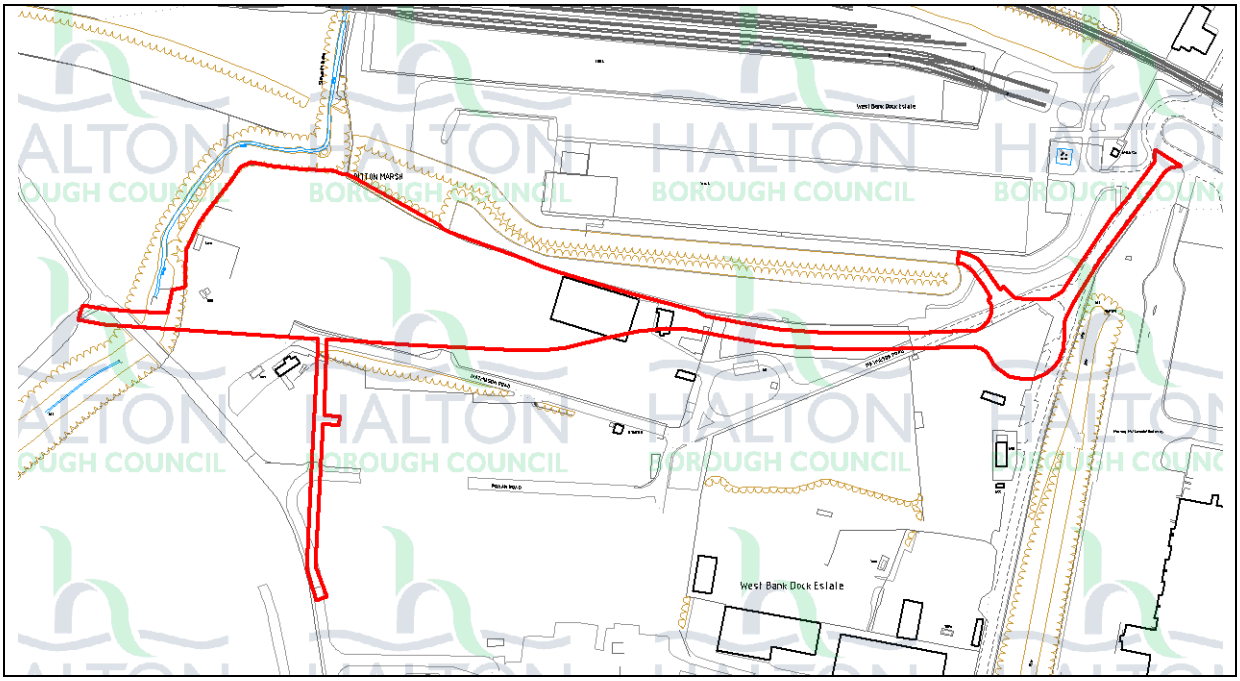
APPLICATION NO:	12/00458/FULEIA
LOCATION:	Stobart Park/ 3MG, Formerly West Bank Dock Comprising Land to the East of Desoto Road East and to the West of Foundry Lane, Widnes
PROPOSAL:	Proposed development and erection of a wood fuelled Biomass Combined Heat and Power Plant and ancillary infrastructure development.
WARD:	Riverside
PARISH:	N/A
CASE OFFICER:	Glen Henry
AGENT(S) / APPLICANT(S):	Burmeister and Wain Scandinavian
DEVELOPMENT PLAN ALLOCATION: Halton Unitary Development Plan (2005)/ Core Strategy	Regional Investment Site for the development of a Ditton Strategic Rail Freight Park in the Halton Unitary Development Plan. Falling within Site 255 within the designated Potential Extent of the Ditton Strategic Rail Freight Park. Part of the western side of the site is also within the Developed Coastal Zone to which Policy GE30 in the Halton UDP applies. Policy CS8 of Halton's Core Strategy identifies Stobart Park / 3MG as a Key Area of Change.
DEPARTURE	Yes
REPRESENTATIONS:	1
RECOMMENDATION:	Approve subject to Conditions.
SITE MAP	



APPLICATION SITE

The Site and Surroundings

Approximately 3.2 Ha forming part of a wider site and predominantly formerly owned and occupied by AHC (Warehousing) Ltd. The wider site is now currently largely vacant being approximately 33.03 Ha site and is in the process of being remediated and re-profiled for redevelopment as Stobart Park. Planning permission for that development specifically excluded the application site to allow the development to be progressed separately without delaying the wider development.

The site is bounded by Marsh Brook and Halebank industrial area and Foundry Lane to the west, Desoto Road to the east, the Granox/ PDM site and Mersey Estuary to the south and the northern boundary of the site is formed by the West Coast Mainline and the existing Stobart Ports trans-modal container port to the north.

Planning History

Permission was previously approved to Drawbridge Securities (Ditton) and AHC (Warehousing) Ltd for the proposed redevelopment of the majority of the wider site for a freight terminal to provide 78,308 sqm of new distribution warehousing with improved road and rail access. Planning permission was also approved (07/00815/FULEIA) for a proposed distribution centre and additional warehousing floorspace with associated access, vehicle parking, landscaping, and ancillary development including diversion of existing watercourse by Westlink Group Ltd.

Later permission (11/00266/OUTEIA) has been approved and forms the basis for the on-going remediation and re-profiling of the wider site. The current application site was specifically excluded from that application to allow this development to be progressed separately.

THE APPLICATION

Proposal Description

The proposed development is for a Biomass CHP Plant which will generate renewable electricity and heat by combustion of wood fuel. The proposed throughput of the facility would be approximately 147,000 tonnes per annum and the plant will produce about 20 Megawatts electrical (MWe) of electricity for export to the National Grid. It is expected that up to 3.5 Megawatts thermal (MWth) of thermal energy will also be available to local industry.

The plant will use virgin and recycled wood as a fuel source to generate energy. Recovering energy from wood which would otherwise be landfilled avoids methane emissions that would be generated from its decay in landfill and therefore results in significant savings in greenhouse gas emissions. This provides additional sustainability benefits over using other types of biomass.

Key Characteristics of the Project

The proposed development is for a biomass Combined Heat and Power (CHP) Plant which will generate renewable electricity and heat by combustion of wood fuel. The proposed throughput of the facility would be approximately 147,000 tonnes per annum for a plant that will produce about 20 Megawatts electrical (MWe) of electrical output to the national grid. It is expected that up to 3.5 Megawatts thermal (MWth) of thermal energy will also be available to local industry. The plant will use virgin and recycled wood as a fuel source to generate energy. Utilising wood in this way provides a carbon neutral substitute for fossil fuels. Wood combustion is accepted as not contributing to global warming or the greenhouse effect as it only returns to the atmosphere the CO2 that has been taken from it by growing trees. In addition, recovering energy from wood which would otherwise be landfilled avoids methane emissions that would be generated from its decay in landfill and therefore results in significant savings in greenhouse gas emissions. This provides additional sustainability benefits over using other types of biomass.

The application site occupies an area of 3.2 hectares (as a proportion of wider park which is approximately 33.03 Ha). This includes the following components:

- Area for receiving and handling biomass including weighbridge, conveyors and delivery point;
- Wood chipping plant, hoppers and wood storage area;
- Main building complex, including fuel store, boiler and turbine, service and administration building, air cooled condensers and 59m stack;
- Ancillary buildings and infrastructure, including filters (for air pollution control), fire protection system, fencing, attenuation tank, roadways and parking;
- Soft landscaping; and
- Heat connection routes.

A grid connection would also be required to link the plant to the National Grid via the cable network to the sub-station on Desoto Road. This is not included within the planning application and would be implemented by the relevant electricity company, SP Manweb either, as permitted development or through a planning application as appropriate.

Project Justification

The UK Government has a target of securing 15% of the UK's energy consumption from renewable sources by 2020. As set out in the Renewable Energy Road Map 2011, biomass use for electricity and heat generation is seen as one of the key technologies capable of delivering this target. The Government considers that bioenergy could deliver around half of the total generation needed to meet our 2020 renewable target.

The Climate Change Act established a legally binding target to reduce the UK's greenhouse gas emissions by at least 34% by 2020 and 50% by 2027. Local policy, both in the adopted Halton Unitary Development Plan (UDP) and Halton Core Strategy through Policy CS19 (Sustainable Development and Climate Change), is supportive of renewable CHP schemes to assist with reducing CO2 emissions. The combined production of heat and electricity through CHP improves energy efficiency helping to reduce CO2 emissions and utilises heat which would otherwise be discharged to the atmosphere. The Biomass CHP plant will therefore make an important contribution towards renewable energy and CO2 emission reduction targets. It is ideally placed to integrate with the wider 3MG/Stobart Park development, with the potential to receive fuel by road or rail and provide heat and power to local businesses.

Access and Traffic

The site will be accessed from a new private access road that also forms part of the planning permission for the expansion of Stobart Park/3MG development, which will link with the roundabout to the north west from Desoto Road East and the A533 Queensway. The application site therefore includes part of the proposed access road and roundabout to the east. Adjacent to the north of the site is the Stobart rail freight terminal which is connected to the Liverpool Branch of the West Coast Mainline (WCML) and also offers access to the to the Ditton-Warrington line, which provides connections to Trans-Pennine routes and Scotland.

During operation, traffic would arise from the following activities:

- Delivery of fuel;
- Import of materials for flue gas treatment chemicals;
- Export of residues from the flue gas treatment process;
- Export of bottom ash;
- Deliverable of materials to support the day to day operation of the plant (e.g. office consumables); and
- Employee Vehicles.

It is expected that the chipped Biomass material will be delivered to the site by trucks fitted with walking floors which allow the load to be moved inside the body of the vehicle. Each truck will be capable of delivering approximately 28 tonnes of ready chipped recycled wood fuel. Discussions are on-going with the fuel suppliers to determine the capacity and frequency of delivery. It is expected that deliveries at the site will be two vehicles per hour, based on a delivery period between 0700 and 1800 Monday to Friday. There will be an additional three trips per week (six two way movements) associated with removing the ash residue from site. This will result in daily weekday two-way movements of between 44 and 50 HGV trips on days where the ash residue is removed.

Together with employee vehicles and other vehicles visiting the site, it is estimated that the worst case daily total two way vehicle movements would be 90 (including 50 HGVs). The potential peak trip rate would occur during shift changes at 0630-0730 and 1330-1430 which would be an estimate of a maximum of 30 two-way trips during an hour. For the purposes of the assessment, a worst case scenario has been assumed which considers the effects of all the wood fuel being delivered to the site by road. The proximity of the site to the Rail Freight Terminal does however provide an opportunity for fuel to be imported to the site by rail. Transporting biomass by rail offers considerable opportunity to deliver large volumes of biomass to the plant, reducing the number of HGVs using the road network and lowering carbon emissions. Rail transport of biomass is only likely to be a viable alternative to road transport over longer distances (approximately 150 miles or more).

It is the intention that as much of the recovered and virgin wood fuel required by the Biomass CHP plant is sourced locally to reduce the amount of local waste that would otherwise be sent to landfill, reduce transport costs and also to minimise associated transport emissions. Sourcing wood locally will mean that road based transport is the only practical and economical method of transporting the fuel and therefore this is likely to be the principal means of delivering the fuel to the site.

Construction

The construction programme is expected to take 24 months. The key construction activities and approximate dates are set out below:

- Site preparation;
- Earthworks;
- Piling;
- Concrete works;
- Plant construction; and
- Commissioning and operation.

The Earthworks phase of construction will involve the remediation of the site to raise the levels on site to an appropriate level in relation to the rest of the Stobart Park development. This includes remediation to address current contamination on the site. Remediation will be in accordance with the remediation approach which is being developed for the expansion of the surrounding Stobart Park/3MG. This involves the use of galligu from the adjacent Stobart Park site which will be stabilised and used as fill at the site.

Normal hours of construction will be:
- 07.00-18.00 Monday – Friday
- 07:00 - 12:00 Saturday

Indoor construction and test activities may take place 24/7. No outside construction work will take place on Sundays, Public or Bank Holidays. It may be necessary to receive abnormal (heavy) loads outside normal working hours or on Sundays, Public or Bank Holidays. It is anticipated that, at peak, approximately 90 construction staff would be on site.

Site Operation

The Biomass Plant would produce heat and power 24 hours a day, 7 days a week. It would therefore operate continuously throughout the year, except during shutdowns for maintenance. Figure 1 provides an illustration of how the plant operates. The fuel for the solid biomass CHP plant will comprise virgin and recycled wood, some of which will be sourced from the surrounding area. The wood fuels will be delivered to site in vehicles into their respective storage areas within the fuel store. Provision for chipping solid wood fuel is provided on site. Ready chipped wood fuel will be offloaded directly into the fuel unloading pit for automatic transport to the fuel storage facility.

Combustion of the wood fuel will be used to generate steam within the boiler which in turn drives a turbine generator capable of producing approximately 22MWe of electricity. 20MWe will be available for export to the National Grid with 2MWe used to power the plant itself. In addition the plant will generate heat and up to 3.5 MWth of this thermal energy will be supplied to local industry. The plant incorporates an Air Pollution Control system which will ensure that air emissions from the stack (flue gases) are in accordance with the requirements of the Industrial Emissions Directive (IED).

The biomass CHP Plant will produce two solid wastes as a consequence of the energy recovery process. This will be in the form of coarse bottom ash and a fine fly ash/Air Pollution Control (APC) residue which will be collected separately. The bottom ash will be recycled to make aggregates, breeze blocks for the construction industry. The fly ash/APC is different due to the addition of chemicals to control emissions of acid gases and oxides of nitrogen in the flue gas, which may make its use less certain. Opportunities are being explored for using ash/APC waste in preference to disposal to landfill.

The Plant will be operated under an Environmental Permit issued by the Environment Agency. This will set out environmental standards for the operation of the facility, mainly relating to the control of air emissions, dust, drainage, day to day site management and operation. It will of necessity be considerably more defined and technical than the planning application.

The hours for reception of biomass/export of ash will be:
- 07:00 to 18.00 hrs Monday to Friday
- 07.00 to 12.00 Saturdays

There will be no reception of biomass/export of ash on Sundays or Bank Holidays.

The facility will employ about 21 staff operating on a 5-shift cycle. There will be 2 operational staff on site at any one time per shift plus 10-11 staff dedicated to administration, fuel and maintenance during the day. The staff will be split approximately 1/3 professional/managerial (e.g. engineers), 1/3 skilled (e.g. electricians), 1/3 unskilled labour. A number of indirect jobs are supported in the transportation of Biomass to the site.

Documentation

In accordance with the requirements of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 2011the planning application is supported by an Environmental Statement.

POLICY CONTEXT

National Planning Policy Framework

The National Planning Policy Framework (NPPF) was published in March 2012 to set out the Government's planning policies for England and how these should be applied.

The National Planning Policy Framework (2012) (NPPF) requires that local authorities support the transition to a low carbon future in a changing climate. Paragraph 97 seeks to increase the use and supply of renewable energy, recognising that the issue of climate change must be addressed.

Paragraph 196 states that the planning system is plan led. Applications for planning permission should be determined in accordance with the development plan unless material considerations indicate otherwise, as per the requirements of legislation, but that the NPPF is a material consideration in planning decisions. Paragraph 197 states that in assessing and determining development proposals, local planning authorities should apply the presumption in favour of sustainable development.

Paragraph 14 states that this presumption in favour of sustainable development means that development proposals that accord with the development plan should be approved, unless material considerations indicate otherwise. Where a development plan is absent, silent or relevant policies are out of date, planning permission should be granted unless any adverse impacts of doing so would significantly and demonstrably outweigh the benefits when assessed against the policies in the NPPF; or specific policies within the NPPF indicate that development should be restricted.

Halton Unitary Development Plan (UDP) (2005)

The site is identified as a within a Primarily Employment Area, Potential Extent of the Ditton Strategic Rail Freight Park and Developed Coastal Zone in the Halton Unitary Development Plan. The following policies within the adopted Unitary Development Plan are considered to be of particular relevance:

- BE1 General Requirements for Development;
- BE2 Quality of Design;
- BE6 Archaeological Evaluations;
- GE17 Protection of Sites of International Importance for Nature Conservation;
- GE18 Protection of Sites of National Importance for Nature Conservation;
- GE21 Species Protection
- GE30 The Mersey Coastal Zone;
- PR1 Air Quality
- PR2 Noise Nuisance;
- PR3 Odour Nuisance;
- PR5 Water Quality;
- PR14 Contaminated Land;
- E5 New Industrial and Commercial Development

Halton Core Strategy (2012)

The following policies within the adopted Core Strategy are considered to be of particular relevance:

CS2: Presumption in Favour of Sustainable Development
CS8: 3MG
CS19: Sustainable Development and Climate Change
CS23: Managing Pollution and Risk

Relevant SPDs and Other Considerations

The Council's Design of New Industrial and Commercial Buildings Supplementary Planning Document and 3MG Mersey Multi-Modal Gateway: Supplementary Planning Document (2009) are also of relevance as is the Joint Merseyside and Halton Waste Local Plan

1. CONSULTATIONS

1.1 Health and Safety Executive – Does not advise on safety grounds against the granting of planning permission in this case.
1.2 Cheshire Shared Services (Archaeology) – No objection subject to condition
1.3 Liverpool John Lennon Airport – Confirm that the proposed does not penetrate the airports safeguarded Obstacle Limitation Surfaces and no objection is therefore raised.
1.4 HBC Open Spaces – No Objection

1.5 Network Rail – No Objection
1.6 Highways Agency – No Objection
1.7 United Utilities – No Objection
1.8 St Helens Council – No observations other than that consultation with the Merseyside Environmental Advisory Service should be undertaken and their policy observations regarding the Joint Merseyside and Halton Waste Local Plan be taken into account when determining the application.
1.9 Natural England – No Objection in principle. Confirmation that initial objection withdrawn and that Natural England agree with the overall assessment made in the HRA that this development will not have a likely significant effect and therefore will not need to go through any further stages of the HRA process
1.10 HBC Contaminated Land – No objection subject to conditions
1.11 HBC Environmental Health – No objection subject to conditions
1.12 Environment Agency – No objection subject to conditions
1.13 HBC Highways – No objection subject to conditions
1.14 Cheshire Wildlife Trust – No objection in principle
1.15 Mersey Side Environmental Advisory Service - No objection in principle subject to conditions. Confirmation is provided that the proposal does not warrant a detailed Habitats Regulations Assessment.

2. REPRESENTATIONS

One letter of objection has been received on grounds of the environmental impact on the local community, that the residents of West Bank are subjected to odour, that the area does not need any further industry which will impact on air quality and ability to enjoy home life and make use of gardens in summer.

Responses were provided to initial queries raised on behalf of Hale Bank Parish Council but no subsequent representations received.

DISCUSSION AND ASSESSMENT

Policy Considerations Principle of Use

The 3MG Mersey Multi-Modal Gateway Supplementary Planning Document (SPD) was published in 2009. The proposed development falls within site C (Site 255) allocated for industrial, warehousing and rail sidings. Policy CS8 (3MG) of the Halton Core Strategy sets out key elements for the future development of the 3MG site including improving ability for the movement of freight by rail, protecting residential amenity, conserving important visual, environmental and historic features. This demonstrates a clear policy requirement for B8 employment development at the 3MG site which will improve the local economy and bring jobs to Halton. The proposed development is not considered to accord directly with such policy requirements and has therefore been advertised as a departure.

The development forms only a very small development area being approximately 3.2 Ha of a wider site 33.03 Ha 3MG/Stobart Park site with permission for warehouse/distribution and associated uses.

Policy CS19 (Sustainable Development and Climate Change) of the Halton Core Strategy identifies the 3MG site as being within a "Key Area of Change" which is identified as an area with opportunities for local district heating. The proposed plant seeks to provide renewable heat and electricity, which is complementary to the rest of the Stobart 3MG development identifying PDM, publicly owned buildings and Halton Housing Trust properties as further potential users.

This co-location of heat users and suppliers is supported by the NPPF, paragraph 97 (Appendix 1). The application site is also well located to provide opportunities for use of the rail network to transport fuel to the site where such use proves viable as discussed further below.

As a renewable energy facility the NPPF does not require a need for the facility to be demonstrated. Notwithstanding this, the proposal has been considered in relation to the Joint Merseyside and Halton Waste Local Plan. The proposed plant would provide a specific facility for heat and electricity by utilising recycled wood fuel and virgin wood. As such it differs from existing operational and consented capacity in the sub-region which is designed to cater for Municipal Solid Waste or other types of Industrial and Commercial wastes. The plant would provide CHP and provide capacity for Merseyside and Halton for a waste stream which is currently landfilled.

Potential for Rail Transport

A Rail Report was produced by Prologis UK Ltd for a single rail storage and distribution facility at nearby rail sidings located at HBC Field, Halebank Road in Widnes. This concluded that there is available capacity on the existing West Coast Main Line to allow for material to be delivered by rail. The equivalent of 24 trucks of fuel per 24 hr-day (5 days per week) required to operate the biomass CHP is a small proportion (c.3.5%) of the overall future capability of the Stobart Ports facility and therefore could be arguably accommodated with reasonable ease.

Transporting biomass by rail offers considerable opportunity to deliver large volumes of biomass to the plant, reducing the number of HGVs using the road network and lowering carbon emissions. Given the close proximity of the proposed development to the rail freight terminal there is the potential for the fuel for the Biomass CHP plant to be transported to the site by rail. The rail terminal operates 24 hours a day, 5 days per week with secure storage for over 6,000 containers. Upon arrival at Stobart Port, the final transport leg for fuel arriving by rail would include shunting trucks to transfer goods to the biomass plant via the private internal road network. Stobart Developments Ltd has excluded the roads from public adoption to specifically allow this process. These vehicles transferring wood fuel from the terminal to the plant would not therefore need to travel on the public highway. Transporting biomass by rail offers considerable opportunity to

deliver large volumes of biomass to the plant, reducing the number of HGVs using the road network and lowering carbon emissions.

Rail transport of biomass is only likely to be a viable alternative to road transport over longer distances (approx 150 miles). Biomass material would need to be delivered by road to existing rail terminals elsewhere in the country for onward transfer to 3MG. The proposal is for fuel to be supplied to the biomass plant via Stobart Biomass, who as part of the Stobart group operate a major logistics business including a series of successful rail freight routes across the UK. Locating the Biomass CHP plant on Stobart Park was primarily a function of the availability or access to suitable heat users. This means that it functions as a complementary and supporting uses to the 3MG/Stobart Park development. However, its location adjacent to the rail terminal does provide an opportunity for fuel (sourced from elsewhere in the UK) to be delivered to the site by rail.

It is the intention that as much of the recovered and virgin wood fuel required by the Biomass CHP plant is sourced locally to reduce the amount of local waste that would otherwise be sent to landfill, reduce transport costs and also to minimise associated transport emissions. Sourcing wood locally will mean that road based transport is the only practical and economical method of transporting the fuel and therefore this is likely to be the principal means of delivering the fuel to the site. As is set out in the submitted Carbon Assessment report the emissions resulting from road based transport of wood fuel are very small in comparison to the carbon savings which will be achieved by the Biomass CHP plant through the exported electricity and heat replacing conventional energy generation and avoiding greenhouse gas emissions from the waste wood which would otherwise be landfilled.

In terms of wastes produced from the site requiring removal this includes bottom ash and fly ash and would involve in total only 3 HGV loads per week. Bottom ash and fly ash would be sent for treatment for further use in road construction or landfilling at suitably locations licenced to receive such wastes. As the quantities of both bottom and fly ash are so relatively small, rail transport of these materials would not be economically viable.

Impacts of the Proposed Development: Introduction

A detailed assessment of the anticipated effects of the proposal through the construction and operational phases of the development has been submitted in the form of an Environmental Statement. The following is therefore intended to provide a summary of the key findings, suggested mitigation measures and update on any developments.

Traffic

The transport chapter of the ES sets out an assessment of the environmental effects of the transport associated with the project. The assessment has been undertaken in accordance with relevant national guidelines for the site preparation, construction and operation of the development. Existing transport conditions have been established and the future baseline conditions in the

opening year (2015) and in 2030 have been determined, taking into account background traffic growth and other committed developments (e.g. the expansion of Stobart Park and the Mersey Gateway Bridge).

The assessments undertaken have demonstrated that the proposal would increase daily traffic flows by a maximum of less than 6% outside of the 3MG site. In the case of HGVs the maximum increase on the base flows is on Desoto Road West with an increase of 12.3% and 17% on Queensway eastern slip road, and the A562 Speke Road eastern slip road. However, these are below the 30% threshold set out in the relevant guidance. These assessments established that such increases are unlikely to create any noticeable effect upon the road network. The environmental assessments undertaken have demonstrated there will be no significant delay, impact on pedestrian amenity, accidents and safety, hazardous loads, air pollution or dust and dirt. Traffic generated during the construction and operation of the proposed Biomass CHP Plant would be minimal, and therefore it is considered that there would be negligible environmental effects as a result of the proposed Biomass CHP Plant.

Air Quality and Climate

An assessment of the air quality effects and also the effects on greenhouse gas emissions associated with the proposed development has been undertaken and the results are summarised below.

Local Air Quality Effects

The assessment has examined both the construction and operational phases. During the site preparation and construction there is potential for dust emissions from the site. Given that the nearest residential receptors to the Biomass site are over 800m away and, provided appropriate measures are put in place to minimise the risk of dust, the overall effects would be neutral.

During the operational phase, the main source of atmospheric emissions from the Biomass CHP Plant would be pollutants emitted from the stack after treatment in the flue gas cleaning system. Modelling has been undertaken to consider the appropriate stack height for the plant which has been determined as 59m. Based on this stack height, detailed atmospheric dispersion modelling has been undertaken to predict the effects of the operation of the plant on ground level pollutant concentrations at a range of locations.

The assessment has concluded that, taking into account the predictions for all pollutants, the effects of stack emissions are generally deemed to be negligible with none of predicted levels exceeding any air quality objectives or standards. The significance of the effect is therefore considered to be neutral. The operation of the proposed Biomass CHP Plant is not expected to generate a significant number of vehicles and therefore the significance of the effect due to traffic emissions is considered to be neutral.

The assessment has also looked at the potential dust impacts associated with the operation of the facility during delivery, storage and handling of fuel. Vehicles

delivering wood fuel to the facility would be fully covered and the storage and handling activities take place in enclosed areas. The nearest dust sensitive receptors to the proposed facility are located over 800m south east of the site. The assessment has therefore concluded that the likelihood of experiencing dust nuisance from the operation of the facility is minimal.

Cumulative effects associated with the Stobart Park development, Ineos Chlor Energy from Waste Plant and proposed PDM Anaerobic Digestion plant have been considered. No significant impacts are predicted and consequently no additional mitigation measures are necessary. The assessment of the air quality effects associated with the proposed development has concluded that the overall effects of the proposed Biomass CHP plant are considered to be of neutral.

Greenhouse Gas Emissions

An assessment of greenhouse gas emissions has been carried out for the proposed Widnes 3MG Biomass CHP (Combined Heat and Power) plant and is contained within Environmental Statement. The report covers the operational phase only as the construction phase emissions are expected to be minor compared to the operational phase, based upon data for similar facilities. The report estimates the emissions associated with:

- the fuel production/supply chain and road or rail transport (assessed on a 'worst case basis');
- emissions avoided through electricity or heat export (i.e. by displacing emissions which would be generated through conventional energy production); and,
- through diversion of recycled wood away from landfill disposal (where it would decay to produce landfill gas, with a high global warming potential).

The results of the assessment show that the facility would achieve emissions reductions, compared to the baseline, of over one million tonnes of carbon dioxide equivalent (CO_2e) during its assumed operational lifetime of 20 years (1.15 mtCO_2e). This is equivalent to the present-day annual emissions of around 226,000 homes or 437,000 cars. The greenhouse gas emissions from the process, supply chain and transport are offset by the significant emissions which would be saved by replacing conventional electricity and heat generation and avoiding the release of methane due to the decay of waste wood in landfill. This leads to a net emissions balance in which the proposed facility achieves significant annual emissions reductions compared to the baseline scenario. Transport emissions are estimated to be a very minor proportion of the overall emissions balance, amounting for 16,021 tCO_2e over the 20 year operational lifetime of the facility, compared to the 1,153,849 tCO_2e total net emissions savings. The assessment considered two scenarios; Scenario 1 (100% road delivery) and Scenario 2 (80% road and 20% rail delivery). It was found that the overall emissions savings of switching from Scenario 1 to Scenario 2 changed by 0.2%.

It can therefore be concluded that the proposed development provides a significant carbon saving and there is an overall beneficial environment effect

contributing towards the transition to a low carbon future in line with Government policy.

Human Health

An assessment of the human health risks associated with the emissions to air resulting from the operation of the plant has been undertaken. The assessment involved calculating concentrations of contaminants of potential concern at relevant receptors (residential areas, farms). The modelling was undertaken on a worst case scenario basis and the results of the assessment are therefore considered to present an extreme view of the potential risk to health.

The results of the assessment are summarised below.
The predicted contributions for all residential and farm receptors were found to be below within acceptable levels. Therefore potential health impact on all receptors is not considered of potential significance. It was therefore concluded that exposure to the plant's emissions with consideration to background exposure, where appropriate, is not considered to pose unacceptable risk to any relevant receptors in the vicinity of the proposed facility.

Cumulative effects associated with the Ineos Chlor Energy from Waste Plant and PDM Anaerobic Digestion plant have been accounted for through their inclusion in the air dispersion modelling on which the Human Health Risk Assessment is based.

Noise and Vibration

The effects of noise and vibration on people, buildings and areas used by people have been assessed. The assessment considered the potential for noise and vibration effects from both the construction and operational phases of the proposed development. The assessment has been undertaken in accordance with relevant national guidance and British Standards.

The results of the assessment indicate that no significant impact is predicted to occur at residential receptors or other sensitive users during construction or operation of the facility. The cumulative effects of noise associated with the PDM Anaerobic Digestion plant have been considered. When considered together the majority of the noise impact at the nearest residential properties is due to noise from the AD facility. The effects on the nearby sensitive receptors as a result of the Biomass CHP Plant alone are not considered to be significant. The traffic associated with the Biomass CHP Plant is insignificant compared to the traffic associated with the consented Stobart Park 3MG Mersey Multi-Modal Gateway and other committed development. On this basis, the impact with the Biomass CHP Plant traffic is no greater than the impact of the consented and committed development alone. Therefore, no cumulative impact or effect will occur.

The results of the assessment therefore indicate that no significant adverse noise and vibration effects are likely to occur during the operation of the proposed Biomass CHP Plant.

Landscape and Visual

An assessment has been carried out to identify the significance of the effects of the proposed Biomass CHP plant on:

 The character of the landscape and its component features; and
 Visual amenity and the people who view the landscape.

The assessment has been carried out in accordance with widely accepted best practice and its scope and focus has been guided by consultation with the local planning authority. The application site is within the industrial townscape to the south of Widnes close to the Mersey Estuary. As a result of the lack of significant site features in the form of built development or vegetation, the existing site is not prominent in views from the surrounding area.

The new buildings, although of similar industrial character to existing neighbouring development, are of a large scale which draws attention to them, however, the redevelopment of the site would not extend the built development of the industrial area any closer to sensitive receptors. In close views, the proposed development would become a part of a wider industrial area and, where prominent, only the upper sections of the building and stack would appear above intervening topography and vegetation with views particularly from the Trans Pennine Trail and Dukesfield area of Runcorn.

The assessment has concluded that the changes that would occur in the Widnes Urban character area as a result of the development of the Biomass CHP plant can be accommodated. The poor condition of the townscape of the site and lack of significant features or designations provides the opportunity for introducing the new elements of the proposals without unacceptably significant adverse effects. The proposals would not result in the loss of any key townscape elements. The proposed landscape planting is an integral part of the proposal and would enhance the existing poor quality of the area's urban character and provide important links with the vegetation of Stewards Brook and Hutchinson Hill.

The location of the Biomass CHP plant on the north side of the existing PDM plant and Hutchinson's Hill and west of the Tesco distribution centre within the industrial area of Widnes will result in a relatively small number of changes in views for people in the settlement of Widnes and Runcorn. A new stack and the tops of buildings would be seen in the immediate context of existing stacks, large scale buildings and structures.

Ecology

The main part of the proposed Biomass CHP plant site largely comprises an area of concrete and asphalt hard standing which is devoid of vegetation. There are small areas of bare ground, scrub, grassland within the site. Steward's Brook lies to the west of the site and some trees are located within and adjacent to the route of the proposed access road. The closest nature conservation designation to the

site is the Mersey Estuary Special Protection Area (SPA) which lies approximately 400m to the south. There are two locally important sites within 1 km of the site at Pickering's Pastures and St Helen's Canal. A small stand of the invasive species Japanese Knotweed was recorded within the site and an eradication/ management plan is being implemented. This would eliminate the risk of potential future spread of the plants within and beyond the application site.

The potential impacts on bird nesting/foraging habitat, bat habitats and air quality impacts have been assessed as being neutral and no specific mitigation measures have been proposed. There are potential risks of contamination of the Mersey Estuary SPA and Stewards Brook during construction and operation of the facility. This will be controlled during the construction phase through the implementation of a Construction Environmental Management Plan (CEMP), environmental controls during the operational phase with the addition of drainage interceptors to minimise the risk of contamination to surface water courses. The landscape proposals for the development include native hedge, woodland and wildflower grassland planting and small areas of amenity grassland. The extent of habitats created within the site will exceed the small areas of habitats that will be lost. In order to deal with contamination on the site, remediation is required which will result in an impermeable surface being created. An additional depth of soil and appropriate drainage will be provided on those areas to be landscaped however, due to the remediation proposed the opportunities for planting are limited to shallow rooted vegetation. Measures will be put in place to minimise the impact of lighting on bats through installing sensitive lighting schemes to minimise light-spill onto habitats adjoining the site and specifically Steward's Brook to the west.

The potential for cumulative effects from the development and other nearby proposals, including Stobart Park/3MG, proposed works to the A533 bridge, Ineos Chlor and the PDM Anaerobic Digestion plant has been considered. None of the cumulative impacts were considered to be significant. On the basis of the ecological assessment and taking account of the measures proposed, no significant effects are predicted to occur.

Ground Conditions & Hydrogeology

Ground and groundwater conditions have been reviewed based on previous site investigations undertaken across the Stobart Park site, including the application site. The site has been assessed as having a significant amount of made ground and that this mainly comprises chemical waste contaminated soil known locally as "galligu". This is a colloquial term for alkali and soap industry waste from the Widnes area dating back to the early days of the chemical industry. Testing of the galligu has indicated that this is contaminated to varying degrees due mainly to sulphur compounds, high pH, arsenic and lead.

The potential effects due to the exposure of site users to contamination and the impact on local watercourses will be addressed by implementing the Remediation Strategy prepared by Earth and Marine Environmental (EAME) Limited in 2012 (Appendix 12.1 of the ES). This involves excavating galligu waste from elsewhere on the Stobart Park site mixing it with lime to produce a stabilised material. The

stabilised galligu material will then be placed on the Biomass site, effectively sealing the site and providing an impermeable surface, preventing further contamination and creating a physical barrier between site users and the contaminated material.

A range of measures have also been identified that address potential effects during construction. The identified mitigation measures are well established and accepted methods of mitigating the potential effects. Following implementation of the mitigation measures it is considered the significance of effect is neutral to minor. Provided that the land proposed for site development is adequately assessed, remediated and mitigated as stated in the Remediation Strategy, it is considered to be no measurable adverse cumulative effects. Remediation of the wider area of Stobart Park/3MG will have a net beneficial impact leading to an improvement in groundwater.

Hydrology

The hydrology chapter of the ES assesses the likely significant environmental effects of the project on the water environment, including flood risk, water quality and drainage. The two closest watercourses to the site the River Mersey and Steward's Brook are currently designated as 'bad' or 'failing' in terms of either ecological or chemical quality. There is no existing drainage network worthy of note. Given the historical industrial uses of the site, this has potentially contributed to a reduction in the quality of these watercourses.

A Flood Risk Assessment (FRA) has been undertaken and this shows that the site lies above the tidal flood level and is therefore located within Flood Zone 1 (low probability of flooding). A range of measures will be implemented through the Construction Environmental Management Plan (CEMP) to minimise the potential effects on the quality of local watercourses, flood risk and water resources during construction.

The potential effects arising from operation include effects on surface water quality due to spillages of leaks of chemicals/materials, increase in surface water run off and flood risk due to an increase in hardstanding, effects on subsurface flow of water, increased demands on water supplies and foul water infrastructure.

A new drainage system will be installed including pollution control measures and surface water attenuation lagoon before discharge to the surface water system. Chemicals will be stored in bunded areas in accordance with current requirements. In the event of a fire on site, spent fire water will be stored in the attenuation lagoon to allow water quality testing following a fire on site. The fire water can then either be discharged to the foul water system or in the event of contamination removed by tanker from site. With the effective implementation of these measures there would not be any significant effects during the construction or operational phases. Other proposed developments, such as the expansion of Stobart Park would be expected to adhere to similar standards and restrictions as the subject proposal. As such the likely cumulative effects of the Biomass CHP plant development and Stobart Park are likely to be similar to those described above.

Socio-Economic Assessment

The potential economic and social effects of the proposed development have been assessed for both the construction and operational phases. Baseline conditions were established using a number of sources of information, including the 2001 Census, Labour Market Statistics and social and economic reviews by Halton Borough Council.

In terms of deprivation the Indices of Multiple Deprivation (IMD) for 2010 shows that Halton is ranked 27th nationally (a ranking of 1 indicates that an area is the most deprived), which is third highest on Merseyside and 9th highest in the North West. This is broadly confirmed by the analysis of census data and other sources. Halton has an unemployment rate of 5.8% which is higher than the average for the North West and England. The unemployment rate in Riverside ward (within which the site is located) is 7.8%.

The assessment has concluded that the proposed development offers jobs, both direct and indirect during both the construction and operational stages of the development. These jobs will contribute towards the improvement of the local economic and social welfare of Halton in line with local policy beneficial impacts on deprivation and employment. In this instance cumulative impacts potentially arise from firstly, planned development of all kinds in the vicinity of the proposed development and within the 3MG Stobart Park in particular, and secondly, strategic proposals within the Borough and immediate area. The impacts of the proposed development and wider 3MG proposal will have a beneficial impact on both the economic and social environment, providing wealth to the local area. It is therefore concluded that the proposed development will have a minor beneficial cumulative impact.

Archaeology and Cultural Heritage

An assessment has been undertaken of the likely significance of effect of the proposed development on the historic environment, both within and outside the proposed development area. This has indicated that the below ground archaeological remains are likely to have been largely or entirely removed by previous development. As a consequence there is low potential for the survival of significant below ground archaeological remains, with the possible exception of buried peat layers.

The assessment has concluded that effects on cultural heritage would be limited to those on the possible peat layers and that subject to appropriate mitigation these effects are not significant. Any deep ground works with 50m of Steward's Brook should be monitored as an archaeological watching brief.

Discussion and Conclusions

The application seeks to provide a Biomass CHP Plant which will generate renewable electricity and heat by combustion of wood fuel. The proposed

throughput of the facility would be approximately 147,000 tonnes per annum and the plant will produce about 20 Megawatts electrical (MWe) of electricity for export to the National Grid. It is expected that up to 3.5 Megawatts thermal (MWth) of thermal energy will also be available to local industry.

The plant will use is expected to use predominantly recycled wood supplemented with virgin wood as a fuel source to generate energy. Utilising wood in this way provides a carbon neutral substitute for fossil fuels whilst recovering energy from wood which would otherwise be landfilled avoids methane emissions that would be generated from its decay in landfill and therefore results in significant savings in greenhouse gas emissions in line with national and local policy.

The site will be remediated and re-profiled in accordance with an agreed strategy in a similar manner to the wider Stobart Park site. Agreement in principle has been secured in this regard by the Environment Agency and the Council's Contaminated Land Officers subject to conditions.

Policy CS8 (3MG) of the Halton Core Strategy sets identifies the site for B8 employment development which will improve the local economy and bring jobs to Halton. The proposed development is not considered to accord with such policy requirements in that it does not fall within such use class nor does it contribute directly to improving ability to move freight by sustainable transport, most notably rail. The development forms only a very small development area being approximately 3.2 Ha of a wider site 33.03 Ha 3MG/Stobart Park site with permission for warehouse/distribution and associated uses. The proposal does offer potential to directly supply local business, including warehouse and distribution uses within the wider 3MG site with heat and power from sustainable sources. This co-location of heat users and suppliers is supported by the NPPF, paragraph 97 (Appendix 1) and in accordance with Core Strategy Policy CS19. The application site is also well located to provide opportunities for use of the rail network to transport fuel to the site where such modes prove viable.
The loss of such a relatively small area of the park is not considered to prejudice the wider aspirations for encouraging rail freight development. The benefits of colocation of heat users and suppliers, the potential for movement of fuel by rail and the environmental benefits of the scheme are considered to far outweigh the loss of such a small area for potential B8 uses.

The Environment Statement aims to demonstrate how potential development impacts will be satisfactorily addressed and how appropriate mitigation measures can be secured, particularly in relation to pollution from existing ground and water contamination.

The Council's Highways officer has confirmed that, given existing traffic flows in the area, the proposals would result in only as small percentage increase which would disperse onto the highway network with minimal impact and which could be accounted for in daily traffic variations. On that basis they raise no objection in principle. The Council's retained adviser on waste and environmental matters has confirmed that the proposals constitute renewable energy generation and as such they are supported in principle having particular regard to the active steps taken by the applicant to implement the scheme as a CHP plant. It is advised that the

waste industry is currently concerned about stockpiles of unrecycled waste wood which has been worsened by the closure of the Sonae plant in Kirkby which gives extra weight to the potential role of this plant in managing these wastes without recourse to landfill and the emissions that would create. On that basis it is advised that the proposals are considered to accord with national and local policy and no objections are therefore raised.

The Council's Environmental Health Officer has confirmed that the proposed plant will be greater than 50MW and therefore emissions from the site, including emissions to air will be subject to control through an Environment Agency permit. In assessing a future permit application the Environment Agency will consider all emissions from the site and should they determine that any emissions will produce an unacceptable risk to the environment, including human health, they cannot issue the permit. The permit will identify controls at source and emission limits that must be achieved by the plant. Therefore the role of the Environment Agency is to ensure that emissions are controlled at source to prevent harm to the environment.
Environmental Health is responsible for local air quality in relation to 7 pollutants and their impact on human health. The national air quality objectives specify levels of pollutants, above which the local authority should implement an action plan to reduce concentrations. The pollutants to be considered in relation to combustion processes that Halton borough Council has responsibility for assessing are, sulphur dioxide (SO2), nitrogen dioxide (NO2), and particulate matter (PM10). The applicant has used accepted modelling techniques for all pollutants in line with guidance from the Department of the Environment and the Environment Agency.

The applicant has calculated that the process contribution to levels of these pollutants will result in air quality remaining within the objective levels in all cases. Environmental Health requested that the applicant consider contributions of pollutants from the current applications for the energy from waste plant and the anaerobic digester, on the area, as these future developments are not currently contributing to the background data used to run the model against. This enabled Environmental Health to assess the cumulative impact of the three developments, and identify whether there would be any future impact on the air quality objectives in the area.

The modelled results for the impact of SO2 emissions demonstrate that the predicted concentrations will remain less than 35% of the objective levels. For PM10 the levels will remain at around 50% of the short term objective level and just over 60% of the long term objective level. With regard to NO2 the predicted concentrations will be at less than 50% of the short term objective level and around 95% of the long term objective level. It is accepted that the proposed application is contributing only small amount to this cumulative level, and that these levels are not calculated in residential areas. It should also be noted that it is common to find NO2 at these levels in urban areas. However on the basis of the levels of predicted NO2 in the area the applicant has agreed to contribute towards air quality monitoring in the area under a unilateral agreement.

The applicant has carried out a noise assessment for operations during construction, in line with the methodology outlined in the appropriate British Standard. This predicts the cumulative impact of all noise sources during the different construction phases. During daytime hours it is unlikely that the noise from the site will cause disturbance to residents. However the Environmental Impact Assessment alludes to construction operations taking place at night. Taking into account the predicted night time noise levels contained within the Assessment Environmental Health would have some concerns regarding the potential for loss of amenity to residents during the construction phase due to noise. It would therefore be sensible for the applicant to be asked to provide some more detailed information regarding precisely which operations it is considered will be undertaken overnight, the potential impact this will have on residential areas and the likely controls that will be put in place. It is considered that this can be adequately controlled by planning condition. Given the distance from residential communities it is unlikely that dust emissions will result in loss of amenity, however controls should still be in place to minimise dust emissions during construction.

The nearest residential properties are over 800m away from the proposed development with industrial areas and busy roads in the intervening areas. The report concludes that the mitigation due to the distance from the site and the existing background levels means that the development will have no impact on the residential areas. Having reviewed the methodology Environmental Health are satisfied with this conclusion and would therefore have no objections to the development in respect of the loss of amenity to residents due to noise.

On that basis the Council's Environmental Health Officer has confirmed that they raise no objection in principle to the application subject to the conditions.

The Councils retained adviser on ecology draws attention to the results of the air quality assessment which identifies emissions and deposits predicted to exceed limits identified for a number of habitats. The proposed development is however considered to make only a small contribution to overall levels and, on the basis of Environment Agency guidelines, such contribution is not considered to be significant to justify refusal of planning permission or mitigation. Detailed assessment has been undertaken with regards Habitats Regulations by the Councils retained adviser on environmental and waste matters advising that, subject to conditions ensuring no likely significant effects, appropriate assessment is not required. Following confirmation from Natural England a final Habitats Regulations Assessment (HRA) has been provided and the process is now confirmed as complete for this application and it is advised that there is no HRA reason why the planning application cannot be determined.

With regards to the submitted archaeological desk based assessment the findings and recommendations have been accepted by the Council's retained

archaeological advisor and it is considered that an appropriate scheme of investigation can be adequately secured by condition.

The Biomass CHP Plant will provide a sustainable energy facility which will complement the overall development of 3MG/Stobart Park, providing opportunities for local heat supply, providing additional jobs for Halton and supporting jobs in the logistics sector (through delivery of fuel to the site). The plant will also produce around 90 construction jobs and 21 operational jobs. It is also anticipated that a further 21 jobs will be supported in connection with the delivery of fuel to the site

The proposed development is ideally located to utilise the existing rail head where it is viable to do and will also utilise the improved transport network proposed as part of the 3MG Stobart Planning Application. The plant will appear utilitarian and industrial including provision of a 59m stack. This will however be viewed in the context of the existing container depot with gantry cranes, proposed substantial warehouse development and the adjoining PDM/ granox plant .In this context, and given the wider benefits of the scheme it is not considered that refusal of planning permission could be justified on these grounds.

Support for reducing carbon emissions by the encouragement of renewable resources is highlighted through the NPPF. The results of the assessment show that the facility would achieve emissions reductions, compared to the baseline, of over one million tonnes of carbon dioxide equivalent (CO_2e) during its assumed operational lifetime of 20 years (1.15 mtCO_2e). This is equivalent to the present-day annual emissions of around 226,000 homes or 437,000 cars.

RECOMMENDATIONS

Approve subject to conditions and:-

(a) The entering into a Legal Agreement securing provision of a financial contribution towards air quality monitoring

(b) That if the S106 Agreement or alternative arrangement is not executed within a reasonable period of time, authority be delegated to the Operational Director – Policy, Planning and Transportation in consultation with the Chairman or Vice Chairman of the Committee to refuse the application.

CONDITIONS

1. Standard time limit condition requiring that the permission be implemented within 3 years
2. Specifying amended plans

3. Materials condition, requiring the submission and approval of the materials to be used (BE2)
4. Construction Environmental Management Plan including wheel cleansing facilities to be submitted and approved in writing (BE1)
5. Submission and agreement of foundation/ piling design and risk assessment (GE18)
6. Construction and delivery hours to be adhered to throughout the course of the development. (BE1)
7. Vehicle access, parking, servicing etc to be constructed prior to commencement of use. (BE1)
8. Requiring finished floor and site levels be carried out as approved. (BE1)
9. Site investigation, including mitigation to be submitted and approved in writing. (PR14)
10. Restriction of external lighting (PR4)
11. Submission and agreement of a programme of archaeological work (BE6)
12. Securing maintenance of site entrance sight lines ((BE1)
13. Securing cycle parking in accordance with a scheme submitted to and agreed in writing ((TP6)
14. Submission and agreement of scheme to manage surface water run-off (PR5/16)
15. Submission and agreement of scheme to risk of flooding from overland flow (PR16)
16. Submission and agreement of remediation verification report (PR14)
17. Submission and agreement of scheme to remove suspended solids from surface water run-off (PR5)
18. Submission and agreement of scheme of groundwater monitoring ((PR15)
19. Submission and agreement of ground gas risk assessment ((PR14)
20. Restricting external storage (E5)

SUSTAINABILITY STATEMENT

As required by:

- Paragraph 186 – 187 of the National Planning Policy Framework;
- The Town and Country Planning (Development Management Procedure) (England) (Amendment No.2) Order 2012; and
- The Planning (Listed Buildings and Conservation Areas) (Amendment) (England) Regulations 2012.

This statement confirms that the local planning authority has worked proactively with the applicant to secure developments that improve the economic, social and environmental conditions of Halton.