) 2005.

Note: In the event that supporting information is submitted regarding the decrease of the speed limit to 50mph, this measurement could be reduced to 2.4m x 160m.

Street Naming / Numbering

Development shall not commence until details of a proposed street naming/numbering and nameplate/signing scheme in respect of the new premises have been approved in writing by the local planning authority; and the premises shall not be occupied until that street nameplate/sign(s) have been installed in accordance with the approved plans.

Reason: In the interests of highway safety, in accordance with Policy DA1 of the Peterborough Local Plan (First Replacement) 2005.

HGV Ban to East

All Heavy Goods Vehicles must enter and exit the site from and to the west via the junction of Storeys Bar Road / Vicarage Farm Road / Edgerley Drain Road. No Heavy Goods Vehicles must enter and exit the site from the east, Storeys Bar Road / Pearces Road.

Reason: In the interests of highway safety, in accordance with Policy T1 of the Peterborough Local Plan (First Replacement) 2005.

The applicant has offered a planning obligation in the form of a **Section 106 or unilateral agreement** to address a number of matters.

Planning obligation

It is requested that this planning obligation addresses the following issues:

1. **Provision of a catchment area restriction for the sourcing of waste.** This would apply to all materials entering the facility other than biomass grown specifically as an energy crop. The catchment area restriction should require that no more than 20% of the waste by weight entering the facility can originate from an area outside the following:
 - An area within 32 kilometres radius of the site
 - The area within the boundary administered by Peterborough City Council
 - The area within the boundary administered by Cambridgeshire County Council
2. **Hydrological monitoring** beyond the five year period and any monitoring proposed outside the application boundary or land in which the applicant has an interest for example at Flag Fen.
3. **Landscaping Scheme.** This would cover the planting and maintenance of trees and shrubs on land outside the site boundary or land in which the applicant has an interest. The planting should be maintained for the duration of the development. Agreement would also be required that the landscape planting within the site would be maintained for the duration of the development i.e. at least 20 years.
4. **Creation of an Extension to the Green Wheel.** This has been proposed by PREL to serve Flag Fen. The proposed revised route is between Flag Fen along the Cats Water Drain to the end of Fourth Drove. This route will need surfacing in part and resurfacing in part. Signage will also be required. The surfacing will required to be maintained for the duration of the development i.e for at least 20 years.
5. **Nature Conservation Management Scheme.** Maintenance and management of the nature conservation areas beyond a period of five years. This should be for the duration of the development i.e. at least 20 years.
6. **Highway Contribution.** This would be £200 per additional vehicle during the worst peak period irrespective of the type of vehicle.
7. **Annual contribution towards Travel Plan Support and Services.** This is £500 per annum (or can be paid as a lump sum) and details of travel Plan

In addition the following agreements would be required:

Highways Act (Section 278 Agreement) – Changes to the alignment of Storeys Bar Road and the provision of bus shelters

1.1 INTRODUCTION

ERM has undertaken a review of the ES submitted with the planning application to assess whether it complies with the *EIA Regulations* and *EC Directive 85/337/EEC* as amended by *Council Directive 97/11/EC*. A summary of the key findings is given below under the following section headings:

- overall compliance with EIA regulations and good practice;
- non-technical summary;
- description of the development;
- description of the main alternatives
- description of the main effects of the development and data requirements; and
- description of mitigation measures.

1.2 OVERALL COMPLIANCE WITH EIA REGULATIONS AND GOOD PRACTICE

The overall finding is that the ES and the supporting application documents submitted by the Applicants in support of the proposals are comprehensive.

The ES is well presented making good use of figures, photographs and illustrations, and on the whole presents the majority of the information required to assess the likely significant effects that will arise as a result of the proposals.

The identification of the likely significant effects is a critical component of an EIA. The ES has been clear in conveying the significance of the impacts being described throughout all of the topic assessments. The ES is clear on how the sensitivity of the affected receptors has been identified and how the magnitude of the environmental impacts has been quantified, which leads to a clear indication of how the significance of the effect has been identified. These criteria have in the main been used consistently throughout the ES, which ensures that the reader, and hence the decision maker, does not have to interpret the findings of the ES and decide whether or not they are significant. This is an important issue, since this is one part of an ES where there must be no ambiguity. This is because it is the fundamental requirement of the *EIA Regulations* that the decision maker must be given clear direction on the material considerations.

ERM considers that it will be unnecessary to request any further information in respect of *Regulation 19(1)* of the *EIA Regulations* or *Regulation 13(1)* of the subsequent *EIA Amendment (2006) Regulations*.

There are, however, a number of areas where clarification on some matters should be sought under *Regulation 19(10)* in order to allow PCC to make a more informed and robust decision. The findings of our review of the ES and supporting technical documents are presented in the sections following.

1.3 NON-TECHNICAL SUMMARY

Volume 1: Non Technical Summary (NTS) provides a true reflection of the assessment presented in the main ES. It adequately summarises the proposed scheme, the site selection process, topics assessed and the assessment findings.

1.4 DESCRIPTION OF THE DEVELOPMENT

A description of the physical characteristics of the development and the land-use requirements during the construction and operational phases are required under EIA legislation. The operational scheme and its processes are well described in *Chapter 3: The Proposal*, *Chapter 2: Site, Planning Policy and Need* and summarised up front in the ES in *Chapter 1: Introduction*, supported by the plans provided in *Volume 4: Environmental Statement Figures and Plans*. Further detail with regards to site access is discussed in *Chapter 8: Traffic, Travel and Highways*.

The nature and phasing/timing of works to construct the development are not provided at the beginning of *Chapter 4: Construction* as would be expected. The provision of a drawing illustrating proposed construction layouts would have also been beneficial to the reader. *Chapter 4: Construction* instead focuses on quite specific environmental best practice that will be implemented during construction and is supported by *Appendix 4.1: Common Environmental Construction Policies*. Construction start and finish dates are only briefly mentioned in *Chapter 8: Traffic, Travel and Highways*, *Section 8.3.1* and *Chapter 10: Landscape & Visual Assessment*, *Section 10.10.1*. Ideally the description of the timing and duration of the works to construct the scheme should appear up front in the description of the development and the construction works.

The residues and emissions that are likely to lead to significant environmental impacts are adequately described within the relevant topic chapters of the ES.

1.5 DESCRIPTION OF THE MAIN ALTERNATIVES CONSIDERED

An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for their choice, taking into account the environmental effects, is required under UK EIA legislation.

Chapter 2: Site, Planning Policy & Need, *Section 2.10*, clearly sets out the justification for the proposed development, describes alternative sites for the proposed development and indicates the reasons why alternative sites were rejected. Environmental reasons are stated along side non-environmental reasons as to why the decision was made to choose the selected site were identified and is satisfactorily addressed.

1.6 DESCRIPTION OF THE MAIN EFFECTS AND DATA REQUIREMENTS

1.6.1 Air Quality and Emissions

Chapter 6: Air Quality and Emissions assesses potential air quality and emissions impacts. This chapter is supported by the air quality modelling work described in detail in *Appendix 6.1: Atmospheric Dispersion Modelling of Emissions Report*.

The applicant has taken into consideration relevant air quality policies, guidance and targets when formulating the assessment criteria for this section including Environmental Agency guidance and the UK Air Quality Regulations Objectives, National Air Quality Strategy Objectives, National Air Quality Standards, and EU Limit Values. The local environmental baseline has been collected through a review of relevant Local Authority air quality review and assessment reports and from local air quality modelling data.

Details of the assessment methodologies are clearly described for the operational phases in the supporting *Appendix 6.1*. Overall, there will be slight increases in the levels of nitrogen dioxide, cadmium and sulphur dioxide, but the emissions associated with the operation of the development are not anticipated to give rise to health impacts based on the modelling work.

Though *Chapter 6* sets out to describe the impacts to surrounding areas from air emissions from the site, there are two issues that need to be addressed as part of the assessment. First, the air dispersion modelling was conducted with a model that does not adequately incorporate building downwash effects for complex, multi-building sites. Secondly, PM_{2.5} and ammonia are not included as pollutants in the modelling assessment. As an air quality objective exists for PM_{2.5}, and ammonia emissions from combustion will impact nitrogen deposition, these pollutants should be evaluated.

To address these issues sensitivity testing of building downwash effects is needed to confirm the impacts predicted from the ADMS model are valid for the site and an assessment of PM_{2.5} and ammonia emissions needs to be conducted.

No assessment of air quality impacts during construction has been provided within the ES. Information has been provided in *Chapter 4: Construction* on construction plant likely to be utilised on site and in *Chapter 8: Traffic and Transport Assessment* on anticipated construction traffic volumes. It is recommended that the Applicant provide an assessment of the likely impacts during construction and how these impacts will be managed.

1.6.2 Noise and Vibration

Noise impacts have been assessed in *Chapter 7: Noise*. The assessment has been undertaken for the whole proposal against baseline data collected at four sensitive receptor locations during July 2008. The data collection methodology appears robust.

Noise impacts, both during construction and operation were assessed using a worst case scenario approach.

Impacts resulting from construction activities, including excavations, building foundations, pouring of concrete pads, general on-site construction noise of the buildings and noise from field tests carried out during the commissioning period, were assessed. Piling was identified as the noisiest activity during the construction phase with the closest residential receptors some 400m away.

During the operational phase the majority of audible noise resulting from the development was identified to come from the cooling system, the steam turbines and the loading and unloading of vehicles, with the main noise from the weigh-bridge and reception centre deriving from trucks arriving.

The assessment has been undertaken satisfactorily and has determined that the development would have a minor adverse noise impact both during construction and operation without mitigation measures. With the suggested mitigation measures in place compliance with PPC permit noise conditions can be achieved during the construction phase. In addition, application of the suggested mitigation during the operational phase will allow the development to operate within a reasonable noise level. With all mitigation in place, noise impacts resulting from the proposed development will be reduced to minor adverse impacts during construction, and negligible impacts during operation.

Vibration impacts resulting from the development have not been assessed as part of the ES in this chapter. *Chapter 4: Construction Phase, Section 4.1.2* states that vibration levels were not likely to be an issue for surrounding buildings and residents, however, this has not been expanded upon or justified in *Chapter 7*. It is suggested that the Applicant should provide further information on vibration impacts that are expected to occur as a result of the proposed development during the construction and operational phases or otherwise a clear justification for scoping this out of the assessment.

1.6.3 Traffic and Transport Assessment

The methodologies for the traffic studies are provided in *Chapter 8: Traffic and Transport Assessment*. The *Traffic Assessment* and *Travel Plan* provided in *Appendix 6.1* have been subject to consultation and the scope has been agreed with PCC.

Baseline traffic and transportation information and survey data has been clearly described and laid out.

Assessment of impact from transport has been made on the basis of current year traffic flows with the addition of the development. The assessment has also considered all relevant transport modes, planned transport improvements in the area and potential traffic/transport demands arising from other committed developments in the area such as a Tesco distribution centre (now completed) and likely future traffic increases. The assessment methodology and criteria set out are satisfactory.

There is a good description of operational impacts which are considered for each junction/section of highway within the study area.

Construction is estimated to take place over 3 years from mid-2009. Construction phase traffic arising from staff transportation and goods vehicles has been estimated in *Section 8.3*. An assessment of traffic impacts during construction has not been specifically carried out as the Applicant has stated that operational traffic data has been used to assess the impacts given that this is more than the anticipated construction traffic volume and is therefore a robust model. This approach, while not ideal with respect to EIA guidance, is acceptable as highway/junction improvements will be implemented ahead of construction that will be capable of accommodating both construction and operational traffic demands.

1.6.4 Ecology

Ecology and biodiversity are discussed in *Chapter 9: Ecology*, accompanied by *Appendix 9.1: RPS Newt, Reptile, Breeding Bird and Badger Survey Report* and *Appendix 9.2: RPS Winter 2007-2008 Bird Survey Report*.

This well written assessment takes into account relevant EU, national and regional/local legislation, policies and guidance.

Baseline conditions were established through desk-top study of existing ecological designations (via the MAGIC website) within 2km of the study area. The Nene Washes Ramsar/SPA and SSSI sites lie within 2km of the proposed development site and supports populations of birds of European and national importance. Eight sites of county importance were also identified. Data on protected species, including birds, otters and dormice, were also obtained from sources including PCC.

An extensive number of detailed ecological surveys have been undertaken within the proposed development area including Phase One Habitat Surveys and protected species surveys including for badgers, bats, water voles, otters, breeding and overwintering birds, amphibians and invertebrates and *Odonata* (dragonflies and damselflies). *Appendix 9.1* and *9.2* detail the surveys undertaken in 2007-2008 for this ES. Limitations to surveys undertaken were detailed in the ES.

The assessment methodology is well described and is appropriately based on guidance issued by the Institute of Ecology and Environmental Management (IEEM 2006).

Survey results showed the site is of district/local importance only for most overwintering birds and water vole and of county importance for some overwintering birds and for *Odonata* species. Impacts on key species will be negligible as their habitats will either be unaffected or will suffer minimal impacts at local level. The conclusions of this assessment are entirely satisfactory.

Impacts associated with hydrology, atmospheric deposition and lighting on ecology have been considered. No significant impacts are anticipated to result from changes to hydrology and lighting as a result of the scheme. The ES states that the assessment of emissions considered the worst case scenario, but the levels assessed would still not exceed air quality Objectives or Environmental Assessment Levels (EAL) and therefore the scheme will not have any detrimental effects on nationally and internationally designated sites. Confirmation, however, is needed regarding whether English Nature have been consulted on the development regarding atmospheric deposition as effects arising from acidification and eutrophication on ecology and biodiversity have not been specifically described in the text. Further based on best practice, acid deposition and nutrient nitrogen deposition from the facility should be assessed for sites of ecological interest within a 10 kilometre radius of the site. These impacts should be evaluated against the specific critical loads for these habitats.

1.6.5 Landscape and Visual Assessment

The methodology, described in *Chapter 10: Landscape & Visual development*, adopted for the assessment of landscape and visual impacts is well described, robust and draws from a number of guidance and legislation documents including The Landscape Institute/Institute of Environmental Management and Assessment Guidelines for Landscape and Visual Impact Assessment (2002).

The onsite buildings will not exceed 17m in height, however, the Ethel and George buildings will have a total of 9 single flues of 35m in height and 2m in diameter. The assessment of impacts on views and landscape has been assisted by site plans and identification of key features around the site. The adjacent Peterborough Power Station 'main stack' is 60m high (4.8m diameter) and the two 'bypass stacks' are 45m high (6.1m in diameter).

The proposed scheme has been assessed against a baseline of October 2007. Baseline information has been extensively and satisfactorily collected from desk-based review of maps, policy and plans and from site visits. Setting and landscape character along with key features have been well described within and surrounding the proposed development site and are supported throughout the chapter with appropriate and informative graphics. Key views have been clearly identified and appropriately chosen for assessment. The panoramic photo montages are helpful in determining surrounding landscape and key features and proximity of the development, although, the scale, heights and massing of the proposed development relative to these features is difficult to understand given no 'wire line' diagrams or to scale 3D representations of the proposed development have been produced and overlaid onto the photographs to illustrate impacts.

Impacts have been assessed for the construction period and well presented. Impacts resulting from the operational development have been well set out. The finished development would give rise to moderate – slight adverse impacts on landscape overall which would be reduced with mitigation. Impacts on views in general will not give rise to significant impacts, with the exception of impacts on certain view points from the adjacent Flag Fen Visitors Centre which will be located less than 500m away from the proposed development. Impacts on the centre have been addressed through screening and planting and can ultimately be mitigated.

Overall, we are in agreement with the assessment of impacts and the description of residual impacts in *Section 10.16* which have been clearly and objectively described. Mitigation measures are suitable and are described in the *Mitigation* section below. The landscape impacts schedule is informative and useful as presented in *Table 10.7*.

1.6.6 Archaeology

Impacts resulting from the proposed development with regards to archaeology are discussed within *Chapter 11: Archaeological Evaluation* and in *Appendix 11.1: Archaeological Assessment (Northamptonshire Archaeological Unit)*.

The archaeological assessment undertaken in *Chapter 11* has been assessed against the baseline at April-May 2007. The site is located in an area of high archaeological interest and areas surrounding the proposed development site have been well studied in the past. The site has been subject to trial trench excavation as illustrated in *Figure 11.1*. The survey methodology was agreed with PCCAS and appears very well thought out. The trench study showed that the site does not appear to contain a continuation of the archaeological activity identified at Flag Fen nor contained archaeological finds akin to those found when the adjacent power station was built. Site conditions associated with managed water levels were poor for the preservation of organic deposits.

The assessment has satisfactorily considered impacts during both construction and operation. The assessment has concluded that impacts during both construction and operation are likely to be negligible.

1.6.7 Hydrogeology, Flood Risk and Soils

The assessment described in *Chapter 12: Water Resources, Flood Risk, Hydrogeology and Soils* has considered potential impacts associated with surface water discharges, flooding, groundwater hydrology and water supply.

The hydrogeological assessment has been provided as *Appendix 12.1. Appendix 12.2: Flood Risk Assessment* addresses the requirements of PPS25 – Development and Flood Risk. The Flood Risk Assessment (FRA) has been reviewed and approved by the Environment Agency as shown by the letter provided in *Appendix 12.3: Environment Agency Letter*.

The baseline soil, hydrological, hydrogeological and drainage conditions at the site and its surroundings are satisfactorily described. The assessment methodology is well written and thorough. The impacts on local hydrology arising from construction and operation of the development is likely to be negligible providing mitigation is provided, in particular maintenance of adequate green field water run off through coordination of the developments rain water collection system with the surface water recharge trench. The risks associated with flooding have been appropriately assessed. Impacts associated with water upon ecological receptors (water vole and fish) have been considered.

1.6.8 Health Impact Assessments

The health impacts assessment provided in *Chapter 13* and supported by *Appendix 13.1: Multi Modal Health Risk Assessment* describes impacts upon human health associated with pollution to air, rain, soil, pasture and food resulting from emissions to air. The study is extensive and has been carried out well. Negligible changes in emissions exposure are anticipated with no change in health risks even when a worst case scenario is considered.

1.6.9 Risk Management, Environmental Management Systems and Site Safety

A chapter has been provided on construction phase and operational phase site health and safety and also describes operational environmental management systems.

This chapter describes at high level how waste being delivered to site for onward processing will be handled and stored in *Section 14.4: Buildings, Storage and Safety Design*.

The Applicant has committed to the production of an operational site Environmental Management System (EMS). Given that the operation of the development will be dependant on the containment, transportation, handling, storage and processing of waste, the EMS will be key in ensuring processes are put in place to avoid environmental pollution. It is recommended that this document be produced in consultation with PCC and the Environment Agency.

1.6.10 Social and Economic Impacts and Opportunities

Socio-economic impacts and community issues have been addressed in *Chapter 15: Social and Economic Impacts and Opportunities* and in *Appendix 15.1: Social and Economic Impacts and Opportunities*.

Baseline information, the assessment methodology and significance criteria have all been well defined. The appropriate local policies and strategies have been considered. Baseline information was gathered for the population living within Peterborough with regards employment, housing ownership, social grouping and education, and sources of baseline information identified.

Construction and operational phase impacts were adequately assessed. Overall, there will be some local socio-economic benefits associated with the construction of the scheme and some additional jobs associated with the operation of the scheme, however, it is debatable whether a reduction in landfill disposal is a socio-economic benefit as opposed to a waste reduction/environmental benefit, particularly given the waste disposal industry is likely to be adversely affected from an economic point due to the volume of waste to be diverted to the PREL site.

1.6.11 Other Topics and Information Requirements

Overview:

The following topics were not covered by the ES:

- contaminated land;
- sunlight, daylight, solar glare and overshadowing;
- television and radio reception; and
- site specific construction phase mitigation and management.

Further information requirements are described under the above topic headings following.

Contaminated Land:

Consideration of onsite and surrounding site history and potential historic contaminative land uses within in the soils underlying and surrounding the site have not been considered. Given the site is adjacent to an industrial area, an assessment of potential impacts and risks should be carried out. Baseline information on historic land uses and historical mapping can be readily purchased in the form of Landmark Envirocheck Reports. If there are no contaminated sites nearby, e.g. within 1km of the site boundary, then it is possible this topic could be scoped out of the assessment. If this is the case, the verification of the scoping/screening exercise undertaken to identify this needs to be provided.

If there are contaminated sites nearby, then a source-pathway-receptor study should be undertaken to identify key sources of contamination, any pathways, e.g. waterways, for contamination to travel if disturbed, e.g. via excavation, and key receptors should also be identified e.g. humans, ecological receptors. A risk assessment should also be undertaken based on relevant guidance to identify the likelihood of contaminant mobilisation and spread. Should the risks be unacceptable, then mitigation measures should be suggested e.g. excavation and remediation, containment.

Sunlight, Daylight and Microclimate:

A daylight, sunlight and microclimate assessment was not undertaken as part of the EIA. Consideration of impacts arising from the construction and operation of the proposed development will need to be considered with regard to daylight, sunlight and microclimate (in particular wind effects).

It is recommended a scoping/screening exercise is carried out by an appropriate specialist to identify, based on the scheme design, whether these aspects will be an issue. If this exercise proves these aspects will not, then text will need to be provided to justify why they have been scoped out of the assessment.

Radio and Television Reception:

A radio and television reception assessment has not been undertaken with regard to the possibility of the new development giving rise to reception interference.

It is recommended that a screening/scoping study is done, based on the scheme design, by an appropriate specialist to determine whether this will be an issue. If this exercise proves these aspects will not, then text will need to be provided to justify why they have been scoped out of the assessment.

Site Specific Construction Phase Mitigation:

Chapter 4 of the ES and the associated *Appendix 4.1: Common Environmental Construction Policies* document describe generic pollution prevention and environmental best practice measures. Construction mitigation measures specific to addressing construction phase impacts are not consistently stated for each chapter within the ES.

It is recommended that a site specific construction Environmental Management Plan (cEMP) is produced which will define the construction mitigation measures to be implemented specifically tailored to the proposed development for each environmental topic where appropriate. The policies provided in *Chapter 4: Construction* should be used as a foundation guide the development of these measures.

1.7 MITIGATION MEASURES

1.7.1 Air Quality and Emission

Operational mitigation will be embedded within the design and appears satisfactory with regards to EIA legislation. The Applicant has committed to incorporation of the best available technology to minimise air quality/emissions impacts which they claim, in conjunction with effective management and maintenance, will keep atmospheric emissions well within the Environment Agency's required limits for operation.

With the exception of dust control measures, no air quality specific mitigation measures have been put forward by the Applicant in either *Chapter 6: Air Quality and Emissions* or *Chapter 4: Construction*. The Applicant has provided in *Chapter 4*, however, an indicative list of the type and numbers of construction plant/machinery likely to be needed on site and also expected construction related traffic to/from site. The Applicant will need to consider the data above and provide details of site specific construction phase mitigation measures which may include:

- switching off plant when not in use;
- use of electrical plant where possible;
- location of plant away from sensitive receptors;
- ensuring construction delivery/removal vehicles are full thus minimising emissions; and
- encouraging site worker car sharing and/or use of public transport.

It is recommended that the above construction phase mitigation measures are captured, along with all other construction phase mitigation measures, in a cEMP.

1.7.2 Noise and Vibration

The Applicant has committed to the use of sound attenuating insulated concrete framework material for the construction of the buildings, plant noise control measures, including silencers and enclosure of noisy plant within buildings, and strategic positioning of potentially noisy plant away from sensitive receptors. These measures appear suitable with regard to addressing the requirements of EIA legislation.

Generic noise management measures are mentioned in *Chapter 4: Construction* and a noise management policy is provided in *Appendix 4.1: Common Environmental Construction Policies*, however, construction noise mitigation measures specific to this development site have not been identified. It is recommended that the Applicant provides further information on proposed site specific mitigation measures to be implemented on the site.

1.7.3 Traffic and Transportation

Detailed measures to mitigate against increased traffic flows during operation have been discussed in *Chapter 8: Traffic and Transportation* and the supporting appendices.

Mitigation measures will include realignment of Storey's Bar Road which will be realigned at the beginning of construction. This and a number of highway/junction improvement measures will mitigate against construction phase impacts in addition to operational impacts and appear satisfactory.

A *Travel Plan* has also been produced which will encourage sustainable travel to/from the site. The *Travel Plan* is well set out and entirely acceptable.

1.7.4 Ecology

The provision of ecological enhancement measures has been incorporated into the scheme design to even though the development is unlikely to give rise to any significant ecological impacts. These measures have been described in *Section 9.13* and take into consideration the types of habitat that will be created and the species likely to benefit from such measures in addition to the requirements to screen the development due to landscape/view impacts described in *Chapter 10*. The Applicant should be commended for the incorporation of such a well thought out strategy.

Section 9.12 satisfactorily describes mitigation measures to minimise impacts on protected species during construction.

1.7.5 Landscape and Visual

Mitigation measures to minimise and mitigate against operational landscape and visual impacts have been satisfactorily described in *Chapter 10: Landscape and Visual Impacts*. Mitigation measures will principally comprise the provision of tree planting to screen the development and the provision of appropriate building design including colour 'camouflaging' of the flues. Creation of attractive landscaping within the site will also be provided and will contribute to ecological enhancement as described in *Chapter 9*.

Site specific mitigation measures to be implemented during construction have not been described, although it is stated that some screening/ planting will be provided early in the construction works in *Section 10.10. Chapter 4: Construction* does mention that a 6 foot high hoarding will be erected during construction around the site, however, how this will mitigate against impacts is not described. It is recommended that further information be provided on how mitigation will be implemented specifically for this development site during construction.

1.7.6 Archaeology

Mitigation measures have been suggested for both construction and operation, however, impacts are likely to be negligible, so implementation of mitigation measures is likely to be unnecessary.

1.7.7 Hydrology, Flood Risk and Soils

Appropriate operational embedded mitigation measures are described in the ES.

It has been recommended in the ES that the development be constructed on a shallow depth lightweight raft foundation which would avoid the need to dewater the area which would affect local hydrology and potentially undiscovered archaeological finds. Additional flood storage capacity at the site will be provided to accommodate potential flooding and the possibility of flooding due to climate change whilst ensuring that storm water runoff does not exceed greenfield discharge rates.

Mitigation measures during construction are also briefly discussed, principally with regard to maintenance of current greenfield run-off levels. *Chapter 4: Construction* describes policies to minimise pollution of waterways, however, it would be beneficial for this to be captured in the site specific cEMP discussed above.

1.7.8 Social and Economic Impacts and Opportunities

Socio-economic impacts have been assessed to be negligible or beneficial. No mitigation measures are specifically required.

1.7.9 Other Topics and Mitigation

As stated above, no assessment has been undertaken for impacts associated with contaminated land, sunlight, daylight and microclimate or for radio and television reception. Should these topics pose significant issues based on the work recommended above, then a description of the mitigation measures will also need to be provided.

1 INTRODUCTION

1.1 THE OBJECTIVES OF THE COMMISSION

Peterborough City Council (PCC) appointed Environmental Resources Management Limited (ERM) to undertake an independent review of the application submitted to the Department for Business, Enterprise and Regulatory Reform (DBERR), under section 36 of the Electricity Act 1989, by Peterborough Renewable Energy Limited (PREL). The planning application is incorporated into the environmental statement (ES).

The key objectives of ERM as the independent reviewer are:

- to be rigorous but realistic in reviewing each of the components of the proposal; and
- to provide transparent and auditable advice, taking account of best practice, ensuring the decision-makers are properly informed.

ERM's analysis has focused on the adequacy of the submission in terms of its consideration of renewable energy and waste management policy and in relation to environmental impact assessment. It has not involved a full review of the merits of the development proposal but, where necessary, does draw attention to certain aspects of the development that may be questionable in policy terms. It also identifies any real deficiencies within the ES.

ERM has also, separately, undertaken a review of the ES submitted with the planning application to assess whether it complies with the *EIA Regulations* and *EC Directive 85/337/EEC* as amended by *Council Directive 97/11/EC*.

1.2 STRUCTURE OF THIS REPORT

Following this section, this report is structured as follows:

- **Section 2** provides a description of the methodology followed in carrying out our work and presents a summary of what we understand from the submitted details;
- **Section 3** presents our conclusions from the review of the application against waste management and renewable energy policy;
- **Section 4** considers the detail of waste and biomass management relevant to the application;
- **Section 5** presents an assessment of the technology proposed; and
- **Section 6** provides the overall conclusions to our work.

ERM has carried out a review of the application package to consider the adequacy of the submitted information in regard to the following:

- the extent to which the proposal will assist in achieving national, regional and local policy objectives for waste management and energy generation;
- whether the proposal can be properly regarded as a user of biomass; and
- the technology proposed.

2.1

DESCRIPTION OF THE DEVELOPMENT

The application proposes development of a resource recovery facility (of both materials and energy) managing mixed waste and biomass materials. The proposed development includes the following:

- research and development centre with visitor space;
- WEEE re-use building;
- two process buildings, named Ethel and George;
- carbon sequestration equipment;
- ancillary buildings including administration building;
- weighbridge; and
- ancillary elements including admissions building, weighbridge, landscaping etc.

The facility is proposed to process domestic, industrial, construction and agricultural waste streams, including WEEE, biomass materials and energy crops, managing a maximum throughput of 650,000 tonnes per annum (tpa). Through combustion (gasification) the proposed plant is anticipated to recover 66 MW, exporting approximately 48 MW per year.

A number of products are intended to be recycled through non combustion elements of the facility, including: glass; plastics; ferrous and non ferrous metals, textiles and fertiliser. Post combustion, the application proposes the use of electric arc plasma vitrification, recovering: filtration sands; metal alloy; other metals; and chemicals.

The application states that the facility will result in zero waste, and does not expect to send any materials to landfill.

The proposed hierarchy of materials to be accepted is as follows:

1. Mixed waste materials (commercial and municipal)
2. Segregated biomass wastes (commercial and industrial)
3. Segregated biomass wastes (construction)

4. Agricultural residues and wastes
5. Dedicated energy fuels / crops

Materials arriving on site would be directed, after the weighbridge, to *Building George* if it is mixed waste, or *Building Ethel* for segregated biomass. Apart from the differences in feedstock and size (*George* has three lines, to *Ethel's* six) the operations carried out in the buildings look broadly the same.

Each building has three zones. These are described below and in *Figure 2.1*.

Zone 1 – MRF

In *Zone 1* of *George*, the incoming mixed waste or fuel (hereafter referred to as feedstock) is received and sent to an 'advanced materials recycling facility' (MRF). Within the application the technology to be used is described as a 'dry autoclave' (heated by the bioreactor) that cleans and separates recyclables from biomass. The recyclables removed 'include glass, plastics, ferrous and non-ferrous metals and textiles'.

The 'dry autoclave' is also used to further treat the processed biomass fraction, to destroy bacteria, and to achieve the desired energy and moisture content. The output is containerised and stored in the fuel reception area of *Zone 2*.

Any food waste from commercial sources, or collected separately under contract, is also taken to *Zone 1* in *George*, 'where it will be processed via a three-stage thermophilic digestion process', a bioreactor capable of handling 35,000 tpa, to produce heat and fertiliser.

Building Ethel is proposed to accept segregated biomass, and therefore does not include the 'dry autoclave'.

Zone 2 - Gasification ⁽¹⁾

Zone 2 is the main combustion area, with nine separate combustion units (three in *George*, six in *Ethel*). Each primary combustion chamber is a large ceramic-lined furnace operated in a reduced-air environment (ie gasification) and using a reciprocating stepped grate to move the feedstock. In the secondary combustion chamber (another large ceramic-lined furnace) further air is introduced to ensure complete burn-out of all organic material and gases leaving the primary chamber. The combustion process is stated to meet the requirements of the Waste Incineration Directive.

Each of the nine combustor units has its own fuel handling system, boiler, economiser and continuous emissions monitoring system (CEMS). Pairs of combustors feed four 15MW_e-rated steam turbines, and the ninth combustor feeds a smaller 6MW_e turbine – delivering 66MW_e total installed capacity.

(1) Hardware apparently supplied by Talbott's Ltd [<http://www.talbotts.co.uk>]

Cleaned gases from the CEMS are released to atmosphere via nine 35m stacks. The bottom ash (bed ash) from the combustion chambers is intended to be exported off site for use as a soil/fertiliser.

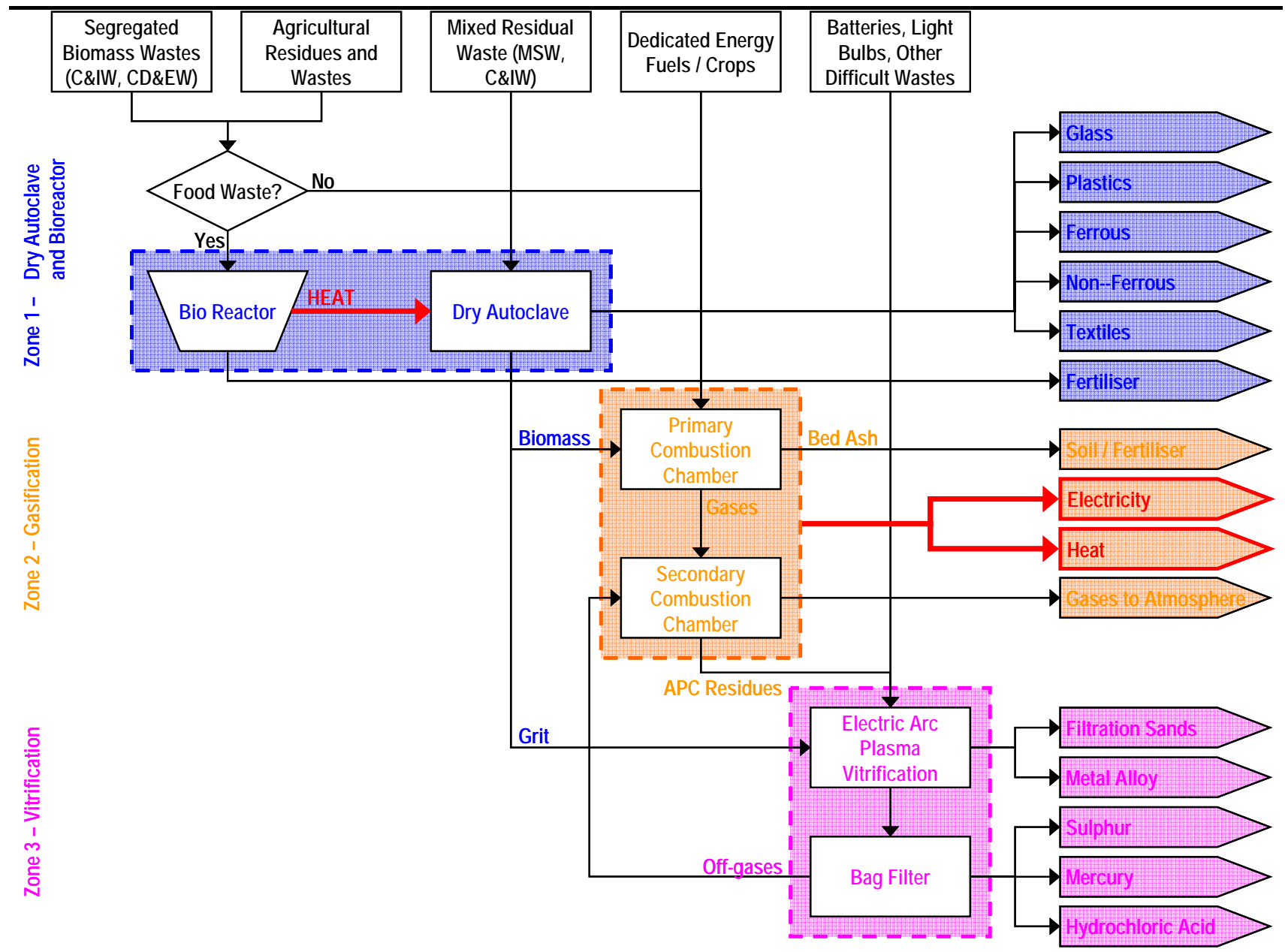
Zone 3 – Vitrification

In *Zone 3*, each building has its own plasma vitrification plant. Any intermediate wastes arising from on-site processes (such as fly ash, air pollution control residues, grits and other non-recyclables) are sent to vitrification. The plant is proposed to also accept batteries, light bulbs, glass materials and other 'difficult' wastes.

The electric arc plasmas vitrify the waste input, producing metal alloys (cast into excavation bucket teeth) a glass product (which will be turned into filtration sands) and off gases, which are treated and fed back into the secondary combustion chambers. It is suggested that there will be no wastes from the vitrification process.

From this information, and the flow diagram presented in the ES, ERM has produced a more detailed schematic diagram of the materials flows, presented in *Figure 2.1*.

Figure 2.1 ERM Schematic Flow Diagram



3 *REVIEW OF THE PROPOSAL AGAINST WASTE MANAGEMENT AND RENEWABLE ENERGY POLICY*

3.1 *SETTING THE CONTEXT*

The application documents were submitted in August 2008, during a period of review of both regional and local plan policy. The East of England Plan has now been adopted and revised figures have been used in further preparing the Peterborough Local Development Framework. These will be referred to, as relevant, in consideration of the application.

National policy expectations set out in PPS 10 ⁽¹⁾ advises that the key policy requirement on waste planning authorities is to ensure proposals are consistent with that policy statement. Similar advice is provided in PPS 22 ⁽²⁾ and the PPS 1 Supplement ⁽³⁾. In considering energy and waste planning applications, planning authorities must have regard to the policies in these PPS as material considerations, which may supersede the policies in their development plan.

Paragraph 23 of PPS 10 specifically advises that, in the interim period before the development plan is updated to reflect the policies in PPS 10, planning authorities should ensure that proposals are consistent with the policies in the PPS, and avoid placing requirements on applicants that are inconsistent. ERM has used the same approach in considering the contribution the proposed facility could make to delivery of renewable energy.

The central concern for the determining planning authority is sufficiency of information to allow confidence in determination of whether or not the proposed development is consistent with the national policy expectation.

3.2 *REVIEW OF THE PROPOSAL AGAINST RELEVANT POLICY*

3.2.1 *National Policy*

At the core of the three PPS are key planning objectives. Whilst the policy statements indicate that these will be delivered through planning strategies, they are also relevant to consideration of renewable energy and waste management proposals.

The **PPS 1 Supplement** expects the planning system to contribute to UK and global sustainability through providing the infrastructure needed by communities and securing resource and energy efficiency; both of which can be achieved through creating an attractive environment for innovation and

(1) Planning Policy Statement 10: Planning for Sustainable Waste Management. ODPM, July 2005.

(2) Planning Policy Statement 22: Renewable Energy. ODPM, 2004.

(3) Planning Policy Statement: Planning and Climate Change Supplement to Planning Policy Statement 1. DCLG, December 2007.

investment in renewable and low carbon energy technology. Renewable and low carbon energy is defined in the PPS 1 Supplement, amongst other things, as energy produced from biomass and energy crops and energy from waste.

The proposed facility could be instrumental in delivering these objectives.

PPS 22 identifies that '*Increased development of renewable energy resources is vital to facilitating the delivery of the Government's commitments on both climate change and renewable energy*'. The proposed facility has the potential to contribute to all four elements of the Government's sustainable development strategy: contributing to the nation's energy needs; reducing emissions of greenhouse gases; reducing reliance on diminishing supplies of fossil fuels; and creating jobs directly related to the development of new technologies.

In the context of waste management policy in **PPS 10**, the application could: make a major contribution to driving waste management up the hierarchy; provide a facility that more than meets the needs of the community; and assist with implementing the national waste strategy and meeting European obligations.

The **Waste Strategy for England**, presented to Parliament in May 2007, (WSE 2007) presents the national strategy objectives for waste management. It promotes the objectives of waste reduction, by making products with fewer natural resources, and through breaking the link between economic growth and waste growth. It repeats the waste management hierarchy present in PPS 10 with the ultimate aim to divert as much waste from landfill (particularly biodegradable materials) as possible. The key objectives for waste management as presented in WSE 2007 are:

- decouple waste growth (in all sectors) from economic growth and put more emphasis on waste prevention and re-use;
- meet and exceed the Landfill Directive diversion targets for biodegradable municipal waste in 2010, 2013 and 2020;
- increase diversion from landfill of non-municipal waste and secure better integration of treatment for municipal and non-municipal waste;
- secure the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste; and
- gain the most environmental benefit from that investment, through increased recycling of resources and recovery of energy from residual waste using a mix of technologies.

The PREL application could make a significant contribution to achieving these aims within Peterborough and the East of England Region.

3.2.2

Regional Policy

The relevant regional policy is set out in the **East of England Plan, 2008** (EoE Plan). The EoE Plan has two policies relating to renewable energy and eight policies relevant to waste management.

The renewable energy policies are presented below.

- **Policy ENG1: Carbon Dioxide Emissions and Energy Performance**

Local authorities should encourage the supply of energy from decentralised, renewable and low carbon energy sources.....

- **Policy ENG2: Renewable Energy Targets**

The development of new facilities for renewable power generation should be supported, with the aim that by 2010 10% of the region's energy and by 2020 17% of the Region's energy should to come from renewable sources.

The application could contribute to delivery of a decentralised source of renewable energy. Exporting the energy generated at the plant would help meet the Region's renewable energy target, set out in Policy ENG2.

Policy WM1 essentially reiterates the key planning objectives of PPS 10, providing the regional policy commitment to delivering sustainable waste management infrastructure.

Policy WM2 identifies waste management targets to be adopted by all authorities to minimise waste arisings and to provide a framework for diverting waste from landfill. The objectives intend to eliminate the landfilling of untreated municipal and commercial waste by 2021 and secure at least the following minimum levels of recovery:

- municipal waste – recovery of 50% at 2010 and 70% at 2015; and
- commercial and industrial waste – recovery of 72% at 2010 and 75% at 2015.

As identified above, the proposal has the potential to implement the key waste planning objectives and to deliver waste management targets.

In **Policy WM3**, the East of England Plan establishes the expectation for a progressive reduction of imported waste. After 2015, provision for the management of imported waste from London should be restricted to the landfill of residual waste, which is apportioned across the sub regions. New non-landfill waste facilities dealing primarily with waste from outside the region should only be permitted where there is a clear benefit, such as the provision of specialist processing or treatment facilities which would not be viable without a wider catchment and which would enable recovery of more locally arising wastes.

The application details are not specific about the source of wastes to be managed at the proposed facility; wastes could be imported from beyond the Region. Beyond the high level statements referring to energy recovery, a consequent discussion of benefits is not provided in the submitted details. ERM does recognise that the facility provides the potential to recover energy from residual wastes received from London, thus diverting them from disposal to landfill.

Policy WM4 apportiones the quantity of waste to be managed within each of the sub regions. *Table 3.1* presents the relevant apportionment figures.

Table 3.1 *Regional and Sub Regional Waste Apportionment (thousand tonnes)*

	2005/06 - 2010/11	2005/06 - 2010/11	2005/06 - 2010/11
Cambridgeshire and Peterborough	2,140	2,190	2,460
Regional Total	12,680	13,790	15,170

Policy WM5 presents the expectation that local development documents will ascertain the additional capacity required to manage the apportioned wastes and identify suitable locations at which this capacity should be provided.

The PREL proposal would contribute to managing the waste apportioned to Peterborough and Cambridgeshire and does utilise a site allocated for such development. The details of the scheme will be considered further below in order to understand whether an appropriate level of contribution would be made by the proposal. This consideration is important as the application seeks to extend the urban boundary significantly beyond the site allocation.

Sustainable waste management procedures in construction projects are sought in **policy WM6**. Within major developments, the policy expects that provision would be made for facilities to enable local waste reduction, recycling and management. The PREL submission does not provide a Construction Environmental Management Plan or a Waste Management Plan. It does not demonstrate that best practice waste management procedures would be implemented in constructing this project.

Policy WM7 presents the policy for hazardous waste management. The PREL facility is proposed to accept WEEE, which once collected is classified as hazardous waste. Whilst the policy recognises the difficulty in properly understanding capacity requirements for this waste stream, it does encourage the provision of additional hazardous waste management capacity, including that for WEEE.

Policy WM8 is relevant to the actions expected from third parties, such as the waste disposal authority and waste producers. It is not directly relevant to consideration of the PREL proposal and is not considered further.

3.2.3 *Local Policy*

The relevant adopted local policy documents are listed below:

- Cambridgeshire and Peterborough Waste Local Plan 2003 (CPWLP); and
- Peterborough Local Plan 2005 (PLP).

Policies contained in the **CPWLP** are primarily concerned with waste management, although the potential to recover energy is also recognised. Those policies of relevance to this review are identified in *Table 3.2*.

Table 3.2 **Relevant CPWLP Policies**

CPWLP Policies
WLP1 Sustainable Waste Management
WLP2 Resource Recovery – Materials and Energy
WLP3 The Need for Waste Development and the Movement of Waste
WLP18 Major Waste Management Facilities
WLP23 Non-Inert Materials Recovery facilities
WLP24 Anaerobic Digestion facilities
WLP27 Energy from Waste

CPWLP policies **WLP1**, **WLP2** and **WLP3** aim to achieve sustainable waste management by:

- promoting regional self-sufficiency and the waste hierarchy (WLP1);
- encouraging integrated proposals that recover resources from waste (WLP2); and
- permitting proposals for major new waste development or a major extension of existing waste development where there is a demonstrated need within Cambridgeshire and Peterborough (WLP3).

PPS 10 removes reference to BPEO, regional self-sufficiency and proximity principle, reformulating these principles into the key planning objectives of the PPS. However, it remains relevant to consider the benefits (for example energy recovery) and burdens (for example from transport) resulting from waste development proposals, particularly those of a significant scale such as the PREL Energypark. These aspects of the proposal will be considered in more detail below.

Otherwise, the proposal is in general conformity with policies WLP1 and WLP2.

To ensure that excessive provision is not made within the CPWLP area, policy WLP3 states that planning permission is dependent upon applicants entering into binding restrictions on catchment area, tonnages and/or types of waste. However, WLP3 also states that planning permission may be granted for waste development involving the importation of waste where this is demonstrated to be the best practicable environmental option (BPEO) taking into account regional self-sufficiency, the proximity principle and the waste hierarchy.

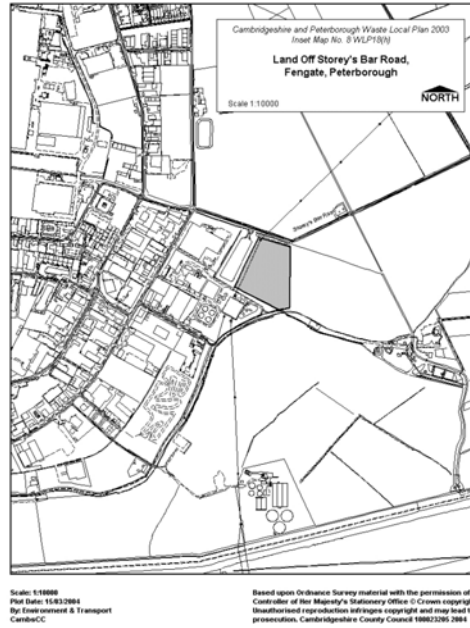
Policy WLP18 of the CPWLP identifies, subject to the other policies in the development plan, sites for major waste management facilities. Part of the proposed site is identified in this policy (Site H: Land of Storey’s Bar Road, Fengate, Peterborough).

The CPWLP defines major waste management facilities as those making a substantial contribution to the long-term management of waste in

Cambridgeshire and Peterborough. Due to the scale of the PREL proposal, ERM considers it should be recognised as a major waste management facility.

Figure 3.1 presents the site as allocated in Policy WLP18, Figure 3.2 presents the proposed facility site boundaries as presented in the *Environmental Statement* (the *Planning Statement* does not contain a site graphic). It is clear that the PREL proposal seeks to extend the urban boundary beyond the allocated site.

Figure 3.1 *Site Boundary, as presented in CPWLP Policy WLP18*



(Source: CPWLP Insert Map Number 8)

Figure 3.2 *Proposed Site Boundary, as presented in the Environmental Statement*



(Source: *Environmental Statement* Figure 1.1)

A comparison of the two site boundaries shows the proposed site (*Figure 3.2*) extending south east beyond the allocated site boundary and northwards onto an adjacent field. The area of the proposal that extends beyond the allocated site is contrary to policy WLP18.

Policies WLP23, WLP24 and WLP27 present a positive policy framework for waste management facility proposals, if they are located on a designated WLP18 site or land allocated for B2 use class. As the PREL proposal extends beyond land allocated in WLP18 the application should demonstrate the material considerations relevant to outweigh this conflict with policy.

For the purposes of this review, the significant policy in the **PLP** is **policy U15**. Policy U15 also identifies the site at Storeys Bar Road and uses the same boundary as shown in *Figure 3.1* above. The site is identified for energy produced from renewable resources, provided it is compatible with, and would not prejudice use of the site for major waste management purposes.

The proposal has the potential to deliver the objectives of policy U15, recovering energy through waste management. However, as identified previously, the proposal extends beyond the allocated site boundary and is therefore contrary to policy.

3.2.4

Comment from Review of Policy

A high level review of waste management and energy generation policy indicates that the proposal could be useful in delivering key national policy objectives. However, it is necessary to look more closely at the submitted details in order to understand: whether the level of contribution that could be made would be appropriate; and how the potential benefits would be realised. The submitted details (for example at paragraph 3.1.11 of the *Planning Statement*) state that the strongest possible support is given to schemes of this nature in national policy and therefore it is not necessary to demonstrate either overall need or to justify the chosen location. This interpretation of policy is only partially correct.

ERM would agree that sincere and significant support is given to those proposals that would enable waste to be managed sustainably and would generate renewable energy. However, it is not enough for the applicant to simply state that these benefits will occur, it is also necessary to demonstrate how they will be delivered and that they outweigh burdens of the development (such as conflict with development plan policy).

The PPS 1 Supplement identifies (paragraph 11) that information sought from applicants should be proportionate to the scale of the proposed development. The application submitted by PREL proposes a very large facility that requires land beyond the urban boundary – it is correct that an appropriate level of detail is provided within the application to enable a proper understanding of its benefits and burdens. This is considered in more detail in the following sections.

This section reviews the case presented in support of the development in the *Planning Statement*.

The *Planning Statement* states that the proposed facility would accept a maximum input of 650,000 tpa. However, it does not provide clarity in terms of the materials that would be accepted or that would be recovered. It is indicated that 160,000 tpa of waste recycling capacity would be provided, in addition to energy recovery capacity of 540,000tpa, intended for both waste and bespoke biomass crops. This section of the report will therefore consider both potential waste and biomass arisings and alternative management routes.

4.1 MIXED WASTES

The proposal expects to accept mixed waste from both the municipal and commercial & industrial sectors. The document titled *Waste Management Statistical Basis for the Cambridgeshire and Peterborough Minerals and Waste Development Plan 2006 – 2026 (WMS for Cambridgeshire and Peterborough 2008)* was published in July 2008. Whilst this was just prior to submission of the PREL proposal, it has not been considered in the application details. Information contained within the *WMS for Cambridgeshire and Peterborough 2008* therefore supersedes the information used within the *Planning Statement* to demonstrate the quantitative need for the proposal. The relevant new headline waste forecast figures are used in our review of the *Planning Statement*, but are compared, as appropriate, to the reference figures provided in the *Planning Statement*.

4.1.1 Municipal Waste (MW)

Table 4.1 reproduces the forecast MW arisings for Cambridgeshire and Peterborough as presented in the *WMS for Cambridgeshire and Peterborough 2008*. The 2006 figures are slightly lower than those set out in the *Planning Statement* (436,669 tpa). However, the MW arisings forecast in the *Planning Statement* for year 2021 (606,129 tpa) fall within the range of arisings forecast in the *WMS for Cambridgeshire and Peterborough 2008*.

Table 4.1 *MW Arisings 2006-2026 (tonnes)*

Scenarios	2006	2011	2016	2021	2026	Total Arisings over period 2006-2026

Scenarios	2006	2011	2016	2021	2026	Total Arisings over period 2006-2026
Low: Gradually increases from the present rate of 2.7% to 4.8% in 2004 before falling to 1.5% at 2012 and remains constant till 2021. This is to become directly proportional to growth in dwellings.	429,000	483,000	523,000	552,000	579,000	10,795,000
High: Gradually increases from the present rate of 2.7% to 4.8% in 2004 before falling to 1.5% by 2021.	430,000	505,000	568,000	610,000	639,000	11,600,000
PFI: Slow decrease from present rate of 2.7% in 2003 (Selected growth rate for model).	433,000	509,000	586,000	650,000	686,000	12,098,000
East of England Plan Growth	432,000	513,000	541,000	570,000	598,000	11,233,000

(Source WMS for Cambridgeshire and Peterborough 2008)

To identify the amount of residual MW expected to remain following recycling and composting, the *Planning Statement* applies the WSE 2007 targets. *Table 2.2* provides the same information, using the arisings apportioned to the sub region in the EoE Plan. The EoE Plan is used rather than the *WMS for Cambridgeshire and Peterborough 2008* because it is adopted policy and provides one set of figures. The EoE Plan apportionment also falls within the range of arisings forecast in the *WMS for Cambridgeshire and Peterborough 2008*.

Table 4.2 *EoE Plan MW arisings with WSE 2007 recycling and composting targets applied*

Year	Recycling and composting Target %	Arisings (tonnes)	Amount to be recycled or composted (tonnes)	Residual waste to be managed (tonnes)
2010	40	513,000	205,200	307,800
2015	45	541,000	243,450	297,550
2020	50	570,000	285,000	285,000

(Sources: *EoE Plan* & *WSE 2007*)

Using the EoE Plan and applying the *WSE 2007* household recycling and composting targets shows that there will be an increasing need for recycling and composting capacity for MW waste, but a decreasing need for residual treatments methods.

ERM concurs that management of residual MW arisings will require additional capacity within Cambridgeshire and Peterborough. However, the submitted details have not demonstrated how those arisings would be made available to the PREL facility. ERM considers it is unlikely that this waste would be available to this proposal.

Donarbon Waste Management Limited has already secured the contract to manage MW arisings in Cambridgeshire. As recognised within the *Planning Statement*, the company is already developing a facility to deliver this contract. ERM's discussions with the company suggest that the amount of material resulting from that facility that would require further treatment would be in the order of 50,000 tpa; much less than that suggested in the *Planning Statement*.

Peterborough City Council is managing its own MW arisings and is developing a separate energy resource recovery facility. The PREL facility could be contracted to accept this waste, but this scenario is unlikely to happen in the near future. Procurement of waste management services within the public sector involves protracted procedures to establish the best value tender. To go through this procedure at this stage would delay delivery of the waste management infrastructure required within the authority. Furthermore, there is no guarantee that PREL would be successful in winning the contract.

4.2

COMMERCIAL & INDUSTRIAL (C&I) WASTE

Table 4.3 reproduces the forecast C&I waste arisings for Cambridgeshire and Peterborough as presented in the *WMS for Cambridgeshire and Peterborough 2008*. The 2006 figures are slightly less than those presented in the *Planning Statement* (1,173,000 tpa). In 2021, the *Planning Statement* forecasts that there will be 1,455,000 tpa of C&I waste arisings. This is more than the quantities forecast in the *WMS for Cambridgeshire and Peterborough 2008*, with exception of the East of England Plan Growth scenario.

Table 4.3 Commercial and Industrial Waste Arisings 2006-2026 (tonnes)

Scenarios	2006	2011	2016	2021	2026	Total Arisings over period 2006-2026
Zero annual growth (0%)	1,106,000	1,106,000	1,106,000	1,106,000	1,106,000	23,226,000
High: Growth is 1.1% p.a. until 2010, thereafter it is 1.0%	1,131,000	1,192,000	1,254,000	1,313,000	1,372,000	26,400,000
Average/Single: Selected growth rate for model. % Starts at 0.6% and decreases to 0.5% by 2021	1,118,000	1,149,000	1,180,000	1,209,000	1,239,000	26,763,000
East of England Plan Growth	1,166,000	1,326,000	1,531,000	1,777,000	2,053,000	32,752,000

(Source WMS for Cambridgeshire and Peterborough 2008)

There are no national targets for recycling and composting for C&I waste. The *Planning Statement* assumes that 50% will be recycled by 2010, 55% by 2015 and 55% by 2020. To ensure consistency the same assumptions are used in *Table 4.4* but using the adopted EoE Plan forecast waste arisings.

Table 4.4 EoE Plan C&I waste arisings with WSE 2007 recycling and composting targets applied

Year	Recycling and composting Target %	Arisings	Amount to be recycled or composted	Residual waste to be managed
2010	50	1,326,000	663,000	663,000
2015	55	1,531,000	842,050	688,950
2020	55	1,777,000	977,350	799,650

(Sources: EoE Plan & Planning Statement)

Using the EoE Plan and applying the C&I waste recycling and composting targets set out in the *Planning Statement* demonstrates that there is an increasing need for recycling and composting capacity in addition to other residual waste treatment capacity.

4.2.1 Residual Waste Treatment Capacity

The *Planning Statement* does not identify any existing residual waste treatment capacity within the sub region. It is necessary to gain a better understanding of waste management needs for Peterborough and Cambridgeshire, in order to understand whether the proposal makes an appropriate level of contribution to those needs in the relevant area. ERM has completed high level research to gain indicative figures of the residual waste treatment capacity gap within the sub region.

Our approach has combined the adopted EoE Plan apportionment for MW and C&I waste and compared these against the capacity figures presented in the *WMS for Cambridgeshire and Peterborough 2008*. The results of this exercise are provided in *Table 4.5*. It should be noted that a significant proportion ⁽¹⁾ the existing permitted capacity identified below is located within Cambridgeshire. ERM has been advised that Peterborough itself only hosts approximately 30% of this capacity. This is primarily recycling and composting capacity. There is currently no residual waste treatment capacity within Peterborough.

Table 4.5 *Municipal and C&I Waste Arisings 2006-2026 for Cambridgeshire & Peterborough from the EoE Plan and Current Waste Capacity*

Description	2006 (tonnes)	2011 (tonnes)	2016 (tonnes)	2021 (tonnes)	2026 (tonnes)
Municipal Waste Arisings	432,000	513,000	541,000	570,000	598,000
Commercial and Industrial Waste Arisings	1,166,000	1,326,000	1,531,000	1,777,000	2,053,000
Total Waste Arisings	1,598,000	1,839,000	2,072,000	2,347,000	2,651,000
Permitted Capacity within the area in 2006 (recycling+ composting +treatment)	1,471,000	1,471,000	1,471,000	1,471,000	1,471,000
Capacity Gap	127,000	368,000	601,000	876,000	1,180,000

The results indicate that waste capacity deficit grows significantly over the study period. However, as the *Planning Statement* does not clearly identify the waste management capacity for the proposal, it is difficult to assess whether it makes a suitable level of contribution.

If it is assumed that all 650,000 tpa is solely for waste management then the propose facility would provide significant excess capacity until 2021. If it is assumed that just 160,000tpa of the total plant capacity is intended for waste management (as is suggested from the submitted details) then the plant might be expected to make a more useful contribution.

However, there remain other unknown issues, which further distort our ability to properly assess the proposal, some of which have been raised previously:

- no consideration has been given to securing residual MW arisings;

(1) Peterborough Borough Council advises that 70% of capacity identified is assumed to arise in Cambridgeshire, with 30% located within Peterborough.

- current waste management proposals have not be considered; and
- waste management capacity has not been split between the two streams – this is important as MW makes up a smaller fraction of the forecast arisings but MW management capacity is likely to represent a significant proportion of known current waste management capacity.

4.2.2 *Wastes from Neighbouring Authorities*

The *Planning Statement* suggests that waste could also be sourced from within a 20 mile catchment area from the facility. Reference is made to waste arisings figures from Lincolnshire, Northamptonshire and Rutland to support the need case.

A quick review of these local authorities suggests that it is unlikely that MW will be available to the proposal.

- Lincolnshire County Council – a planning application for a dedicated energy from waste (EfW) facility at North Hykeham has been submitted to treat residual MW produced in Lincolnshire.
- Northamptonshire County Council has recently submitted an outline business case to Defra for PFI credits. This proposal was submitted jointly with Milton Keynes Council. The reference case is for a mechanical biological treatment facility due to political pressure against incineration.
- Rutland Council produces 19,000 tpa of MW. Further recovery beyond recycling and composting is not expected to be needed until 2015 and represents a very small input.

The *Planning Statement* calculates C&I waste arisings within the neighbouring authorities applying the proportion of the authority lying within 20 miles of the proposed facility to the total C&I arisings within that authority area. This method assumes that there is a consistent amount of waste arising across the authorities. This produces a somewhat optimistic scenario. In reality, the main urban, and thus likely waste producing areas of the adjacent authorities, lie beyond the 20 mile catchment area.

4.2.3 *Waste Need Conclusions*

The application details do not present unambiguously the waste tonnage required by, or available to, the proposed facility. The waste arisings forecast in the *Planning Statement* are broadly consistent with those of the recently published *WMS for Cambridgeshire and Peterborough 2008*.

It is therefore not possible to conclude whether these required inputs are available, or whether the proposed facility would make an appropriate level of contribution to waste management needs within sub region, or more widely.

4.3 SEGREGATED BIOMASS

The *Planning Statement* provides no information for the amount of separated biomass required by, or available to, the proposal. The *Environmental Statement* states that PREL has letters of intent for the supply of 350,000 tpa of segregated biomass/biomass crop, this claim has yet to be verified. This is anticipated to represent 75% of the combustion requirements of the plant.

The *Planning Statement* suggests that the main sources of segregated biomass will be:

- segregated biomass from the C&I waste stream;
- waste wood;
- agricultural waste; and
- bespoke biomass crops.

This section estimates the likely arising of each of the biomass sources identified above.

4.3.1 *Segregated biomass from C&I waste stream*

Earlier this year, the East of England Region Assembly published the Regional Biowastes Management Study, May 2008 (*RBMS 2008*). The calculated 'available biomass' figures presented in the *RBMS 2008* are reproduced in *Table 4.6*. These figures are referenced rather than total segregated biomass arisings as they are considered to present a more realistic picture of potentially available segregated biomass. The *RBMS 2008* provides data for the whole region; it is not split into sub regional arisings.

Table 4.6 *Available Segregated Biomass Waste Arisings from East of England Region*

	Commercial (tonnes)	Industrial (tonnes)
Quantity	252,180	299,104
Total	551,284	

(Source: *RBMS 2008*)

4.3.2 *Waste Wood*

There are significant quantities of waste wood arising in the UK, although previous estimates of 10 million tpa⁽¹⁾ have been heavily disputed. There is also limited information on where waste wood arises and how it is currently treated.

Waste wood primarily arises within the construction, demolition and excavation (CD&E) waste stream. Accurate up-to-date information on the composition of the CD&E waste stream is not readily available and is significantly dependant on the type of development undertaken.

(1) Review of wood waste arisings and management in the UK. WRAP, June 2005.

The *Planning Statement* suggests that approximately 5% of the CD&E waste stream is wood/biodegradable waste. This is consistent with data published by the Environment Agency for Wales *Building the future 2005-6: A Survey on the arising and management of construction and demolition waste in Wales 2005/06*. This report further suggests that the 5% potential biomass aspect of the CD&E waste stream can be broken down to approximately 3% wood, 1% biodegradable waste and 1% paper and cardboard.

The *WMS for Cambridgeshire and Peterborough 2008* provides the most up to date information for CD&E waste arisings in the sub region, 2,697,000 tonnes in 2006. Applying the assumption that 5% of these arisings would be suitable for treatment at the proposed facility, the CD&E waste stream could provide 134,850 tonnes of feedstock.

However, ERM would expect a high proportion of these wastes to be recycled and would not advocate assuming that all of this material would be available to the proposed facility.

4.3.3 *Agricultural Waste*

To understand agricultural waste arisings the most relevant information is also contained in the *WMS for Cambridgeshire and Peterborough 2008*. The scenarios considered within that study are presented in *Table 4.7*.

Although the estimated tonnages vary significantly across the scenarios, *Table 4.7* indicates that there is a significant amount of agricultural waste arising in the sub region.

Table 4.7 *Agricultural Waste Arisings 2006-2026 (tonnes)*

Scenarios	2006	2011	2016	2021	2026	Total Arisings over period 2006-2026
Low: Zero annual growth (0%).	432,000	432,000	432,000	432,000	432,000	9,065,000
High: Starts at 0.7% and increases to 1.3% by 2021.	446,000	478,000	503,000	521,000	542,000	10,480,000
Average/Single: Selected growth rate for model. % Starts at 0.4% and increases to 0.6% by 2021.	439,000	455,000	467,000	476,000	487,000	9,772,000
Average/Single: 2005 - 2016 from being proportional to projections on the number of SIC Code employees in the Plan area, down to zero growth.	328,000	243,000	181,000	181,000	181,000	4,542,000

(Source: WMS for Cambridgeshire and Peterborough 2008)

However, there is no information provided to describe how this waste is currently treated or whether it would be available to the proposal. Non-organic wastes arising with the agricultural sector are now included in legislation relevant to controlled waste. It is likely that these wastes would be managed in facilities dedicated to the management of C&I waste streams.

Organic or biodegradable wastes may be available to the proposed facility, or may be reused within the agricultural unit at which they have arisen (potentially the most sustainable solution) or be used more locally (also potentially a more sustainable solution).

4.3.4 *Bespoke Biomass Crops*

The submitted details provide scant information on the amount of bespoke biomass crops available to the proposal or where they would be sourced from. ERM has completed a high level review of the land requirements of suitable crops to understand the implication of the proposal.

ERM has researched two assumed energy crops: Miscanthus and Willow. The amount of hectares of agricultural land required to produce various tonnages of each crop are given in *Table 4.8* below.

Table 4.8 *Potential Crop Arisings*

	Miscanthus	Willow
Oven Dried tonnes / Ha	13	9
With Moisture tonnes/Ha	16	12
Tonnes per annum for proposed facility	Ha of agricultural land required	
400,000	25,000	33,333
200,000	12,500	16,667
100,000	6,250	8,333
50,000	3,125	4,167

(Source: www.biomassenergycentre.org.uk & Pers Com Jeff Hogan - Forestry Commission, 21.11.2008)

Defra suggests that agricultural land with classification grades 1, 2, 3a & 3b would be suitable to grow such crops ⁽¹⁾. *Table 4.9* presents both the amount of this land classification within Cambridgeshire and Peterborough and estimates the 'potential' crop that this area might yield. These figures are not intended to be reflective of an actual scenario, but are presented to provide an indication of the feasibility of supplying the proposal with bespoke energy crops.

Table 4.9 *Potential crop yields from agricultural land in Cambridgeshire and Peterborough*

	Agricultural Land Classification Grades 1,2,3a & 3b (hectare)	Miscanthus Yield (tonnes per year)	Willow Yield (tonnes per year)
Peterborough	27,300	436,800	327,600
Cambridge	281,208	4,499,328	3,374,496

4.3.5 *Current Biomass Treatment Capacity*

The *Planning Statement* does not provide details of other biomass (planned or operating) capacity.

Information in the RBMS 2008 indicates that there is just over 500,000 tpa of anaerobic and in vessel treatment capacity operating or planned in the East of England Region (see *Table 2.11*). ERM is also aware of planning permission being obtained for a 150,000tpa biomass combustion facility being granted within the Region, in Nuneaton.

(1) Agricultural Land Classification, DEFRA. <http://www.defra.gov.uk/rds/publications/technical/alc.pdf> [accessed 21.11.2008]

Table 4.10 *Current and future Biomass Treatment Facilities*

Facility Type	Current Operating Capacity (tpa)	Future Operating Capacity (tpa)	EA Licensed Capacity (tpa)
In vessel	259,116	475,599	645,997
Anaerobic Digestion	25,000	42,000	75,000
Total	284,116	517,599	720,997

(Source: RBMS 2008)

4.3.6 *Biomass Need Conclusions*

The *Planning Statement* does not contain any information on current biomass arisings within the catchment area. The headline figures discussed above are an indication of what biomass could potentially be available to the proposal. At this level of assessment, there would appear to be sufficient biomass arisings available to the proposed facility.

However, there is limited information on how this feedstock is currently being managed or where it would be sourced from. Further, the *Planning Statement* does not clearly identify how, in practical terms, this feedstock would be secured and delivered.

4.4 *TRANSPORT BURDENS*

The only way to access the proposed facility is by road. Delivery of 650,000 tpa of feedstock will result in a significant number of vehicle movements.

Another problem with the lack of clarity around the source of feedstock to the proposed facility is that the transport burden is poorly understood and does not allow a comparison to be made of the transport burdens against the potential benefits of the plant.

4.5 *SUPPLEMENTARY INFORMATION*

In email dated 26 November 2008, PREL provided the following information in relation to biomass inputs:

- 300,000 - 350,000 tonnes will be coming from within 20 miles of the facility;
- 20,000 - 50,000 tonnes is local straw residue; and
- the remaining materials are segregated commercial and demolition biomass.

This information does not readily assist consideration of the application, taken at face value, the first bullet point provides no new information to that provided in the submitted details, for example at the third paragraph of

Section 1.7.7 of the ES. In reality, it further confuses our understanding of the application. It is not clear whether the 20,000 to 50,000 tpa of straw is included in the first bullet tonnages, or is additional to it. It is also not clear whether segregated biomass from the commercial and demolition waste streams is supposed to represent the remaining 300,000 to 350,000 tonnes (mentioned in the first bullet) or the remaining capacity of the plant.

The second bullet does not clarify what is meant by the term 'local' (although it may be assumed to relate to a 20 mile radius) or demonstrate that these tonnages will be available to the plant - there is a straw fuelled power station at Ely.

Without clarity of type or proportion of materials that would be accepted at the proposed facility, the third bullet is nonsensical.

The submitted details are light on detail of the processes involved, which makes it difficult to assess the true feasibility of the proposal. The principal gap in the information provided is a mass and energy balance for the plant, showing relative quantities of feedstock (wastes and crops) entering the site, and corresponding levels of materials leaving the site. **Mass and energy balance details should be provided in order to demonstrate that the identified benefits will be gained.**

Without an explicit statement of these parameters, ERM has had to make some assumptions and 'read between the lines' of the submitted information, in order to understand what is being proposed. For example, the plant is scoped to accept 650,000 tpa of materials, and there is a hierarchy of feedstock that puts wastes at the top and crops at the bottom, but ERM could find no indication beyond that of the expected levels of different materials that would be processed.

However, only *Building George* contains the dry autoclave units, so, assuming that the buildings' throughputs are proportional to their combustion capacity (three of the nine combustion units are in *George*) **we can conclude that only a third of the 650,000 tpa could be mixed waste, and that around two thirds of the feedstock would be source-segregated biomass.**

The submitted application does not provide detail of the **bioreactor** that would handle the source-segregated food waste, beyond that it is a three-stage thermophilic digestion process, capable of handling 35,000 tpa, to produce heat and fertiliser. ERM infers that the bioreactor is an anaerobic digestion plant, but there is no evidence to conclusively prove this is the case.

ERM notes that there are few anaerobic digestion plants operating at a commercial scale within the UK for the treatment of commercial or municipal waste streams. However, the technology is receiving encouragement from the Government, through WSE 2007 and the proposed double-ROCs banding.

Adequate mass and energy balances, together with a description of the type of AD technology proposed to be used, or clarification of the technology to be used, are necessary to understand this process properly.

There is almost no detail provided on the '**dry autoclave**'. Autoclaving is a pressurised steam treatment process, so the concept of 'dry autoclave' is rather confused. ERM infers that PREL means a heated trommel process, perhaps similar in concept to that used by the Orchid (Fairport) technology in Huyton, Lancashire. This operation involves the production of a 'fluff' (the biomass fraction) and we observe that the Orchid plant has recently (24.10.2008) suffered quite a serious fire – though we don't know the details.

The ability to make use of the plastic fraction is a perennial question for this type of process. ERM recognises that it could be left in the biomass fraction for subsequent combustion.

Adequate mass and energy balances, together with a description of the type of technology proposed to be used, are necessary to understand this process properly.

The **gasification and plasma** processes are theoretically sound technologies for managing waste streams and generating useful outputs under controlled conditions. The biggest question against these technologies is that they are substantially unproven; neither is demonstrated by a full-scale unit operational in the UK, taking mixed residual waste. For gasification, operational plants are being built (notably by Energos on the Isle of Wight, as part of the Defra Demonstration programme) but at a relatively modest scale (30,000 tpa). Plasma arc technology is still untried at large scale in the UK.

For plasma arc technology, a second question concerns the amount of energy required to vitrify the waste. Different plasma technologies operate at varying temperatures (ERM is aware of ranges from 1500-6000 C), and we have yet to see an energy balance for any plasma process.

A **carbon sequestration** process is mentioned (for example, in the Simple Process Flow of *Figure 1.3*) but ERM could find no details provided on this equipment at all. We cannot assess the viability of the carbon sequestration process as no details are provided in the submitted application.

At section 2.4.4 of the ES, the submitted details present an analysis of **CO₂ benefit** that could be derived from the proposed facility. This analysis is not entirely correct on a number of points.

The text of the second paragraph seems to be muddled in its reference to carbon dioxide equivalents, referring to data relevant to both waste and biomass inputs. It also suggests that all the capacity of the proposed facility will be utilised for waste management. This is contrary to other details within the submitted documents.

ERM is not able to corroborate the benefits suggested in the final paragraph of this section as the background data is not provided. However, we do suggest that the conclusion drawn in the final sentence is incorrect. Over the 20 year life time of the plant it should be expected that the UK will use more renewable energy than today. Therefore, the benefits of offsetting electricity production will decrease over time, not remain static as assumed by PREL.

5.1

CONCLUSIONS

On first inspection, the PREL application seems to present a series of plausible processes, as each of the unit operations are being offered in the UK. If the plant can operate as envisaged, it would be a major breakthrough, offering the

ultimate combination of significant recycling, clean and efficient energy recovery, and no waste to landfill.

However, the application does not demonstrate that the plant can operate as envisaged. As such, ERM has some significant reservations about the proposed development. Several of the unit processes are largely unproven for treating mixed waste at commercial scale.

Our fundamental concern is the lack of mass and energy balances, showing a default feedstock split into the plant and its fate. Ideally, a few alternatives would also be provided, to account for possible variations in the balance of feedstocks, as there would typically be considerable uncertainty at this stage about what the plant will receive. The fact that this information is not provided is a serious cause of concern, and raises the question of how well PREL understands its proposition.

In preparing this assessment, ERM has had to make a number of fairly fundamental assumptions and inferences. More details are required on the process in general and for the unit operations (dry autoclave, bioreactor, gasifiers, plasma arcs) in particular.

Apart from a statement of intent to use local grid connections, the application provides no confirmation that the connections have availability or are suitable to receive the generated energy.

There is no demonstration that the proposed facility really does deliver sustainable development. One example of this is through consideration of the amount of energy proposed to be exported, net of that generated. Limited information on mass flows and the calorific value of the facility feedstock means that the application cannot demonstrate energy generation. Furthermore, ERM considers that 22MW is a lot of energy to use in the operation of the propose facility and suggest that much of the energy generated is used internally through the plasma vitrification process. It is plausible that a more sustainable option would be to treat differently, or to dispose of, the materials that are proposed to be subjected to vitrification, consequently exporting the energy that would otherwise have been used for this process.

Reference to the Environmental sub heading in Section 2.5 of the ES provides another example of a statement of intent, rather than demonstration of the proposal's sustainable credibility. The ES text recognises that benefits including the creation of new environments and the management of existing environments can be gained through growing biomass. However, the applicant does not demonstrate that they will have control over either the growth of new crops or the management of existing environments; they are unable to demonstrate these actions would be undertaken so to result in environmental benefit.

It is important for these processes to be understood within the planning arena. It is appropriate for the planning system to have confidence that it

understands the development being proposed and that it will result in the predicted benefits and burdens, and the timescale within which these impacts will be felt. This is particularly important in circumstances such as this where the submitted details appear to over estimate the potential benefits that would be gained.

ERM recognises the strong policy support for development that would enable sustainable waste management and provide a source of decentralised renewable energy. A high level review of the application would lead to the conclusion that the proposed development would deliver these policy priorities.

However, the submitted details do not provide an appropriate level of information to enable the decision maker to properly understand how these benefits will be realised, or that they will be realised at an appropriate scale. The application details recognise that these elements of the proposal should be demonstrated (for example at pages 62 and 63 of the ES) but it fails to provide relevant justification.

It is necessary to know these details in order to understand, *inter alia*:

- whether the proposal drives waste management sufficiently up the hierarchy in the areas from which wastes are sourced, and will not compromise waste reduction and recycling measures;
- whether across its potential catchment the proposed facility is consistent with strategies that encourage communities to take responsibility for their own waste - an objective that creates a pressure for the provision of 'local' facilities, whilst the PREL proposal is more appropriately considered a 'centralised' facility;
- whether the proposed facility reflects the concerns and interests of communities, waste disposal authorities and business, which will determine the size of the catchment area in practice;
- the credibility of the technology proposed and the associated burdens and benefits;
- how the generated energy will be exported off site and to which markets;
- the overall balance between burdens of and benefits from the plant; and
- whether the use of the biomass feedstock in a facility of this nature is actually sustainable.

It is not clear the extent to which the proposal is consistent with the objective of reflecting the needs of waste collection and disposal authorities and business. PREL are not understood to be currently engaged in the procurement processes of the local waste disposal authorities, which suggests their needs will be met elsewhere - although, depending on the nature of any contract, PREL might be sub-contracted to take these wastes. The application gives no details of any contracts for the disposal of wastes from business, nor of the sources of biomass or energy crops.

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upgrade highway to 7.3m width with 3m wide footpath/cycleway with approved balustrading to junction with watercourse
 1600mm verge to the north of the new roadway to contain mains services
 adjust junction radii all to Highways approval
 highway improvements to be agreed in full with PCC Highways Department
 redundant adopted highway area to be 'stopped up'

green line indicates the line of the forward visibility splays
 indicates outline of the existing adopted highway
 Forward visibility splay 160m
 visibility splay 2.4 x 160m

Elevation/Section Through the Site

The EnergyPark, Storeys Bar Road, Peterborough

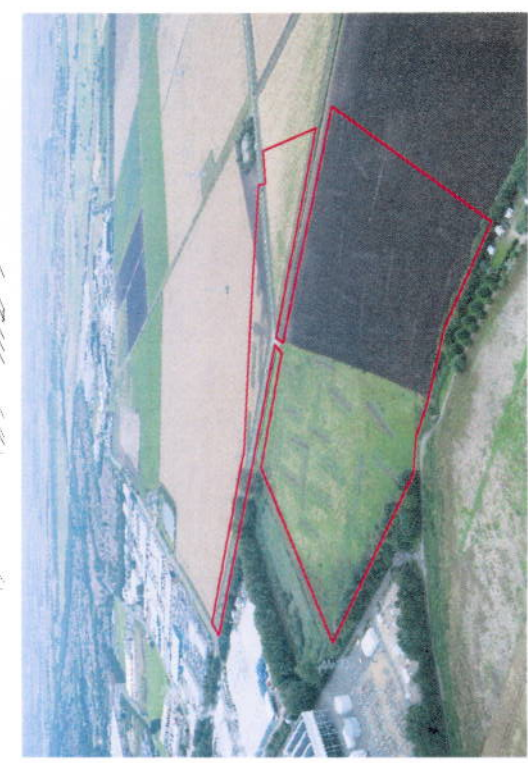
Drawing Issued July 2008

Scale 1 to 2500

PROPOSED SITE LAYOUT

DRAWING NO JDA/PREL/A3/P.APP/SITE.002

- Indicates a 10m diameter x 10m high water storage tank by PermaStone
- Indicates a secure cycle shelter
- Indicates 35 Grasscrete parking bays
- Indicates 6 dedicated parking bays for electric 'golf buggy' vehicles for internal transportation
- Indicates 95 block paving parking bays
- Indicates a 'Green Roof'
- Indicates coach parking for visitors centre
- Indicates wetland habitats
- Indicates a 10m diameter x 10m high water storage tank by PermaStone
- Green Wheel bridge over watercourse
- proposed extension to The Green Wheel subject to landowners agreement
- additional pigning and screening
- existing green wheel route
- Green Wheel bridge over watercourse
- Path
- Track
- Field



Flag Fen

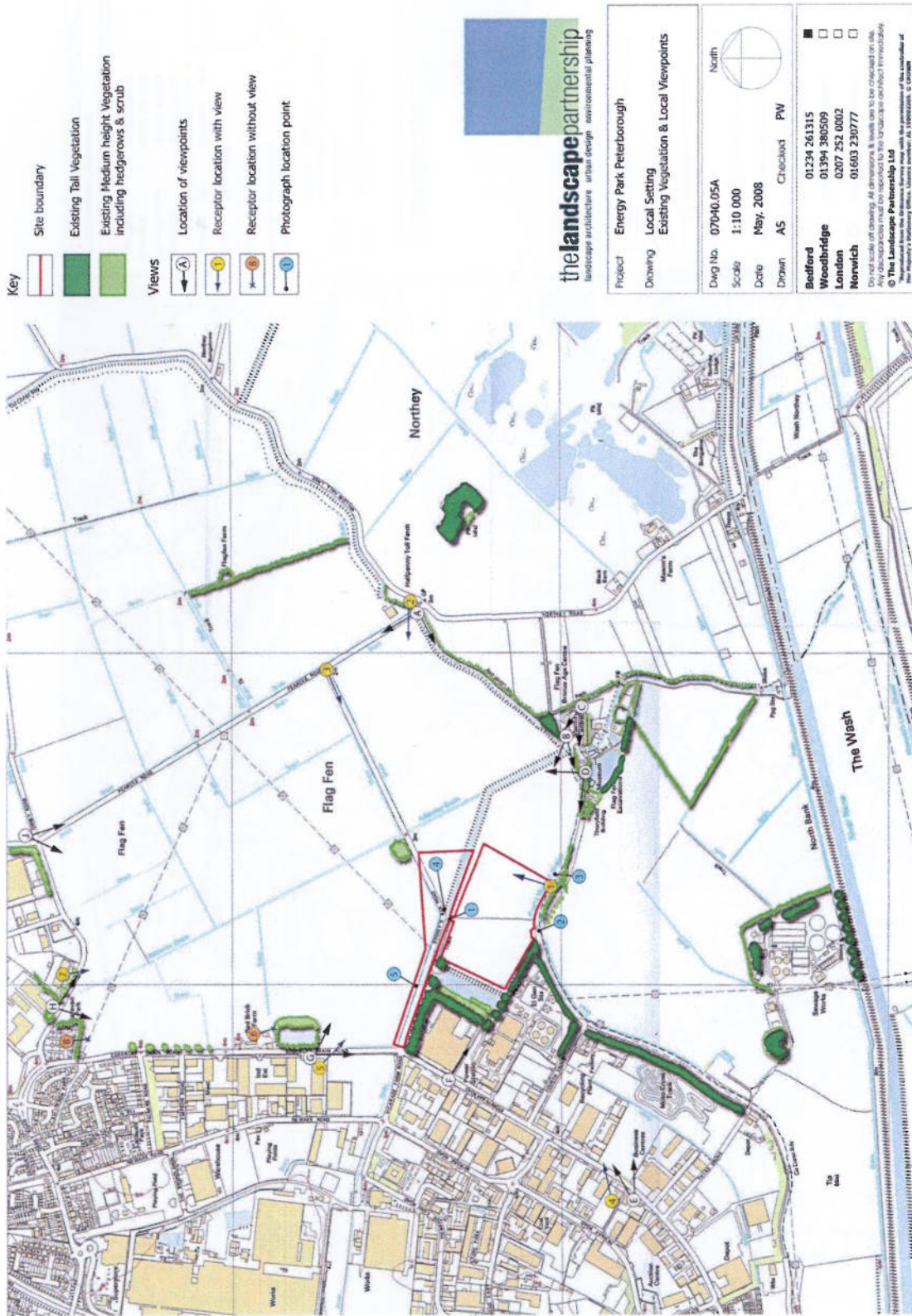


Figure 2.1 Existing Site & Local Environment¹¹

¹¹ Figure 2.1 and 2.2 can be found in greater detail in appendix 10.1 and Volume 4 ES Figures and Drawings