

PROPOSED MODIFICATION TO AN EXISTING PLANNING PERMISSION FOR A RENEWABLE ENERGY GENERATION FACILITY (REGF)

PEBBLE HALL FARM, BOSWORTH ROAD, THEDDINGWORTH,
NORTHAMPTONSHIRE, LE17 6NJ

CARBONARIUS LTD

October 2013
Version 3
Final



CONTENTS

1	INTRODUCTION	1
1.1	Introduction	1
1.2	The Site and its Surroundings	1
1.3	Benefits of the Development	2
1.4	Planning History at Pebble Hall.....	3
1.5	Environmental Impact Assessment.....	4
1.6	Commitment Not to Construct the Consented REGF building.....	4
2	THE PROPOSED DEVELOPMENT	5
2.1	Overview	5
2.2	Consented and Proposed REGF	5
2.3	Site Operations and Process Description.....	6
2.4	Construction of the Facility	8
2.5	Traffic and Vehicle Numbers.....	9
2.6	Fire Risk	9
2.7	Lighting Scheme.....	9
2.8	Site Security	9
2.9	Utilities and Grid Connection	10
2.10	Environmental Controls	10
2.11	Employment and the Local Economy.....	10
3	PLANNING POLICY CONTEXT	12
3.1	Introduction	12
3.2	The Development Plan	12
3.3	Other Policy Documents	19
4	ASSESSMENT OF THE PROPOSAL	25
4.1	Introduction	25
4.2	The Location of the Development in the Countryside and Rural Hinterland.....	25
4.3	Non-allocated Site	28
4.4	Need and Compliance with the Waste Hierarchy	28
4.5	The Catchment Area.....	29
4.6	Compliance with Energy Policy	30
4.7	The Sustainability Credentials Associated with the Development.....	32
4.8	Design of the Facility.....	34
4.9	Synergies from the Co-location of Facilities	35

4.10 Environmental Considerations 36
5 CONCLUSIONS 42

APPENDICES

APPENDIX 1: Validation Checklist

APPENDIX 2: Planning Permission 08/00053/WAS

APPENDIX 3: Synergies between REGF and TAD

APPENDIX 4: Process Diagram

APPENDIX 5: Connection to National Grid

APPENDIX 6: Traffic Report

APPENDIX 7: Flood Risk Assessment and Drainage Strategy

APPENDIX 8: Landscape Specification

1 INTRODUCTION

1.1 Introduction

- 1.1.1 This Planning Statement accompanies a planning application seeking to modify an existing planning permission (08/0005/WAS) for a Renewable Energy Generation Facility (REGF) at Pebble Hall, Theddingworth, submitted to Northamptonshire County Council by GP Planning Ltd on behalf of Carbonarius Ltd. The modifications include the re-siting of the power generation building, an increase in its footprint and height to accommodate gasification plant, an increase in the stack height and an increase in wood waste inputs to provide the fuel supply.
- 1.1.2 The planning application is supported by the following documents:
- Environmental Statement
 - Landscape and Visual Impact Assessment
 - Noise Assessment
 - Air Quality Assessment
 - Non-Technical Summary
 - Design and Access Statement
- 1.1.3 The planning application is supported by the following drawings:
- GPP/C/PH/REGF/13/01 – Site Location Plan
 - GPP/C/PH/REGF/13/02 – Site Plan
 - GPP/C/PH/REGF/13/03 – Existing Site Layout Plan
 - GPP/C/PH/REGF/13/04 – Proposed Site Layout Plan
 - GPP/C/PH/REGF/13/05 – Landscape Plan
 - GPP/C/PH/REGF/13/06 – Building Elevations
 - GPP/C/PH/REGF/13/08 – Catchment Area Plan
 - GPP/C/PH/REGF/13/09 – Photopanel A - D
 - GPP/C/PH/REGF/13/16 – Hedgerow Removal Plan
 - GPP/C/PH/REGF/13/17 – Cross Sections
 - GPP/C/PH/REGF/13/18 – Lorry Routing Plan
- 1.1.4 Northamptonshire County Council's Validation Checklist is included in Appendix 1. Compliance, as appropriate, is identified in the list.

1.2 The Site and its Surroundings

- 1.2.1 Pebble Hall Farm is located South of the A4304 (Bosworth Road), Theddingworth in the Northern part of the District of Daventry as shown on Drawing GPP/C/PH/REGF/13/01 (Site Location Plan). It is approximately 1.8 km East of the village of Husbands Bosworth and 750 metres South-West of Theddingworth. Existing access to the Application Site, which crosses the Northamptonshire and Leicestershire county boundaries, is surfaced in concrete and is approximately 560 metres long from its junction with the A4304. The site has excellent access onto the strategic highway network via the A4304, A5199 and M1.
- 1.2.2 Pebble Hall Farm is an agriculturally based operation that has been the subject of farm diversification, mainly as a result of the BSE crisis. By a series of grants of planning permission over a number of years, the site has established a variety of industrial/commercial concerns and a waste management operation as part of the diversification of the farm. The site currently

operates in composting and has various workshops/storage units which are rented out. The site already undertakes wood waste management operations and shredding, in compliance with a planning permission for the REGF (08/00053/WAS). The waste wood is sourced from commercial operators and Household Waste Recycling Sites, within a catchment area of approximately 30 mile radius, as required by Condition 14 of the existing planning permission 08/00053/WAS.

- 1.2.3 Aspects of the site are illustrated in the Photopanel, Drawing GPP/C/PH/EFW/13/09.
- 1.2.4 The Application Site is located in a rural context; there are no sensitive receptors within 500 metres of the site. The nearest sensitive receptor is located over 600 metres from the Application Site. The site is located in an area of open countryside. Land around the Pebble Hall building complex has been extensively landscaped in recent years.
- 1.2.5 The Application Site is situated on land used for storage and workshops and farm uses. There are no international or European designated nature conservations sites within 2km of the Application Site. There is one SSSI within 2km of the Application Site, at a distance of 1.98km. There is a Scheduled Ancient Monument in Theddingworth. The Public Right of Way Network in the area is limited. The nearest public footpath is east of the site, through the Hothorpe Hills, which is 1.3km away.

1.3 Benefits of the Development

- 1.3.1 Overall, the benefits of the facility include:
- Renewable electricity from a sustainable biomass resource.
 - The availability of renewable heat for use by existing businesses and industry and for new residential development near Market Harborough.
 - The facility will employ up to twenty two people directly and as well as indirect technical/maintenance support operations. Significantly more staff of up to 100 people will be employed during the construction phase.
 - A £42 million investment in local industry.
 - Resource recovery of wood which would otherwise be landfilled producing significant quantities of greenhouse gas such as methane and carbon dioxide. Use of the waste timber in this manner is in accordance with Government guidance as Best Available Techniques and Best Practicable Environmental Option.¹
 - The plant will save 42,000 tonnes of CO₂ per annum².
 - The recovery of valuable ferrous and non-ferrous metals from the waste wood.
 - Renewable electricity, which is produced continuously, unlike wind farms which typically only produce for 25% of their installed capacity.
 - The facility will use rainwater collected from the roof of the facility within the operation.
 - Ofgem have predicted that the UK may be subject to blackouts as a result of electricity shortages from 2015. This facility already has an agreement to connect to the grid and thus would work alongside other renewable power plants to make an important contribution to prevent this.

¹ Source – DEFRA report February 2013: Energy from Waste – a guide to the debate; paragraph 62

² As calculated in a WRATE analysis (see paragraph 4.7.8 of the Planning Statement)

1.4 Planning History at Pebble Hall

- 1.4.1 The planning history at Pebble Hall is complex. Only those activities relevant to this planning application are included here, for information.
- 1.4.2 In December 2000 Daventry District Council granted planning permission for a change of use of the farm buildings to B8 distribution uses; (reference DA/00/1095). This permission has been implemented.
- 1.4.3 On 21 October 2003 (reference DA/03/725C) planning permission was granted by Northamptonshire County Council for green waste composting. This permission has been implemented. A second permission was granted on 4 October 2005, for an extension to the area to be used for green waste composting, it has also been implemented (reference DA/05/773C). These permissions allow a total throughput of 25,000 tonnes per annum of green waste.
- 1.4.4 Planning permission DA/07/319 was granted in June 2007 for the construction of an In-Vessel Composting Facility to deal with mixed green and food waste up to 25,000 tonnes per annum. However, as the Waste Collection Authority has subsequently abandoned plans to collect the food waste there is no need to provide an In-Vessel Composting Facility. This permission was not implemented.
- 1.4.5 Planning permission 08/00053/WAS was granted in June 2008 for a Renewable Energy Generation Facility (REGF), on the site previously consented for In-Vessel composting as detailed above. The Development Plan that the proposal was assessed against comprised the East Midlands Regional Waste Strategy January 2006 and Northamptonshire Waste Local Plan March 2006. The REGF occupies a similar footprint to the In-Vessel composting plant, and uses waste wood brought in from a 30 mile catchment to generate renewable electricity. The permission was implemented when the hoggin was excavated to create the platform for the proposed REGF and subsequently the wood waste imports and processing commenced. The site now handles 40,000 tonnes of wood waste per annum. However, the building has not yet been constructed. A copy of this permission is included in Appendix 2.
- 1.4.6 Planning permission 09/01593/FUL was granted on 14th June 2010 for the widening of the access track.
- 1.4.7 Planning permission 2010/C262/03 was granted by Daventry District Council on 7th July 2010 for the retention of temporary office buildings in association with the permitted carpet recycling activities at Pebble Hall.
- 1.4.8 Planning permission 2010/0477 was granted by Daventry District Council on 19th October 2010 for the retention of engineering works associated with the existing distribution uses and waste related activities at Pebble Hall.
- 1.4.9 Planning permission 10/00038/WAS was granted on 28 July 2010 for the use of one B8 unit for carpet recycling and part of the yard for carpet storage. The carpet recycling operations have now ceased.
- 1.4.10 A planning application was submitted to Northamptonshire County Council in June 2013 for a Thermophilic Aerobic Digester (TAD) and its associated renewable energy generation in an adjacent building previously used as a grain store on site. This application has been withdrawn
-

and will be resubmitted following revision, at the same time as this REGF application. This will provide the opportunity to explain the synergies between the two facilities and to consider the combined impacts. The two proposed facilities will be submitted as two separate planning applications as they have been brought forward by two separate developers. A report setting out the synergies is included in Appendix 3.

- 1.4.11 A planning application has been submitted to Leicestershire County Council to carry forward the limitations imposed on a S106 Agreement restricting vehicle movements onto the highway as follows: not to exceed 240 vehicle movements per day Monday to Friday, 120 on Saturdays and 65 on Sundays.; reference 2010/0879/03. This application will not be determined until such time as Northamptonshire County Council determines the application for the TAD.
- 1.4.12 A separate planning application is to be submitted to Leicestershire County Council to link the S106 Agreement to permission for the revised REGF, if granted.

1.5 Environmental Impact Assessment

- 1.5.1 An Environmental Impact Assessment has been prepared in order to support this application, due to the potential for cumulative impacts with existing and proposed waste development at the Pebble Hall complex.

1.6 Commitment Not to Construct the Consented REGF building

- 1.6.1 The Application Site includes the area on which the consented REGF building was to have been constructed. This has been done to allow the Local Planning Authority to impose a condition on any planning permission to prevent the building of the previously consented REGF building.
- 1.6.2 In addition, it should be noted that if both the revised REGF building and yard area and the TAD facility are permitted, there will be no space within the Pebble Hall complex for any further development and the site cannot easily be extended as it is fully contained by steep banks, most of which will be landscaped in compliance with planning permissions for development.

2 THE PROPOSED DEVELOPMENT

2.1 Overview

- 2.1.1 This proposal is for the modification of the existing planning permission for a Renewable Energy Generation Facility (REGF) (08/00053/WAS).
- 2.1.2 The area covered by the planning application is shown on Site Plan GPP/C/PH/EFW/13/02; it is 3.4ha in extent. It includes the area already covered by the existing REGF permission, which is the land area currently utilised for waste timber reception and processing, plus the land occupied by existing workshops and the yard in the southwest corner of the Pebble Hall complex. The REGF building is to be re-sited in the south-west corner of the Pebble Hall complex, beyond the boundary of the consented facility. The location of this building is shown on the Site Layout Plan GPP/C/PH/EFW/13/03. The new location for the energy generation building is proposed for ease of vehicle access and wood fuel management, fire safety and to maximise the screening effect of existing buildings.

2.2 Consented and Proposed REGF

- 2.2.1 The following table compares the principal components of the consented facility with the proposed facility.

Table 2.1 Components of the Consented and Proposed REGF

	Consented REGF	Proposed REGF
Wood waste input	40,000 tonnes per annum	72,000 tonnes per annum
Output	4-5 MW	10.4 MW
Technology	Pyrolysis with gas engines	Gasification with steam boiler
Building footprint	1890 square metres	3295 square metres
Building height	13 metres	18.5 metres
Stack height	15m	30m
Weighbridge number	One	Two
Workshop/storage units	1474 square metres retained	1474 square metres lost.

- 2.2.2 The proposed building is larger than the consented building, to accommodate the equipment required to generate 10.4MWe per hour. This will facilitate more than double the consented electrical output from the REGF. The increase in size of the plant and its required wood fuel throughput is to take advantage of greater efficiency offered by the gasification plant and economies of scale. In addition, the stack height needs to be increased from 15m to 30m, to ensure that the emissions can be effectively dispersed.
- 2.2.3 In order to allow the ease of fuel movement from the reception area to the REGF, the workshops/storage units and portacabins to the rear will be removed and the ground will be levelled out. This will involve the loss of 1474m² of B8 floorspace. Together with the floor area of the REGF building that will not now be constructed, this totals 3364m², which is less than the proposed new building footprint.
- 2.2.4 The site of the consented REGF building will be used for wood waste reception and processing. This waste timber preparation is already happening on site, within the open yard area

occupying the site of the consented REGF building. A significant proportion of the timber biomass required is already received from local sites and shredded on site as part of the existing operations. This material is currently taken off site; the REGF will use this material.

2.3 Site Operations and Process Description

- 2.3.1 The proposed technology is a gasification process, which is shown in diagrammatic form in Appendix 4. The technology is well established and in operation at other sites in the UK. The process is summarised as follows:
- Material will be delivered to the waste reception area in bulk loads. A proportion of this material will be shredded on site and the balance will arrive pre-shredded.
 - Shredded material will be transferred to the REGF Fuel Hall via front loader or conveyor.
 - The material will be temporarily stored on a storage walking floor and then fed into the gasification chamber to be thermally treated under low oxygen conditions to produce a fuel gas.
 - This fuel gas is then passed to a combustion chamber where it is mixed with air and combusted under carefully controlled conditions and the heat produced used to produce steam within a boiler.
 - This steam is then used within a turbine for the production of 10.4MW renewable electricity per hour.
 - The facility will have the ability to produce renewable heat which could be used in the adjacent businesses for heating and process uses including drying. Surplus heat will be available to export to other local businesses and residential development.
 - The renewable energy will be transferred to the National Grid. The route and connection point is shown in Appendix 5.

Feedstock Quantities and Outputs

- 2.3.2 The facility will process a total of 72,000 tonnes of timber per annum, which is 32,000 tonnes per annum over the currently consented REGF amount. Most, if not all of this additional material will be brought onto the site pre-shredded to a size of 70-100mm. The 40,000 tonnes of wood waste currently received from the consented 30 mile catchment area; it will be processed to reduce its size to 70-100mm, rather than to its current size of 40mm. It should be noted that the plant will not process any waste material other than waste timber biomass. The plant will recover renewable energy in the form of electricity and heat as a CHP-ready facility, as well as recovery of other recovered recycle streams such as metals.
- 2.3.3 The facility will produce 10.4 MWe of renewable electricity per hour. This is enough to power 17,000 homes or 21% Northamptonshire homes. As a CHP ready facility renewable heat will also be available in the form of hot water to be used in adjacent industrial operations and available to nearby businesses and new residential developments near Market Harborough. The electricity will be exported to the National Grid via underground cables along the route shown on Drawing WPD 1614695.
- 2.3.4 Outputs from the operations will include approximately 1,000 tonnes of contaminants/recyclables from the wood waste (including metals), 960 tonnes of fly ash and 2,375 tonnes of grate ash. The fly ash will be removed off-site to landfill and the grate ash will either be used on the farm as a fertiliser or taken off-site for use elsewhere.

Hours of Operation

- 2.3.5 The facility will employ 22 people, of which around 7 will be on site at any one time. This will reduce personnel traffic movements, as the changeover will be based on a continental shift system resulting in travelling outside peak hours.
- 2.3.6 Delivery and collections vehicles would arrive and leave between the following hours:
- 07.00-18.00 Monday to Friday
 - 08.00-13.00 Saturday
 - No deliveries on Sunday or Bank Holidays.

Building Components

- 2.3.7 The gasification facility will be housed within a new juniper green steel clad building, which will be agricultural in style, the dimensions of which are shown on the Elevations Drawing GPP/C/PH/EFW/13/05. This will be situated South of the existing building currently used as a grain store, but which is proposed for a Thermophilic Aerobic Digester, see Site Layout Plan GPP/C/PH/EFW/13/02. The complex of existing and new buildings is illustrated in two images from a 3D model, in Drawing GPP/C/PH/REGF/13/10.
- 2.3.8 Activities within the building include reception of the prepared wood, recovery of recyclable materials and the production of renewable heat and electricity. The activities will be controlled by the Environment Agency under an Environmental Permit; this permit cannot be issued unless the Environment Agency is satisfied that the process is undertaken and controlled to the highest possible environmental standards.

Plant Hall, Fuel Hall & Turbine Hall

- 2.3.9 The facility will be of a scale typical of modern agricultural buildings such as a grain store. The facility will be constructed with a steel frame and clad with juniper green steel cladding. This building will have 3 fast acting roller shutter doors (6m x 6m) and 6 pedestrian access doors (1m x 2m). The components are of the following sizes:
- Fuel Hall – 25m x 25m x 10.5m(H)
 - Plant Hall – 85m x 25m x 18.5m(H)
 - Turbine Hall – 15m x 18m x 9.5m(H)
- 2.3.10 On the roof of the Turbine Hall there will be three air coolers and adjacent to the wall of the hall there will be a Transformer Compound, 8m by 4.5m with a 2m high security fence.

Office, Control Room, Control Panels & Workshop

- 2.3.11 This two-storey building will house on its ground floor a workshop for maintenance purposes and on its first floor, an administration office with operations and monitoring facilities. This building will be built with a brick base and profiled wall cladding. This building will have 1 fast acting roller shutter door (6m x 6m) and 4 pedestrian access doors (1m x 2m). There will be 8 PVC double glazed window units installed.

Flue Stack

- 2.3.12 The process flue stack will project through the Turbine Hall roof and will be 1.41m diameter and 30m in height from ground level. It will be silver in colour.

Air-cooled Condenser

2.3.13 This will be 15m x 26m x 18m (H), with an enclosed section above a supporting steel frame. It will be connected to the Turbine Hall via a feed pipe.

Working Yard

2.3.14 The outside working yard will be surfaced with concrete. Eleven parking spaces will be provided. There may be a conveyor between the wood waste shredding area and the Fuel Hall. In addition, there will be a slab for the storage of gas cylinders and a small substation for the connection to the electricity cables to be laid for the connection to the grid. A second weighbridge will be constructed on the access road.

2.3.15 Two new drainage lagoons will be constructed, with a total capacity of 968m³.

2.4 Construction of the Facility

2.4.1 It is anticipated that the construction of the REGF building and the installation of the plant and equipment will take 18 months.

2.4.2 Work will take place normally during the following hours

- 07.00-18.00 Monday to Friday
- 08.00-13.00 Saturday
- No construction work on Sunday or Bank Holidays

2.4.3 It is anticipated that construction works within enclosed structures would be carried outside the hours set out above. This would include installation and commissioning of the plant and equipment provided as part of the proposed facility.

2.4.4 Any heavy or external construction work outside these hours would be carried out with the prior agreement of the Local Planning Authority, except in case of emergency.

Site Preparation and Construction Works

2.4.5 In order to allow the ease of fuel movement from the reception area to the REGF, the existing workshops/storage units and portacabins to the rear will be removed and the ground will be levelled out.

2.4.6 In addition, approximately 31,500m³ of material will be removed from the existing track through the site alongside the workshop/storage buildings that are to be removed; it will not be taken off site but instead will be reused to increase the height of the embankment to the South and West of the yard where the building is now proposed, in order to provide additional landscape and visual impact mitigation. Details of the proposed ground modelling and landscaping are illustrated on Drawing GPP/C/PH/REGF/13/05. The buildings to be removed are shown in the Photopanel in GPP/C/PH/REGF/13/09.

2.4.7 Following the provision of a level yard area, the REGF building will be constructed and the outside yard area laid to concrete, with the drainage provided as part of the construction contract.

2.5 Traffic and Vehicle Numbers

2.5.1 A summary of the proposed and existing daily vehicle movements associated with the Application Site is provided in Table 2.2.

Table 2.2 Daily Vehicle Movements

	Existing Use Per day	Proposed Use Per day
REGF - HGV	16	(16+12) 28
Staff & Visitors - Cars	2	50
Workshop/ Storage, HGV, LGV and Cars	35 up to 215, of which 23 HGVs	0
Ash Removal - HGV	0	1
Contaminants Removal - HGV	1	1
Total	54 up to 234	82 with half on Saturday

2.5.2 Table 2.2 indicates that the proposed removal of the workshop/storage units, which have an unrestricted B8 use, and their replacement with a larger renewable energy generation facility will have the potential to significantly reduce overall traffic generation levels associated with the site. This will result in significantly less LGV movements, with more car movements.

2.5.3 The total proposed movements, together with other movements associated with the use of the Pebble Hall complex, will not exceed the limit set by the S106 Agreement with Leicestershire County Council.

2.6 Fire Risk

2.6.1 There are two very large water tanks on site to store water for use in the event of a fire, one of which has a capacity of 200,000 litres. This provision has been installed to meet the requirements of the Fire and Rescue service. The gasification process associated with the REGF will use rain water harvested from the building roof, which will be stored in a tank located inside the REGF building; it is also suitable for fire water uses.

2.7 Lighting Scheme

2.7.1 Exterior lighting will be confined to downward facing low-energy lights mounted on the building. All proposed lighting will be agreed with Northamptonshire County Council prior to installation in order to protect local amenity.

2.8 Site Security

2.8.1 The access to Pebble Hall from the A4304 is closed outside operational hours, using a locked gate. There is an existing CCTV network of cameras around the existing complex, which will be maintained and extended to provide coverage over the whole building complex. A new gate will be installed on the access track beside the building proposed for use as a TAD facility, to prevent access from the surrounding fields. This gate will be kept locked except when required for agricultural access.

2.9 Utilities and Grid Connection

- 2.9.1 The Applicant has been provided with a letter of intent to supply electricity to the local grid, via underground cables to the substation on the outskirts of Market Harborough. A plan showing the proposed route of the cables is included with the application, Drawing WPD 161495 - Grid Connection, in Appendix 5.
- 2.9.2 Foul sewage will be managed by a septic tank and soakaway.

2.10 Environmental Controls

- 2.10.1 The site will be regulated by the Environment Agency through the conditions contained in an Environmental Permit. This will be applied for upon receipt of planning permission; the facility will not be permitted to operate until a Permit is received.

Air Quality

- 2.10.2 An Air Quality Assessment is included in Appendix 4 of the Environmental Statement. The assessment has determined the height of the stack needed to vent to atmosphere the emissions from the power generation plant.

Odour

- 2.10.3 Odour is not an issue associated with the management of waste wood and its use in advanced thermal treatment to produce renewable energy.

Noise

- 2.10.4 The design of the building takes into account the need not to increase noise levels at the nearest noise sensitive receptors. A Noise Assessment is included in Environmental Statement Appendix 5.

Drainage

- 2.10.5 The site is located outside an area at risk of flooding and a sustainable drainage scheme has been designed to prevent the risk of run-off leading to flooding downstream on the River Welland. There will also be an interceptor to prevent pollution from yard run-off. A Flood Risk Assessment and Drainage Strategy is included in Appendix 7 of the Planning Statement.

Landscape and Visual Impact and Ecology

- 2.10.6 A detailed scheme of landscape improvements and provision of extended woodland habitat has been prepared to mitigate the potential impacts on local ecological interests and on landscape and visual amenity caused by the REGF. A Landscape and Visual Impact Assessment is included in Appendix 6 of the Environmental Statement.

2.11 Employment and the Local Economy

- 2.11.1 In addition to temporary job opportunities during the plant's construction, further new and permanent jobs will be created. The recruitment process will focus on the local area. The REGF

facility will generate 22 employment opportunities during the facilities' operation and around 100 temporary jobs during construction.

- 2.11.2 The facility will involve capital investment of over £40m, which will result in expenditure within the local economy, as well as supporting manufacturing in the UK, from where the specialised technology will sourced.

3 PLANNING POLICY CONTEXT

3.1 Introduction

- 3.1.1 This section provides an indication of the main Development Plan policies and national planning guidance that has been considered and assessed in the preparation of the planning application and supporting Environmental Statement.
- 3.1.2 The Development Plan in this instance consists of:
- Northamptonshire Minerals and Waste Development Framework Core Strategy, Development Plan Document (2010)
 - Northamptonshire Minerals and Waste Development Framework Locations for Waste Development, Development Plan Document (2011)
 - Northamptonshire Minerals and Waste Development Framework The Control and Management of Development, Development Plan Document (2011)
 - Development and Implementation Principles, Supplementary Planning Document (2011)
 - Daventry District Council Local Plan 1997 (Saved Policies)
- 3.1.3 The main objectives and planning policies that are relevant to the proposal are set out below. The policies are not all included in full; only the relevant parts of the policies are included. The parts that are relevant to this development are highlighted by underlining.

3.2 The Development Plan

Northamptonshire Minerals and Waste Development Framework Core Strategy, Development Plan Document (2010)

- 3.2.1 Objective 5 relates to the spatial distribution of waste development and aims to:
Facilitate the delivery of a strategic urban-focused flexible waste management network which supports the treatment of waste close to where it has been generated, with particular encouragement of integrated waste recovery and treatment facilities.
- 3.2.2 The focus of this objective is to integrate waste sites rather than separating out facilities.
- 3.2.3 Box CS3:
Locational hierarchy
The hierarchy of areas for locating waste management facilities are defined as:
Central spine – in or related to the principal urban area of Northampton; in or related to the urban areas of Corby, Kettering, Wellingborough and Rushden / Higham Ferrers; in or related to the central spine service centres of Burton Latimer, Irthlingborough, Rothwell and Desborough; in or related to other built up local service centres within the central spine between Northampton and Corby.
Sub-regional centre – in or related to Daventry.
Rural service centres – in or related to Brackley, Oundle, Raunds, Thrapston and Towcester.
Rural hinterlands – the rest of Northamptonshire.
Catchment areas

Waste management facilities in Northamptonshire will be designated as having one or more of the following catchments within which waste can be sourced:

- National
- Regional
- Sub-regional
- Local, and
- Neighbourhood

Functional role

The functional role of waste management facilities are defined as:

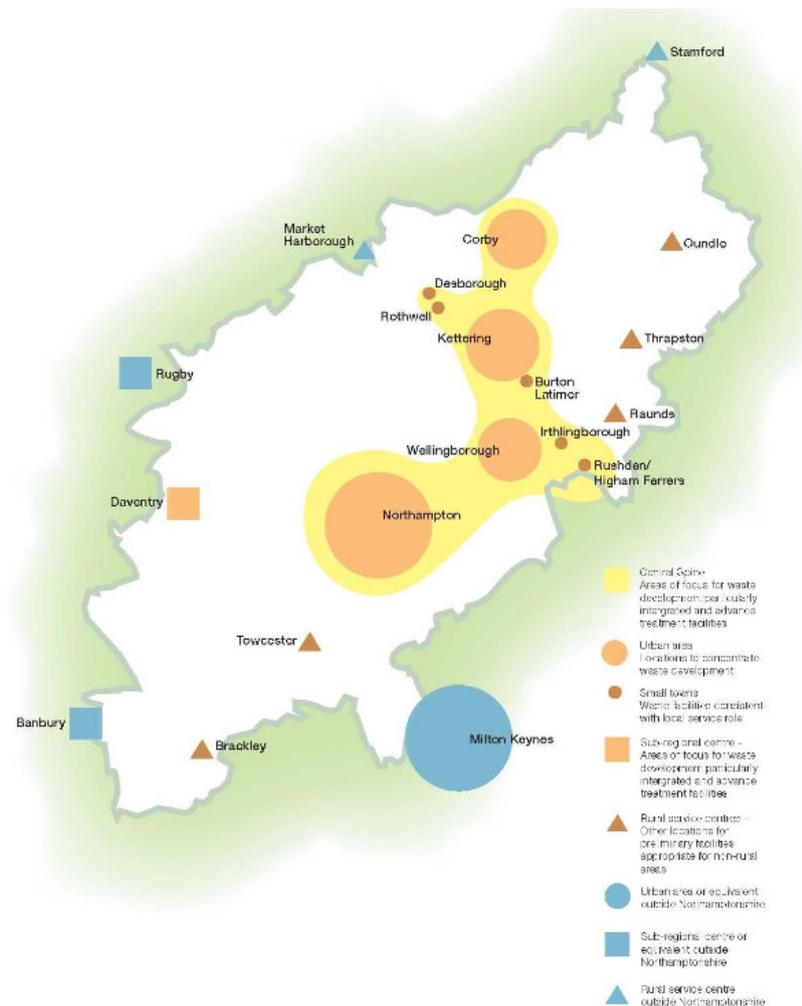
Advanced treatment – thermal, pyrolysis, gasification, plasma arc and other waste to energy processes and other emerging advanced technologies.

Preliminary treatment – household waste recycling centres, materials recycling facilities, composting (open windrow and in-vessel), anaerobic digestion, mechanical biological / heat treatment, inert processing, other recycling facilities and waste transfer stations.

Disposal – non-inert landfill / landraise and inert landfill / landraise.

Sewage and waste water treatment – sewage and waste water treatment plants.

3.2.4 Plan CS3 identifies the spatial strategy for waste management in Northamptonshire.



3.2.5 Policy CS1 – Northamptonshire’s waste management capacity:

The development of a sustainable waste management network to support growth within Northamptonshire will involve the provision of facilities to meet the following indicative waste management capacities during the plan period:

Waste management or advanced treatment (MSW and C&I) capacity of 392,000 and 456,000 tonnes per annum for 2016 and 2026 respectively.

This provision will come from a mix of extensions to existing sites, intensification or re-development of existing sites and new sites, providing they all meet the spatial strategy for waste management and are assessed as meeting environmental, amenity and other requirements. Allocations that will contribute to meeting provision will be identified in the Locations for Waste Development DPD.

3.2.6 Policy CS2 – Spatial strategy for waste management:

Northamptonshire’s waste management network, particularly advanced treatment facilities with a sub-regional or wider catchment, will be focused within the central spine, and the sub-regional centre of Daventry.

In the rural hinterlands only facilities with a local or neighbourhood catchment providing for preliminary treatment, or that are incompatible with urban development, should be provided. Where it is the latter they should deal with waste generated from identified urban areas and be appropriately located to serve those areas.

Facilities in rural areas should, where possible, be associated with existing rural employment uses.

3.2.7 Policy CS9: Encouraging sustainable transport movements:

Minerals and waste related development should seek to minimise transport movements and maximise the use of sustainable or alternative transport modes.

3.2.8 Policy CS14: Addressing the impact of proposed minerals and waste development:

Proposals for minerals and waste development must demonstrate that the following matters have been addressed:

- *minimising environmental impact and protecting Northamptonshire’s key environmental designations,*
- *protecting natural resources or ensuring that any unavoidable loss or reduction is mitigated,*
- *ensuring built development is of a design and layout that has regard to its visual appearance in the context of the defining characteristics of the local area,*
- *ensuring access is sustainable, safe and environmentally acceptable, and*
- *ensuring that local amenity is protected.*

3.2.9 Paragraph 4.16 of the Core Strategy provides that:

Inevitably there will be some cross-border flows for reasons of geographical convenience, which may be broadly balanced, or because some waste management facilities can have a highly specialised role that means they have larger catchment areas. The Core Strategy recognises that waste management is becoming more specialised and is also a higher value industry than previously. It is not appropriate to oppose facilities serving wider catchments when other industries and commercial

enterprises are not so constrained. However, in the wider interests of sustainability, it is not envisaged that Northamptonshire should take on a role as a key sub-national location for waste management facilities.

3.2.10 Paragraph 6.17 provides that:

Facilities provided for within the rural hinterlands should have a local or neighbourhood catchment and should mainly be for preliminary treatment. Facilities located within the rural hinterlands may also include those whose siting is incompatible with, or not complementary to, urban development; for example due to facility operational requirements (such as in the case of anaerobic digestion). In such circumstance, the facility should deal with waste generated from identified urban centres and be appropriately located to serve those centres.

Northamptonshire Minerals and Waste Development Framework Locations for Waste Development, Development Plan Document (2011)

3.2.11 This DPD sets out the allocation of specific sites for waste management facilities, and the identification of specific locations where waste management uses would be acceptable in principle. Paragraph 3.2 states that:

It is therefore not appropriate for this DPD to attempt to identify all of the sites that will be required for waste management facilities over a twenty year period. To do so would be too prescriptive and inflexible and could potentially mean that acceptable sites identified outside of the plan-making process could be prevented from being implemented.

3.2.12 Paragraph 3.4 sets out four distinct categories for locations of waste development, one of which is:

Sites for waste management use in rural areas - *specific sites within rural areas where those waste management uses most appropriately located in these areas (particularly composting and anaerobic digestion) would be acceptable.*

3.2.13 The only allocated sites for waste management use in rural areas are listed in Policy W4. These are at Kilsby, Chelveston and Nassington – Kings Cliffe Regeneration Centre. However, in Appendix 2a the list of commitments for waste management include Pebble Hall Farm, for a biomass fuelled power generation facility, due to the planning permission that was granted in 2008 and now implemented. The site is also listed in Appendix 2a for composting (in-vessel and open windrow) due to the planning permission for these uses (see Planning History in Section 1.4).

3.2.14 Appendix 2a also lists as commitments a number of sites that are not located in the Urban Spine and are for similar developments. For example, a biomass plant at Chelveston and in-vessel composting and AD plants at Helmdon.

Northamptonshire Minerals and Waste Development Framework Control and Management of Development, Development Plan Document (2011)

3.2.15 Box CMD1 Indicative (non-hazardous) waste management capacity gaps (2026) identifies a need for additional advanced treatment capacity, as follows:

- *advanced treatment (MSW and C&I) capacity_of 392,000 and 456,000 tonnes per annum for 2016 and 2026 respectively.*

- 3.2.16 Policy CMD1: Development criteria for waste management facilities (non-inert and hazardous):
Proposals for waste management facilities on non-allocated sites (including extensions to existing sites and extensions to allocated sites) must demonstrate that the development:
- *does not conflict with the spatial strategy for waste management,*
 - *promotes the development of a sustainable waste network and facilitates delivery of Northamptonshire's waste management capacity requirements,*
 - *clearly establishes a need for the facility identifying the intended functional role, intended catchment area for the waste to be managed, market base for any outputs, and where applicable the requirement for a specialist facility,*
 - *is in general conformity with the principles of sustainability (particularly regarding the intended catchment area),*
 - *facilitates the efficient collection and recovery of waste materials, and*
 - *where intended for use by the local community, is readily and safely accessible to those it is intended to serve.*
- 3.2.17 Policy CMD1 within the DPD sets out the need to identify the likely catchment area of waste sources for waste management facilities (non-inert and hazardous) facilities. Paragraph 3.12 of the DPD sets out the definition of the scales of geographic influence that a waste facility may command. Sustainability principles are indicated within the DPD as the core reason for the management of waste streams to occur within the vicinity of its creation. The DPD document states the criteria against which each facility is to be measured with regard to scale. The classifications are National, Regional, Sub-Regional, Local and Neighbourhood facilities. Each of these facilities has a list of criteria that indicate the scale of development and the area the waste is to be derived from, and as such the catchment area for the facility. In this case the sub-regional role is relevant.
- Sub-Regional*
- *Waste to be managed on site originates from with Northamptonshire or an equivalent geographical area.*
 - *May include a wide variety of waste types including municipal solid waste, construction and demolition and green waste.*
 - *The facility supports the waste hierarchy and is not for the disposal of waste, unless this is the last available option.*
- 3.2.18 Policy CMD1 states that particularly in the case of advanced treatment facilities:
- *ensure waste has undergone preliminary treatment prior to advanced treatment,*
 - *integrate and co-locate waste management facilities together with complementary activities,*
 - *maximise the reuse of energy, heat and residues, and*
 - *maximise the use of previously developed land (particularly existing and designated industrial land and derelict, despoiled or brownfield urban land) or redundant agriculture and forestry buildings (and their curtilages).*
- 3.2.19 Box CMD2: Functional role of waste management facilities:
- *Advanced treatment includes gasification*
- 3.2.20 Policy CMD7: Natural assets and resources:
Minerals and waste development should seek to (where possible) achieve a net gain in assets and resources, through:

- *delivery of wider environmental benefits in the vicinity where development would adversely affect any regional or locally designated sites or other features of local interest,*
- *protecting and enhancing green infrastructure and strategic biodiversity networks, in particular the River Nene and other sub-regional corridors, and*
- *consider opportunities to contribute towards Northamptonshire Biodiversity Action Plan targets for habitats and species.*
Proposals for minerals and waste development will be required to undertake an assessment (where appropriate) in order to:
- *identify and determine the nature, extent, and level of importance of the natural assets & resources, as well as any potential impacts, and*
- *identify mitigation measures and / or requirement for compensation (where necessary) to avoid, reduce, and manage potentially adverse impacts.*

3.2.21 Policy CMD8: Landscape character:

Minerals and waste development should seek to reflect Northamptonshire's landscape character. Development should mitigate potentially adverse impacts on the local character and distinctiveness of Northamptonshire's landscape where necessary during the development, operational life, restoration, aftercare, and after-use. Opportunities for enhancement should be maximised through restoration, aftercare, and after-use.

Proposals for minerals and waste development will be required to undertake a landscape impact assessment (where appropriate) based on the landscape character assessment in order to identify:

- *the presence of landscape values (including their nature, extent, and level of importance) and determine any potential impacts,*
- *any necessary measures to mitigate potentially adverse impacts, and*
- *opportunities to protect and enhance particular features that create a specific aspect of local distinctiveness or character.*

3.2.22 Policy CMD10: Layout and design quality:

The layout and overall appearance of waste management facilities will be required to demonstrate that the development:

- *supports local identity and relates well to neighbouring sites and buildings,*
- *is set in the context of the area in which it is to be sited in a manner that enhances the overall townscape, landscape, or streetscape (as appropriate)*
- *incorporates specific elements of visual interest, and*
- *builds-in safety and security*

Northamptonshire Minerals and Waste Local Plan: Final Draft Plan (Proposed Submission Document) (September 2013)

3.2.23 This document was made available for consultation on 5 September 2013, with the closing date of 31 October 2013. It retains much of the policy contained in the Local Development Framework documents as described earlier in this section. It incorporates Northamptonshire's Minerals and Waste Core Strategy, Control and Management of Development DPD and Locations for Waste Developments DPD. The spatial strategy for the rural hinterlands remains the same in the Final Draft Plan.

3.2.24 It is noted at Paragraph 5.30 that:

The permitted capacity for waste management and disposal is sufficient to meet Northamptonshire's current requirements with the exception of non-inert landfill and advanced treatment.

- 3.2.25 The identified capacity gap for advanced treatment is 530,000 tonne per annum at the end of the plan period in 2031 (Paragraph 5.32 and Table 7). In 2016 the identified capacity gap is 460,000, which is an increase of 68,000 tonnes per annum above the adopted Core Strategy amount and is a similar tonnage to what is proposed in this development.
- 3.2.26 Paragraph 5.33 states that there are opportunities for advanced waste treatment (increased capacity) at various stages through the plan period.
- 3.2.27 Paragraph 5.34 states that:
the waste industry and management technologies are dynamic and being overly prescriptive may stifle innovation and uptake of emerging technologies.
- 3.2.28 Paragraph 5.35 states that:
the Local Plan seeks to secure delivery of the indicative capacity requirements in two ways: (1) identification of specific sites for waste management facilities along with specific locations where waste management uses would be acceptable in principle; and (2) identification of locally specific policies on which the acceptability of proposals for waste-related development that come forward on non-allocated sites can be determined.
- 3.2.29 Paragraph 5.36 states that the first ten years of waste management capacity could:
Advanced treatment (capacity gap 0.47 Mtpa in 2021) – Sufficient allocated sites and industrial locations have been identified through the plan to accommodate the development of facilities to meet the capacity gap by 2021.
- 3.2.30 This assessment takes account of the commitment for an advanced treatment facility at the Application Site, treating 40,000 tonnes a year.
- 3.2.31 Paragraph 5.39 states that:
Proposals for extensions or change in waste-related development on the committed sites (and on other sites on which planning permission for waste use has been subsequently granted) must be in accordance with the Local Plan policies. However, it is accepted that being commitments confers a favourable status on these sites for a continuation of a waste use where this meets the intent of the Local Plan strategy and policies, and is also in accordance with national planning policy.
- 3.2.32 The footnote to paragraph 5.58 states that there is no hierarchical status or preference in the classification of sites by location.
- 3.2.33 The plan seeks to strike a balance between identifying allocations and allowing non-allocated sites to come forward. Policy CMD 1 is replicated as Policy 13 in the Final Draft Plan and sets out the same development criteria for waste management.

West Northamptonshire Joint Core Strategy Pre-Submission February 2011.

3.2.34 Policy S11 provides for development for renewable energy:

Applications for proposals to generate energy from renewable sources (including any associated transmission Lines, buildings and access roads) will be expected to:

- 1. Bring wider environmental, economic and social benefits and contribute to national renewable energy production targets in terms of addressing climate change;*
- 2. Have no significant adverse impact on the historic and natural landscape, landscape character, townscape or nature conservation interests;*
- 3. Have no significant adverse impact on the amenity of the area in respect of flicker, glare, noise, dust, odour and traffic generation; and*
- 4. Provide for the removal of the facilities and reinstatement of the site, should they cease to be operational.*

Daventry District Council Local Plan 1997 (Saved Policies)

3.2.35 The relevant policies are:

- Policy GN1 – Guide to granting planning permission, which sets out the parameters that need to be taken into account.
- Policy GN2 – Criteria for granting planning permission: development will normally be granted provided the proposal will be in-keeping with the locality and does not detract from its amenities.
- Policy GN3 – Availability of services, infrastructure and amenities.
- Policy EM16 – Employment in the open countryside; exceptions to the restriction on employment are for development involving the reuse of buildings.
- Policy EN1 – Special Landscape Areas (now superseded by the Northamptonshire Landscape Character Assessment).

Daventry District Council Energy and Development Supplementary Planning Document (March, 2007)

3.2.36 The SPD recognises that renewable energy provides an increasingly important fuel source. It provides the following:

- *Using wastes as fuel can have important environmental benefits. It can provide a safe and cost-effective disposal option for wastes that could otherwise present significant disposal problems.*

3.3 Other Policy Documents**Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives 2008 (The Waste Framework Directive)**

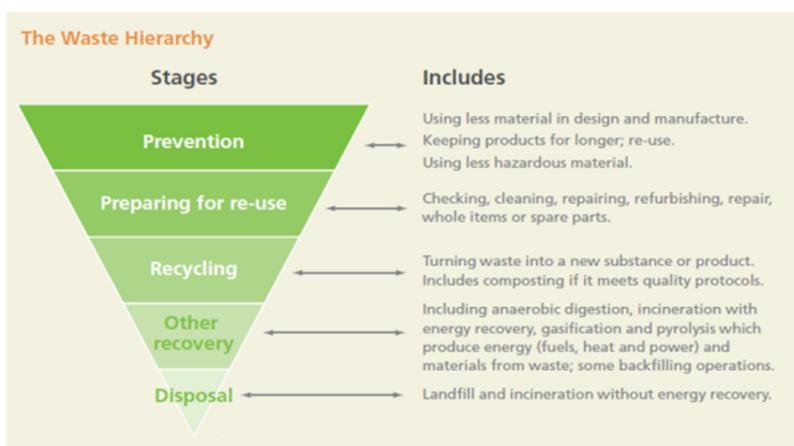
3.3.1 The Waste Framework Directive sets the basic concepts and definitions related to waste management, such as definitions of waste, recycling, recovery. It explains when waste ceases to be waste and becomes a secondary raw material, therefore gaining "end of waste criteria". It requires that waste be managed without endangering human health and harming the environment and without adversely affecting the countryside or places of special interest.

Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (Landfill Directive)

- 3.3.2 The Landfill Directive sets the following target:
By 2020 to reduce biodegradable municipal waste landfilled to 35% of that produced in 1995.

Waste Strategy for England 2007

- 3.3.3 The main objective of the 2007 Waste Strategy is to significantly reduce the amount of waste that is disposed at landfill. Fundamental to this objective is the concept of the waste hierarchy, where by operators are encouraged through policy, targets and levies to move up the waste hierarchy through more efficient and sustainable waste management.



Government Review of Waste Policy in England 2011

- 3.3.4 The Waste Review 2011 builds upon the waste hierarchy which was the core of the 2007 Waste Strategy for England. The key themes that are discussed within the review are;
- *The need to focus on preventing waste as a priority, as a key component of broader resource efficiency;*
 - *The importance of treating waste as a resource and embedding waste policies into a wider resource and material security policy;*
 - *The need to remove barriers which prevent greater integration of household and business waste policy and service delivery;*
 - *The importance of policies which continue to promote high levels of high quality recycling; and*
 - *The need to continue to reduce the amount of waste going to landfill.*

Waste Management Plan for England July 2013 Consultation Document

- 3.3.5 The Government's latest thinking on waste management was published in July 2013 in the Waste Management Plan for England: Consultation version. It sets out how it will support the implementation of the objectives and provisions of the revised Waste Framework Directive. When adopted it will replace the Waste Strategy 2007 and the Policy Review document of 2011. It continues to promote compliance with the waste hierarchy.

3.3.6 The document states that

The Government supports efficient energy recovery from residual waste – of materials which cannot be reused or recycled - to deliver environmental benefits, reduce carbon impact and provide economic opportunities. Our aim is to get the most energy out of waste, not to get the most waste into energy recovery.

National Planning Policy Framework, March 2012

3.3.7 The National Planning Policy Framework was published on the 27th March 2012 and came into force immediately with respect to plan and decision making. The NPPF states at paragraph 5 of its introduction that it does not contain specific waste policies *'since national waste planning policy will be published alongside the National Waste Management Plan for England*. However, paragraph 5 goes on to say that local authorities should have regard to the policies in the National Planning Policy Framework in preparing their waste plans.

3.3.8 The NPPF provides a presumption given in favour of development with sustainable credentials. Paragraph 14 of the NPPF states:

At the heart of the planning system is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision taking. For decision-taking this means

- *Approving development proposals that accord with the development plan without delay and*
- *Where the development plan is absent, silent or relevant policies are out of date, granting planning permission unless:*
 - *Any adverse impact of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole or*
 - *Specific policies in this Framework indicate development should be restricted.*

3.3.9 In paragraph 17, the NPPF states that one of its core planning principles is to:

- *support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change, and encourage the reuse of existing resources, including conversion of existing buildings, and encourage the use of renewable resources (for example, by the development of renewable energy);*

3.3.10 In paragraph 97, it states:

To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- *have a positive strategy to promote energy from renewable and low carbon sources;*
- *design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;*
- *consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources;*
- *support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and*
- *identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.*

3.3.11 In paragraph 98, it states that:

When determining planning applications, local planning authorities should: not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy and also recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas.

**Planning Policy Statement 10: Planning for Sustainable Waste Management
March 2011 and Companion Guide and Updated national waste planning
policy: Planning for sustainable waste management – Consultation July
2013.**

3.3.12 The National Planning Policy Framework has replaced most Planning Policy Guidance Notes and Statements, but it is noted that PPS 10 and the Companion Guide are extant. Planning Policy Statement 10 considers that positive planning has an important role in delivering sustainable waste management, through the development of appropriate strategies for growth, regeneration and the prudent use of resources. This guidance will be replaced following consultation and adoption of the 'Updated National Waste Planning Policy: Planning for Sustainable Waste Management'.

One of the key objectives of PPS10 is driving waste management up the waste hierarchy and using waste more as a resource. Paragraph 29 states that "waste planning authorities should consider the likely impact on the local environment and on amenity".

3.3.13 The Updated national waste planning policy will replace PPS 10. The Government has not published a revised Companion Guide but it is expected that will be incorporated into the emerging National Planning Practice Guidance. The consultation version of the updated planning policy maintains the core principles of the 'plan led' approach, with a continued focus of moving waste up the waste hierarchy by moving away from traditional landfill towards more sustainable options for waste management. The new guidance will carry forward the factors against which waste planning authorities should use to assess the suitability of sites for waste development.

3.3.14 In determining planning applications, the new guidance urges waste planning authorities only to refuse planning permission for facilities not in line with the local plan if the applicants cannot demonstrate that the facility will not undermine the local waste planning strategy through prejudicing movement up the waste hierarchy.

3.3.15 It brings into national guidance the requirement of the revised European Waste Framework Directive to have regard to the proximity principle which requires all waste for disposal and mixed municipal waste (i.e. waste from households) to be recovered in one of the nearest appropriate facilities.

3.3.16 In respect of the locations of new development, it encourages siting for energy from waste facilities such that waste heat can be used as a waste source, as set out in footnote 4 to Paragraph 4.

Energy from Waste: A guide to the debate, February 2013

3.3.17 This guide, published by DEFRA, provides advice on the interpretation of the proximity principle in respect of energy from waste facilities, as follows:

- *this principle must not be over-interpreted. It does not require using the absolute closest facility to the exclusion of all other considerations.*
- *There is nothing in the legislation or the proximity principle that says accepting waste from another council, city or region is a bad thing and indeed in many cases it may be the best economic and environmental solution and/or be the outcome most consistent with the proximity principle.*
- *The ability to source waste from a range of locations/organisations helps ensure existing capacity is used effectively and efficiently, and importantly helps maintain local flexibility to increase recycling without resulting in local overcapacity.*

3.3.18 The guide also acknowledges that the market-led approach to infrastructure should help to avoid the development of too much or too little energy from waste capacity.

CHP Ready Guidance for Combustion and Energy from Waste Power Plants, February 2013

3.3.19 The Environment Agency requires that all applications for Environmental Permits for new installations regulated under the Environmental Permitting (England and Wales) Regulations 2010 demonstrate the use of Best Available Techniques (BAT) for a number of criteria, including energy efficiency. One of the principal ways in which energy efficiency can be improved is through the use of Combined Heat and Power (CHP). The facility will be CHP-Ready and links with the proposed TAD and other commercial buildings is actively being investigated.

National Policy Statements by Department of Energy and Climate Change July 2011

3.3.20 The following National Policy Statements published by the Department of Energy and Climate Change are relevant:

EN-1 Overarching National Policy Statement for Energy:

The UK has committed to sourcing 15% of its total energy (across the sectors of transport, electricity and heat) from renewable sources by 2020 and new projects need to continue to come forward urgently to ensure that we meet this target. Projections suggest that by 2020 about 30% or more of our electricity generation – both centralised and small-scale – could come from renewable sources, compared to 6.7% in 2009. The Committee on Climate Change in Phase 1 of its advice to Government in September 2010 agreed that the UK 2020 target was appropriate, and should not be increased. Phase 2 was published in May 2011 and provided recommendations on the post 2020 ambition for renewables in the UK, and possible pathways to maximise their contribution to the 2050 carbon reduction targets

Energy from Waste (EfW) – the principal purpose of the combustion of waste, or similar processes (for example pyrolysis or gasification) is to reduce the amount of waste going to landfill in accordance with the Waste Hierarchy and to recover energy from that waste as electricity or heat. Only waste that cannot be re-used or recycled with less environmental impact and would otherwise go to landfill should be used for energy recovery. The energy produced from the biomass fraction of waste is

renewable and is in some circumstances eligible for Renewables Obligation Certificates, although the arrangements vary from plant to plant.

EN-3 National Policy Statement for Renewable Energy Infrastructure :

Given the importance which Government attaches to CHP, for the reasons set out in EN-1, if an application does not demonstrate that CHP has been considered the IPC should seek further information from the applicant. The IPC should not give development consent unless it is satisfied that the applicant has provided appropriate evidence that CHP is included or that the opportunities for CHP have been fully explored. For non-CHP stations, the IPC may also require that developers ensure that their stations are configured to allow heat supply at a later date as described in paragraph 4.6.8 of EN-1 and the guidance on CHP issued by BIS in 2006.

4 ASSESSMENT OF THE PROPOSAL

4.1 Introduction

4.1.1 From a review of the relevant planning policies, the main issues to consider for the proposed REGF changes are:

- The Location of the Development in the Countryside and Rural Hinterland
- Non-allocated Site
- Need and Compliance with the Waste Hierarchy
- The Catchment Area
- Compliance with Energy Policy
- The Sustainability Credentials Associated with the Development
- Design of the Buildings
- Synergies from the Co-location of Facilities
- Environmental Considerations

4.2 The Location of the Development in the Countryside and Rural Hinterland

4.2.1 The Table 4.1 lists the policy references:

Table 4.1 Policy References

Northamptonshire Minerals and Waste Core Strategy	
Box CS3	The site is located in the rural hinterland
Policy CS1	Capacity will come from a mix of extensions, intensification or redevelopment of existing sites.
Policy CS2	Advanced treatment facilities with a sub-regional or wider catchment area will be focussed within the Central Spine or in rural hinterland where incompatible with urban development; waste generated from identified urban areas and be appropriately located to serve those areas; be associated with rural employment uses.
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD1	Maximise previously developed land and maximise re-use of energy, heat and residues
National Planning Policy Framework	
Paragraph 14	Any adverse impacts must significantly and demonstrably outweigh the benefits
Daventry District Council Local Plan Saved Policy	
EM16	Supports employment in the open countryside provided it involves re-use of buildings
Northamptonshire Minerals and Waste Local Plan Final Draft	
Paragraph 5.58	Removes locational hierarchy for waste management developments

- 4.2.2 This proposal is based on a gasification technology that is proven to work, unlike the permitted pyrolysis technology, which so far has not been found to work efficiently at a large scale. The revised plant will enable the wood waste that is currently being treated at the site to be utilised as a fuel, thus eliminating the existing exports off-site. Policy CMD1 seeks that, in the case of advanced treatment facilities, preliminary treatment should be carried out prior to advanced treatment. This proposal will sort and shred all the wood prior to it being processed in the REGF.
- 4.2.3 The Pebble Hall complex contains existing waste management activities and planning permission exists on part of the Application Site for a REGF, therefore the proposal would be an extension to an existing site in compliance with Policy CS1. In order to fully comply with policy CS1 the proposal must also accord with the spatial strategy. Compliance with the spatial strategy is demonstrated in paragraph 4.2.6 and 4.2.7.
- 4.2.4 Processing of wood waste is categorised as preliminary treatment and wood waste reception and processing is already taking place, as authorised by the implemented permission for a REGF. There are no other options than the generation of renewable energy for diverting waste wood from landfill and managing it up the waste hierarchy, once the demand has been met for the supply to the board manufacturers.
- 4.2.5 The REGF depends upon a gasification process to produce renewable energy. There is a strong functional relationship between the two components of the development. The gasification process needs a supply of wood waste for fuel and the wood waste needs a renewable energy outlet. The existing planning permission (08/00053/WAS) for a building to house the power generation plant acknowledges that there is a functional relationship between the wood waste processing and its conversion into energy by permitting both wood waste processing and power generation on the same site. The REGF relies on waste as a feedstock to generate electricity so it is essential that the proposals are viewed as a whole.
- 4.2.6 It is acknowledged that gasification is advanced treatment and Policy CS2 requires that, particularly advanced treatment facilities with sub-regional or wider catchment areas are located in the Central Spine. The site will serve a sub-regional catchment area. However, the site is located outside the Central Spine and in what is defined as the rural hinterland. In those areas, the Policy requires facilities should either have a local/neighbourhood catchment and provide preliminary treatment or be incompatible with urban development. Additionally there is a requirement for rural facilities to be, where possible, associated with existing rural employment uses. The proposal complies with Policy CS2 as it is incompatible with urban development and inextricably linked to an existing rural wood processing employment use.
- 4.2.7 Outside wood waste activities have been found to be incompatible with urban development, due to the risk of dust generation. Wood waste could be processed inside a building and thus take place within an industrial area, but this would add considerably to the capital investment required, reducing the cost effectiveness of the project. As wood waste is already being handled at the site, it is not sustainable to then move the processed fuel to a site elsewhere, as this would result in a significant increase in heavy vehicle movements and double handling of the material. This would offset the CO₂ savings which are a defined benefit of the proposed development. The isolated location provided by Pebble Hall minimises the risk of causing an adverse impact on local residents or businesses and the topography and removal of existing buildings provides the opportunity for additional mitigation through bunding. The wood waste operation in the open countryside was permitted in 2008 as part of the previous REGF planning consent. As there is a proven established market, the feedstock for the proposed REGF is

already partially present on site. The supply of the additional pre-shredded material has already been identified in Section 2.

- 4.2.8 The hierarchy for the location of waste management sites in the adopted Development Plan, which places rural sites at the bottom, is proposed to be removed in the Draft Waste and Minerals Local Plan. This appears to acknowledge that rural sites are important in the provision of facilities to deliver capacity for waste management as required to meet the needs of the county and its neighbours.
- 4.2.9 The proposal involves the removal of a block of workshop/storage units and development of part of the outside storage area within the farm yard complex. Therefore the development maximises the re-use of previously developed land in conformity with PPS10 and emerging policy. There is no requirement to extend the farm yard area and the overall footprint of built development, allowing for the consented REGF building, will decrease.
- 4.2.10 Despite the loss of jobs from the workshop/storage units, the complex provides rural employment in the form of agricultural, composting and other business jobs in the retained B8 unit. In addition, the relocation of the businesses currently occupying the workshop/storage units is likely to be in the local area, thus retaining the jobs for local people. On site, the loss of jobs will also be mitigated by the 22 additional jobs associated with the proposed development.
- 4.2.11 Where sites are located on or near to administrative boundaries there are inevitable cross border movements. The CMD DPD recognises that these movements are likely to occur but should be consistent with enabling waste to be managed as close to its source as possible. The commercial costs of dealing with the waste involved means that the distances travelled from source are minimised. The ability to provide a facility to deal with this type of waste is entirely consistent with the Waste Strategy.
- 4.2.12 The extant planning permission has an existing sub-regional catchment of 30 miles and the site receives waste from urban area of Northampton, Kettering, Daventry, Rugby, Corby, Leicester and Milton Keynes as identified on Plan CS3. The market for supply of wood waste is now well established and the facility is centrally located to serve these areas with good access to the strategic highway network of the M1, M6, M42, A14 and A4304. The proposed feedstock would continue to be sourced from within this catchment in compliance with the waste strategy and Policy CS2.
- 4.2.13 Most importantly, in the consideration of compliance with these policies, planning permission already exists for a Renewable Energy Generation Facility (REGF) based on a pyrolysis technology at the Pebble Hall site. Wood waste reception and processing already takes place on the site, in accordance with the planning permission for the REGF. Consequently, the principle of this REGF proposal has previously been considered acceptable by the Waste Planning Authority at this location, alongside the composting activities, due to its sustainable waste management and reduction of waste disposal to landfill. It was acknowledged that a 30mile catchment area was appropriate to comply with the proximity principle. This permission acknowledged that Pebble Hall has very few residential properties located in a close proximity and none within 500 metres, therefore the usual risks of dust and noise that are associated with such facilities has been accepted to be manageable.
- 4.2.14 Policy CMD1 states that advanced treatment facilities should maximise previously developed land and maximise re-use of energy, heat and residues. The proposed development complies with this policy, as it maximises the use of previously developed land and maximises the re-use

of energy, heat and residues. In the absence of any comprehensive county-wide adopted policy on renewable energy, the support provided by the NPPF and other Government publications (see Section 4.6) is relevant. The NPPF supports renewable and low carbon energy facilities, which should be located in suitable areas. Pebble Hall is located in a rural location, with no sensitive receptors within 500 metres of the site. In addition, power distribution companies have welcomed the energy generation proposals in this location as it will assist in filling a predicted shortfall in local grid capacity to cater for the planned 1000 home Airfield Farm housing development at Market Harborough. A grid connection for the export of electricity has been agreed with Western Power Distribution. Pebble Hall is therefore seen as an appropriate location and is therefore compliant with the NPPF and the Development Plan.

4.3 Non-allocated Site

4.3.1 Table 4.2 lists the policy references:

Table 4.2 Policy References

Northamptonshire Minerals and Waste - Locations for Waste Development	
Policy W4	Does not include Pebble Hall as an allocation
Paragraph 3.2	It cannot identify all of the sites that will be required
Paragraph 3.4	Sites in rural areas should manage waste most appropriately located in these areas
Appendix 2a	Lists Pebble Hall as a commitment for REGF and composting
Northamptonshire Minerals and Waste Local Plan Final Draft	
Paragraph 5.39	Commitment confers favourable status for continuation of waste use.
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD1	Maximise previously developed land and maximise re-use of energy, heat and residues

4.3.2 Although the site is not shown as an allocation in the Development Plan, it is clearly acknowledged as a commitment in terms of waste sites in Northamptonshire, Appendix 2a of the Northamptonshire Minerals and Waste Locations for Waste Development document. As an extension to an existing committed site, the proposed development is compliant with Policy CS1, as explained in 4.2 above.

4.3.3 The proposed development accords with Policy CMD1 as it is compliant with the spatial strategy, it promotes the development of a sustainable waste network and a need and catchment has already been identified and accepted at this site. The proposals comply with the emerging policies in the Minerals and Waste Local Plan Final Draft, as it is for the continued use of a waste site and involves the generation of renewable energy.

4.4 Need and Compliance with the Waste Hierarchy

4.4.1 Table 4.3 lists the policy references:

Table 4.3 Policy References

Northamptonshire Minerals and Waste Core Strategy	
Policy CS1	Advanced treatment of MSW and C&I waste
Northamptonshire Minerals and Waste - Control and Management of Development	
Box and Policy CMD1	Need for additional advanced treatment capacity that conforms with principles of sustainability (especially catchment area)
Policy CMD1	Ensure preliminary treatment, co-location of waste management facilities, maximise re-use of energy
Northamptonshire Minerals and Waste Local Plan Final Draft	
Paragraph 5.30	Need for advanced treatment capacity
PPS 10 and National Waste Strategy Draft 2013	
Revised waste policy	Moving waste up the hierarchy and using waste as a resource; energy from residual waste
Landfill Directive	
Reduction in municipal biodegradable waste disposed of to landfill.	

- 4.4.2 There is a clear need for additional capacity for advanced treatment of MSW and C&I waste in Northamptonshire. Wood waste is acknowledged as a residual waste. This facility will take wood waste from Household Waste Recycling Sites and from businesses generating or collecting it. This facility will treat 72,000 tonnes of waste per annum, which will make a significant contribution to the capacity shortfall in the county, although it is accepted that some of this tonnage will be sourced from beyond the county boundary. As set out in previous paragraphs, importing waste over county boundaries is not contrary to extant or emerging policies in the Development Plan. By diverting this biodegradable waste stream from landfill it will assist with meeting the UK's obligations under the Landfill Directive.
- 4.4.3 The wood waste is prepared by a shredding and screening process to produce a fuel suitable for gasification. During this process all metals are recovered allowing them to be recycled elsewhere, which prevents the consumption of materials that would otherwise be managed higher up the waste hierarchy.
- 4.4.4 Use of the waste timber to generate energy is considered to represent the Best Available Techniques and Best Practicable Environmental Option and is in accordance with Government guidance, which acknowledges that there is no better way of managing this waste stream. The use of waste wood as a fuel is classified by the Environment Agency as a recovery operation. Therefore, the facility will move the management of waste up the waste hierarchy.

4.5 The Catchment Area

- 4.5.1 Table 4.4 lists the policy references:

Table 4.4 Policy References

Northamptonshire Minerals and Waste Core Strategy	
Paragraph 4.16	Cross-border flows for geographical convenience and acknowledgement of inappropriateness in opposing facilities with wider catchments
Paragraph 6.17	Sites in the rural hinterland should have local or neighbourhood catchment and be for preliminary treatment
Paragraph 6.19	Sites in rural areas on the fringes of the county could be served by urban centres in neighbouring areas.
Northamptonshire Minerals and Waste - Control and Management of Development	
Paragraph 3.12	Defines the criteria for a sub-regional catchment

- 4.5.2 The catchment area for the previously permitted facility was established by Condition 14 of the existing planning permission for the REGF (08/00053/WAS), which allows a 30 mile catchment area. This is the catchment area from which the existing 40,000 tpa wood waste inputs are being sourced. The Control and Management of Development Document requires proposals to demonstrate compliance with the catchment area requirements of policy. The catchment area for this proposal will be the same as that previously accepted for the existing permission. This is identified on Drawing GPP/C/PH/REGF/13/08. Waste transfer note records will be kept on site which will hold details of the materials imported to and stored on site. From these records compliance with the catchment area will be demonstrated.
- 4.5.3 It is acknowledged that the facility will be located in the rural hinterlands so should have a local or neighbourhood catchment area. However, in the case of facilities that are incompatible with urban areas such as this, facilities should deal with waste from identified urban centres and be appropriately located to serve those centres. As covered in section 4.2 of this report, this facility is centrally located in order to serve a number of urban centres identified on plan CS3 and within a sub-regional catchment area consistent with the definition included in CMD 3.12.
- 4.5.4 The proposal is for an advanced thermal treatment facility serving a sub-regional catchment area. The development is incompatible with urban uses, as identified above and for that reason is appropriately located in the rural hinterlands. In those circumstances the facility should deal with waste generated from identified urban areas. Sub-regional catchment is defined as waste originating in Northamptonshire or an equivalent geographical area.
- 4.5.5 The population of the designated area catchment area is in excess of 2.2 million based upon summing the population of the major conurbations and the 2011 Census. The UK arisings of waste wood timber were estimated at conservatively 4.1 million tonnes (DEFRA WRAP 2012). A simple division of the arising by population gives a conservative waste wood arising in the catchment area of 146,000 tonnes per annum, which is over twice the proposed tonnage input of the facility. This calculation affirms that the facility is sustainable within the proposed catchment area.

4.6 Compliance with Energy Policy

- 4.6.1 Table 4.5 lists the policy references:

Table 4.5 Policy References

DDC Energy and Development SPD	Supports renewable energy from waste
National Waste Strategy Draft 2013	To get the most energy out of waste
National Planning Policy Framework	
Paragraph 17	Encourage renewable energy
Paragraph 97	Responsibility on all communities to contribute to renewable energy generation and local authorities should have a positive strategy to promote energy from renewable sources
Paragraph 98	Approve the application if its impacts are (or can be made) acceptable
DEFRA Energy from Waste	Do not over-interpret the proximity principle; allow waste from other council areas; source waste from a range of locations to provide efficiency and flexibility
CHP Ready Guidance	Requires energy from waste facilities to be CHP-ready
DECC National Policy Statements	Set targets for renewable energy
Regional Spatial Strategy	Targets for CHP and distributed energy network using renewable resources
West Northamptonshire Joint Core Strategy Pre-Submission February 2011	
Policy S11	Bring wider environmental, economic and social benefits and contribute to national renewable energy production targets in terms of addressing climate change
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD1	Maximise previously developed land and maximise re-use of energy, heat and residues

- 4.6.2 The proposed generation of electricity and maximising re-use of heat and residues is consistent with the objectives of national policy. Local Policy CMD1 seeks to maximise re-use of energy, heat and residues. The proposed development is in accordance with this policy. There are no other relevant policies in the adopted Development Plan or in the emerging Minerals and Waste Local Plan for Northamptonshire. The production of renewable energy is also in accord with Daventry District Council's adopted SPD and the policy of the emerging Joint Core Strategy for West Northamptonshire.
- 4.6.3 The facility has been designed to be CHP-ready, which means that there will be the ability to utilise both electricity and heat generated by the process. This is fully compliant with current and emerging Northamptonshire County Council policy and Government guidance on the design of new waste to energy facilities. It will mean that there is the potential to supply heat to adjacent businesses, local businesses and future housing development around Market Harborough. In the latter case, this will assist the developers in meeting their obligations in respect of sustainable development.
- 4.6.4 The selection of the gasification technology has been based on finding a reliable and efficient technology, as the previous pyrolysis technology has proven to be unreliable and inefficient. This means that the facility will be capable of producing a much higher energy output than the previously approved scheme, which will make a significant contribution to the targets for the

production of renewable energy. Also, it is fully compliant with the emerging National Waste Strategy and the revisions to waste policy, which seek to get the most energy out of waste.

- 4.6.5 Government policy as set out in DEFRA's Energy from Waste encourages local planning authorities when considering renewable energy from waste projects to allow waste from other council areas and to allow a location that will provide efficiency and flexibility. The location of Pebble Hall close to the county boundary means that cross boundary inputs are essential. The proposed facility will be significantly more efficient than the one that was granted planning permission.
- 4.6.6 Government policy encourages authorities to approve renewable energy projects if their impacts are or can be made acceptable. The documents submitted with this application clearly demonstrate that there are few impacts and those that there are can easily be made acceptable.

4.7 The Sustainability Credentials Associated with the Development

- 4.7.1 Table 4.6 lists the policy references:

Table 4.6 Policy References

National Planning Policy Framework	
Paragraph 14	Presumption in favour of sustainable development
Planning for Sustainable Waste Management – Consultation Document	
Paragraph 4, footnote 4	Location of energy from waste facility to enable utilisation of heat
Northamptonshire Minerals and Waste Core Strategy	
Policy CS1	Development of a sustainable waste management network.
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD1	Development of a sustainable waste management network
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD1	Maximise previously developed land and maximise re-use of energy, heat and residues

The Sustainable Production of Renewable Energy

- 4.7.2 Policy CMD1 seeks to maximise previously developed land and maximise re-use of energy, heat and residues. The proposed development is in accordance with this policy. Other than this policy, the Development Plan is silent on the subject of renewable energy generation. For this reason it is appropriate to look to the NPPF for guidance. The NPPF states that planning permission should be granted unless any adverse impact of doing so would significantly or demonstrably outweigh the benefits. The environmental impacts are considered in detail in the Environmental Statement that accompanies this application. This development has fully considered each possible impact on local amenity and has provided mitigation measures, where necessary, to ensure that there will be no significant impact on local amenity.
- 4.7.3 The benefits of this proposal are significant; the EU states that the UK must produce around 20% of its electricity from renewable sources by 2020; it is currently managing less than 7%. This development offers low carbon sustainable energy generation to meet carbon and energy

consumption reduction targets. On-site generation of electricity from renewable fuel sources is considered by the Government to be an important future contribution to UK energy supplies and it has significant benefits over drawing electricity from conventional and centralised power generators. This type of facility offers improved energy efficiency because heat from the combustion of fuels to generate steam and thus electricity can also be distributed as hot water for direct use by adjacent users. The biomass fuels to be used within the proposed facility are renewable and will be wood waste predominantly from Northamptonshire civic amenity sites, construction and demolition operations and other East Midlands sources. By virtue of the biomass source of the fuel used, the plant would provide a supply of energy that would be close to being carbon neutral with a zero global-warming potential.

- 4.7.4 The NPPF provides that Local Authorities should have a positive strategy to promote energy from renewable and low carbon sources. The proposed development will generate energy from waste that would otherwise go to landfill or lower quality recovery. The NPPF also provides that Local Authorities should maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts. Cumulative impact is covered in the Environmental Statement. In terms of landscape and visual impact, a landscape and visual impact appraisal is included as part of this application. It concludes that there will be only a minor impact on landscape and visual amenity, provided that mitigation is carried out in the form of additional landscape planting and earthworks.
- 4.7.5 Ofgem has predicted that the UK may be subject to blackouts as a result of electricity shortages from 2015. This facility, working alongside other renewable power facilities, would make an important contribution in Northamptonshire to prevent this. This facility, if approved, would produce 10.4 MWe of renewable energy per hour, continuously. This is more reliable than wind energy in terms of renewable energy generation; wind turbines typically only produce electricity at a rate of 25% of the installed capacity. The facility will generate enough electricity to power 17,000 homes or 21% of Northamptonshire homes. This is an additional 6 MWe over the existing planning consent. Notably, biomass is now considered to provide the best (i.e. most efficient) method for supplying renewable energy, in a renewable and sustainable manner as a higher proportion of energy in the fuel is recovered in a useful way and because (electricity) distribution losses are minimised. Other sustainability credentials associated with the facility are included below.
- 4.7.6 The facility has been designed to be CHP-ready, which means that there will be the ability to utilise both electricity and heat generated by the process. It will mean that there is the potential to supply heat to adjacent businesses, local businesses and future housing development around Market Harborough. In the latter case, this will assist the developers in meeting their obligations in respect of sustainable development. This is in accordance with the latest Government guidance for the location of energy from waste developments, as set out in the document 'Planning for Sustainable Waste Management'.

Carbon Dioxide Emission Reduction

- 4.7.7 It is estimated that the REGF would offset approximately 42,140 tonnes of CO₂ equivalent per year from electricity generation and further reductions in the event of the successful export of heat. The proposed renewable electricity output of the development is equivalent to approximately 17,000 domestic houses becoming carbon neutral for electricity using the figure of 3,300KWh per annum for a typical UK House (Ofgem).

4.7.8 The CO₂ savings for the process have been calculated based upon the Waste and Resources Assessment Tool for the Environment (WRATE). This is a piece of modelling software designed in partnership with the Environment Agency. It is the recognised tool for Life Cycle Analysis and the Environmental Impact Assessment of waste and is recommended for use by the Waste Strategy for England 2007, the Defra Practice Guidance for MSW Strategies and the European Commission Thematic Strategies for Life Cycle Approach. The WRATE results show a saving of 42,140 tonnes of CO₂ equivalent per annum over the baseline option for the use and disposal of waste timber for an identical plant located and under construction in the West Midlands. This facility at Pebble Hall will have a very similar performance.

Addressing Climate Change and Health

4.7.9 Use of a biomass fuel has important implications in addressing the impacts of climate change, but the benefits of using renewable forms of energy are not just confined to this objective. Environmental costs of conventional generation are also reduced, including the health implications associated with poor air quality, the damage to the natural and built environment caused by acid rain and radiation related health and safety management problems.

Diversion of Waste From Landfill

4.7.10 Biomass waste used as a fuel in the REGF will divert biodegradable waste from landfill and recover energy from waste. Diversion and recovery of wood waste accords with the waste hierarchy. Biomass will be: (1) removed from locations where biodegradation could take place and (2) diverted from landfill where landfill gases are generated. In both cases the generation of methane would be avoided. Methane is a harmful greenhouse gas which has 25 times the global warming potential of CO₂.

Local Jobs and Economy

4.7.11 The creation of 22 additional jobs at the site will provide opportunities for local employment, which will assist in sustaining the rural economy. It should be noted that the existing jobs within the small workshops/storage areas that are to be removed in the event of this development taking place will be lost. However, it is understood from the landowners that all of the established businesses are likely to relocate in the locality in other currently vacant premises, thus ensuring the continuation of employment for the staff. In addition, there will be temporary job opportunities during the plant's construction of over 100 jobs.

4.7.12 The construction of the facility will bring capital investment of over £40m to the area, which will have a spin-off benefit as construction workers utilise local shops and facilities. Local contractors will be used where possible, but the installation of the technical equipment will require specialist contractors with experience in fitting such equipment.

4.8 Design of the Facility

4.8.1 Table 4.7 lists the policy references:

Table 4.7 Policy References

Northamptonshire Minerals and Waste Core Strategy	
Policy CS14	Design and layout that has regard to its visual appearance
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD10	Support local identity and good relation to neighbouring buildings; elements of visual interest and built in safety and security
Daventry District Council Local Plan Saved Policy	
Policy GN3	Requirement for available services and infrastructure

- 4.8.2 A Design and Access Statement has been prepared, which is submitted with the planning application documents.
- 4.8.3 The facility has been designed in order to utilise the best available technologies and to minimise the impact on local amenity. The form of the proposed building itself is largely derived by its use and by the shape and size of the plant it contains.
- 4.8.4 Consideration has been given to the new building layout in respect to its visual impact. The building has been positioned between the existing grain store/proposed TAD building and the embankment to the South and West of the site in order to provide screening from existing buildings and the ability to provide landscape and visual impact mitigation. The location of the stack has been determined by the air quality modelling; its orientation and dimensions will ensure satisfactory dispersion.
- 4.8.5 The site layout of the revised REGF has been designed to maximise the safety of operations, with particular reference to fire risk, by keeping the power generation plant away from the wood processing operations. Site security is already in place, in connection with the requirements of the Environmental Permit for the composting operations.
- 4.8.6 The external walls and roof will be profiled metal cladding, coloured juniper green to match the other buildings within the Pebble Hall complex. The window and glazed entrance doors to the office will be polyester powder-coated aluminium framed.
- 4.8.7 The new buildings and plant contain elements of visual interest, in the form of a stack, the air-cooled condenser and the turbine oil-cooler on the roof of the turbine hall.
- 4.8.8 Daventry District Council's Policy GN3 provides that the infrastructure, services and amenities made necessary by the development are in existence or will be provided by the developer or other agency. A drawing showing the proposed route for the connection to the national grid system is included in Appendix 5. Western Power has confirmed that there is the ability to export the power from this facility to the local distribution network and a formal application for the connection has been submitted.

4.9 Synergies from the Co-location of Facilities

- 4.9.1 The REGF and the proposed adjacent TAD facility have a number of significant synergies, as explained in Appendix 3. Therefore, the location of these facilities on the same site has considerable benefits.

4.10 Environmental Considerations

4.10.1 Table 4.8 lists the policy references:

Table 4.8 Policy References

Northamptonshire Minerals and Waste Core Strategy	
Policy CS1	Meet environmental and amenity requirements
Policy CS9	Minimise transport movements
Policy CS14	Minimise environmental impacts; protect natural resources; provide safe access.
Northamptonshire Minerals and Waste - Control and Management of Development	
Policy CMD7	Minimise impacts on natural resources; deliver wider environmental benefit
Policy CMD8	Mitigate potentially adverse impacts on local character
Daventry District Council Local Plan Saved Policies	
Policy GN2	In keeping with locality; doesn't detract from its amenities
Policy EN1	Special Landscape Area (now superceded by Northamptonshire Landscape Character Assessment)

4.10.2 The environmental impacts of noise, landscape and visual impact and air quality have been considered in detail during the Environmental Impact Assessment and are reported in the Environmental Statement. However, the following issues were scoped out of the EIA process, as set out in the Scoping Opinion in the Environmental Statement, so are included in this Planning Statement. The justification for scoping out each issue is included in each following section.

Traffic and Transport

4.10.3 The site owner currently has a S106 legal agreement with Leicestershire County Council not to exceed 240 vehicle movements per day Monday to Friday, 120 on Saturdays and 65 on Sundays. This is enforced through a traffic counter which has been installed at the site access. In light of this agreement and that this development will not exceed this limit and is likely to be significantly less than the limit, traffic and transport was scoped out of the EIA. The limits are monitored by Leicestershire County Council to ensure compliance.

4.10.4 The modified REGF will have capacity to process 72,000 tonnes of wood waste per annum. Current vehicle movements are set out in Table 4.9. The proposed facility includes an additional 32,000 tonnes of materials, to be delivered in loads averaging at least 20 tonnes. This will result in an additional total of 1,600 loads per annum, which over a 52 week year and 5.5 day week gives an average daily rate of 6 loads or 12 movements per day (in & out), or 33 loads per week or 66 movements.

4.10.5 Around one additional lorry load per week will be required to remove contaminants within the waste wood. Ash from the process will also be removed from the site. It is anticipated that grate ash will be removed at a rate of 2375 tonnes per annum in 25t loads. This equates to 95 loads per annum or less than 2 loads per week. Fly ash will also be removed from the site in 20t loads at a rate of 960 tonnes per annum. This equates to 48 loads per annum or 1 load per week.

4.10.6 In addition to trips generated by the proposed development, there will be vehicle trips associated with the additional 22 staff and a small number of visitors, resulting in around 50 additional car movements per day (In & Out).

4.10.7 A summary of the permitted, existing and proposed vehicle movements is provided below.

Table 4.9 Daily Vehicle Movements

	Existing Use Per day	Proposed Use Per day
REGF - HGV	16	(16+12) 28
Staff & Visitors - Cars	2	50
Workshop/ Storage, HGV, LGV and Cars	35 up to 215, of which 23 HGVs	0
Ash Removal - HGV	0	1
Contaminants Removal - HGV	1	1
Total	54 up to 234	82 with half on Saturday

4.10.8 Table 4.9 indicates that the proposed facility and the resultant removal of the workshop/storage units, which have an unrestricted B8 use, significantly reduces the traffic generation levels at the site.

4.10.9 The traffic movements do not result in an increase to the existing levels agreed and controlled by Leicestershire County Council. This is controlled through a Section 106 legal agreement for the whole of the Pebble Hall operations. It is intended that this legal agreement will be carried forward to apply to this development. This legal agreement allows a total of:

- 240 vehicle movements per day (Monday to Friday)
- 120 vehicle movements per day (Saturdays)
- 65 vehicle movements per day (Sundays)

4.10.10 Consideration has been given to the mix of heavy goods vehicle movements associated with construction and other general operational movements and the impact on the agreed vehicle limit. A report by Origin Transport Consultants is included in Appendix 6. This report concludes that:

The 13 additional (12 for REGF and 1 for ash removal) HGV movements per day (above those already consented) are more than off-set by the 23 HGV movements per day that could have been generated by the existing workshops/storage units that will be removed as part of the proposal.

4.10.11 Therefore, there will be no additional impact on the villages along the A4304.

4.10.12 In response to a request from Welford Parish Council, it is proposed that a lorry routeing agreement be put in place, in the event that planning permission is granted for the revisions to the REGF, such that the operators will use their best endeavours to direct delivery lorries to avoid the village of Welford. Such an agreement would be drawn up and submitted for approval pursuant to a condition requiring same. A Lorry Routeing Plan is included with the planning application, Drawing GPP/C/PH/REGF/13/18. Compliance will be enforced through contractual arrangements with suppliers.

4.10.13 In response to a request from Theddingworth Parish Council at a meeting with a Planning Officer from Northamptonshire County Council, it is proposed that a Traffic Regulation Order be promoted by the Applicant, in the event that planning permission is granted. The Order will reduce the speed limit along the section of the A4304 between Husbands Bosworth and Theddingworth, to promote highway safety in connection with the use of the access. The details will be agreed with the Highway Officer of Leicestershire County Council and the Parish Council. It should be noted that Leicestershire Highways Authority has no objection on highway safety grounds to the use of the access, provided that the number of vehicle movements remains in compliance with the agreed limit set in the Section 106 Agreement.

Flood Risk

4.10.14 The impact of the drainage arrangements has to be managed to satisfy the requirements of the Environmental Permit for the site, to be issued by the Environment Agency. This means that most of the surface water from the site has to be collected and treated as necessary, to avoid the risk of contaminated water leaving the site. Therefore, with the requirement not to increase the run-off rate has meant that the impacts will be minimal and thus this issue has been scoped out of the EIA.

4.10.15 A detailed Flood Risk Assessment has been undertaken and the report is included in Appendix 7. The report includes details of the proposed sustainable drainage scheme for the development, which is illustrated on Drawing 13029/101. The report describes the proposed drainage arrangement as follows:

The yard area of the REGF will be surfaced with concrete and will therefore be drained into the surface water drainage system via gullies. Run-off will pass through a class 1 bypass interceptor before discharging into the main surface water drainage system.

Roof water from the REGF building will be drained directly into the main surface water drainage system without the need for any treatment; some roof water will be collected for use in the process.

Surface water will be drained into the attenuation pond shared with the TAD plant to the south west of the site. Water will then discharge into the River Welland via the existing surface water outfall.

In order not to increase the rate of surface water discharge into the River, the attenuation pond will be used to store surface water during major rainfall events and release water at limited discharge rate by using a vortex flow control.

The wood reception and processing pad will be drained separately from the yard and building areas because of the risk of contamination from treated wood entering the surface water run-off. For the majority of rainfall events it is anticipated that the wood will absorb a lot of water which will then either evaporate or be transferred into the REGF with the wood. However, during major rainfall events, run-off will be collected via a cut-off drainage channel located at the open end of the pad and then drained via a class 1 bypass interceptor into a total retention pond located to the south west of the site. The volume of the attenuation pond has been calculated as 531m³ for a 100 year return period plus a 20% allowance for climate change in accordance with the National Planning Policy Framework technical guidance.

Run-off collected in the total retention pond will normally be recycled within the REGF. However, when significant surplus water has been collected, the water will be tested for contamination. If the water is found to be contaminated, it will be tankered off site to a suitable disposal facility. If the water is found to be uncontaminated, it will be released into the other balancing pond and subsequently discharged into the River Welland at the limited discharge rate.

4.10.16 The conclusions of the report are as follows:

- *The revised REGF development complies with the requirements of the Sequential Test.*
- *The proposed surface water drainage system will ensure that the site and adjacent developments will be protected from surface water run-off generated by the developments.*
- *Risk of contamination resulting from oil spillage will be restricted using bypass interceptors.*
- *Risk of contamination from contaminated timber will be prevented using a total retention pond.*
- *Foul drainage will be disposed of using septic tanks.*
- *Trade effluent will be recycled, tankered off site or treated and discharged to the River Welland via a package treatment plant.*

Odour (controlled by the conditions of an Environmental Permit)

4.10.17 Timber processing is inherently low in odour and has no offensive smell. This is demonstrated by the current operations. There has been no history of odour complaints from the existing wood processing operations. The gasification process is fully contained and thus not at risk of generating odours.

Mud, Dust and Litter (controlled by the conditions of an Environmental Permit)

4.10.18 The timber on site is currently shredded to a size of 40mm. The gasification facility requires the material to be shredded to a size of 70 – 100mm which will reduce the amount of dust created from the existing wood processing area within the Application Site.

4.10.19 All vehicles leaving the site in connection with this development will be controlled to ensure no mud or other debris is deposited on the public highway. A water bowser with spray attachment will be used in order to clean the vehicles leaving the site and vehicles will be sheeted to prevent the risk of dust blow from any residual material within the vehicle, all in accordance with measures included in the Site Management Plan for the existing waste operations.

Ecology

4.10.20 The location of the proposed building has been used for storage for 5 years and hard surfaced for this amount of time. There is therefore nothing of ecological interest present in the yard area. The hedge along the top of the embankment to the South and West of the Application Site is recently planted, between three small trees; the hedging plants will be carefully removed when the earthworks are commenced and re-used once the land has been re-contoured. The trees will not be removed during the nesting season, to avoid any disturbance to the local bird population.

4.10.21 A short section (55m) of field boundary hedge with one tree will be removed, to facilitate the placement of the hoggins from the site levelling work, to raise the levels around the Southern and Western boundaries to create a higher bank. This hedge is predominantly of hawthorn. It is

cut annually to a height of about 1.5m, as shown in Photograph J in Photopanel D, Drawing GPP/C/PH/REGF/13/09. The two adjoining fields are in arable use, cultivated up to the base of the hedge, with no headland or set-a-side. There are no badger setts along its length. Therefore, there is little of ecological interest along this section. It will not be removed during the nesting season, to avoid any disturbance to the local bird population.

- 4.10.22 Workshop/storage buildings and portacabins at the rear are to be demolished, to provide an extended yard area between the wood waste reception and processing area and the REGF building. Although the workshop/storage buildings were previously in agricultural use, they are not traditionally built and have been re-clad with profiled steel sheeting, fitted with roller shutter doors. The structure is seen in Photograph (a) on Photopanel A. The full containment offered by the cladding and the continued use of the units means that they are unsuitable as bat roosts.
- 4.10.23 A large area (1.5ha) of new landscaping is proposed, with native woodland and shrub planting on the area of raised ground, to provide extended areas of woodland habitat to enhance the ecological interest in this predominantly arable area. The proposals are shown on Drawing GPP/C/PH/REGF/13/05. The Landscape Specification is included in Appendix 8. This new planting will more than compensate for the loss of the hedgerow habitat.
- 4.10.24 Due to the lack of ecological interest in the site, this issue has been scoped out of the EIA. In addition, the potential for any adverse impact on the River Welland is significantly reduced due to the requirement to manage surface water on site, as described in the section above on Flood Risk.

Ground Conditions

- 4.10.25 Most of the Application Site has been created by the removal of hoggin (predominantly glacial sand), to create an extended farm yard. The site is underlain by hoggin and is surfaced with concrete at the Eastern end and hardstanding at the Western end, with the workshop/storage units on concrete bases.
- 4.10.26 The concrete yard at the Eastern end will be retained, but the workshop building and bases will be removed. The material arising from the levelling of the site to link the Western end with the Eastern end will be utilised to raise the slope to the south and west of the site. The Western end will be built on and the yard area concreted.
- 4.10.27 There is only a low risk contamination of the ground as the yard and workshops/storage units were constructed on the sand and the hardcore yard has only been used for outside storage. In the event that any superficial contamination is found in the hardcore yard, it will be removed prior to construction of the building and concreted yard.

Archaeology and Cultural Heritage

- 4.10.28 There are no features of archaeological or cultural heritage interest within the rural area surrounding the site, although there are Listed Buildings in the village of Theddingworth. These are too far away to be affected by the proposed development.

Conclusion

- 4.10.29 In conjunction with the findings of the accompanying Environmental Statement and the issues considered in the Planning Statement, it is concluded that the proposed development will not

have any significant environmental impacts and therefore is in compliance with the Development Plan policies on protection of the environment.

5 CONCLUSIONS

- 5.1.1 In conjunction with the findings of the accompanying Environmental Statement and the issues considered in the Planning Statement, it is concluded that the proposed development has significant sustainability credentials which, according to the NPPF, is the golden thread that should run through all planning decisions. Section 38(6) of the Planning and Compulsory Purchase Act 2004 states that, ultimately, planning decisions must be determined in accordance with the Development Plan unless material considerations indicate otherwise. This application has been assessed against the Development Plan, along with relevant material considerations and is considered to be compliant for the reasons set out.
- 5.1.2 In respect of the location of the development, it is concluded that as the advanced treatment of the wood waste is incompatible with an urban location, it is appropriately located at Pebble Hall. The site is an extension of an existing site, utilising previously developed land and as such complies with the Development Plan's waste spatial strategy as it is:
- An extension of an existing waste site
 - Incompatible with urban areas so appropriate to locate in rural hinterlands
- 5.1.3 In respect of the waste hierarchy the generation of renewable energy from waste wood is the best available technology for treating this waste and diverting it from landfill. Moving the treatment of wood waste up the waste hierarchy, together with the sustainable credentials of the development means that it complies with policy.
- 5.1.4 The facility is an advanced treatment facility with a sub-regional catchment area, which policy CS2 acknowledges is appropriate in the rural hinterlands if the facility is incompatible with urban areas. The 30 mile catchment proposed is established by the extant planning permission for the REGF. The facility is centrally located to serve that catchment, with excellent access via the strategic highway network.
- 5.1.5 The proposal is fully in accordance with the Government's policies and targets for the generation of renewable energy, including from the use of waste.
- 5.1.6 The sustainable credentials of production of renewable energy, the reduction in carbon dioxide emissions, the lack of impact on air quality, climate change and health and the provision of local employment opportunities make it fully compliant with the National Planning Policy Framework.
- 5.1.7 It will not have any significant residual adverse effect on local amenity, once mitigation measures have been implemented, which include significant landscape planting, a lorry routing agreement and a speed limit on the A4304 between Husbands Bosworth and Theddingworth. The proposal is therefore environmentally acceptable.
- 5.1.8 If planning permission is granted for this development and the proposed TAD facility, there will be a range of synergies from the co-location of the two developments. Each will be more efficient, with the combined export of electricity and possibilities of sharing the use of some of the heat and the waste water.
- 5.1.9 The national need for renewable energy and the confirmed ability to export it should carry considerable weight in the planning balance; therefore planning permission should be granted for this development. In overall conclusion, the proposal is considered to be compliant with the Development Plan.