APPLICATION NO	**PA/2009/1269**
APPLICANT	Drax Biomass (Immingham) Ltd
DEVELOPMENT	Form B application to construct and operate a 290 megawatt (MW) biomass fuelled electricity generating station
LOCATION	Land to the north of Humber Road, South Killingholme
PARISH	**SOUTH KILLINGHOLME**
WARD	Ferry
BACKGROUND	**The application detailed above is for a renewable energy plant proposing to provide 290 megawatts (MW) of energy to the national grid. Because of the size of the plant, North Lincolnshire Council is not the determining authority, however we have to make our comments to the Department of Energy and Climate Change (DECC) before the end of February.** Even though North Lincolnshire Council is not the determining authority, it is required to carry out a round of consultations with both statutory and non-statutory bodies and this is at an advanced stage. This report, in its later stages, will précis the responses that have been received so far. Because this report is to be considered by the Planning Committee in mid January, the deadline for its preparation is 14 December and it is likely that a verbal update of outstanding consultation responses will have to be made at the meeting. Depending on the content of these responses, the recommendation that forms part of this report will have to be confirmed verbally at the meeting after giving due consideration to those outstanding responses. Before DECC determines the application, sometime hopefully in early to mid 2010, they will have to consult further with the council regarding the preparation of an Appropriate Assessment under the Habitat Regulations and also give the council the opportunity to view any conditions that they intend to impose. Additionally, because of the type and size of the plant, before becoming operational the company will have to apply to the Environment Agency for an Environmental Permit which will describe the plant layout, operation, fuels and environmental impacts in further detail than the submitted Environmental Statement and similarly such a permit as

issued by the Environment Agency will be subject to conditions.

A full Environmental Impact Statement has been submitted with this application in accordance with the appropriate regulations.

DETAILS OF PROJECT

The proposal is to construct and operate a 290 MW renewable energy plant on a site allocated for industrial development within the South Humber Bank industrial area close to the port of Immingham within the North Lincolnshire administrative area. The fuel to power this plant will be sustainably-sourced biomass which will contribute to the national reduction of emissions of carbon dioxide. Emissions of carbon dioxide (CO_2) from the combustion of biomass are largely offset during the growth of the biomass fuel. The plant will be capable of generating enough renewable electricity for just over 500,000 homes.

The need for renewable energy projects arises from the Government's overall strategy as set out in the Energy White Paper 'Meeting the energy challenge' and the renewable energy strategy which clearly state that addressing climate change through the provision of renewable energy, filling the potential future electricity generation gap, and ensuring the security of the UK's energy supply are key long-term challenges that the country must meet.

Government and the foundations of regional and therefore local policy emanate from the Kyoto protocol to the United Nations framework convention on climate change agreed in December 1997. This was designed to address the issue by committing signatories to legally binding targets to limit or reduce their overall greenhouse gas emissions. As a result of this initiative, the EU has introduced legislation which commits the UK to a reduction in its greenhouse gas emissions by 12.5% on 1990 levels by 2008 to 2012. In March 2007 the European Council made a firm commitment to reduce overall greenhouse gas emissions by at least 20% below 1990 levels by 2020 and by 30% if other developed countries make comparable commitments.

In addition, the European Commission has developed a renewable energy directive which requires the UK to generate 15% of all energy across the electricity, heat and transport sectors from renewable sources by 2020. It is expected that the electricity sector will have the most significant contribution to make and consequently up to

35% of electricity will need to be sourced from renewable sources by 2020. The proposed 290 MW Heron renewable energy plant proposed in this application will make a significant contribution to this target.

At a regional level the Regional Spatial Strategy (RSS), Yorkshire and Humber Plan indicates that the region will increase renewable energy capacity and that it will deliver a sub-regional target for the Humber area of at least 124 MW by 2010 and 350 MW by 2021 of installed grid-connected renewable energy capacity; the corresponding figures for the whole region are 780 MW for 2010 and 862 MW by 2021. The UK's 2007 biomass strategy and 2009 renewable energy strategy have confirmed the value of biomass as part of the UK's drive to a lower carbon energy sector. In accordance with this objective the applicant company for this project will focus on using dedicated energy crops, forestry and agricultural residues as well as recovered waste timber and paper for generating renewable energy.

In addition to the need for renewable energy generation to reduce emissions of greenhouse gases, the UK also requires new energy generating plants to ensure the future security of supply. The UK Low Carbon Transition Plan published by DECC in July 2009 anticipates that by 2018 about 16 power plants will have closed.

With the current and planned closure of this large number of power plants a new generation of power plants is required to ensure energy security. The need to secure the UK's energy supply is a key theme of the Government's energy policy as the UK's indigenous energy production declines and diversity in fuel sources is recognised as an important contributor to the security of supply.

From a policy perspective this proposal is formatted in such a way that it complies with international, national and regional policy. At a local level policies in the North Lincolnshire Local Plan are also relevant and whilst not directed directly at the production of renewable energy, except insomuch as in DS21 which encourages such production, no other policies in the plan directly refer to the issue of renewable energy.

However, there are a number of policies relating to the environment, the historic environment, archaeology, landscape, ecology and transport that this proposal needs to be weighed against. In carrying out this exercise it is clear that this proposal complies not only to the letter but

also to the spirit of the appropriate conditions and specific consultees within the council, and statutory and non-statutory consultees, have picked up on the relevant policy frameworks and background to make their comments and, where appropriate, objections to the scheme. In some cases further work is needed which may take a little time before agreements can be made with full compliance with relevant policies to such a degree to enable the Secretary of State for Energy and Climate Change to move forward with consenting the proposal under Section 36 of the Electricity Act.

If North Lincolnshire Council substantiates an objection to the proposal, or indeed one of the statutory consultees in due course cannot have their objections overcome, then it is highly likely that a public inquiry would be held into the proposal relating to this current application.

THE PROPOSED SITE

The site for this development is located on relatively low-lying land to the north-west of the port of Immingham where land levels vary between 2 and 4 metres above Ordnance Datum within North Lincolnshire's area but close to the borough boundary with North East Lincolnshire. The site is bounded by a public highway (A160) to its south-west and the overall site comprises four distinct areas:

- The main plant area of almost 10 hectares is currently greenfield but is allocated for industrial development. The area is approximately triangular and is bounded to its south by a ditch on Humber Road, with the eastern and north-western boundaries defined by hedges. A small area of land to the south-east of this site comprises tufted grass with a number of planted trees.

- The fuel storage area, approximately 5.5 hectares, is roughly rectangular and is located within the operational area of the port of Immingham, however still within North Lincolnshire. It is currently used for the storage of petroleum coke with access from the east.

- The infrastructure corridors, which are approximately 8 hectares in size, link the main plant area and fuel storage area to a jetty on the Humber and will contain cooling water pipelines and conveyors to transport biomass from ships to the main plant area.

- The temporary lay-down areas, approximately 21 hectares, are required during the construction

period of the plant and are currently in agricultural use – some arable and some for livestock. Reference to the plans at the end of this report will indicate more clearly the general site location and the four discrete areas referred to above.

For completeness it is worth noting that the nearest residential property is approximately 400 metres to the north of the main plant area and there are a number of sites with particular designations close by: two sites of Special Scientific Interest (SSSI), a Special Protection Area (SPA), a Special Area of Conservation (SAC), a Candidate Special Area of Conservation (cSAC) and a Ramsar site, all within 10 kilometres of the site. The nearest and largest of these sites is the Humber Estuary SSSI/SPA/cSAC/Ramsar site.

There is a wildlife site adjacent to the site boundary which is managed by the Lincolnshire Wildlife Trust. The site is called Rosper Road Pools and is managed for its ornithological interest.

Whilst identifying the site it is important to understand that the applicant company has viewed around twenty other locations across England and Wales through initial investigation before deciding to move forward with the application site. The original site search was charged with identifying proximity to good transport links for the transfer of large volumes of biomass as key to minimising carbon footprints and ensuring the economic viability of the plant. Coastal and riverside locations that were within conveying distance of ports across the UK were considered. Additionally, locations had to provide access to cooling water for the plant and connection to the national grid was also a factor in the site selection process. The applicant company identified eight criteria for this site selection process:

- proximity to transport links
- land availability
- electrical connection
- water supply
- environmental character
- road and rail access
- potential for local supplies of biomass

- planning suitability

In all of these eight criteria the site chosen exhibited superior qualities to all the other sites.

DESCRIPTION OF THE PROPOSED DEVELOPMENT

The site has been selected as a location for a biomass development due to the presence of the nearby deep-water port capable of taking appropriately sized and designed ships from national or international sources and the infrastructure to receive and discharge large quantities of biomass. In addition, the site is part designated for new industrial development and part for port-related development with close road and rail links for potential deliveries of indigenous biomass or for ash transport off site.

The plant will generate up to 290 MW of renewable energy from the use of around 1.4-2.5 million tonnes of biomass fuel. During normal operation the main boilers will be fired on 100% biomass.

The plant is intended to operate on a full-time basis, 24-hours a day and fuel will be transferred to the fuel storage area from the berth on the River Humber and from there to the power plant via an enclosed conveyor belt system.

The construction period is envisaged to be around 40 months and the construction workforce, whilst envisaged to peak at approximately 850, will average in the order of 600 personnel. An operational workforce of about 60 permanent employees is anticipated with potentially an additional 90 employees working in an indirect capacity.

The potential for the energy plant to increase its overall energy efficiency through the supply of steam and heat to nearby users has been investigated thoroughly.

The council is advised that discussions are ongoing with potential local users. The proposed plant will be designed to include appropriate off-takes to enable steam to be commercially supplied to any future local users.

The design of the energy plant includes a 100 metre high stack, a boiler house up to 68 metres tall, a block of plume-abated hybrid cooling towers 31 metres tall, a biomass storage shed 41 metres tall and conveyors linking the storage shed to the berth and boiler plant.

Extracts from the submitted plans showing the elevations of the plant and the site layout are attached to the end of this report for members' information.

FUEL TYPE AND SOURCE

All biomass fuel used will comply with the requirements and definitions of biomass as defined in the renewables obligation. It is intended that the plant will operate with a wide variety of biomass fuels, including purpose-grown energy crops, forestry and agricultural crops or residues, as well as recovered waste biomass materials (mainly wood and paper). Although all biomass fuels will fit within the above categories, the precise fuel specifications will only be finalised and agreed with the Environment Agency in the forthcoming Environmental Permit application.

FUEL STORAGE AND HANDLING

Most of the processed fuel will be delivered to the renewable energy plant by ship via the port of Immingham and it will be off-loaded and transferred to a new fuel store via an enclosed conveyor system to be constructed along the infrastructure corridor. The reason why the range of fuel required for this plant is over such a large amount (1.4-2.5 million tonnes of biomass per year) is because it is dependent upon the moisture content of the fuel.

Around one month's fuel supply will be stored at the site at any one time.

POWER GENERATION

The combustion technology proposed is a circulating fluidised bed (CFB) boiler which is a proven design used in similar plants currently operating throughout Europe. In addition to a high net thermal efficiency, the fuel and operational flexibility of the CFB boilers means that they are one of the best performing boilers for complying with environmental emission standards.

Either one or two CFB boilers will supply steam to a single steam turbine and generator unit which will produce the level of energy quoted.

The ash resulting from the fuel combustion process is intended to be a useful by-product generated by the energy plant. The company is currently investigating the sale of this ash to, for example, the construction and fertiliser industries.

THE COOLING SYSTEM AND AQUEOUS DISCHARGES

The intention is to build a high efficiency power plant in order to maximise the electricity output realised from each tonne of biomass. In order to achieve this goal it is preferential to use water rather than air cooling and as a result the preferred mechanism for this cooling is by utilising a low-plume hybrid cooling tower.

It is proposed that the make-up cooling water will be extracted from the Humber estuary using a system designed to minimise fish impingement. The cooling water system will require a water supply of about 0.4 cubic metre per second and will discharge approximately 0.2 cubic metre per second of water as purge.

The cooling water purge, together with small contributions from boiler blow-down and the water treatment plant effluent, will be discharged to the Humber estuary.

The cooling water intake structure will be attached to the north-eastern end of the Humber international terminal west jetty. The process effluents will be returned via several discharge points at the south-western end of the same jetty. The water will be returned to the estuary with an increase of temperature of approximately 5 degrees.

FLUE GAS TREATMENT The flue gases will exit the boiler and pass through a high efficiency dust collection system which will remove the vast majority of particulates. Details of the emission levels and necessary controls to meet the relevant legislation will be agreed with the Environment Agency at the time of the Environmental Permit application. The flue gases will discharge to atmosphere via a stack which is proposed to be 100 metres high.

ELECTRICITY EXPORT Electricity will be exported from the plant via an underground electrical connection to the national grid via the Killingholme substation where it will enter the national transmission network.

National Grid has indicated that a connection will be available in 2014.

CUMULATIVE IMPACT In line with the Electricity Works (Environmental Impact Assessment) (England and Wales) Regulations 2000 and subsequent amendments to the Environmental Impact Assessment Regulations and best practice, the Environmental Impact Assessment that has been submitted takes into account other existing and planned developments in the area of the proposed site and considers the cumulative impact associated with these developments.

STAKEHOLDER CONSULTATIONS

In progressing this application through the Environmental Impact Assessment and Section 36 consent stage, the company has undertaken consultations with a wide body of groups and these are detailed in the submitted Design and Access Statement. In addition, a public consultation programme comprising three public exhibitions at Immingham and South Killingholme were carried out in the spring of 2009.

SUMMARY OF ENVIRONMENTAL EFFECTS

Detailed in the Environmental Impact Assessment at great length are the environmental effects and impacts on air quality; landscape and visual; noise; ecology; aquatic ecology; transport; traffic and access; hydrology; hydrogeology; geology and soils; cultural heritage and socio-economic effects.

All consultees, where appropriate, have seen full copies of the Environmental Impact Assessment and have considered the relevant sections that are highlighted above with their appropriate expertise. This has resulted in the receipt to date of a number of consultation responses which range from no objections or comments being made, through to detailed comments being made, to some registering objections to the scheme until certain matters are either clarified or mitigated. Below is a resumé of the consultation responses to date (14 December) and, as is pointed out earlier in this report, a verbal update at the meeting will be required.

The consultees that have registered no objection are:

- North Lincs and Goole NHS Trust
- Anglian Water
- Network Rail
- National Air Traffic
- Total Pipeline Operations
- Health and Safety Executive
- North Killingholme Parish Council
- Ministry of Defence Estates

Those consultees that have raised comments, with a resumé of the comments made, are as follows:

North Lincolnshire Council, Highways: Raise over 20 questions, all matters requiring clarification, from relevant paragraphs in the Environmental Impact Assessment. A copy of this list has been sent to the applicant for their comments prior to the council's Highways department being in a position to make their final transportation and highways comments.

North Lincolnshire Council, Environmental Protection Officer: Has made comments in respect of air quality, contaminated land, noise and general nuisance issues.

The applicant has been made aware of these comments and a detailed response has been requested to enable the council's Environmental Protection Officer to comment further to aid the Secretary of State to move towards determination of this application.

Yorkshire Forward: Whilst supporting this development in principle, point out that there are concerns relating to site specific impacts of the proposal on the area of the wider Humber bank. It is noted that the application site lies within flood zone area 3a and the current area wide drainage system is sensitive to changes in the surrounding run-off regime. Yorkshire Forward is considering a Killingholme Marshes drainage improvement scheme in conjunction with the North East Lindsey Drainage Board but it is subject to discussions with all parties to identify a mechanism for private sector contributions.

This matter needs to be assessed by the Secretary of State before moving forward to a decision on this proposal.

Humberside Fire: Comment that access for the fire brigade will be required at all times and that water supplies for fire fighting should be confirmed as being adequate at all times.

Fisher German (as agent for the Government's Pipelines and Storage System (GPSS)): Comment that the proposals may affect a Government pipeline facility and provide a plan that should be forwarded to the applicant in the event of permission being granted with contact addresses and emails in order for the applicant to contact the surveyors to discuss any protection required.

Conoco Phillips: Their comments relate to the protection of existing pipelines, which run from the existing refineries eastwards, during both the construction and operational phases of the development.

South Killingholme Parish Council: The parish council agrees in principle to the proposed development but makes the following comments:

'The report shows the proposed power station will discharge waste into the atmosphere that will be below the accepted levels, but has enough consideration been given to the cumulative effect that this and future developments might have on the local atmosphere?

Great emphasis is given to proposals to bring more employment to the area but the council wonders how that will translate into practice. The likelihood is that most of the labour requirements will probably be met from outside the area.'

Civil Aviation Authority: The comments made by the CAA relate to the continued safety of aircraft flying over the facility.

They do not feel that the chimney would need to be provided with an aviation warning light but should be promulgated for aviation purposes (placed on their records and included on any mapping data) and this would be achieved through developer consultation with the Defence Geographic Agency.

East Midlands Airport on behalf of Humberside Airport: No objections to the proposal as detailed elsewhere in this report and confirm that the development can be accommodated without materially impacting upon the continued safe operation of aircraft using Humberside International Airport. Accordingly, the department has no safeguarding objections to the proposal subject to a condition requiring a medium intensity steady red omnidirectional light to be fitted as near as possible to the top of the chimney in the interests of aviation safety.

THOSE CONSULTEES WHO SUSTAIN OBJECTIONS AT THIS MOMENT IN TIME

North Lincolnshire Council, Archaeology: 'The mitigation proposed in the Environmental Statement is for a programme of archaeological works to be agreed with the archaeological advisor to North Lincolnshire Council and this proposal is welcomed. Until the assessments are completed, however, and reports submitted as supplementary information to the application, the impact of the proposals on the archaeological and paleoenvironmental resource cannot be adequately assessed, nor the potential for mitigation fully understood.'

Comment: The applicants are aware of this objection and are in discussions with the council's archaeologist in this regard.

Natural England: Have set out a lengthy objection and in summary the objection is on the following grounds:

- lack of clarity on SPA/Ramsar birds recorded on the development site and surrounding land
- lack of information on potential impacts such as noise and visual disturbance, site run-off, outflow and intake pipe
- limited survey work on the lay-down areas
- further information required on the impacts and mitigation for water voles
- awaiting the assessment of impacts on the cSAC, SPA and Ramsar site under the Habitat Regulations

Natural England must be consulted on Appropriate Assessments. Following this process, there will need to be an assessment of impacts on any individual features listed under the Humber Estuary, North Killingholme Haven Pits and Kirmington Pits SSSIs, where required.

Comment: The applicants are aware of this objection and have a meeting programmed with Natural England before Christmas to move forward with a view to resolving these outstanding issues.

RSPB: 'Objects to the above application because insufficient information has been provided relating to the potential impacts of the proposal on the Humber Estuary cSAC, SPA and Ramsar site. We object to the lack of appropriate survey and non-breeding bird data for the whole area affected by the proposal, and consider that it is not possible to complete the necessary Habitat Regulations Assessment without this information.'

North Lincolnshire Council, as competent authority, under the Habitat Regulations in respect of carrying out an Appropriate Assessment: An Appropriate Assessment under the Habitat Regulations is required before this application is determined. Usually, when North Lincolnshire Council is the determining authority, their status as competent authority allows them to carry out this assessment in conjunction with Natural England and,

where appropriate, other statutory bodies such as the Environment Agency.

Comment: In this particular case, because North Lincolnshire Council are not the determining authority, it is usual practice to defer its status as competent authority to the determining authority, which in this case is the DECC under the auspices of the appropriate Secretary of State. This deferment has already taken place and DECC have accepted their responsibility to carry out the Appropriate Assessment and consult with North Lincolnshire Council, Natural England and the Environment Agency and any other statutory bodies that are necessary. Additionally North Lincolnshire Council has suggested that, in addition to any conditions required by an Appropriate Assessment, a condition is required to secure a biodiversity management plan.

Environment Agency: Object to the granting of planning permission for the following reasons:

'The flood risk assessment submitted with this application does not comply with the requirements set out at Annex E, paragraph E3 of Planning Policy Statement 25. The submitted FRA does not therefore provide a suitable basis for assessment to be made of the flood risks arising from the proposed development.

In particular the submitted FRA fails to:

- identify where direct level for level flood plain compensation can take place should the Halton Marshes drainage improvements not go ahead. Brief calculations will be required to justify the flood plain compensation;

- state the existing and proposed permeable and non-permeable areas;

- provide confirmation as to how the proposed attenuation volumes have been arrived at. Calculations should be provided to support this. This should be based on the 1:100 annual probability rainfall event with an allowance for climate change and the allowable discharge rate for the site. Please see Annex B, Table B2 of PPS25 for appropriate climate change allowances. Flood Studies Report (FSR) and Flood Evaluation Handbook (FEH) rainfall data should both be used for identifying the volume of attenuation required.

- provide evidence to support the ground level of 4.5 metres above Ordnance Datum (AOD) which has been used in Section 1.4.2 of the FRA.'

The Environment Agency confirms that the applicants' agent has spoken to them in respect of this objection and is currently working on the submission of a revised FRA to address the above issues.

The Environment Agency continues their correspondence to the planning authority (and to DECC) with further information in respect of possible suggested conditions, flood defence consent, pollution prevention, waste management plan, water efficiency and the issue of the environmental permit.

Lincolnshire Wildlife Trust: 'The Lincolnshire Wildlife Trust wishes to register an objection to this application as we are not satisfied that the development would have no adverse impact on the Rosper Road Pools nature reserve and the Humber Estuary SPA, Ramsar site, SAC and SSSI, and important or protected habitat and species. The Trust may be prepared to withdraw its objection if further information is provided, additional mitigation and enhancements are proposed, and results of an Appropriate Assessment prove that there would be no adverse impacts on the nationally and internationally important wildlife of the area.'

The council is aware that ongoing discussions are being carried out with Natural England which will serve to respond and deal with the objections of the Lincolnshire Wildlife Trust.

PUBLICITY

Neighbouring properties and businesses have been notified, and site and press notices posted. Two letters have been received: one from a private individual and one on behalf of the Wood Panel Industries Federation. The private individual writes to confirm that he is very concerned about the noise, pollution, dust and residue from the proposed plant and therefore very strongly objects to the proposal because of the close proximity of the site to his house.

The second objection is on behalf of the Wood Panel Industries Federation (WPIF) and concludes its objection with the following statement:

'As stated earlier, this proposal cannot be considered in isolation from other wood-burning electricity plant proposals because of the profound problem of wood

supply and competing uses. We strongly recommend that the district council objects to this proposal because of the deleterious effect it would have on carbon abatement and the UK forest industries.

All large-scale, electricity-only biomass plants should be rigorously assessed regarding their impact on existing industries and the availability and sustainability of their energy generation and feedstocks, without displacement of other industries that are not supported by the renewables obligation. We believe that proposals for these plants have not demonstrated the sustainable supply of wood without displacing existing uses, many of whom make important contributions to carbon abatement through processing wood products.

This is a critical point for the wood panel industry, we do not seek special protection – simply a level playing field to compete with other consumers of UK wood. Allowing this large-scale plant to be built, reliant as it is on the purchasing power of ROCs (renewables obligation certificates) would be anticompetitive. There would be a significant risk of displacement in the wood panel industry if Drax's Immingham plant is commissioned.'

RECOMMENDATION

That the Secretary of State for the Department of Energy and Climate Change be advised that, after taking account of all relevant international, national, regional and local policy, together with all submitted and relevant environmental information which accompanies this application, North Lincolnshire Council wishes to raise no objection to the proposal receiving consent under Section 36 of the Electricity Act and also deemed planning permission being granted. Any consent should, however, take into account and consider all objections and concerns expressed by relevant bodies, and appropriate conditions relating to the following matters should be imposed following consultation with the local planning authority prior to the preparation and signing off of an Appropriate Assessment under the Habitat Regulations:

- statutory time limit
- all relevant highway and transportation matters
- all matters identified by the Appropriate Assessment under the Habitat Regulations

- all other relevant ecological, habitat, ornithological and protected species issues
- appropriate noise limits
- appropriate controls on construction methods, noise and times of operation
- land contamination
- archaeology
- flood risk and related issues raised by the Environment Agency, including drainage infrastructure
- aviation safety
- additional landscaping
- fuel ratio/methods of transportation in line with the initiatives of the Environmental Statement
- colour of building/structures
- adoption of best practicable measures in all relevant processes