



Sustainable Energy Facility

East London

Non-Technical Summary

INTRODUCTION AND BACKGROUND

A planning application has been submitted for determination by the London Thames Gateway Development Corporation for the development of a Sustainable Energy Facility on land at the Ford Motor Company Limited Complex at Dagenham, adjacent to the Fairview Industrial Estate, Rainham. The Application will be processed by the London Borough of Havering. The proposal involves the development of a power generation plant and associated buildings.

As part of the preparation of the planning application an assessment has been made of the impact the development might have on the environment. The findings of this assessment have been used to develop the proposed facility and a report of the assessment (the Environmental Statement) is submitted in support of the planning application. This has been prepared in accordance with the Town and Country Planning (Environmental Impact Assessment) (England & Wales) Regulations, 1999.

This document provides a Non-Technical Summary of the information contained within the Environmental Statement.

The planning application and the Environmental Statement can be inspected at the London Borough of Havering's offices at Customer Service, Town Hall, Main Road, Romford, RM1 3BD. A copy of the Environmental Statement may be purchased from RPS at Conrad House, Beaufort Square, Chepstow, Monmouthshire, NP16 5EP at a cost of £75 to cover printing and postage. This Non-Technical Summary is available free of charge from both addresses and by emailing east.london@noveraenergy.com. If you represent a community/residents' organisation and would like a full copy of the Environmental Statement please call 0800 587 9949. The planning application and Environmental Statement can also be downloaded from www.sustainablelondon.co.uk

CONTENTS

INTRODUCTION AND BACKGROUND	1
THE APPLICANT	2
THE SCHEME AND ITS CONTEXT	2
The site and its setting	2
The proposed development	3
STATUTORY REQUIREMENTS	3
ENVIRONMENTAL IMPACTS	4
Traffic	4
Air Quality	4
Surface Water and Flooding	5
Landscape and Visual Appraisal	5
Nature Conservation	5
OTHER ENVIRONMENTAL ISSUES	6
Noise	6
Archaeological Issues	6
Land Contamination, Hydrogeological & Geotechnical Issues	6
CONCLUSIONS	6



Figure 1: Location Plan

THE APPLICANT

Novera Energy Limited

Novera Energy Limited is an international renewable energy company, founded in 1998. It develops and owns renewable and low emission electricity generators, which supply electricity.

The Company has four principal activities:

- The generation of electricity from landfill gas, hydropower and wind energy, with over 130 MW of renewable electricity generators at sites across the UK and Germany in joint venture with the world's largest infrastructure investor.
- The development of a portfolio of waste and renewables gasification facilities.
- The provision of specialised plant operating and maintenance services to third parties, notably for high temperature thermal facilities.
- The development and ownership of on-shore wind farms.

THE PROPOSED FACILITY AND ITS CONTEXT

The Site and its Setting

The location of the site is shown on Figure 1, which also shows the planning application boundary. The site is currently used by the Ford Motor Company Limited as part of its vehicle holding centre and lies within the London Borough of Havering on the northern bank of the River Thames.

The site is bounded to the north and west by the Ford Motor Company Limited, to the east by a depot and Fairview Industrial Estate, and by the River Thames to the south. Adjacent to the depot on the east side of the site and approximately 100m away, is the Shanks East London Bio-Materials Recovery Facility (Bio-MRF) where household waste collected in the East London Waste Authority area (the London Boroughs of Havering, Barking & Dagenham, Newham and Redbridge) is treated.

The Proposed Development and its Context

The Sustainable Energy Facility will convert Solid Recovered Fuel (made from waste left after recycling and composting) into a synthetic gas, which will be used to generate electricity. Electricity generated will be supplied to Ford Motor Company Limited or the national grid.

The technology used will be the fluidised bed gasification process. A fuel (in this case produced from household waste left after recycling and composting) will be treated at controlled temperature to produce a synthetic gas that will be cleaned and used to generate electricity. The technology has been developed by Enerkem Technologies of Canada, Novera Energy's exclusive technology partner. The layout of the proposed facility can be seen in Figure 2, while Figures 3 and 4 show the facility in 3D.

The Solid Recovered Fuel will come mainly from the Shanks East London Bio-MRF Recovery Facility close to the site, at Frog Island, where household waste collected in East London will be treated from 2006. The Solid Recovered Fuel will largely be made up of paper, textiles, wood and plastics.

Without the proposed development the Solid Recovered Fuel could be used for energy generation further afield or landfilled as a last resort. Both national and regional policy aims to move the management of waste away from landfill and towards more environmentally acceptable solutions.

The proposed facility will divert Solid Recovered Fuel away from landfill and provide renewable energy.

The proposed development is part of the Department for Environment, Food and Rural Affairs' New Technology Demonstrator Programme. The Programme is designed to find innovative ways of meeting the challenge posed to the UK by the urgent need to divert large amounts of household waste away from landfill.

STATUTORY REQUIREMENTS

When a decision is made on the planning application, it will have to follow the policies set out in national, regional and local planning guidance. The Environmental Statement that accompanies the planning application therefore considers all the issues that are raised in these documents.

The form of an Environmental Statement is set out in Regulations and there is 'best practice' guidance available, which has been followed in this project. The purpose of the Environmental Impact Assessment that has been conducted is to describe for each key topic:

- The methods used to collect data and assess the significance of any impact;
- The existing conditions against which the impacts have been measured;
- The potential impacts that the development might have;
- Proposals which could mitigate any unwanted impacts or effects or which could improve the existing situation, and
- Any remaining impacts after the mitigation measures have been put in place.

The remainder of this Summary describes the findings of the Environmental Impact Assessment.



Figure 2: Proposed Site Layout



Figure 3: 3D View of Proposed Facility

ENVIRONMENTAL IMPACTS

Traffic

The proposed development will have no significant impact on local roads and can significantly reduce vehicle haulage of the Solid Recovered Fuel produced at the Frog Island waste management facility.

Without development of the Sustainable Energy Facility approximately 80,000 tonnes per annum of Solid Recovered Fuel would be transported further afield for energy generation or landfill. If the Sustainable Energy Facility was developed the need for a number of these trips would be avoided.

Solid Recovered Fuel will be delivered to the Sustainable Energy Facility either by road or by conveyor. Development of the Sustainable Energy Facility will therefore reduce the distance that this fuel will need to be hauled from its source to a location where it can be used.

The existing Frog Lane carriageway and junction will be reopened to adopted highway

standards keeping its simple priority controlled 'T' junction status.

The Traffic Impact Assessment that forms part of the Environmental Statement concludes that the development proposals can be integrated into the transport network without any major mitigation measures and there will be no significant impact on local roads.

Air Quality

Emissions from the Sustainable Energy Facility will comply with the strictest regulatory standards.

A detailed Air Quality Assessment has been carried out using a widely accepted computer model to predict the ground level concentrations of emissions from the Sustainable Energy Facility. In order to be conservative, the maximum level of emissions allowed by the Environment Agency has been assessed. The assessment is therefore a 'worst case' scenario and has shown that the output levels from the facility will not cause a breach of the UK Air Quality Standards or other benchmark air quality levels. The facility will be operated within all legislative requirements.

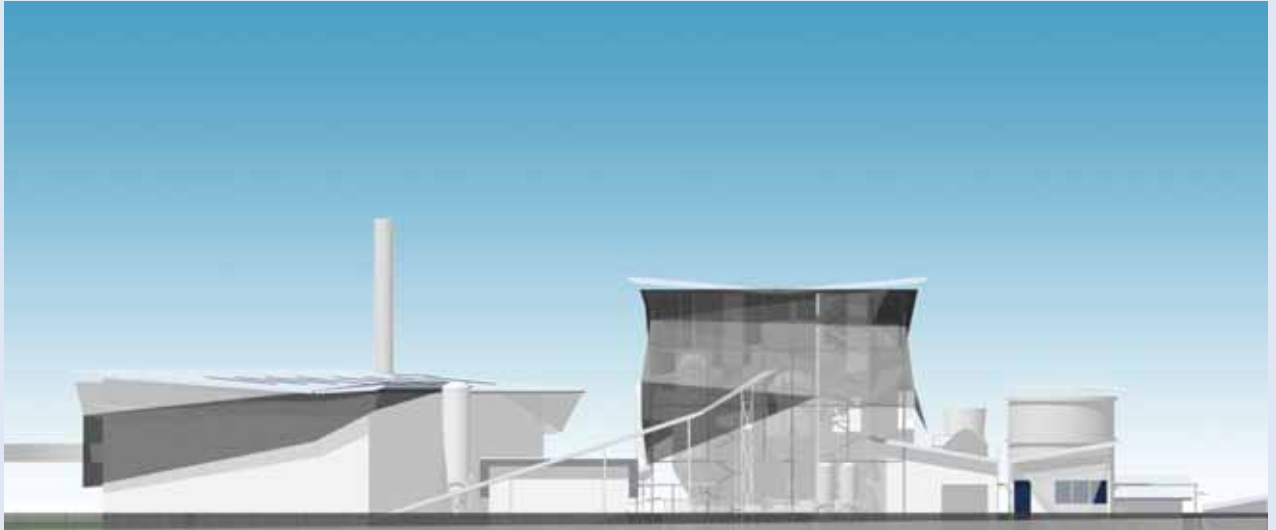


Figure 4: 3D View of Proposed Facility

Surface Water and Flooding

Existing flood defences are adequate to protect the site from flooding and can be improved if necessary.

The Surface Water and Flood Risk Assessment concludes that the proposed arrangement for the discharge of surface water runoff from the development into the nearby watercourses (the Beam River, the un-named drainage ditch, and/or the Ingrebourne) will be of negligible impact. (Effluent from the proposed facility will be discharged to sewers, not released into the River.)

The assessment concludes that the flood defences already in place are adequate to protect the site from tidal and coastal flooding that might happen once every 200 and 1,000 years respectively.

Landscape and Visual Appraisal

The high quality architectural design proposed is considered to have a positive impact upon the appearance of this section of the River Thames waterfront.

The Landscape and Visual Appraisal has concluded that the landscape has a generally high capacity to accept development of the kind proposed due to the surrounding heavy industry and utilities' infrastructure.

The Facility has been designed to integrate well with the adjoining river bank location. The Visitor Centre will open up visual access to previously inaccessible sections of the northern Thames riverbank.

The proposed architectural treatment will have a neutral or slight beneficial impact on existing views in the area.

Nature Conservation

The site has very limited value for nature conservation, which will not be significantly impacted upon.

The development does not lie within any designated or protected areas of conservation importance and is not considered to impact on any within the surrounding area.

The development will result in a loss of habitat that is of very limited nature conservation value, as the proposed layout involves retaining a significant proportion of the grass and scrub banks along the south and east boundaries.

The assessment concludes that, the significance of the proposed activities on the site are considered to be low in relation to ecology and nature conservation.

OTHER ENVIRONMENTAL ISSUES

Noise

Assessment of noise conditions during construction and operation of the facility concludes that noise impacts will be of no significance, providing the proposed mitigation measures are incorporated into the final design of the facility.

Archaeology

There are no Scheduled Monuments, Listed Buildings, Registered Historic Parks and Gardens or Registered Battlefield sites present on the proposed site therefore the potential for significant remains to exist is low.

Land Contamination Hydrogeology and Geotechnical Issues

A desktop assessment and site investigation relating to land contamination, hydrogeological and geotechnical conditions have been carried out on the proposed site. The site formed part of a historic landfill site. This will be taken into account in the design of the construction methods and drainage systems for the proposed development.

CONCLUSIONS

The Sustainable Energy Facility will make good use of Solid Recovered Fuel that will be produced in East London from 2006. The proposed facility will achieve this by diverting Solid Recovered Fuel from landfill and using it to create renewable energy.

The Environmental Statement has identified no significant impact from the proposed development. It has shown that the Sustainable Energy Facility will create mostly beneficial environmental impacts and that mitigation measures embodied within the project design, or imposed through planning conditions, will limit any minor impact identified.

RPS Planning, Transport and Environment
Conrad House, Beaufort Square, Chepstow,
Monmouthshire NP16 5EP

For and on behalf of RPS Planning, Transport and Environment:

Prepared by: Gareth Gardener

Reviewed by: Kevin Parr

Position: Waste Director

This report has been produced by RPS within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

We disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk