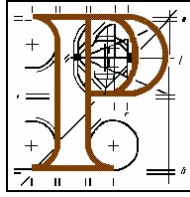

An Bord Pleanála



Inspector's Report

Ref.: PL09. 237777

Development: An 18 Megawatt Straw and Woodchip Fired Combined Heat and Power Plant on lands south of Tougher Business Park, at Lewistown, Newbridge, Co. Kildare. The development will consist of the following: Straw storage building (10.7m high), woodchip silo / unloading building (13.5m high), screen building (6.3m high), boiler building (24.3m high), chimney stack (36m high), two storey control / office building (12.6m), ash storage building (7.2m high), two storey workshop (9.9m high), over-ground hot water storage tank (24m high), external cooling plant (10m high), 3 No. overhead conveyors, vehicular access road off the existing Tougher Business Park road network, stormwater attenuation pond, 15 No. car park spaces, boundary treatment, landscaping and all associated site works.

Lewistown, Newbridge, Co. Kildare.

PLANNING APPLICATION

Planning Authority: Kildare County Council

Planning Authority Ref.: 10/748

Applicant: Organic Power Ltd.

Type of Application: Permission

Planning Authority Decision: Refusal

APPEAL

Type of Appeal: First Party v. Decision
Third Party (in support of decision)

Appellants (Third Party): Baroda Stud Farm
Bernard and Joan Murphy
Ballyfarm Limited

Observers: The Irish Thoroughbred Breeder's Association
The residents of Clownings, Lewistown and Great Connell
Rosetown Stud Farm
Murphy International Ltd.
Aston Ltd.
Cox's Properties Ltd.

INSPECTOR: Robert Speer

Date of Site Inspection: 14 January, 2011

1.0 SITE LOCATION AND DESCRIPTION

1.1 The proposed development site is located in the townland of Lewistown, Co. Kildare, approximately 6.4km southwest of Naas and 4km northeast of Newbridge town centre. Although the site itself is greenfield it adjoins Tougher's Business Park to the northeast which is characterised by a variety of industrial / commercial uses and structures including manufacturing premises and distribution depots. To the south and west the adjoining lands are in agricultural use although the adjacent lands to the immediate north appear to be in use as an informal playing pitch. The site has a stated site area of 2.17 hectares, is generally level and bounded by a combination of mature trees and hedgerows with the exception of the northern site boundary which is defined by post and wire fencing. The site would seem to be poorly drained and was noticeably wet underfoot on the day of my site inspection with a drainage ditch defining the southern boundary and a stream flowing alongside the western boundary. The site is accessed via the existing road network serving the Tougher Business Park which extends from a roundabout on the R445 Regional Road dual carriageway.

2.0 DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 The proposed development consists of the development of an 18 Megawatt straw and woodchip fired combined heat and power (CHP) plant which will generate electrical power and heat energy from a steam boiler through the co-firing of straw and woodchip. The combustion of the fuel within the firing chamber releases heat energy which is used to vaporise steam from water in a closed cycle system which passes through the furnace before being fed to a steam turbine. The steam generated subsequently drives the turbine which in turn drives the generator to produce an electrical current. This electricity will subsequently be exported off site to the National Grid. In addition, steam will be bled off the turbine at various points to achieve the required steam for thermal processes before being feed to water condensers, which act as heat exchangers, to pass heat energy into an external hot water system for export off site. After passing through the heat exchangers the steam / condensed water is returned to the firing chamber piping for another cycle of steam vaporisation. It is anticipated that the plant will combust fuel to produce 50MW thermal energy in a high efficiency steam boiler (92.6%) to raise a head of steam of 46.3MW in order to produce 18MW of electricity with 'waste' heat to be made available for use in adjacent and nearby industry. The steam turbine is nominally rated as 18MW electric (with an efficiency of 36%) although this can be increased to 19MW for short periods or reduced to as low as 9MW for unlimited periods comfortably. It is expected that normal export will be at 16.2MW electric output net.

2.2 The plant will be fuelled by approximately 100,000-115,000 tonnes of straw at 15-30% moisture content, although in the event of a restricted straw supply this can be supplemented with woodchip (arising from forestry thinnings and harvesting residues) at a moisture content of up to 50%. However, the proposed plant is only designed to use woodchip in the event of a straw shortage, perhaps one year in five, when 34,000 tonnes of woodchip would be the maximum the plant could accept in a year. Renewable energy crops such as willow and miscanthus could also be used if required.

2.3 It is anticipated that the straw will be supplied to the plant by a Special Purpose Vehicle Company whilst woodchip will be sourced from independent suppliers. The supply model will involve farmers transporting straw to a series of 10 No. identified straw storage points during the harvest season. It is proposed to do this by contracting farmers to supply 50% of their straw including an advance payment and by putting in place sufficient logistics to bale the straw immediately post-harvest and to transport it to the stockpile areas. These straw storage areas will involve storing the straw bales under tarpaulin and each will have the capacity to store approximately 17,000 tonnes. The straw storage areas are to be sited within 10km of the straw producing areas and generally within a 50km catchment of the proposed CHP plant. The straw will then be delivered from these storage areas to the plant in compressed bales of a minimum weight of 550kg each. Three days supply will be maintained on site in a proposed storage shed with further assembly to be carried out within the yard of the plant. Section 2.4.2 of the EIS estimates that approximately 15 No. truck deliveries per day, 6 days a week, will be required to supply the plant with delivery trucks carrying 48 No. bales or 26.4 tonnes per trip.

2.4 Ash generated from the combustion process is to be used as an improvement fertiliser replacement for the agricultural sector. Wetted bottom ash will be removed weekly from the site storage compound and transported in closed containers to the 10 No. straw storage sites for distribution to farmers for use in landspreading. These bottom ash containers will be sited on a Clause 804 covered hardcore base in sealed containers. Dry fly ash will be stored at the plant in 1 tonne bags and then tested for heavy metal content. If the levels are acceptable the fly ash will be transported to the straw storage areas to be stored under tarpaulin on a concrete slab for landspreading in the appropriate season. In the event that the levels of heavy metal content are unacceptable the fly ash produced from the batch combustion will be landfilled or exported for processing in its entirety. It is estimated that the proposed plant will generate 9,760 tonnes of wet bottom ash and slag per year and 1,520 tonnes of dry fly ash i.e. a total of 11,280 tonnes of ash per year.

2.5 The plant will operate for 8,000 hours per year, 24 hours a day, six days per week. The boiler and generator will operate automatically and unmanned with employees necessary for fuel reception, inspection and feeder supervision. Personnel will normally be present on site from 08:00 hours to 16:00 hours with a second shift to be on call at short notice between 16:00 hours and 08:00 hours. The boiler will be shut down twice annually for manual internal de-scaling and shutdown periods will be scheduled for 3 weeks in January and 1 week in July each year.

2.6 The plant itself has a stated floor area of 4,557m² and will comprise the following:

- A straw storage building with associated office (floor area: 2,448.25m²) 10.7m high which will accommodate 2,223 No. straw bales (1,222 No. tonnes) or 4 No. days storage / supply (as per Drg. No. 101).
- A woodchip silo / unloading building (floor area: 130.5m²) 13.5m high.
- A screen building (floor area: 32m²) 6.3m high.
- A boiler building incorporating the boiler room, the turbine room, a pump room, a water purification area, a workshop / storage area, ash storage areas, and office, staff and control areas (floor area: 1,385.71m²) 24.3m high.
- Chimney stack measuring 36m high

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- Over-ground hot water storage tank 24m high
 - External cooling plant 10m high
 - 3 No. overhead conveyors
 - A new vehicular access road extending off the existing Tougher Business Park road network which is in turn accessed from an existing roundabout on the R445 dual carriageway.
 - A stormwater attenuation pond
 - 15 No. car parking spaces
 - Boundary treatment, landscaping and all associated site works

3.0 ENVIRONMENTAL IMPACT STATEMENT

3.1 An Environmental Impact Statement has accompanied the subject application and this generally provides a satisfactory description of the receiving environment, the proposed development, its impacts and proposed mitigation measures. It has been accompanied by a non-technical summary and includes the information required by Schedule 6 of the Planning and Development Regulations, 2001, as amended, and complies with Section 172 of the Planning and Development Act, 2000 and Article 94 of the Regulations.

4.0 RELEVANT PLANNING HISTORY

On Site:

PA Ref. No. 09170. Was refused on 2 October, 2009 refusing Kildare & District Underage League Academy permission for 1. Phase 1 - two number playing pitches including one no. sand based all-weather pitch, 2. Phase 2- Unlicensed 1638sq.m two storey club house building (1383sq.m ground floor, 255sq.m first floor) comprising changing facilities, committee/staff rooms, office, corporate/sponsor suites, gymnasium and sports hall with ancillary fundraising/awards use, 3. Signage, 184 car parking spaces, 3 coach parking spaces, fencing, services, lighting, landscaping, site development works and ancillary works, for the following reasons:

- The proposed development is located in a rural area outside the development boundary of any urban area. The provisions of the Development Plan deem that land not within an identifiable settlement and not otherwise zoned shall be deemed to be primarily agricultural (section 6.7.3 OD 1 of CDP 2005 refers). The proposed development is considered to be an inappropriate use of this rural area, would be detrimental to the balanced development of Naas and Newbridge and would contravene materially the objectives in the Development Plan 'Other Developments in the Rural Countryside'. The proposed development, if permitted, would therefore be contrary to the proper planning and sustainable development of the area.
- Having regard to the location of the site approximately 7km from any nearby town, and to the lack of adequate footpaths, cycle lanes, public lighting and public transport servicing the site, it is considered that the intensification of use which would result from the proposed development, including coach and car trips, and young people walking and cycling to the proposed facilities, would endanger public safety by reason of traffic hazard and would therefore be contrary to the proper planning and sustainable development of the area.

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- The proposed development is of a size and scale which is incompatible with the rural character of the area. Furthermore, the proposed development would involve the introduction of a sports club / recreational type of development into the open rural landscape and would consequently result in an excessive density of development in a rural area, contrary to the provisions of the County Development Plan, wherein it is the Council's policy that the land use will be primarily agricultural, would therefore be contrary to the proper planning and development of the area.

On Adjacent Sites:

PA Ref. No. 062577. Was granted on 15 July, 2008 permitting Tougher Oil Distributers Ltd. permission for (a) revised site boundary to encompass only lands zoned for Industry / Warehousing under the County Development Plan, 2005-2011 (b) the raising of land (less than 1m) with an earth, soil & stone content, in accordance with Activity 5 Part 1 of First Schedule of the Waste Management (Permit) Regulations 1998 & in accordance with Class 4 of the Fourth Schedule of the Waste Management Act 1996 only within lands zoned for Industry / Warehousing under the County Development Plan, 2005-2011 (c) extension to existing business park site infrastructure comprising access roads, foul sewer network including pumping stations, surface water drain with attenuation facility, watermains and landscaping only within lands zoned for Industry / Warehousing under the County Development Plan, 2005-2011 (d) all ancillary site works.

PA Ref. No. 062712. Was granted on 28 May, 2007 permitting Tougher Oil Distributers Ltd. permission for 3 No. industrial type buildings comprising (a) 24 hour operational wholesale distribution centre in two phases - Phase 1: 15,970m² warehouse with 1,000m² ancillary two-storey offices, truck wash, security cabin, identity signage, car parking, site development works and all ancillary works. Phase 2: 15,970m² warehouse, identity signage, car parking, site development works and all ancillary works (b) 24 hour operational industrial building comprising 11,409m² manufacturing and warehousing area with 1,146m² ancillary two-storey offices, identity signage, car parking, site development works and all ancillary works (c) industrial building comprising 1,564m² workshop / warehousing area with 440m² ancillary two-storey offices identity signage, car parking, site development works and all ancillary works.

On Sites in the Immediate Vicinity:

PA Ref. No. 08937. Was granted on 22 September, 2008 permitting Newhall Construction Ltd. permission for the retention and completion of (1) two storey ancillary office building (floor area 1,752m²) adjoining northeast and southeast elevation of Phase 1 of previously permitted 24-hour operational wholesale distribution centre granted under Reg. Ref. 062712 containing plant room (86m²) and office accommodation ancillary to adjoining warehouse (790m²) at ground floor level and store (876m²) at first floor. This is to replace the previously permitted ancillary office block (floor 1,821m²) to Phase 1 of the previously permitted 24-hour operational wholesale distribution centre granted under Reg. Ref. 062712 and provides for an increase in footprint, modifications to internal layout and reduction from 3 storeys to 2 storeys, (2) single storey forklift maintenance building (floor area 291m²) ancillary to the adjoining 24-hour operational wholesale distribution centre (Phase 1) on northeast elevation, (3) two storey operations / dispatch office (floor area

300m²) on northwest and southwest elevations, (4) changes to layout of internal road network, car parking and relocation of 2 No. vehicular access points. These are changes to that previously permitted under Reg. Ref. 062712. Retention of the following (these are changes to Phase 1 of the previously permitted 24-hour operational wholesale distribution centre granted under Reg. Ref. 062712), (5) external canopy to north-western elevation, (6) mezzanine floor (3,957m²) within warehouse over loading bay with ancillary stairwells and goods lift (7) in addition to the above, modifications to external elevations of main warehouse building comprising the following (i) northwest elevation: relocation of roller doors and reduction in number from 20 No. to 16 No. and omission of canopy (ii) southwest elevation: relocation of roller doors and reduction in number from 12 No. to 4 No. and omission of canopy (iii) southwest elevation: omission of windows (iv) in addition to modifications to other windows, pedestrian access doors and (changes to cladding). Permission for (8) erection of 5 No. externally illuminated metal-coated identity signage and 1 No. backlit identity sign arranged as follows: (i) 1 No. backlit identity sign on northwest elevation of accommodation block (ii) 5 No. identity signs on the northeast elevation of Phase 1 of the main distribution centre (9) bicycle shelter, 2 No. Smoking shelters, LPG (Gas) tank, sprinkler water supply tank and pump house (20m²) and all site development works and ancillary works.

Other Relevant Files:

PA Ref. No. 03446 / ABP Ref. No. PL18. 216528. Was refused on appeal on 12 July, 2007 refusing Monopower Limited permission for a Biomass combined heat and power plant consisting of a fuel unloading building (18.5m high and 495m² floor area). Shredding and screening building (10m high and 75m² floor area), boiler, turbine and service building (41m high and 1,460m² floor area), an administration building (6.2m high and 255m² floor area), a three unit air cooled condenser (17m high and 390m² in area), four fuel silos (25.5m high and 12m diameter), fly ash and limestone silos (15m high), filter and flue gas cleaning unit (23m high and 75m² in area), induction draft fan and stack (50m high and 3.5m diameter), three fuel dryers (6.4m high), interconnecting ducting/pipework/conveyers, transmission lines, 30 No. outdoor lights, 2.1m high boundary fencing, on-site transformer, electricity transmission line, as well as associated parking and manoeuvring areas, weighbridges, access roads, vehicular entrance, sewage treatment plant, process water pond and associated landscaping and site development works, all at Killycarran, Emyvale, Co. Monaghan.

PA Ref. No. 07111 / ABP Ref. No. PL23. 225138. Was refused on appeal on 9 July, 2008 refusing Green Organics Energy Limited permission for a development consisting of biogas and biodiesel production facilities which will use rendering and anaerobic digestion (AD) technologies to process up to 250,000 tonnes per annum of Category 1 and Category 3 animal by-products (as defined under the European Communities Regulations 1774/2002), meat and bone meal (MBM) and other organic biomass materials to generate biogas and biodiesel. The biogas facility, utilising a combined heat and power plant, will generate up to 15 Megawatts (MW) of electrical power. The biodiesel facility will use an esterification process to generate 50,000 tonnes of biodiesel per annum from tallow rendered on site, together with additional imported tallow or vegetable oils etc., all at the established National By-Products rendering facility at Castleblake, Rosegreen, Cashel, Co. Tipperary.

PA Ref. No. 09537. Was granted on 7 September, 2010 permitting Biotricity Ltd. permission for a biomass processing combined heat and power (CHP) facility which includes the processing of raw biomass sourced from renewable forestry and agricultural crops into a refined solid biofuel for commercial use, and as part of the process, the production of circa 15MW of renewable electricity for export to the national grid at Coolcor, Rhode, Co. Offaly.

PA Ref. No. KA901377 / ABP Ref. No. PL17. 236410. Was refused on appeal on 10 November, 2010 refusing Shamrock Renewable Fuels Limited permission for a development comprising a Bioenergy Plant producing wood and energy crop biofuels, and green electricity for export to the National Grid. The proposed development comprises of an extension of an established wood and energy crop storage, drying and processing facility manufacturing biofuel products, permitted under planning authority register reference numbers KA70057 and KA70610. It is proposed to store, dry and process plant biomass, wood and energy crops for the manufacture of briquettes and pellet biofuels. The proposed development includes for the introduction of an integrated combined heat and power (CHP) plant utilising wood and plant biomass fuels to generate the electrical power required for the Bioenergy Plant. Surplus electrical output will be exported to the National Grid as green carbon-neutral electricity, and surplus recovered heat from the CHP process will be used in the biofuel drying process. The proposed development will include the following: material preparation and storage building (1,280 square metres); CHP plant building (2,880 square metres) and associated emissions stack of 30 metres above ground level; wet chip silo and dryer building (1,210 square metres); dried wood storage building (1,280 square metres); solid biofuel manufacturing building (1,280 square metres); maintenance and storage building (220 square metres); two number hardstanding storage areas of 2.14 hectares and 7.78 hectares respectively; two number water storage lagoons; Electricity Supply Board sub-station (84 square metres); ancillary two-storey office building (870 square metres); weighbridge and weighbridge office (19 square metres); proprietary wastewater treatment system and associated percolation area; perimeter fence and landscaping; new vehicular entrance to the N52 National Road and gated entrance avenue; and all associated development works and landscaping on an overall site area of 19.85 hectares, at Balrath Demesne, Balrath, Kells, County Meath as amended by the revised public notice received by the planning authority on the 9th day of February, 2010.

5.0 PLANNING AUTHORITY CONSIDERATIONS AND DECISION

5.1 Decision:

On 16 September, 2010 the Planning Authority issued a notification of a decision to refuse permission for the proposed development for the following 6 No. reasons:

- The development is located in a rural area on lands not zoned for industrial use and outside the development boundaries of any designated town or village. It is the Council's objective to *'support the sustainable development of rural areas in economic, social and environmental terms in a way that supports the rural economy and rural communities and to retain the identity of towns and rural settlements and to ensure that orderly development of newly developing areas on the edges of town and settlements by resisting urban sprawl, haphazard and piecemeal development . . .'* (Section 6.6.1 of the CDP, 2005

refers). The provisions of the development plan deem that land not within an identifiable settlement and not otherwise zoned shall be deemed to be primarily agricultural (Section 6.7.6 OD1 of the CDP refers). The proposed development would therefore materially contravene an objective in the Development Plan for the use solely or primarily of this area for agriculture. Furthermore, it is considered that the proposal would involve the introduction of an industrial type development into a rural area and would be contrary to the provisions of the CDP, 2005 and would therefore be contrary to the proper planning and sustainable development of the area.

- In assessing the development the applicant has failed to provide a satisfactory assessment of the consideration of alternative sites as part of the Environmental Impact Assessment process having regard to the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations, 2001-2006. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.
- Having regard to the height of the proposed structures in this rural location, it is considered that the proposed development due to its significant size and scale would have a dominant and adverse impact the local rural environment, would be seriously injurious to the visual amenities of this area, and would therefore be contrary to the provisions of Section 8.3(3) of the CDP, 2005 which states as an Objective *'To ensure that the location of renewable energy structures should minimise and to mitigate any adverse visual impacts on the built or natural environment'*. The proposal would therefore be contrary to the provisions of the CDP, 2005 and to the proper planning and sustainable development of the area.
- Having regard to the inadequate information submitted with the application, including inadequate description, identification and assessment of the processes involved, particularly in the context of potential impacts on residential properties and equine enterprises in the vicinity, the proposed development would be incompatible with Section 15.9 of the CDP which states that any industrial or commercial development shall not be injurious to the residential amenity of adjoining properties. The proposed development would impact adversely on the amenity of properties and would depreciate the value of property in the vicinity, and would set an undesirable precedent for similar developments in the area. The proposal would therefore be contrary to the provisions of the CDP, 2005 and to the proper planning and sustainable development of the area.
- The proposed development is located within the route corridor of the Leinster Orbital Route Feasibility Study, and would represent an extension of the existing industrial estate west towards Newbridge, which could potentially restrict the available route options within the LOR corridor. The proposed development would be premature pending the determination of the route of the LOR and would therefore be contrary to the proper planning and sustainable development of the area.
- The traffic associated with the development will access the site via the M7, and in particular via Junction 10 Naas South. This junction experiences serious congestion at peak times and may not have sufficient reserve capacity to cater for the proposed development. It has not been demonstrated that the proposed development would not have a detrimental impact on the operation and safety

of this junction, and it would therefore be contrary to the proper planning and sustainable development of the area.

5.2 Internal Reports:

Heritage Officer: States that as straw is scarce in Co. Kildare there is a requirement for the applicant to demonstrate the availability of an adequate supply (and reserve supply) of same to serve the proposed development. In addition, it is recommended that consideration be given to the impact of the proposal on the supply of straw to the equine industry and the possibility that other materials will be used in the proposed development. This report subsequently concludes by stating that planting should comprise indigenous species and that the impact of the proposal on bat species has not been assessed.

Sanitary Services: An initial report recommended that further information be sought in respect of a variety of items pertaining to foul and surface water drainage. In addition, it was noted that the applicant had indicated that the existing 150mm diameter watermain was fed from the 200mm diameter public watermain from Naas, however, the 200mm watermain had yet to be commissioned and, therefore, it was recommended that the applicant submit proposals to complete and commission this watermain.

National Roads Design Office: Notes that the proposal will be accessed through Tougher Business Park via the R445 and that the interchange at Newhall will be the most likely point at which traffic will leave the M7 to access the R445. It was also noted that whilst the EIS states that 15 truckloads of straw / woodchip would be delivered to the site 6 days a week all year round, no further details were provided as to how this figure was calculated. It was considered that the level of traffic generated by the proposal would not be very significant when compared to existing traffic levels on the M7 at Newhall, although it was acknowledged that it would add to the difficulties presently encountered at peak periods. This report also noted that no detailed information had been provided with regard to the exact location of the proposed Supply and Storage Sites or the traffic generated at each of these locations. Accordingly, the report concluded by recommending that the applicant be requested to submit a Traffic Impact Assessment which would address the foregoing issues.

Environment: Recommends that additional information be sought in respect of a number of items including the bunding of fuel tanks, whether any enzymes / chemicals are added to the straw mix prior to fuelling the CHP plant, the disposal and storage of ash, the proposed spreadlands, noise control measures and the technology as regards the limitation of atmospheric emissions.

Transportation: Recommends that the subject proposal be refused permission for the following reasons:

- The proposed development is located within the route corridor of the Leinster Orbital Route Feasibility Study and it is considered that the proposed development would represent an extension of the existing industrial estate west towards Newbridge which could potentially restrict the available route options within the LOR corridor. The development is therefore considered premature pending a determination of the route of the LOR.

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- The applicant has indicated that access to the National Road network is an important aspect of the proposed development which would suggest that a significant portion of traffic associated with the development will access the site via the M7 and, in particular, via Junction 10 Naas South. This junction experiences serious congestion at peak times and may not have sufficient reserve capacity to cater for the proposed development. The applicant has not demonstrated that the proposed development would not have a detrimental impact on the operation and safety of this junction.
 - The applicant has not submitted sufficient information in relation to:
 - The existing roundabout junction serving the industrial estate, which may not be suitable to safely accommodate significant HGVs, and any potential alterations to this junction that may be required.
 - No detailed Traffic and Transportation Assessment has been prepared or submitted for the proposed development.
 - The applicant has not submitted a schedule of calculations indicating the car parking requirement of the proposed development in accordance with the standards set out in the Kildare County Development Plan. There appears to be no provision for parking of heavy goods vehicles within the development site layout. The applicant has not demonstrated where delivery vehicles can be accommodated should they be required to wait on arrival.

5.3 Prescribed Bodies / Other Consultees:

Environmental Protection Agency: In initial correspondence (which seems to actually refer to PA Ref. No. 10/593) the EPA indicated that the proposed activities would require an IPPC licence under Part IV of the Environmental Protection Agency Acts, 1992-2007 although no such application had been received to date. The remainder of this correspondence details the terms under which such a licence would be issued and confirmed that all matters to do with emissions to the environment from the proposed activities and as detailed in the EIS, and any licence application as may be received, will be considered and assessed by the Agency.

In further correspondence the EPA has confirmed that if the development has a thermal input of equal to or greater than 50MW, then the activity will be licensable under the Environmental Protection Agency Acts, 1992-2007. It is reiterated that no licence application has been received by it to date and that in the event of a licence application being received, all aspects of the installation's operation and emissions and the safe closure of the facility, will be considered in the determination process. Furthermore, should the Agency decide to grant a licence, it will incorporate conditions that will ensure that appropriate National and EU standards are applied, and that Best Available Techniques (BAT) will be used in the carrying on of the activities.

Department of the Environment, Heritage and Local Government: Recommends that the applicant be requested by way of further information to submit an Archaeological Impact Assessment of the proposed development to include a geophysical survey as a technique to elucidate archaeological test excavation to be undertaken over the entire development site in order to provide an adequate and fully informed assessment.

Inland Fisheries Ireland (Eastern River Basin District): States the following:

- The River Liffey and several of its tributaries are exceptional in the area in supporting Atlantic salmon (*Salmo salar*, listed under Annex II and V of the EU Habitats Directive) and Sea Trout (*Salmo trutta*) in addition to resident Brown trout (*Salmo trutta*) populations. This highlights the sensitivity of local watercourses and the Liffey catchment in general. The river is regarded as a very important fishery. Fishery habitat is regarded as particularly good for all salmonid life stages throughout much of the Liffey system and must be protected at all times. The Liffey main channel (and local tributaries) also support populations of the Freshwater Crayfish (*Austropotamobius pallipes*) and lamprey (*lampetra* sp.) species listed under Annex II of the EU Habitats Directive. Only clean, uncontaminated water should leave the site and drain to the river network. The local tributary into which it is proposed to discharge surface water from the site supports populations of Brown trout.
- The presence of these fish populations highlights the sensitivity of local watercourses. As with any development, all measures necessary should be taken to ensure comprehensive protection of local aquatic ecological integrity, in the first place by complete impact avoidance and only as a secondary approach through mitigation by reduction and remedy. Only clean, uncontaminated water should leave the site and drain to the river network. Any river manipulation works (bridging, culverting or otherwise) must first be submitted to the Board for consultation and approval.
- Best available technology (BAT) mitigation measures should be implemented to ensure protection of the surface water and groundwater system during both construction and operational programmes. The implementation of a SUDS system on site is highly desirable both in the short and long term. The maintenance of any attenuation structures (e.g. de-silting operations) must not result in the release of contaminated water to the surface water network. Again and in all cases, it is essential that only clean and uncontaminated surface water should be discharged from the site to the local surface water network. It is noted that the EIS states *'there will be no liquid effluent from plant operations'*. Class 1 petrol / oil interception, slit and grit trapping and hydrobrake controls should be in place on surface water discharges to protect receiving freshwaters. Silt fencing (or similar operation) of discharge streams should also be implemented during the construction phase.
- It is recommended that the *'Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites'* be consulted when undertaking any works on site, particularly in the vicinity of surface water features. In-stream works can only be carried out during the period May to September of each year. All in-stream and riparian works must first be submitted to the ERFB in the form of a proposal and method statement for agreement in advance of initiation. Any bankside and riparian works should be designed and implemented in an ecologically sound and sustainable way involving consultation with the ERFB.
- The commitment to preservation of a 10m wide riparian corridor or 'leave strip' is very important to the protection of local aquatic ecological integrity (and general biological diversity) and should be implemented at all times.

Health and Safety Authority: States that as the Central Competent Authority under the EC (Control of Major Accident Hazards involving Dangerous Substances) Regulations, 2006, the HSA gives technical advice to planning authorities, when requested under regulation 27(1) in relation to:

- The siting of new establishments,
- Modifications to an existing establishment to which Article 10 of the Directive applies, or
- Proposed development in the vicinity of an existing establishment.

Since the proposed development appears to fall outside the scope of the Regulations the HSA has no further observations.

An Taisce: It is queried whether the desired 15-30% moisture content of the straw can be easily achieved or if additional energy will be required on site to achieve same. It is also queried what contingency plans will be in place in the event of a shortage in available silage fodder and whether the importation of straw from Europe is sustainable whilst concerns are also raised as regards the continuity of supply of woodchip. Finally, it is noted that the subject site is not zoned although it directly adjoins lands which are zoned 'NE 1' (*Industry / Warehousing*) in the Naas Environs zoning map.

5.4 Objections / Observations:

A total of 26 No. submissions were received from interested parties in respect of the proposed development and the principle grounds of objection are reiterated in the third party grounds of appeal.

6.0 GROUNDS OF APPEAL

6.1 First Party Appeal:

6.1.1 This appeal has been lodged by the applicant, Organic Power Ltd., against the decision of the Planning Authority to refuse permission for the proposed development and the grounds of appeal can be summarised as follows:

- In respect of the initial reason for refusal it is submitted that the proposed development does not materially contravene the provisions of the County Development Plan. It is considered that Policy OD1 of the Plan does not place a blanket prohibition on development within the rural countryside and in support of this position the Board is referred to the following planning applications:
 - PA Ref. No. 081668 / ABP Ref. No. PL09. 233725: This concerned an application for a proposed Agricultural Biopark (consisting of an anaerobic digester, a rape seed processing facility and a fuel pellet production plant) at Ricketstown/ Ballyraggan, Castledermot, Co. Kildare. The Board is referred to the Inspector's Report which stated that although the proposal was situated on unzoned lands this was to be balanced against those policies concerning the siting of agriculturally related industries in rural areas and the support of biomass installations. Accordingly, it is submitted that the subject proposal

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- meets the same tests as applied to the agricultural biopark i.e. an agriculturally related industry and biomass installation.
- PA Ref. No. 031956 / ABP Ref. No. PL09. 205850: In this instance a grant of permission was issued for a large-scale industrial development on unzoned lands adjoining Tougher Business Park.
 - PA Ref. No. 062712: In this decision to grant permission for an industrial development on unzoned lands north of the subject site, the Planning Authority placed a significant emphasis on the fact that Policy OD1 refers to the use of rural lands as being ‘primarily’ rather than ‘solely’ for agricultural use. Accordingly, if this policy is to be interpreted that uses other than those solely for agricultural use are permissible, then alternative uses such as that proposed are acceptable in principle.
 - It is submitted that the proposed development constitutes an agriculturally related form of development which accords with the provisions of Policy OD4 of the County Development Plan. In this respect it of relevance to note that the Plan does not state ‘agricultural industry’ but instead refers to agriculturally ‘related’ industry and that the agricultural biopark proposed under ABP Ref. No. PL09. 233725 was accepted in principle under Policy OD4.

Furthermore, the proposed development will rely on the production of wheat as its primary fuel source whilst secondary fuel sources will also be sourced from farmers. It will also involve the replacement of fossil fuels to generate energy from renewable sources and thus qualifies under the environmental sustainability test. It is located adjacent to an established industrial park and is not sited near any tourism facilities or areas of recognised amenity value. Finally, it is submitted that the EIS has demonstrated that emissions from the facility are low and that there is no evidence that they will have any adverse impact on the bloodstock industry.

In light of the foregoing, it is submitted that the proposal does not materially contravene the Development Plan.

- The Draft Kildare County Development Plan, 2011-2017 states the following:

‘Rural areas have the potential to be harnessed for renewable energy projects – including wind, hydro and solar energy. In addition, waste to energy projects, such as bio-mass, anaerobic digestion and dry digestion may be suitable subject to planning and development considerations. The Council will support renewable energy projects in rural areas. However, it is mindful of the need to protect landscape sensitivities, residential amenities, views of prospects, public rights of way, wildlife, habitats, special areas of conservation, protected structures, bird migration paths etc.’

It is submitted that this statement addresses any ambiguity as regards the need for a material contravention process to be involved in supporting renewable energy development in the countryside.

- In a submission on the Draft CDP the Applicant sought to clarify the Council’s position with regard to Section 10.4.8 of same. The response in the

Manager's Report is clear that the principle of renewable energy projects in rural areas (i.e. unzoned land) is acceptable.

- In the event that it is determined that the proposed development would materially contravene the CDP it is submitted that there are compelling reasons why the Board should support the proposal having regard to the criteria set out at Section 37(2) of the Planning and Development Act, 2000.

There are numerous national planning policies and guidelines which promote the development of green energy with specific reference to biomass CHP. These documents are set out in detail in Section 9 of the planning report which accompanied the initial application and the Board is referred to same accordingly although the Energy White Paper *'Delivering a Sustainable Energy Future for Ireland'* identified growth in CHP deployment as an important objective to 2020 whilst targets were set as 400MW by 2010 and 800MW by 2020 with an emphasis on biomass fuelled CHP.

With regard to Section 37(2)(i) it is submitted that the reference to 'primarily agricultural' is very ambiguous and can be interpreted to read that it does not impose a blanket prohibition on development in rural areas. Furthermore, Policies BE1 and BE2 are clear in that the Council does support biomass and do not include any restriction on unzoned lands.

- The 2 No. zoned, but undeveloped, sites in Tougher Business Park referenced by the Planning Officer are already committed to commercial agreements.
- The 740 hectares of undeveloped industrially zoned lands in the county referenced by the Planner were considered as part of the site selection process and were found to be unsuitable for a variety of reasons including:
 - Poor transportation links to the motorway network.
 - Absence of appropriate end users for heat and electricity.
 - Absence of large-bulky structures to mask the proposed development
- With regard to the assessment of alternatives the Board is referred to Section 2.2.3 of the EIS and the 10 No. criteria identified as being necessary for the selection of the ideal site for the proposed development. Following an analysis of these criteria (with particular reference to Item Nos. 3, 4 & 5) the Lewistown site was selected. The validity of the assessment of alternative locations has been questioned by the Planning Authority which has also asserted that a multitude of potentially suitable industrially zoned sites exist in the county, however, it is submitted that this is not the case. In this respect the following points are made to definitively demonstrate that the process of assessing alternatives was carried out in a manner that cannot be deemed as 'deficient':

Project Constraints:

- *Scale of Proposal:* Given the available concentrations of straw fuel in Ireland, financial modelling has established that the best fit for Irish conditions is the option of an 18 MWe steam turbine fuelled by biomass.
- *Grid Infrastructure:* The export capacity of the plant (mean output 16.2MWe) will require a minimum of a 38kV connection, however, it is ESBN policy to

preferentially connect any new exporting generator above 10MW at a 110kV node, if possible. With regard to the potential sites identified at the North Slobs, Co. Wexford and Athy, Co. Kildare, in addition to the Lewistown site, a feasible connection to a 110kV node is available at all locations, however, the subject site has the least cost solution for grid access due to distance (c. 3km).

- *Carbon neutral fuel resource availability:* The proposed development has a requirement for 18,000 hectares of cereal production within the effective supply radius of the plant which is determined by both straw availability and transport infrastructure. Cereal production in Ireland is concentrated in the east and southeast with Wexford having the highest production rate followed by Meath and Kildare. In summary, both South Wexford and North Kildare were given a high weighting (with a lower weighting being applied to South Kildare) due to the relative availability of straw within a shorter functional access supply dictated by road infrastructure.
- *Road Infrastructure:* Suitable transport infrastructure from the straw storage areas proposed in the adjacent cereal production areas is paramount. Motorway transport of the majority of the fuel is ideal and thus the subject site achieved a higher ranking than either of the sites considered in South Wexford or Athy.
- *Proximity to heat customers:* The electrical efficiency of the proposed plant is 34%, however, the thermal efficiency is 91% if uses can be found for the heat energy produced. The useful heat is in the form of hot water which has been used in other countries to supply district heating schemes. In Ireland, there are several legal and administrative barriers which effectively preclude the development of schemes whereby residential units can avail of the benefit of CHP produced heat and, therefore, the only option available is to sell the heat energy through direct contracts with commercial entities i.e. The single heat producer and the single heat customer. Applications for such contractual relationships are restricted to the industrial use of heat for drying, cooling via condensation technology, or disinfection and hot water wash-down. In this respect the subject site is located in an area where such potential exists and discussions have been held with an adjacent pharmaceutical plant and also the operator of a potential cold store and a pharma cold-store facility in the Tougher Industrial Estate, all of which are interested in the potential to develop efficiencies through the purchase of heat from the proposed plant.

The North Slobs, Co. Wexford site had the potential to develop heated greenhouse agriculture and biodiesel production using the heat energy generated, however, this would have to be developed from nothing as there is no existing potential adjacent use. Discussions with regard to a district heating system in Wexford town had no positive outcome. With regard to the Athy site, there were no potential customers for the heat produced other than a grain drying facility which is currently dormant.

Planning Policy:

- *Land Use Zoning:* The operation of the proposed facility is dependent on agricultural resources and can be optimised by being sited adjacent to potential customers for heat. Throughout Europe, similar plants are sited in agricultural areas adjacent to towns with the heat being exported to a district heating

scheme. Given the barriers to district heating in Ireland the emphasis should be placed in siting adjacent to potential individual users / businesses. In this respect of the three alternative sites identified only the subject site is zoned as agricultural and located adjacent to potential heat users.

- *Visual Vulnerability:* The proposed plant is a large structure with a high chimney stack. In order to reduce visual contrast a location adjacent to industrially sized buildings would be appropriate. Both the subject site and the Athy site to a lesser extent, meet this criterion whereas the North Slobs site does not.
- *Environmental and Strategic Infrastructural Designation:* The Co. Wexford site is adjacent to an SAC and SPA whereas neither of the other sites adjoins any environmentally sensitive area. With regard to strategic infrastructure, the subject site is located within one of the preliminary route options identified for the now suspended investigation into the Leinster Outer Orbital Route, however, it is submitted that this designation no longer applies due to the suspension of the project by the NRA and its deletion from Transport 21.

Land Resource:

- *Incompatible Land Use:* Following screening for potential conflicting land uses only the North Slobs, Co. Wexford, was identified as problematic on the basis of wintering birds visiting from the South Slobs.
 - *Land Resource Availability:* Negotiations were initiated at seven locations and following site selection this was narrowed to three. Options to develop were agreed in principle for both the North Slobs and Lewistown sites, however, the Athy site was not made available for development.
- On the basis of the foregoing, and the information contained in the EIS, it is submitted that it has been unequivocally demonstrated that the Lewistown site is the best possible location selected from the alternative sites available as regards satisfying the necessary criteria. Accordingly, it is asserted that the examination of alternatives has been exhaustive and cannot reasonably be deemed deficient.
 - In terms of visual amenity, it is submitted that the subject site is not located in an area identified as being visually sensitive and that the proposal will not interfere with any views etc. listed for preservation. The physical context of the site is defined by large industrial buildings in a rural area set back from the public road with screening provided by mature trees. In addition, the low-lying nature of the lands is such that the proposed development will be largely obscured by the existing buildings and trees. It is submitted that the visualisations supplied with the application indicate that views of the plant will be limited and that it will not present as a dominant feature in the landscape.
 - Whilst the chimney stack is 36m high, the Board is referred to ABP Ref. No. PL18. 216528 which concerned a proposed Biomass CHP plant in Monaghan with a stack height of in excess of 40m high. In that case whilst the inspector noted the height of the stack she went onto say that this was not a material issue. Such structures are narrow and slender and do not present as bulky structures within the landscape.

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- It is considered that the visual impact of the proposal is subjective and that neither the Planner nor the objectors have provided any substantive evidence to demonstrate that the visual impact of the proposal would be injurious.
 - With regard to the fourth reason for refusal which refers to the '*inadequate description, identification and assessment of processes involved in context of potential impact on residential properties and equine businesses*' and incompatibility with Section 15.9 of the Development Plan, it is considered that this is without any basis / foundation as the Planner's Report makes no reference to what element of the EIS is inadequate in terms of description, identification etc. Detailed reports prepared by specialists form the basis of the EIS as regard assessing potential impacts on residences and equine business.
 - Section 15.9 of the Plan refers to industrial development, however, the subject proposal should be assessed having regard to those policies applicable to biomass energy developments i.e. Section 15.9 is not applicable to the proposed development
 - It is submitted that the proposal will not have an adverse impact on the amenities of property in the vicinity.
 - The prediction modelling included in the noise impact assessment indicates that specific night-time noise levels arising from the proposed facility will be lower than 23dB at the nearest NSL and lower than 10dB at more distant NSLs. These levels are lower than existing background levels and are significantly lower than the 40dB night-time limit imposed by the Planning Authority. Daytime levels are also predicted to be below background levels and significantly below the 50dB daytime limit imposed. Accordingly, noise levels for the proposed development will meet the requirements of the Planning Authority and thus will not adversely impact on residences or equine facilities.
 - In respect of emissions, the dispersion modelling assessment report contained in the EIS states that '*The overall modelling indicates that the proposed Straw and Woodchip fire Biomass CHP plant will not result in any significant impact on air quality in the surrounding areas with all ground level concentrations of pollutants well within their respective ground level concentration limit values*'. The report into the Human Health Evaluation of Emissions in the EIS also concludes that the proposed plant will not have any adverse effects on human health as all predicted emissions are below the specified limits.
 - The veterinary analysis contained in Appendix 12 of the EIS concludes that '*Provided the plant meets the statutory licensing criteria it will be neutral as far as risk of ill health to animals including horses*'. In addition, testimonials from veterinarians working in the vicinity of similar plants in the UK and Denmark record no ill effects on the health of horses etc.
 - Having regard to the expert evidence provided, it can in no way be argued that the information provided is inadequate or that the proposal will affect the amenity of clean healthy air enjoyed by surrounding residences or equine enterprises.
 - The proposed development will be accessed from the M7 via Junction 10 and along the R445 through the existing road network serving the Tougher Business Park. No other access route is required and this route is designed for use by HGVs and does not pass by any residential or equine properties whose

access could be compromised by the increase in traffic associated with the proposed development.

- The proposed plant is similar to those buildings in the adjacent Business Park and is coherent with the existing visual environment. It is located on low ground and will only be visible from a few locations in the surrounding area.
- It is submitted that if the amenities of residential / equine properties will not be affected then the proposal will not result in any depreciation in property values.
- With regard to the Leinster Orbital Route, the Board is referred to the NRA's Road Programme Status 2010 which states that the LOR has been '*suspended*'. It is understood that there is no funding in place to facilitate the scheme and no support for it at Government level.

A feasibility study conducted in 2007 identifies a proposed route for the LOR from Navan to Naas connecting with the M7/M9 via lands between Naas and Newbridge along with three other variant routes further north. With regard to the LOR route corridor between Naas and Newbridge it is important to note the following:

- There is no provision for the LOR in Transport 21.
 - The Programme for Government only agreed to prepare for the delivery of the LOR.
 - The Green Party has voiced concern over the LOR.
 - There is no provision for the LOR in any of the relevant Section 48 schemes.
 - The LOR corridor covers a vast amount of land, yet only a small proportion of same will be required for the road.
 - Numerous permissions have been granted within the LOR corridor.
 - A significant portion of the LOR corridor is shown running through Tougher Business Park and therefore it is clear that it is the lands to the north of the business park which are the only viable option.
 - The subject site only extends marginally beyond those lands zoned as Industry / Warehousing in the Draft CDP, 2011-2017.
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- The Board is requested to adopt a practical attitude in considering the subject proposal in light of the suspended status of the LOR and the uncertainty regarding its future provision. If the corridor between Naas and Newbridge is selected, the only viable option will be to provide the LOR within the corridor to the north of the existing Business Park.
 - In terms of traffic impact it should be noted that the Roads Design Office stated that traffic associated with the proposal 'is not significant'.
 - Up to 15 No. HGV deliveries of straw and woodchip is expected 6 days per week. It is proposed to access the CHP plant via Junction 10 off the M7 and then to use the R445 to access Tougher Business Park via the existing roundabout. An alternative access is proposed at Junction 12 off the M7 which, if necessary, can be used at peak times during the day. In the event this junction is also unsatisfactory, the deliveries can be carried out from 10:00-16:00 five days a week and during the proposed delivery times (08:00-16:00) on Saturdays.
 - The existing roundabout currently serves the business park and all its associated HGV traffic. It is considered that the expected increase in traffic

should not adversely impact on the existing operation or safety of the roundabout.

- A total of 15 No. car parking spaces will be provided on site to accommodate 9 No. staff and 6 No. visitors.
- It was agreed with the Planning Authority that permission for the storage and supply sites was not required as part of the subject application and that these would involve separate planning applications in their own right. It is submitted to the Board that this is a reasonable and practical approach.

N.B. It should be noted that at this point the applicant refers to a series of reports set out in Appendices K-O of the grounds of appeal which relate to environmental issues raised in the various inter-departmental reports of the Planning Authority. Rather than summarising the contents of same which reiterate many of the foregoing (and following) points, in the interest of conciseness, I would refer the Board directly to same.

- It is submitted that the requirement for Nutrient Management Plans is outside the remit of the Planning Authority and should not form part of the assessment of the planning application. It is the responsibility of the respective farmers to prepare NMPs for their lands and the applicant cannot be held responsible for same.
- The Board's attention is drawn to the recent grant of planning permission issued in respect of a Biomass CHP in Rhode, Co. Offaly. In that instance the applicants sought to address the ash output by means of landspreading and the issue of NMPs was not raised in the reports of either the Planning or Environmental Depts.
- With regard to the use of hot water, correspondence from Mr. Tommy Tougher (owner of the business park) indicates that there is a genuine interest from existing tenants with regard to the provision of hot water for heating. Furthermore, preliminary talks have taken place with Pfizer who have expressed an interest although no definite commitment would be made prior to securing planning permission.
- Section 2.4.2 of the EIS states that the plant will require c.100,000-115,000 tonnes of straw which would equate to 8.5% of the national crop or 11% of the crop from Kildare and neighbouring counties (i.e. Carlow, Dublin, Kildare, Kilkenny, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wexford and Wicklow, as derived from CSO figures (2000-2007). It is also important to note that the production of wheat straw and all cereal straw has increased under the CSO 2009 figures.
- With regard to the adequacy of the supply of straw, the aforementioned figures have been derived from the CSO i.e. an independent source. Also, it is the applicants understanding that Teagasc does not compile straw production statistics.
- The Board's attention is drawn to the Teagasc response to the Green Paper '*Towards a sustainable energy future in Ireland*' where they make specific reference to the use of biomass as a fuel creating a demand for straw.
- In terms of architectural finish, the Planner has given no indication as to their specific concerns with regard to visual impact or the proposed finish. It is submitted that the proposed design is similar to plants in Denmark and that the

external finish has been designed to harmonise with the adjacent industrial buildings.

- The EIS was prepared by Erm21c and it is acknowledged that one of its directors is also a director of Organic Power Ltd. (the applicant). It is considered that there is nothing unusual in this arrangement as it is standard practice for green energy companies to include persons with the requisite experience on their board of directors. In this respect it is submitted that it is clear from a reading of those sections of the EIS prepared by Erm21c that the information provided is based on independent empirical evidence.
- There is a grid connection available at Tougher's Business Park and at Pfizer, Newbridge. The proposed development is eligible for consideration for connection outside the GPA Group Processing Approach for renewable projects under the non-GPA approach for small, renewable, low carbon generators that fulfil public interest criteria. The proposal fulfils the public interest criteria as it is in line with bioenergy targets and has the ability to provide dispatchable energy on demand.
- The proposal accords with national, regional and local planning policies and objectives which seek to encourage bio-energy projects including biomass CHPs and it will not prevent the future development of adjoining zoned lands.
- It has been demonstrated that emissions from the proposed development will be significantly below all Irish, European and WHO guideline thresholds in terms of impact on human beings.
- The subject application has made it clear that the use of any other fuel type such as organic fuels would not be feasible owing to the fatal impact their use would have on the sensitive machinery involved. The applicant is amenable to a condition restricting the fuel types to those specified and this would enable the Planning Authority to instigate enforcement proceedings should there be any issues about different fuel types being used.
- The objector has provided no evidence as to how the proposed development would impact on the Grand Canal. There is no physical connection between the proposed development and the Grand Canal which is on the eastern side of the M7. The drainage channel along the south-western boundary of the site does not connect to the canal.
- It is acknowledged that noise emissions from burning may reach 85dB, although a level of 80dB or below is more likely due to the following:
 - Limits set out in Directive 2003/10/EC on the minimum health and safety requirements regarding the exposure of workers to the risks arising from physical agents (i.e. noise).
 - A continuous and gradual lowering (i.e. becoming stricter) of the limits set out in legislation which manufacturers are conscious of at burner design stage.

In a worst case scenario, the 85dB level, if arising, will occur in close proximity to the burner (c.1-3m). This will be located within a large building and simple noise mathematics can be used to show that the reverberant noise level in the building will be significantly lower than 85dB i.e. if a source in a building emits a noise level of 85dB, the entire ('reverberant') noise level in that building will not be 85dB, but will be lower due to the spreading of the noise in the building, screening by various items of plant, and absorption by the various surfaces in the building. The reverberant noise level in the building

is likely to be in the order of 70dB and substantially lower if the burner model selected includes a noise enclosure.

The reverberant noise within the building will give rise to noise levels outside, but these will have been reduced by the building walls to c. 20-30dB. The noise level immediately outside the building will be c. 40-50dB, however, by the time the noise has travelled several hundred metres, it will have attenuated considerably and will in fact be lower than existing background levels and thus inaudible.

In respect of the foregoing it should be noted that a safety margin of 10dB has been employed in that an in-building reverberant noise level of 80dB was applied rather than 70dB. Nevertheless, the predicted noise levels have been shown to be satisfactory.

6.2 Third Party Appeals:

6.2.1 In the first instance it should be noted that the 3 No. third party appeals lodged in respect of the subject application all support the decision of the Planning Authority to refuse permission for the proposed development. Whilst each appeal has been accompanied by a copy of the original objection made in respect of the subject application the grounds of appeal as detailed in the individual covering submissions can be summarised as follows:

Baroda Stud Farm:

- Co. Kildare is synonymous with the equine industry and has been twinned with Kentucky, USA. The equine industry and associated enterprises are of enormous benefit to Co. Kildare in terms of employment and financial generation. It is submitted that these benefits far outweigh any benefits associated with the proposed CHP plant. Furthermore, the detrimental effect to the area, the environment and the horse industry arising from the proposed development would be injurious, irreparable and unnecessary.
- It is of relevance to note that the size, scale and mass of the proposed CHP plant suggests that the 18MW output of the facility and its associated burners could quite readily be increased to 50MW. In the event of such an increase in output the plant would enter into a different category of environmental impact and other licences from State Bodies would be required such as an IPPC licence.

Bernard and Joan Murphy:

- The size of the plant proposed could be adapted to produce far more power than the stated 18MW output.

Ballyfarm Ltd.:

- It is considered that the proposal for an 18MW CHP plant is but *'the thin edge of the wedge'*.
- It is submitted that the employment which will be generated by the proposal is rather small when compared to the detrimental effect the plant would have on local employment. The effect of the proposal on residents, employees, employers and the environment would be very serious and may create health issues as regards local residents, employees, bloodstock and livestock.

6.2.2 With regard to the copies of the original objections which accompanied all the third party appeals and which form part of same, the grounds of appeal / objection contained therein can be cumulatively summarised as follows:

- The subject site is located on unzoned agricultural land. The proposal is neither agricultural nor light industrial in nature and can be described as an incinerator which intends to use biomass combustible fuel to drive a generator. It is considered that the proposal can be termed a 'dirty' industry unsuited to the area.
- The overall massing of the proposal, including its chimney stack, is visually intrusive whilst the plume from the stack will accentuate the visual intrusion on the landscape.
- The volume of straw required is not sustainable. The calorific value of straw, woodchip and other suitable fuels such as miscanthus, seed canary grass and nut & fruit husks is low compared to other fuels and their efficiency and output should be subjected to detailed analysis.
- There is doubt as to the availability of the required 115,000 tonnes of straw / woodchip as these items have other uses such as animal bedding and groundcover in landscaping etc. It is submitted that there is no obvious surplus of straw or woodchip in the 50 mile radius of the proposed development. It is considered that the availability of an adequate fuel supply within an economical radius must be the subject of an intensive market survey which has not been carried out in this instance. Supply contracts must also be executed locally to ensure an adequate supply of fuel to keep the plant operational, however, it is suggested that the purported €5 million to be made available to farmers is questionable.
- The required volume of woodchip is unlikely to be available and thus the enterprise is unsustainable.
- A complete analysis of the proposal as regards plant efficiency, fuel availability and the disposal of residues is required.
- The proposed output from the plant is 18MW, however, the size of the burner suggests that this can be increased to 50MW.
- Given the loss of 60% of the heat generated by the burner to the atmosphere the plant would seem inefficient in generating 18MW of power and thus it is queried whether the proposal is economically viable.
- The applicant should be requested to provide the written agreement of ESB Networks as regards the proposal to export electricity to the national grid. This would demonstrate the actual benefit, if any, to local power requirements given the small amount of electricity generated as a result of biomass incineration.
- The transportation of fuel along the road network will generate problems. For example, slow moving vehicles such as tractors are prohibited from motorways and thus transportation will be along minor roads. Given the bulk of straw and woodchip it is submitted that any load would not exceed 3-4 tonnes and therefore some 40,000 trips both to and from the facility per annum would be required. In addition, the transportation of woodchip may increase vehicle trips up to 75,000.

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- The proposed fuel is reputedly agricultural and farm-based. Accordingly, this will contribute to an appreciable volume of HGV traffic over an overloaded and inadequate minor road system.
 - Any ash spread by wind or from the working of the residual ash could be dispersed over a large area and may penetrate the air vents of housing and buildings etc. which may lead to downstream problems. In this respect there are concerns as regards potential respiratory problems in local residents, bloodstock and livestock.
 - Dust emissions will cause damage to property and require the cleaning and washing of houses / buildings etc. The dust will also affect and deter rainwater harvesting.
 - Ash from the chimney stack may be deposited on surrounding bloodstock lands and also lands used for the grazing of livestock. Bloodstock in particular are very susceptible to air-borne particles whereas livestock may ingest the particles thereby allowing it to enter the food chain. It is submitted that agricultural enterprises are already economically depressed and further endangerment is unwanted and unnecessary.
 - If the ash becomes mixed with rainwater it will be washed into the proposed attenuation pond and surrounding watercourses. The effect of such a scenario on fish-life in the streams which supply the River Liffey has not been fully addressed in the EIS.
 - The benefit of the residual ash as a fertiliser has not been explained fully. When landspread it will become airborne and will accentuate the effect of dust emissions from the chimney stack dispersed by the wind.
 - The binding twine must be removed from the straw bales because, if burned, it produces CN, a cyanide type gas. Emissions from the chimney stack will also include CO, NO and SO gases which could adversely affect the local population and bloodstock, livestock & wildlife.
 - Air, gas and dust monitoring should be carried out by an independent party as well as the Local Authority who should have a policing role in monitoring the plant. These costs should be borne by the applicant and should be included in a Cost Benefit Analysis of the plant to prove its viability, otherwise, the fuel used in the plant may alter by necessity and include undesirable combustible waste products.
 - There are concerns that the proposed use of straw / woodchip may require supplementation with other organic and non-organic material. It is considered that the imposition of conditions on any grant of permission would be ineffective and would require stringent monitoring of loads as they arrive.
 - The moisture content of the expected fuel supply can be up to 35% which will result in an extremely long plume from the chimney stack which will eventually fall as precipitation.
 - Given the height of the chimney stack and the level nature of the surrounding terrain the area of influence is expansive and will encapsulate much of western Naas, Newhall, Lewistown and East Newbridge etc. in addition to sections of the M7 / M9 motorway.
 - The steam plume and gas emissions together with ash and particulate matter are extremely harmful and can have detrimental effect on susceptible humans, bloodstock and livestock. In this respect it should be noted that there are numerous stud farms and houses in the vicinity of the plant.

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- There are concerns as regards the odours generated by the burning of material.
 - The Great Connell to Newhall back road is of archaeological and historic value and the proposed development is located within 400m of same.
 - The disposal of residues from the cleaning of the chimney stack and the incinerator may prove problematic. There is no stated plan for the disposal of these residues nor have details been supplied as regards the volume of such material produced or the frequency of its production. This information should be included in the EIS.
 - The landspreading of the ash and residue is of concern, however, this will be addressed in the IPPC licence by the EPA and is deliberately exclusive of the planning process.
 - The plant will produce dioxins which may be ingested into the food chain. When mixed with water these dioxins may affect the local environment including wildlife habitats.
 - The proposed CHP plant would be detrimental to local stud farms and equine enterprises and there are concerns that if the proposal were to proceed these enterprises would cease operation leading to job losses.
 - It is considered that the creation of 15 No. jobs by the proposed CHP Plant is minor compared to the associated destruction of the landscape whilst possibly 1,000 jobs may be put at risk by the proposed development. The surrounding zoned lands and stud farms create thousands of jobs and the advent of the proposed development may act as a deterrent to same.
 - It is considered that the subject location is unsuited to the scale of development proposed.
 - If the CHP plant were to be granted permission then other wastes may become available and acceptable for incineration within same. This would seem to be inevitable if insufficient straw and woodchip is available for burning.
 - Given the proximity of the proposed development to the Grand Canal, together with the odours, smoke and gas emissions and its visual intrusion, the proposal could damage the amenity value of this area.
 - It is submitted that the proposed development must be treated as a fire hazard due to the storage of straw and woodchip etc. adjacent to an incinerator / burner whilst the surrounding area / area of influence should be made the subject of a special designation within the County Development Plan similar to those at Intel in Leixlip and Irish Industrial Explosives at Dysart, Enfield.
 - The surrounding area has a high water table governed by the Pinkeen River which ultimately discharges to the River Liffey through Little Connell and Old Connell Stud Farm. There are concerns that ash / sludge and emissions from the proposed plant may be washed into surrounding watercourses etc. and possibly damage the flora and fauna of the area in addition to livestock and bloodstock.
 - It is considered that the EIS fails to adequately address the impact of the proposal on both protected and local species.

7.0 RESPONSE TO GROUNDS OF APPEAL

7.1 Response of Planning Authority:

None received.

7.2 Response of Applicant:

None received.

7.3 Response of Third Parties:

7.3.1 Response of Ballyfarm Ltd.:

- Ballyfarm Ltd. is the owner of a Business Park at Great Connell, Newbridge, which has planning permission to expand to include warehousing and small incubation units. Attempts are being made to attract 'clean' industry to this business park, however, there are concerns that the advent of the proposed CHP plant with its associated emissions etc. will detract from the park's selling points of 'Green Environment, Clean Atmospheric Conditions and Green Ireland'.
- It is the appellants understanding that there is no National Energy Policy in place as regards the 'banning' (burning) of agricultural products such as straw and forestry thinnings (woodchip). It is questioned whether there will be enough available straw or other acceptable fuels to feed the proposed CHP plant.
- There is no cost-benefit analysis on file.
- There is no guarantee that the proposed development will not have a detrimental or negative impact on the locality or the environment / ecology.
- Comparisons made between the subject proposal and existing plants in the UK may not be appropriate in this instance.
- In respect of the comparison with the CHP plant granted permission in Rhode, Co. Offaly, it is of relevance to note that in that instance the lands were zoned industrial unlike the subject site. In addition, there had been a Peat-Fired Power Generation Plant operating in Rhode for 50 years although this closed c.10 years ago. The Rhode site is also located in an area of cutaway bog whereas the subject site is situated on good agricultural land.
- The Rhode CHP plant has yet to commence construction and it is understood that there is difficulty in securing 165,000 tonnes of suitable fuel locally.
- Inadequate research has been carried out on Biomass CHP plants in an Irish context and there are fears regarding the downstream effects of the emissions generated. It is considered that this type of project is untried and untested.
- There are fears that the CHP plant is a health hazard and the imposition of conditions is not considered a suitable answer.
- The site is located within an ecologically sensitive area.

7.3.2 Response of Baroda Stud Farm:

- There are concerns as regards the planning history of Tougher Business Park and its compliance with the conditions attached to the various grants of permission.
- The subject site is located on unzoned lands which are proposed to remain unzoned in the Draft County Development Plan, 2011.
- The proposed development site formed part of a 'green belt' that was intended to separate Naas Town from Newbridge. This policy dates back to the 1960s and has been retained in successive Development Plans.
- The subject lands have been identified as the location of the Leinster Outer Orbital Route which, whilst deferred, is still planned. Accordingly, the

zone of the LOR route should be reserved. Provision has been included for same in the Current Development Plan and the proposed Draft CDP.

- The subject site is not suited to the proposed development. There are over 50 No. dwellings within 1.5km of the site and over 120 No. within 2.0km.
- The Grand Canal (Naas Corbally Branch), M7 motorway and the R447 are all within 1.5km of the site. The Canal Way, a nature walk along the Grand Canal, is also within 1.2km of the site.
- There are 5 No. significant stud farms within the zone of influence of the plant and its emissions.
- The site adjoins a salomoid stream which is a tributary of the Pinkeen River which in turn discharges to the River Liffey.
- Features of historical note in the area include Hoare's Bridge on the Grand Canal and Ladytown Graveyard.
- The Planning Authority has stated that the subject lands are not zoned for the proposed development and that it would materially contravene both the County Development Plan 2005 and the Draft CDP, 2011. The proposal, if granted, would set an undesirable precedent and would be contrary to the proper planning and sustainable development of the area.
- The surrounding topography is quite flat and the introduction of such high buildings and a chimney stack would have a significant detrimental visual impact. The plume of steam from the chimney stack would also have an adverse impact on the landscape.
- There is an inadequate supply of fuel available locally. Straw produced locally is used in the bloodstock and livestock industries whilst the by-products from these industries are utilised in the mushroom, greenhouse, horticulture and floriculture sectors in addition to being landspread. Accordingly, the project is not viable and is unsustainable.
- The applicant has not identified the location of the proposed straw storage / collection nodes. Most fuel sources will originate from rural locations and will require transportation along local / county roads to the detriment of road safety and the condition of the road itself.
- The double-handling and transport of the fuel to the proposed plant will add to traffic congestion and increase the volume of HGV traffic on the surrounding road network.
- It is submitted that comparisons with the Biomass Processing CHP Plant approved in Rhode, Co. Offaly, are inappropriate. In that case the majority of the site was zoned whilst there was a history of power generation in the area. It is also considered that the use of 160,000 tonnes of biofuel in the Rhode facility to produce 15 MW does not seem to compare with the use of 115,000 tonnes of material in the proposed plant to produce 18MW.
- There are serious questions over the environmental benefits of biofuel. An Taisce are of the opinion that national energy policy should be determined on a national basis rather than on an ad-hoc piecemeal basis through the determination of individual planning applications.
- Unlike the Rhode facility, where easy access to the national grid was available, the subject proposal will require traversing 3km through third party lands to avail of a grid connection.

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- The lands at Rhode comprised cut-way bog in the vicinity of an extant power station, however, the subject site comprises good quality agricultural land.
 - In Co. Kildare similar defunct power stations such as Allenwood have been demolished and the sites identified in the Development Plan as potential Business Parks as opposed to locations suitable for power-generation. The subject site is greenfield, zoned agricultural and is not identified as a site for power generation.
 - The EIS is not impartial or neutral and is clearly biased in favour of the proposal.
 - The EIS does not contain sufficient information with regard to the potential impact of the proposal on the bloodstock industry locally.
 - The veterinarian reports supplied with the EIS are inconclusive and vague. The bloodstock, equine and livestock industries are all concerned with regard to the negative impact the proposed CHP plant would have on the locality in a county which has been twinned with Kentucky, USA, due to their shared association with the horse / equine industry.
 - The heavy metal content of the resulting ash is unsuitable for landspreading as fertiliser. It must be exported for disposal to a reprocessing plant in France or Holland and will probably end up in landfill. Accordingly one of the promoted by-products is not suitable for the purpose stated in the application.

7.3.3 Response of Bernard and Joan Murphy:

- The proposed development would have a detrimental impact on the quality of the surrounding rural area and its community / way of life.
- It is considered that conditions, stipulations, monitoring and other mechanisms cannot be relied upon to prevent calamities whether immediate, sudden or gradual.
- The proposed technology is alien to Co. Kildare and is not tried or tested.
- There is no plan in place to ensure an adequate supply of fuel to the facility and no costings have been provided to prove the viability of the plant.
- There are not enough factories / warehouses locally to benefit from the district heat or hot water.
- The benefit of the power generation is insufficient to justify the associated disturbance locally or the destruction of the environment etc.
- It is submitted that isolated plants cannot work notwithstanding the fact that they may appear to adhere to implied policies in favour of power generation from biomass under the guise of 'green energy'. The production of biofuel from rape seed oil and 'potato' alcohol has been side-lined whilst there is doubt over the viability of the proposed Poolbeg Power Plant in Ringsend, Dublin.
- It is considered that there are too many unknown factors and risks associated with isolated CHP plants and there is an absence of clear national policy as regards such plants which use biomass as a fuel source.
- The proposed development is premature, unresearched, poorly planned and does not adequately consider the impact of a CHP plant on the Newbridge – Naas area.

8.0 OBSERVATIONS

8.1 The Irish Thoroughbred Breeders' Association:

- The importance of the bloodstock industry to Ireland, and Co. Kildare in particular, cannot be overestimated and it is critical that this industry is protected from incompatible development.
- The ITBA accepts that biomass fired power plants have a significant role to play in the future production of energy in Ireland. It is also recognised that the bloodstock industry, as part of the wider agricultural sector, must fully accept and support the notion that the production of biomass to supply the energy sector will become an increasingly important activity / rural activity in years to come. However, ITBA support for biomass power generation is predicated on the following criteria:
 - That the development itself is environmentally sustainable.
 - That the supply of biomass is sustainable.
 - That the biomass is safe and free from any chemical contaminants
 - The associated ash is properly disposed of / dealt with.
 - That the technology used for burning the biomass does not give rise to environmental hazards.
 - That the development is located in an appropriate area

It is submitted that the subject proposal does not satisfy the above criteria.

- There is a significant concentration of bloodstock breeding, training and racing operations in Co. Kildare, a large number of which are in close proximity to the subject site. Having regard to the potential impact of the proposed development on equine health it is submitted that the subject site is simply too close and represents an unreasonable threat to an area where many bloodstock operations are carried out and which is recognised as an area of national importance for the bloodstock industry.
- Thoroughbred horses have a physiology that is skewed heavily towards athletic performance and two areas where this specialisation is noticeable are respiration, and to a lesser extent, digestion.

Respiration:

Horses in the care of ITBA members have very efficient, but very delicate respiratory systems. There are numerous reports in equine veterinary literature regarding the issue of damage to the equine respiratory system as a result of inhaling particulate and chemical pollutants. Such pollution has been associated with cases of pharyngitis, inflammatory airway disease and reactive airway obstruction. In addition, there is medical evidence that young and maturing racehorses are particularly vulnerable to the development of respiratory disease. Accordingly, ITBA members must be confident that the air their horses breathe is fresh and free from pollutants and irritants such as particulate matter comprising dust, ash and chemical residues. The ITBA is seriously concerned that the proposed development represents a threat to the respiratory health of bloodstock given its proximity to many of its operations.

Digestion:

ITBA members must be confident that the grass and water their horses consume is free from pollutants and chemical residues. Again the ITBA is seriously concerned that the proposed development represents a threat to the digestive health of their bloodstock given its proximity to a large number of bloodstock operations.

- It is submitted that the co-fuelling of straw and woodchip is effectively a new development in Ireland and thus there is no guarantee that the operation can be undertaken in such a manner as not to give rise to pollution that will affect the bloodstock industry.
- There are concerns as regards consistency in the quality of the straw to be burned at the proposed plant. For example, will the water content be kept at a consistent level given that this will impact on the efficient use of this material with consequences for the volume and type of ash and gas to be produced during its combustion. It is suggested that higher moisture contents will reduce the efficiency of the burner thereby increasing the risk of pollution.
- Chemical residues from spraying may be present in the straw and there are concerns that these could be released into the atmosphere during the incineration process which could in turn contaminate the air and grassland.
- There is a fear that the ash produced by the facility represents a respiratory irritant the effects of which could be compounded by any chemical residues contained in same.
- The findings of Kevin Dodd, Professor of Equine Medicine, as contained in the EIS, that the proposed development will not have a significant negative impact on equine health are predicated on the following:
 - That the plant operates within specification
 - That the plant observes strict verifiable compliance with standards
 - That the plant meets the statutory licensing criteria

In this respect, an EPA licence has yet to be secured for the development and it is submitted that the application is premature until the practicality of a licensing regime can be established. Accordingly, Professor Dodd's assurances are undermined by the fact that significant questions remain regarding the applicants ability to burn straw in a manner that will not give rise to pollution in the surrounding area.

It should also be noted that Professor Dodd arrived at similar conclusions in respect of a proposal to construct a biogas and biodiesel production facility at Castleblake, Rosegreen, Co. Tipperary (ABP Ref. No. PL23. 225138) which was refused by the Board having regard to the fact that *'The site of the proposed development is located in open countryside in an area of national importance for the bloodstock industry alongside a major horse training establishment'*.

- Given the relative mobility of the bloodstock industry, ITBA members are concerned that even the perception that the proposed plant could have a negative impact on their horses, could seriously damage their operations.

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- It appears that an initial planning application (PA Ref. No. 10/593) made in respect of the proposed development was declared invalid on 13 July, 2010 and that the subject application was validated on 23 July, 2010. A memo held on file instructs the relevant Local Authority officer to transfer a fee of €16,370 from PA Ref. No. 10/593 to PA Ref. No. 10/748, however, this memo is dated 3 August, 2010 and, therefore, it is submitted that the subject application was lodged without a planning fee contrary to the requirements of the Regulations and thus should have been declared invalid. Furthermore, there is no legislative provision to ‘transfer’ fees from one planning application to another and therefore the planning fee should have been returned to the applicant with the initial invalid planning application.

On the basis of the foregoing the Board is therefore requested to invalidate the subject application whilst the ITBA reserves the right to have this matter adjudicated by way of judicial review if necessary.

- The ITBA questions the accuracy of the description of the proposal in the public notices and whether or not it comprises a sustainable CHP development. Genuine sustainable CHP plants produce electricity and heat in the form of hot water / steam in circumstances where there is a market for both.
- Although the applicant has stated that the proposed development is 3km from the nearest 110kV connection point at Newbridge it is also indicated that a grid connection is available within Tougher’s Business Park, however, there does not appear to be any firm arrangements or contracts in this regard.
- Whilst the applicant has stated that the proposal is eligible for connection under the Non-Group Processing Approach for small, renewable, low carbon generators that fulfil public interest criteria, no firm arrangements in this regard are evident.
- The applicant has admitted that there are several legal and administrative barriers in Ireland which *‘effectively preclude the development of schemes whereby residential buildings can avail of the benefits of CHP produced heat’*. This would seem to explain why no firm details of end users for the hot water have been provided and it is respectfully submitted that *‘exploratory discussions’* are an inadequate basis on which to evaluate this aspect of the proposal.
- Given the doubts as to the end use of the electricity and hot water produced by the CHP plant, it is submitted that the development will not produce *‘utilisable heat and electricity’* as required for qualification under the Electricity Regulation Act, 1999.
- The aggregate efficiency of the proposed plant would seem to be in the order of 62.5%, however the Electricity Regulation Act, 1999 requires an energy efficiency of over 70%. Accordingly, the proposal does not meet the levels of efficiency required for qualification as genuine CHP development as per the Act.
- Considering the potential health risk to horses the ITBA would also question the developments compliance with the economic and environmental criteria required by the aforementioned Act.
- The site selection process as detailed in the EIS is questionable. For example, it does not seem to have considered the availability of appropriately zoned

sites within the county. Furthermore, it is submitted that the site offers no real advantage in terms of ‘Grid Infrastructure’ owing to uncertainties as regards connection to same whilst the apparent proximity of the site to potential heat customers is undermined by the absence of any definitive contracts etc. regarding the export of same.

- The EIS fails to adequately evaluate the impact of the proposal on the equine industry.
- The subject site is located on unzoned agricultural lands and in line with Policy OD1 of the County Development Plan *‘the use of such land will be deemed to be primarily agricultural’*. The proposed development comprises an industrial / commercial power station which is not an agricultural use and does not facilitate agricultural development. Accordingly, it is considered that the proposal materially contravenes the Development Plan.
- The justification for permitting the subject proposal at this location is undermined by the fact that there are alternative sites on zoned lands in the adjacent Business Park.
- To permit the proposed development would permit a ‘de-facto’ extension of the business park which would undermine the land use / development management policy provisions for the area.
- The proximity of the site to zoned lands places an onus on the Planning Authority to protect said lands from inappropriate development.
- The County Development Plan recognises the importance of the bloodstock industry to the county and the development management system should protect the bloodstock industry from inappropriate development. It is submitted that the subject proposal, given its nature and location, is inappropriate and contrary to the goal of the Council to support and encourage the development of a vibrant bloodstock industry.
- On the basis that the proposed development will have a negative effect on residential and visual amenity, and in view of the serious road traffic concerns associated with the project, the ITBA is satisfied that the proposal contravenes the objectives set out in Section 8.8.1 of the Development Plan.
- The ITBA supports all of the reasons for refusal as issued by the Planning Authority.
- The applicant has interpreted the comment in the Planner’s Report that *‘the development could perhaps be more favourably considered on lands which are appropriately zoned . . .’* as inferring that *‘the principle of the proposed development is considered to be acceptable and it is the site specifics that are the primary concern’*. The ITBA would take issue with this interpretation and submits that the term *‘more favourable’*, as opposed to simply favourable, does not infer that the principle of the development was considered acceptable.
- The applicants references to a Biomass CHP plant granted at Rhode, Co. Offaly, are rejected given the important differences between it and the subject proposal:
 - There is no indication that the Rhode CHP plant will burn waste (and potentially chemically contaminated) straw as it will burn woodchip and biomass crops e.g. willow and elephant grass.
 - There is a history of power generation at the Rhode store.
 - The surrounding farmland in Rhode is of a very poor quality and is not a world class location for the bloodstock industry.

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- The Offaly County Development Plan does not place as much emphasis on the protection of unzoned areas from non-agricultural development.
 - The Offaly County Development Plan does not include specific provisions relating to the growth and protection of the bloodstock industry.
 - The Rhode decision was not appealed and thus was not tested by a higher authority.

 - The applicants' comments with regard to ABP Ref. No. PL09. 233735 are rejected as this relates to an agricultural biopark in contrast to the subject proposal.
 - With regard to the applicants comments concerning ABP Ref. No. PL09. 205850 it is submitted that an analysis of this file does little to recommend the subject proposal which is significantly different.
 - It is submitted that notwithstanding that one of the fuel sources is an agricultural by-product, neither the processes involved nor the finished products are specifically related to agriculture. Accordingly, the proposal is not an agriculturally-related industry and contravenes the zoning objective.
 - Contrary to the grounds of appeal, the provisions of the Draft Kildare County Development Plan, 2011 cannot possibly clarify ambiguities in respect of the current Development Plan.
 - With regard to the reference in the grounds of appeal to Section 37(2) of the Planning and Development Act, 2000, as amended, the Board is advised to note that the word 'or' does not follow the criterion whereby '*The proposed development is of strategic or national importance*'. Accordingly, it is submitted that development must satisfy this first criterion regardless of its ability to satisfy the remaining criteria before it can enjoy the benefit of Section 37(2) of the Act. In this respect the applicant has failed to make a convincing case that the submitted proposal is of strategic or national importance. Similarly, it is considered that the proposal does not satisfy any of the remaining criteria set out in Section 37(2) of the Act.
 - The grounds of appeal do not seem to address the Planning Authority's concerns as regards traffic and the project's impact on the Leinster Orbital Route.
 - It is considered that the applicants admission of the need to source straw from '*Carlow, Dublin, Kildare, Kilkenny, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wexford [&] Wicklow*' serves to demonstrate that the proposal is of a regional, if not national, scale. It also confirms that the project will involve a number of Regional Waste Areas and Waste Management Plans, will necessitate unsustainable haulage distances, and is contrary to the proximity principle as regards waste handling.
 - It is submitted that there is a high degree of comparison between the subject proposal and the development proposed at Castleblake, Co. Tipperary, which was refused on appeal under ABP Ref. No. PL23. 225138.
 - It is considered that many of the issues raised in respect of the decisions of the Board to refuse permission ABP Ref. Nos. PL09. 120926 and PL09. 112536 are directly applicable to the subject application.

8.2 The Residents of Clownings, Lewistown and Great Connell:

- The applicants description of the subject site as being *'bordered by mature trees on three sides which largely screen the site from surrounding views'* is factually incorrect as the trees and hedging along the site boundaries are of limited height. Considering that the proposed buildings will range from 6m to 24.3m in height with the chimney stack extending to 36m high the existing trees will not screen the proposal.
- With regard to the applicants submission that as the proposed CHP plant will be fuelled by agricultural by-products, including straw and woodchip, it should be considered to constitute a primarily agricultural use which is not required to be located on industrially / commercially zoned lands, if such an argument were to be accepted then all industries which use an agricultural by-products (e.g. meat processing, tanning, mushroom farming, milling etc.) would be effectively exempted from requiring an industrial / commercial zoning.
- In respect of the appellants reference to a biomass plant in Ballitore which would process rape seed oil, it is submitted that rapeseed is generally accepted as being planted for the purpose of obtaining rapeseed oil to produce a biofuel i.e. the crop is sown to produce this product whereas straw and woodchip are by-products of the main crop. Also straw and woodchip already have a market in the bloodstock and mushroom industries and as bedding in agriculture and thus are not a waste product.
- The applicants reference to existing buildings in the area as being of a similar height and scale to those proposed is rejected.
- The proposed buildings will be clearly visible from the R445 and from the county road to the south. The accompanying photographs are considered to demonstrate the visual intrusion caused by the existing industrial buildings in the area which are at least 6.9m lower than the proposed building.
- It is considered that the photomontages which accompanied the submitted EIS are incorrect and are designed to mislead the Planning Authority and the general public. This observation has been accompanied by photographs taken from the same locations as those contained in the EIS, however, these have used an existing building as a reference point. It is considered that these photographs show that the development will have an adverse impact on the visual amenity of the area.
- Although the proposed route of the Leinster Orbital Route has yet to be confirmed, it would constitute poor planning to permit a single development which would jeopardise a major infrastructural project which may be necessary in the future.
- It has been calculated that, contrary to the applicants submission, the proposed development would generate a minimum of 42 No. HGV movements daily. This figure represents a considerable increase over the number of traffic movements stated in the planning application (7-8 No. HGV movements per day). It is considered that this volume of traffic would affect the existing Tougher roundabout and have a major impact on road safety in the area.
- The applicants proposal to use Junction 12 off the M7 as an alternative route to the site would necessitate HGVs moving through Newbridge at peak times when schools are opening / closing. In addition, this is the main route into Newbridge Town from Dublin. Alternatively, HGV traffic exiting at Junction

12 would have to travel over county roads across the Curragh and through Athgarvan village to reach Tougher's Business Park.

- The applicant has indicated that there will be approximately 10 No. supply sites used to feed the proposed power plant. It is also stated that the plant will require a minimum of 200,000 straw bales (0.5 tonnes each) with a further 100,000 bales to be held in reserve. The proposed layout of the supply sites as detailed in the EIS indicates that each site will store 264,000 bales which will equate to a combined total of 2.64m bales. This shows either a miscalculation in the EIS or points to a further expansion of throughout at the power plant.
- The supply of the proposed storage sites would generate a significant volume of tractor-trailers / HGV traffic in these rural areas to the detriment of the amenity and safety of same.
- It is considered that details of all the agreed supply sites should have accompanied the subject application.
- Local residents have serious concerns as regards the impact of the proposed power plant and the emissions generated by same.
- There are road safety concerns as regards the significant increase in HGV traffic in the area which will be generated by the proposed development.
- There are concerns as regards potential light pollution from the facility.
- The applicant has indicated that discussions have been entered into with a number of parties as regards the use of hot water generated by the proposed development, however, other than a letter which refers to a general interest in the Business Park, no further evidence of any such discussions has been provided. In the absence of a firm commitment for the purchase of hot water the plant will only have an efficiency of 33% which would not be sustainable either financially or environmentally.
- Given the requirements of the existing livestock and mushroom industries, it is submitted that there is no oversupply of straw available and thus the plant is not a viable proposal. It is further submitted that the plant, if granted permission, will be converted for use as an incinerator given that the use of straw / woodchip does not represent a viable proposal.

8.3 Rosetown Stud Farm:

- There are concerns as regards the availability of an adequate supply of straw and woodchip to fuel the proposed CHP plant.
- Following enquiries with contacts in the equine industry in the UK, it is the observers understanding that development such as that proposed would be prohibited from these locations and that in the event such a plant were to proceed that the affected equine enterprises would simply relocate to another area. The observer has been advised to resist the proposed development as its clients may have to reconsider whether or not to present bloodstock to Rosetown Stud Farm.
- There are concerns that the project may proceed despite doubts regarding the emissions from the plant and the detrimental effect of same on the environment.
- There is no experience of such a plant in Ireland and the project has not been tried or tested sufficiently.
- The plant will produce toxic emissions and questionable residual products such as heavy metals in the ash.

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- Windblown particles and residual ash cannot be of benefit to humans, bloodstock or livestock, particularly those with respiratory problems.
 - The application fails to adequately explain the potential detrimental effects of the project on the environment and ecology of the area.

8.4 Murphy International Ltd.:

- Employees of the observer, who operates a civil engineering company and whose main depot is located at Great Connell, Newbridge, have expressed concern with regard to the proximity of the proposed CHP plant to their place of work. They are worried about the emission of gases and dust particles from the plant which could be blown over their place of work. This is coupled with the fact that several members of staff and their families reside in nearby housing estates.
- From experience in the UK, it is the observers understanding that 60% of emissions from chimney stacks are to the atmosphere in the form of gas, ash and dust with the remaining 40% transformed into the product and other residue. This became an issue particularly in times of smog or wind calm.
- It is submitted that the proposed development constitutes a health hazard to the observers personnel and concerns have been expressed with regard to the effect of emissions on the respiratory system.
- Scrubbing within the chimney stack may reduce, but will not eliminate harmful gases or dust emissions. These emissions contain nitrous oxides, sulphur dioxins and other toxins including chlorine. The ash residues and fly ash also contain heavy metals.

8.5 Aston Ltd.:

- The observer owns lands at Great Connell, Newbridge, a portion of which is zoned as residential or 'Neighbourhood Centre' with the remaining lands zoned for agricultural purposes. This land produces between 240-280 tonnes of wheat annually from approximately 80 acres of tillage and a sizeable volume of straw is also produced each year. At no point has the observer been approached by the applicant to agree the sale of straw or to reserve same for use in the proposed plant. Neither has the observer been approached to allow the spreading of ash on their lands.
- The observer objects to any spreading of ash on their lands on the grounds that its use as a fertiliser is rather limited and as it contains undesirable substances which may enter the food chain.
- All straw produced by the observer is baled and utilised fully annually by the bloodstock and livestock industries in the locality or within the North Kildare area.
- From the observers UK experience, it is submitted that lands in the vicinity of industrial chimney stacks and burners / incinerators are less desirable and less marketable.
- The subject site is not suitable for a CHP plant and the detrimental impact of such a plant would far outweigh any benefits of electricity production to the locality.

8.6 Cox's Properties Ltd.:

- It is submitted that this type of electricity power generation is untried and untested in Ireland and that there is insufficient proof as to the viability of such a plant.
- The availability of an adequate supply of agricultural products such as straw and woodchip within a 50km radius of the site is questioned. Research has indicated that all straw produced locally is utilised by stud farms, livestock farms and potato farms. Where the straw is used as bedding for horses or cattle, it is further utilised by mushroom growers, greenhouses and landspread.
- The site location is unsuited to the generation of electricity and hot water.
- Given the concern over the availability of an adequate fuel supply locally, the economic viability of the project must be questioned whilst the importation of straw from Poland, as suggested by the developer, must also be queried.
- If the event of permission being granted, there are concerns that fuels other than straw, woodchip or miscanthus may be introduced for combustion.
- There are serious environmental concerns associated with CHP plants and in other countries such proposals have been rejected
- Whilst a CHP plant has been permitted in Rhode, Co. Offaly, this has yet to proceed and it is also of relevance to note that there is a history of power generation in that area.

9.0 DEVELOPMENT PLAN

Kildare County Development Plan, 2005-2011:-

Land Use Zoning:

The proposed development site is located on unzoned greenfield lands situated between the towns of Naas and Newbridge, however, those lands to the immediate northeast of the site which form part of Tougher's Business Park are located within the Naas Environs and are zoned as '*NE1: Industry / Warehousing*'.

Other Relevant Sections / Policies:

Chapter 2: Economic Strategy:

ED10: To support the provision of adequate electricity supply to all the settlements within the county.

ED12: To support renewable energy initiatives

ED31: To develop and expand the 'Thoroughbred' brand identity of Kildare.

Chapter 3: Physical Infrastructure Strategy:

RP15: Outer Orbital Route - It is a policy of the Council to co-operate with the NRA and other local authorities to provide the outer orbital route Drogheda-Navan-Naas- Wicklow proposed in the 'Regional Planning Guidelines for the Greater Dublin Area (Draft December 2003)'.

GR2: To preserve free from development proposed road realignment/ improvement lines and associated corridors where such development would prejudice the implementation of the National Roads Authority or County Council plans.

Chapter 6: Rural Housing Strategy:

Section 6.7.6: Other Developments in the Rural Countryside:

OD1: Apart from housing development, there are other land uses which may be considered in the rural countryside. Where an area is not within an identifiable

settlement, and is not otherwise zoned as part of this development plan, or of any of the town development plans, the use of such land will be deemed to be primarily agricultural.

OD4: Agriculturally related industries which are environmentally sustainable are, in general, considered a suitable use, subject to the development of tourism, the protection of amenities (including rivers, lakes and canals), and the protection of the requirements of certain activities, such as those associated with the bloodstock industry.

Chapter 8: Energy Efficiency and Renewable Energy:

Section 8.2: Goal:

To support increased energy supply, energy efficiency and the development of renewable energy sources at optimum locations.

Section 8.4.1: General Policy Statement:

EN2: To support national and international initiatives for limiting emissions of greenhouse gases through energy efficiency and the development of renewable energy sources which makes use of the natural resources of the county in an environmentally acceptable manner, where it is consistent with the proper planning and sustainable development of the area.

Section 8.8.0 (D): Bioenergy

Section 8.8.1: Policy Statement:

BE1: To facilitate the development of projects that convert biomass to energy.

BE2: To locate biomass installations in areas that do not affect residential or visual amenity and which are served by public roads with sufficient capacity to absorb increased traffic flows.

Chapter 10: Agriculture and the Equine Industry:

Section 10.1.7: Policy Statement:

AG1: To support agricultural development and encourage the continuation of agriculture as a contributory means of maintaining population in the rural area.

AG2: To facilitate farm diversification and encourage the sustainable development of alternative rural enterprises and the conversion of redundant farm buildings of vernacular importance for appropriate owner-run enterprises, as a way of supporting a viable rural community subject to the proper planning and sustainable development of the area.

Section 10.2.2: Policy Statement:

EQ2: To encourage the expansion of the bloodstock industry by protecting the environment and amenity value of rural areas, from encroachment by urban sprawl and incompatible development.

Chapter 15: Development Control Standards:

Section 15.9: Industrial Development

10.0 EUROPEAN, NATIONAL AND REGIONAL POLICY:

10.1 European Union Policy:

Council Directive 2001/77/EC Promotion of Electricity from Renewable Energy Sources:

In 2001, the EU formally approved a new directive on renewable energy to promote renewable energy sources as a priority measure given that their exploitation contributes to environmental protection and in the interests of sustainable development and set out targets in relation to electricity produced from renewable energy sources in total Community electricity consumption by 2010.

Council Directive 2004/8/EC Promotion of Cogeneration based on a useful heat demand in the internal energy market:

The purpose of this directive is to increase energy efficiency and improve security of supply within the EU, by creating a framework for promotion and development of high-efficiency co-generation of heat and power based on useful heat demand and primary energy savings in the internal energy market.

Council Directive 2009/28/EC Promotion of the use of energy from renewable sources:

Directive 2009/28/EC requires each Member State to adopt a national renewable energy action plan and to submit these to the European Commission. These plans are to set out Member States' national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020, taking into account the effects of other policy measures relating to energy efficiency on final consumption of energy.

10.2 National and Regional Policy:

Sustainable Development: A Strategy for Ireland, 2007:

This document aims to provide a comprehensive analysis and framework to allow sustainable development to be taken forward more systematically in Ireland. Initiatives included in the strategy provided for the growth of installed electricity generating capacity from renewable sources to 14% by 2010.

The National Development Plan 2007- 2013:

This plan recognises that Ireland has significant renewable energy resources available but their large scale exploitation continues to require support and intervention by policy makers because of the investment costs and risks entailed. The plan sets out objectives to stimulate renewable energy production. Renewable energy measures will focus on achieving Government targets for renewable energy production and meeting policy goals with regard to competitiveness, environment, security of supply, R&D and the development of a sustainable All-Island energy market. The primary focus will be on the large-scale deployment of wind, the emerging potential and deployment of biomass and biofuels, preparatory action on ocean energy and deployment of other technologies such as solar and geothermal technologies. Deployment will be delivered through a range of supports including taxation, direct grant aid and other funding or support mechanisms.

Delivering a Sustainable Energy Future for Ireland: 2007 Government White Paper on the Energy Policy Framework 2007-2013:

This paper sets out the broad energy policy framework for the long-term development of the energy sector, including power generation. The White Paper recognises that energy policy must make a substantial contribution to reducing greenhouse gas emissions through energy efficiency improvements, changes in the fuel mix and the increased use of renewable energy.

Chapter 3.4.8 sets out a number of actions to achieve diversity of fuel use including 15% of electricity consumption from renewable sources by 2010 through REFIT scheme projects and encouraging biomass in power generation.

Section 3.10.10 states that the Government will seek to achieve at least 400MW from Combined Heat and Power by 2010 through continued support under the CHP Deployment Programme and R&D supports with particular emphasis on biomass fuelled CHP and will aim to achieve at least 800MW by 2020.

National Climate Change Strategy 2007- 2012:

This strategy draws together the Government's collective effort across all sectors to tackle climate change. Chapter 3 deals with energy supply. The government has set national targets above and beyond existing EU targets for 15% of electricity generated from renewable sources by 2010 and 33% by 2020. The government is acting to stimulate combined heat and power (CHP) with support under the CHP Deployment programme, which includes support for small scale CHP and large-scale biomass-fed CHP, and additional research and development supports. The Government's ambition for CHP is underpinned by a target to achieve an installed capacity of 400MW by 2010 and 800MW by 2020. The achievement of the 2010 target will reduce greenhouse gas emissions by 162,000 tonnes on average over the 2008-2012 period. This saving is attributed to the Industrial, Commercial and Services sector for the purposes of this Strategy.

National Renewable Energy Action Plan:

Ireland's National Renewable Energy Action Plan ('NREAP') is the submission required under Article 4 of Directive 2009/28/EC. Directive 2009/28/EC requires each Member State to adopt a national renewable energy action plan and submit these to the European Commission. These plans are to set out Member States' national targets for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020, taking into account the effects of other policy measures relating to energy efficiency on final consumption of energy. The plan sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC.

The 'Regional Planning Guidelines for the Greater Dublin Area, 2010-2022' aim to direct the future growth of the Greater Dublin Area over the medium to long term and work to implement the strategic planning framework as set out in the National Spatial Strategy (NSS) published in 2002. Chapter 6 sets out the key physical infrastructure needs for the GDA which are required to support the delivery of the settlement and economic strategies of the Guidelines and the key environmental and sustainability targets of the State. Section 6.6.5: *Renewable Energy* of the Guidelines emphasises that the provision of renewable energy within the GDA will continue to become an

increasingly central issue in terms of environmental concerns, economic viability and development, and employment creation in green technologies. It is anticipated that approximately 5,500MW of renewable generation will be required by 2020 to meet the government target of 40% total consumption from renewable energy. The strategic policy and recommendations of the Guidelines with regard to energy include:

PIR26 - Development Plans and Local Authorities support, through policies and plans, the targets for renewable generation so that renewable energy targets for 2020, and any further targets beyond 2020 which become applicable over the duration of the RPGs, are met.

PIR27 - That low carbon sustainable renewable energy systems, bio-energy and energy conservation potentials are exploited to their full potential through the advancement of EU and national policy at regional level and the promotion of existing and emerging green technologies.

11.0 ASSESSMENT

From my reading of the file, inspection of the site and assessment of the relevant local, regional and national policies, I conclude that the key issues raised by the appeal are as follows:

- The principle of the proposed development
- The siting of the proposed development
- The adequacy of the surrounding road network / traffic implications
- Implications as regards the future construction of the Leinster Orbital Route
- Visual impact / impact on the landscape
- Impact on the equine industry
- Impact on the amenities of the area
- The adequacy of the EIS
- Other issues

These are assessed as follows:

11.1 The Principle of the Proposed Development:

11.1.1 The proposed development consists of the construction of an 18 Megawatt straw and woodchip fired combined heat and power (CHP) plant which will generate electrical power and heat energy through the co-firing of straw and woodchip, supplemented, if necessary, with other suitable biomass materials such as miscanthus. The electrical power generated is to be exported to the National Grid as carbon-neutral electricity whilst it is anticipated that recovered heat energy will be used to generate hot water for export off site for use in nearby / adjacent industry. Whilst CHP technology is increasingly common in Ireland, to date it has primarily relied on the combustion of fossil fuels, however, it is widely accepted that the development of biomass fuelled CHP plants has a significant role to play in achieving Ireland's international, European and national commitments as regards the reduction of greenhouse gas emissions and the provision of energy from renewable sources. Accordingly, I am satisfied that the overall principle of the proposed development is acceptable.

11.1.2 However, I would emphasise that the subject application expressly relates to a straw and woodchip fired CHP plant only. Whilst concerns have been raised with regard to the adequacy of the fuel supply to the plant and the possibility that other materials such as municipal waste may be incinerated on site in the event of a shortfall in the supply of straw / woodchip, the applicant has expressly stated that the use of any other fuel type such as organic fuels would not be feasible owing to the fatal impact their use would have on the sensitive machinery involved. In this respect the applicant has indicated that it is amenable to a condition restricting the fuel types to those specified. Accordingly, I would reiterate that the subject proposal is being assessed as a straw and woodchip fired CHP plant and that its primary fuel (straw) would not appear to constitute a 'waste' product. Furthermore, and in the interests of clarity, if any other fuel sources other than those already indicated were to be disposed on site, such as municipal waste, it is my opinion that this would involve a material change in the use of the facility which would require planning permission and which would raise fundamentally different planning considerations in the context of the wider waste management strategy and Waste Management Plan for the region.

11.2 The Siting of the Proposed Development:

11.2.1 With regard to the suitability of the siting of the proposed development and the overall environmental sustainability of the project, it is necessary to consider a number of key factors, most notably, the site context as regards its land use zoning, its compatibility with surrounding land uses etc., the availability of an adequate and sustainable fuel supply, the availability of a grid connection and an end-user for the hot water / heat energy produced and also the adequacy of the surrounding transport network.

Land Use Zoning:

11.2.2 In its decision to refuse permission the Planning Authority has referred to the proposed development site as being located within a rural area on lands which are not zoned for industrial purposes and which are outside of the development boundary of any designated town or village. It has also referred to the need to ensure the orderly development of newly developing areas on the edges of towns and settlements by resisting urban sprawl, haphazard and piecemeal development, and that pursuant to Section 6.7.6 of the County Development Plan, unzoned lands outside of identified development boundaries are to be deemed primarily agricultural. Accordingly, the Planning Authority has concluded that the proposed development would materially contravene an objective in the Development Plan which states that the use solely or primarily of this area is for agricultural purposes whilst the proposal would also involve the introduction of an industrial type development into a rural area contrary to the provisions of the County Development Plan.

11.2.3 The proposed development site is located on unzoned lands outside of the development boundaries of both Naas and Newbridge, although those lands a short distance away to the northeast within the Naas Environs are zoned as '*NE1: Industry / Warehousing*'. In the first instance the question arises as to whether or not the proposed development would materially contravene Policy OD1 of the Development Plan which states that '*Where an area is not within an identifiable settlement, and is not otherwise zoned . . . the use of such land will be deemed to be primarily agricultural*'. In my opinion, this provision simply serves to distinguish between those lands which are specifically zoned for a particular purpose and those remaining

lands which are not zoned. In this respect I am inclined to suggest that this policy is not intended to be interpreted as meaning that all areas *'not within an identifiable settlement, and is [not] otherwise zoned as part of this development plan, or of any of the town development plans'* are to be deemed as being either zoned 'primarily agricultural' or are to be retained specifically for agricultural purposes. Such a policy would be unworkable and would simply serve to undermine the future development of rural areas. For example, the Plan clearly acknowledges that certain types of development such as one-off housing are permissible in the open countryside. It is also of relevance to note that the policy themes of *'Consolidation'* and *'Strengthening'* etc. which are to be applied to various rural settlements identified in the Plan are specifically stated as not to be interpreted as 'zoning' lands. If lands in rural areas were to be deemed as 'zoned' for agricultural purposes the case could be made that any development within these areas which was not of an agricultural nature (such as the provision of housing or services within a rural village) would constitute a material contravention of the Plan. I cannot accept that this is the intention of the Policy OD1.

11.2.4 In my opinion, the purpose of Policy OD1 is primarily to distinguish between zoned and unzoned lands and thus the question arises as to whether or not the proposed development is appropriate to these unzoned lands. Policy OD4 states that agriculturally related industries which are environmentally sustainable are, in general, a suitable use in the rural countryside, subject to the development of tourism, the protection of amenities (including rivers, lakes and canals), and the protection of the requirements of certain activities, such as those associated with the bloodstock industry. Accordingly, the applicant has submitted that the proposed CHP plant accords with the provisions of Policy OD4 of the County Development Plan in that it comprises an agriculturally 'related' industry which is reliant on the production of wheat as its primary fuel source with secondary fuel sources also to be sourced from farmers. In this respect the applicant has also sought to draw a comparison between the subject application and a proposal for an 'agricultural bio-park' assessed by the Board under ABP Ref. No. PL09. 233725 which comprised an anaerobic digester, a rape seed processing plant and a fuel pellet manufacturing facility.

11.2.5 Whilst I would acknowledge the merits of the case made by the applicant as regards the reliance of the proposed development on the agricultural sector for the production of its fuel supply, in my opinion, given the nature of the proposed development (i.e. power generation) and its locational requirements, including the need to site in close proximity to an end-user for the heat energy produced, the wider case for the siting of such a facility in the open countryside is not clear cut. However, it is of relevance to note that the proposed development is located in close proximity to zoned lands and the necessary infrastructure in addition to potential power consumers. Whilst it would be preferable if the proposed development were to be sited on industrially zoned lands, in the context of the subject site I am inclined to suggest that the proposal should be considered on its merits having regard to the wider strategic objectives of the Development Plan with regard to energy efficiency and the development of renewable energy with particular reference to Policy Statements EN2, BE1 and BE2. However, I would draw the Board's attention to the Draft Kildare County Development Plan, 2011-2017 which proposes to extend the existing Business Park southwards, as opposed to westwards to incorporate the subject site, by zoning adjacent lands as *'Industry / Warehousing'*.

Impact on Surrounding Land Uses:

11.2.6 Although the proposed development site is located on greenfield lands outside of any designated development boundary it does adjoin an existing industrial / business park which would appear to be a use compatible with proposed development particularly in the context that hot water / heat energy to be exported from the proposed plant may be utilised by existing / prospective industries within the business park.

11.2.7 The remainder of the lands adjoining the application site are in agricultural use with the exception of those to the immediate north which appear to be used as an informal playing pitch. In my opinion, the proposed development would not prove incompatible with these land uses.

11.2.8 With regard to wider the impact of the proposed development on surrounding land uses including the equine industry and nearby housing etc. I propose to address these issues elsewhere in this report.

Proximity to / Availability of Fuel Supply:

11.2.9 With regard to the availability of the required fuel supply it should be noted that the proposed CHP plant will be fuelled by approximately 100,000-115,000 tonnes of straw at 15-30% moisture content, although in the event of a restricted straw supply it has been submitted that this can be supplemented with woodchip (arising from forestry thinnings and harvesting residues) at a moisture content of up to 50%. However, it is of relevance to note that the plant is only designed to use woodchip in the event of a straw shortage, perhaps one year in five, when 34,000 tonnes of woodchip would be the maximum the plant could accept in a year. The applicant has also indicated that the plant could also accept renewable energy crops such as willow and miscanthus, apparently as a back-up fuel, although it is unclear as to what proportion of the total fuel intake these alternative fuel sources would form.

11.2.10 Various concerns have been raised by interested parties as regards the availability of an adequate supply of straw, and to a lesser extent woodchip, to fuel the proposed plant. In the initial application the applicant submitted that there were significant quantities of straw and woodchip available in Co. Kildare and in the neighbouring counties of Meath and Dublin. It was claimed that when combined these counties produced in excess of 317,000 tonnes of straw per annum and that the power plant's requirements would equate to one third of this production or the equivalent of 18,000 hectares of straw. It was further claimed that at least 50% of total straw production nationwide was ploughed back into the ground as it retained a residual fertiliser value and as there was little demand for it as a product given the increasing use of slatted houses to winter cattle and the decline in the mushroom industry. The applicant also indicated that significant volumes of straw were available in Counties Kildare, Wicklow, Kilkenny, Louth, Laois, Meath, Westmeath, Offaly, Carlow, Wexford, Tipperary and Dublin (over 986,000 tonnes) and that woodchip would be plentiful in the same area. The required 100,000-115,000 tonnes of straw would also apparently equate to 8.5% of the national straw crop or 11% of the crop from Co. Kildare and neighbouring counties.

11.2.11 The availability of an adequate supply straw to fuel the plant has been questioned by several of the appellants and observers who claim that there is no obvious surplus of straw or woodchip within a 50km radius of the proposed development and that straw produced locally is utilised as bedding in the bloodstock and livestock industries with the subsequent spoilt straw used in the mushroom, greenhouse, horticulture and floriculture sectors in addition to being landspread. At this point it is of relevance to note that the Planning Authority on Page 11 of the Planner's Report also appears to have held reservations as regards the adequacy of the straw supply although it acknowledges that this matter could be investigated by way of a request for further information.

11.2.12 In the applicants grounds of appeal it has been reiterated that the plants requirements equate to 8.5% of the national crop or 11% of the output produced by Counties Carlow, Dublin, Kildare, Kilkenny, Laois, Longford, Louth, Meath, Offaly, Westmeath, Wexford and Wicklow. These figures have apparently been derived from the available CSO data regarding annual straw production in Ireland between 2000 and 2007 and the applicants calculations are set out in Section 9.8 of the first party grounds of the appeal.

11.2.13 Having considered the submitted information, on the basis of the applicants own figures as derived from CSO data, and in the absence of any definitive data to the contrary supplied by the appellants, it would appear that there would be an adequate supply of straw available to fuel the proposed CHP plant, however, I would advise the Board of a number of caveats in arriving at such a conclusion. In the first instance, any supply of straw will be dependent on cereal crop production which inevitably fluctuates on an annual basis for a variety of reasons including grain prices and crop rotation. Secondly, there is no guarantee that farmers will opt to supply their straw to the proposed plant as opposed to using it for more traditional purposes such as animal bedding. Thirdly, it is of relevance to note that the applicant has indicated that the economically feasible supply catchment of the proposed plant will be up to 50km and thus the transportation of straw supplies from outside of same, which would include significant areas of those counties described as 'neighbouring' by the applicant and identified as potential fuel sources, would not appear to be viable.

11.2.14 In an effort to address some of the foregoing uncertainties the applicant has detailed a number of measures as part of a straw supply strategy. Firstly, it is proposed to develop a series of 10 No. straw storage sites throughout the plants 50km catchment area which will each have its own catchment area radius of 10km. Although these storage sites will be developed separately from the CHP Plant the intention is that they will ensure a continuous supply (and reserve) of straw to fuel the plant over the course of the year and outside of the harvest season. In effect straw supplies will be stockpiled at harvest time at those locations identified in Appendix 13 of the EIS. Each storage site will have the capacity to store c. 17,000 tonnes of straw (15,840 tonnes as per the typical layout of a straw bale storage centre detailed in Appendix 13) which would equate to a total annual supply of c. 170,000 tonnes (a surplus reserve capacity of c.33% of the plants annual fuel intake). In addition, it is proposed to contract farmers to supply 50% of their straw, including an advance payment, and to put in place sufficient logistics to bale the straw immediately post-harvest and to transport it to the storage sites. It is anticipated that the price offered for the straw, based on a five year rolling average figure contracted before sowing for

50% of a cereal grower's production, will be sufficiently attractive to deliver a significant new source of stable revenue to the farmer whilst the supply of ash as fertiliser to the farmer may act as a further incentive to engage in the supply of straw to the plant.

11.2.15 On the basis of the figures provided, including those contained in Appendix 13 of the EIS, and the applicants supply strategy, I am inclined to accept that in terms of the availability of an adequate straw supply that the location of the proposed plant within a wider cereal production area is acceptable. Similarly, it would appear that a reasonable case has been made as regards the adequacy of the available straw supply.

Availability of a Grid Connection:

11.2.16 The proposed development necessitates access to the national grid capable of accepting 18MW export instantaneous load and the applicant has indicated that a connection to the grid can be achieved either through the existing 38kV connection within the adjacent Business Park, which would necessitate the construction of a new substation, or alternatively, via the existing 110kV connection located approximately 3km away adjacent to the Pfizer pharmaceutical plant in Newbridge. It has also been submitted that it is current ESBN policy to preferentially connect any new exporting generator above 10MW at a 110kV node. In this respect given the distance to a possible 110kV grid connection, the subject site apparently represents the least cost solution when compared to the alternative sites investigated by the applicant as per the EIS.

11.2.17 Given the scale and nature of the proposed development it is clearly desirable from a locational perspective to site the proposal where it can avail of ready access to the national grid. Having regard to the circumstances prevailing in the vicinity of the application site I am satisfied that these provide a further reasoned rationale for the selection of the subject site for the proposed development.

Proximity to End-User for the Hot Water / Heat Energy:

11.2.18 The issue of the efficiency of the proposed CHP plant and its overall feasibility has been raised by a number of parties and in this respect it is necessary to consider the intended end-user for the proposed heat energy / hot water produced. The applicant has detailed that the electrical efficiency of the plant is 34% meaning that 34% of the energy in the straw is transformed into electricity, however, the thermal efficiency of the plant is stated as 91% provided uses can be found for the heat energy produced. The proposed development incorporates a system of water condensers, which act as heat exchangers, whereby the heat energy produced from the combustion process is passed into an external hot water system for export off site. The applicant has highlighted certain legal and administrative difficulties with regard to providing district heating for residential development in Ireland, however, it has been submitted that discussions have been held with a number of prospective consumers for the hot water to be produced by the plant. Reference has been made to exploratory discussions having been held with an adjacent pharmaceutical plant and the operators of a potential cold store and also a pharmaceutical cold store in the Tougher Business Park. Whilst I would acknowledge the concerns of interested third parties that such discussions appear to be of a preliminary nature only and are not binding, it is nevertheless of relevance to note that interest has been expressed as regards the exportation of hot water from the plant. Given the sites location relative to the urban

centres of Naas and Newbridge, in addition to its proximity to potential end-users within the adjacent Business Park and beyond, in my opinion, a reasonable case has been made as regards the overall suitability of the subject site for a development of the nature proposed.

Road Infrastructure:

11.2.19 The availability of suitable road infrastructure to accommodate the delivery of fuel to the proposed plant has been identified as a key factor in determining the selection of the subject site. In this respect the importance of the sites location relative to the motorway network has been emphasized as has its location adjacent to the existing road network serving the Tougher Business Park.

11.2.20 It is proposed to transport fuel (straw) to the plant from a series of 10 No. straw storage facilities to be located within a c.50km catchment of the subject site. Although the specific locations of these individual sites have not been identified Appendix 13 of the EIS does detail a series of indicative locations within towns such as Ashbourne, Kilcock, Athy, Ballintore and Abbeyleix. The purpose of these 'centralised' storage facilities is to ensure a continual stockpile of stored straw throughout the year to serve the proposed plant. A further benefit of such an approach would be to reduce overall traffic movements to and from the CHP plant as instead of individual farmers making deliveries of straw (of varying or limited size) to the plant, it is anticipated that the straw will be supplied to the plant by a Special Purpose Vehicle Company i.e. it would seem to be the applicants intention to use a dedicated system of direct haulage to transport set quantities of straw to the plant. Such a system would ensure that straw is supplied to the plant at a regular rate and would minimise the distances travelled and the number of slow-moving vehicles on the surrounding road network. It would appear to be the applicants intention to site the proposed straw storage facilities in the immediate vicinity of key transportation routes / nodes including regional and national roads and the motorway network thereby reducing the need to transport straw along minor roadways. In principle this would seem to be an acceptable strategy.

11.2.21 The plant itself will be accessed through the existing Tougher Business Park via an existing roundabout on the R445 dual carriageway. From this road access is available to the M7 motorway via Junction 10. The existing roundabout already provides access to several industrial / commercial premises located within the Business Park many of which would appear to be frequented by larger articulated vehicles. Having regard to the foregoing, in my opinion, the nature of the surrounding road infrastructure with its immediate access to the motorway and the national road network would seem to support the locating of a development of the type proposed at this location.

11.3 The Adequacy of the Surrounding Road Network / Traffic Implications:

11.3.1 Concerns have been expressed in respect of the adequacy of the surrounding road network to accommodate the additional traffic volumes consequent on the proposed development. In this respect it should be noted that the proposed development site will be accessed via the existing road network serving the Tougher Business Park which extends from a roundabout on the R445 Regional Road dual carriageway with delivery vehicles to the site to be routed via Junction 10 on the M7

Motorway (*N.B.* Whilst an alternative route is available via Junction 12 off the M7 this would necessitate traffic travelling through Newbridge Town).

11.3.2 In terms of overall traffic generation the principle contributor to same will be the delivery of fuel (primarily straw) to the site from the various centralised straw storage facilities located within the 50km catchment of the plant, although additional traffic movements to and from the site will arise from the 6-9 No. staff to be employed at the facility in addition to visitors to the plant and any necessary maintenance works. The removal of ash from the plant will also generate traffic movements, although it is anticipated that this will only equate to approximately 1 No. load per week which could be hauled on the return trip to the straw storage facilities.

11.3.3 Whilst the grounds of appeal state that the proposed development will necessitate 7-8 No. HGV deliveries of fuel per day, this would conflict with the information provided in the EIS which estimates that the plant will be required to be supplied with fuel at a rate of approximately 15 No. truck deliveries per day, 6 days a week, between 0800 and 1800 hours, with each delivery truck carrying 48 No. bales or 26.4 tonnes of straw per trip. Whilst the submission of this conflicting data is regrettable I would advise the Board that on the basis of the proposed plant having a total capacity of 100,000-115,000 tonnes that this would equate to c.15 No. deliveries of 48 No. bales per day over a 6-day working week with allowances made for routine maintenance and plant shutdown. Accordingly, assuming there is a combined total of 30 No. HGV movements to and from the site per day in addition c. 20 No. movements arising from light vehicles movements associated with plant personnel etc. I would estimate that the proposed development will generate in the region of approximately 50 No. additional traffic movements to and from the site per day on the surrounding road network.

11.3.4 From a review of the submitted information it would appear that the principle issue raised by both the National Roads Design Office and the Transportation Dept. of the Local Authority relates to the potential impact of the additional traffic generated by the proposed development on the Newhall Interchange at Junction 10 Naas South off the M7, particularly at peak hours when this junction experiences serious congestion. In this respect whilst the NRDO does acknowledge that the traffic volumes associated with the proposal are unlikely to be significant when compared to existing traffic levels at the Newhall Interchange it does raise concerns that this additional traffic will nevertheless contribute to the difficulties experienced during peak periods. Notably, the Transportation Dept. goes further to suggest that Junction 10 Naas South may not have sufficient reserve capacity to cater for the proposed development. Concerns have also been raised with regard to the adequacy of the existing roundabout serving the Business Park to accommodate the additional HGV traffic consequent on the proposed development in addition to the failure of the applicant to submit a Traffic Impact Assessment of the proposal.

11.3.5 In an effort to mitigate these concerns the applicant has submitted that an alternative haul route via Junction 12 off the M7 could be used at peak times during the day whilst deliveries to the site could also be restricted to outside of peak hours i.e. 10:00-16:00 five days a week and during 08:00-16:00 on Saturdays.

11.3.6 Whilst I would accept that the submission of a Traffic Impact Assessment would have been beneficial in assessing the subject proposal, I am inclined to suggest that given the limited traffic volumes expected to be generated by the proposed development, the distribution of this traffic over the working day, and the nature of the surrounding road network serving the proposed site, with particular reference to the M7 Motorway, the R445 dual carriageway and the existing roundabout at the entrance to Tougher Business Park which already accommodates a significant volume of HGV traffic, that there is sufficient capacity within the surrounding road network to accommodate the proposed development without detrimentally impacting on road safety or unacceptably contributing to traffic congestion.

11.3.7 In the event that the Board continues to have reservations as regards the traffic impact of the proposal it may wish to give consideration to the applicants submission to restrict delivery times to the plant or to request a comprehensive Traffic Impact Assessment of the proposal.

11.4 Implications as Regards the Future Construction of the Leinster Orbital Route:

11.4.1 Policy RP15 of the Kildare County Development Plan, 2005 states that it is the policy of the Council to co-operate with the NRA and other local authorities in respect of the provision of the outer orbital route Drogheda-Navan-Naas-Wicklow as proposed in the Regional Planning Guidelines for the Greater Dublin Area (Draft December, 2003). Furthermore, pursuant to Policy Statement GR2, it is the policy of the Council *'to preserve free from development proposed road realignment/improvement lines and associated corridors where such development would prejudice the implementation of the National Roads Authority or County Council plans'*.

11.4.2 In 2007 the National Roads Authority published its final report on the 'Leinster Orbital Route Feasibility Study' which concluded the following:

- The route is strategically beneficial for the region in terms of strengthening the links between key development centres, assisting the economic development of these centres and improving the overall regional transport network;
- The route is economically viable. The work done to date indicates that the benefits of the project are significantly greater than the project costs; and
- The route is technically feasible. While there are numerous constraints throughout the corridor area and adjacent to the corridor, it has been identified that a proper and satisfactory alignment can be developed to deliver the project. In addition, while there are environmental challenges to be addressed there are no environmental issues that would rule out this alignment at this stage of the process

11.4.3 This study proceeded to identify a series of potential route corridors for the LOR and in this respect I would refer the Board to 'Map R3a Rev. A' of the study which indicates that the proposed development site will be located within 'Variant 1' of the route corridor for that section of the LOR which will extend between Enfield and Naas. On the basis of the foregoing, the Planning Authority opted to refuse permission for the proposed development on the grounds that it would be located within the route corridor of the Leinster Orbital Route Feasibility Study and as it would represent an extension of the existing industrial estate westwards towards

Newbridge which could potentially restrict the available route options within the LOR corridor. The development was thus deemed premature pending the determination of the route of the LOR.

11.4.4 In the grounds of appeal whilst the applicant has acknowledged that the subject site is located within an identified corridor for the LOR it has referred the Board to the NRA's Road Programme Status, 2010 which states that the LOR project has been 'suspended'. In addition, it has questioned whether there is any funding in place to facilitate the scheme and whether it presently retains Government support. The applicant has also noted that there is no provision for the LOR in Transport 21 and that its construction has not been included in any of the relevant Section 48 Development Contribution Schemes.

11.4.5 In addition to querying the current status of the LOR scheme the applicant has submitted that although the LOR corridor incorporates a significant area of land only a small proportion of this will actually be required to facilitate the construction of the road. Furthermore, it has been submitted that numerous grants of planning permission have already been issued within the identified LOR corridor. Finally, the case has been put forward that as a significant portion of the identified LOR corridor which passes between Naas and Newbridge is shown as running through the existing Tougher Business Park that this route is not actually a viable option whilst the subject site will only extend marginally beyond those lands to be zoned as *'Industry / Warehousing'* in the Draft County Development Plan, 2011-2017. The Board is requested to adopt a practical attitude in considering the subject proposal in light of the suspended status of the LOR and the uncertainty regarding its future provision, whilst if the corridor between Naas and Newbridge is selected, the only viable option will be to provide the LOR within the corridor to the north of the existing Business Park.

11.4.6 Having regard to the foregoing, whilst I would concede that the NRA Road Status Programme, 2010 states that the Leinster Orbital Route Project has been suspended, it is of relevance to note that although the project would seem to have been deferred the development of the route remains a strategic objective of both the County Development Plan and the Regional Planning Guidelines. Section 6.3.2 of the recently adopted *'Regional Planning Guidelines for the Greater Dublin Area, 2010-2022'* states that the Leinster Outer Orbital Route was initially identified in the 1999 Strategic Planning Guidelines for the GDA before being included in the 2004 RPGs and that it is one of only two major new regional scale road projects under consideration by the Department of Transport in the Greater Dublin Area. The Guidelines refer to the Feasibility Study undertaken by the NRA and state that the associated corridor study *'should inform future decisions for the relevant Development and Local Area or Master Plans and development management purposes'*. Furthermore, the Guidelines state that the National Transport Authority is to examine the corridor as part of the new Strategy – Vision 2030 and that until this process is completed and decisions made in relation to planned transport investment for the GDA it is important to protect this corridor so as to ensure that future options remain viable. The current Kildare County Development Plan, 2005 already includes reference to the development of the LOR and the need to reserve road corridors, however, the Draft Development Plan, 2011 also includes an objective (RP15) which pertains to same and states the following:

'To cooperate with the NRA and other local authorities to provide the Leinster Orbital Route (linking Drogheda, Navan, Trim and Naas) proposed in the 'Regional Planning Guidelines for the Greater Dublin Area' and once a route corridor has been identified to preserve this corridor from development'.

11.4.7 Whilst I would accept that there is a degree of uncertainty as regards the timetable for the delivery of the Leinster Outer Orbital Route and its final route selection, in my opinion, given the strategic importance of this route to the wider region and the need to ensure that potential route selection options remain viable into the future, I am inclined to conclude that the proposed development is premature pending a determination by the planning authority or the road authority of a final road layout for the Leinster Outer Orbital Route.

11.5 Visual Impact / Impact on the Landscape:

11.5.1 The proposed development site would appear to be located within the Northern Lowlands as identified by the Landscape Character Assessment of the County Development Plan. These areas are typically characterised by a flat terrain and low vegetation with relatively high levels of local population and intensive land management. Whilst this landscape is typically of a lower sensitivity than other landscape designations due to its topography and the low-lying nature of its vegetation it can allow long-distance views and extensive visibility with the effect that development can have a disproportionate visual impact due to an inherent inability to be visually absorbed.

11.5.2 The proposed development occupies a greenfield site in an area which could be categorised as 'rural' and given the prevailing topography of the area and the generally open nature of the landscape it is inevitable that a development of the scale proposed, which incorporates a series of substantial industrial-type buildings in addition to a chimney stack extending to some 36m in height, will impact to some degree on the local landscape. Accordingly, it is necessary to assess whether or not the impact of the proposal on the visual amenities of the surrounding area is such as to warrant a refusal of permission.

11.5.3 The proposed development consists of the construction of a series of industrial-type structures on a level site located outside of the confines of any urban area, although it adjoins the Naas Environs which includes a substantial business / industrial park development to the northeast characterised by a variety of large industrial / commercial buildings. Along its eastern boundary it is screened by a mature tree stand with the southern and western boundaries defined by lower and less dense planting comprising hedgerows and semi-mature trees. The remaining northern site boundary is simply defined by a post and wire fence with no effective screening.

11.5.4 In its decision to refuse permission the Planning Authority has formed the opinion that given the size, scale and height of the proposed development it would have a dominant and adverse visual impact on the surrounding local rural environment. In response the applicant has submitted that the subject site is not located in area which is identified as being visually sensitive and that the proposal will not interfere with any views etc. listed for preservation. In addition, reference has been made to the need to consider the site context including its setback from the

public road, the presence of large industrial buildings on adjoining lands, and the low-lying nature of the lands whereby the development will be largely obscured by existing buildings and trees.

11.5.5 Having reviewed the submitted information and conducted a site inspection, in my opinion, whilst the proposed development will be visible to a varying degree from vantage points within the surrounding area, including views taken from alongside the R445 and the minor local road to the south, the wider visual impact of the proposal must be taken in context. In the first instance, the subject site is located within the Northern Lowlands landscape character area which is considered to have a low landscape sensitivity. The area is typical of a gently undulating rural landscape and is characterised by a generally flat terrain and low levels of vegetation with relatively high levels of local population and intensive land management. Similarly, the site is not located alongside any views, prospects or scenic routes which have been listed for preservation in the Development Plan. Secondly, the proposed development will be set back a significant distance from the public road and will be partially screened by intervening features such as trees, hedgerows and other buildings. Furthermore, when taken in conjunction with the existing industrial / warehouse type structures within the adjacent Business Park the proposed development will appear as an extension of same. In this respect it should be noted that the existing business park already has a localised visual impact and thus the visual impact of the proposed CHP plant must be considered in this context.

11.5.6 On the basis of the foregoing, whilst I would acknowledge the substantial height and scale of the development proposed, given the site context, in my opinion, the visual impact of the proposal would be within acceptable parameters.

11.6 Impact on the Equine Industry:

11.6.1 Considerable concern has been raised by a number of parties with regard to the potential impact of the proposed development on the surrounding equine industry and, to a lesser extent, its impact on the livestock / agricultural sector. These concerns primarily relate to the impact of air-borne emissions and particulate matter on the respiratory systems of thoroughbred bloodstock. In addition, concerns have been raised as regards the possible health implications for bloodstock and livestock arising from the consumption and digestion of any particulate matter emanating from the plant which may be deposited on surrounding grazing lands thereby entering the foodchain. The case has also been made that in light of the national and international importance afforded to the equine / bloodstock industry in Co. Kildare that even the perception of any risk to the health of thoroughbred animals could fundamentally impact on the viability of the wider industry in the area. In this respect, specific reference is made to the implications of the Board's decision made in respect of ABP Ref. No. PL23. 225138 which refused permission for the development of a biogas and biodiesel production facility at Castleblake, Rosegreen, Co. Tipperary, for the following reason:

'The site of the proposed development is located in open countryside in an area of national importance for the bloodstock industry alongside a major horse training establishment. It is the policy of the planning authority, as set out in the current South Tipperary Development Plan, to support the equine industry. It is also the policy of the Government to support the equine sector. It is considered

that the proposed development of this large scale industrial type facility at this location, employing the particular technology on the scale proposed, having regard to its nature, scale and visual impact, would be incompatible with equine related activities in the vicinity and would be prejudicial to the viability of the equine industry in this area (including undermining confidence therein). Notwithstanding the desirability of providing such facilities, it is considered that the proposed development would seriously injure the amenities of the area and property in the vicinity, would be incompatible with the surrounding land uses, and would, therefore, be contrary to the said Development Plan objectives and to national policy and to the proper planning and sustainable development of the area’.

11.6.2 In the first instance, I am not of the opinion that the proposed development and the facility proposed at Rosegreen are directly comparable. The facility proposed at Rosegreen was specifically designed as a biogas and biodiesel production plant which employed different technology to the subject proposal, including an anaerobic digester, and which was intended to process up to 250,000 tonnes per annum of Category 1 and Category 3 animal by-products (as defined under the European Communities Regulations 1774/2002), meat and bone meal (MBM) and other organic biomass materials. In addition, the biodiesel facility was to have employed an esterification process to generate 50,000 tonnes of biodiesel per annum from tallow rendered on site, together with additional imported tallow or vegetable oils etc. Conversely, the subject proposal comprises a straw and woodchip fired CHP plant which proposes to generate 18MW of carbon-neutral electricity from c.100,000-115,000 tonnes of fuel. Secondly, there are significant differences between the two site locations. Whereas the Rosegreen site was located in a primarily rural area in close proximity to a major horse-training establishment (Ballydoyle), the subject site is situated between the major urban centres of Naas and Newbridge adjacent to an existing business park and in close proximity to key transportation corridors including the M7 Motorway, although I would concede that there are a considerable number of equine / bloodstock facilities in the wider area including stables, training facilities, stud farms, bloodstock sales and racecourses.

11.6.3 Chapter 10 of the Kildare County Development Plan, 2005 acknowledges the importance of the equine industry to the county and seeks to continue to support and encourage the development of a vibrant bloodstock industry, which plays a major role in the rural economy. Of particular relevance is Policy Statement EQ 2 which seeks *‘To encourage the expansion of the bloodstock industry by protecting the environment and amenity value of rural areas, from encroachment by urban sprawl and incompatible development’*. Accordingly, it is necessary to consider the impact, if any, of the proposed development on the bloodstock industry in the area with particular reference to animal health.

11.6.4 With regard to the control of emissions the applicant appears to have assumed that the proposed plant will require, by necessity, an Integrated Pollution Prevention Control licence which will regulate all aspects of any potential air, water, waste and noise emissions. Whilst initial correspondence received from the EPA has indicated that the proposed activities would require an IPPC licence later correspondence is less committal in that it states that if the development has a thermal input of equal to or greater than 50MW, then the activity will be licensable under the Environmental

Protection Agency Acts, 1992-2007. Notably, the Planner's Report has noted that Page 228 of the EIS (appendices) states the plant will combust fuel to produce 50MW of thermal energy which will be used to raise a head of steam of 46.3MW to produce 18MW of electricity. In addition, the report refers to discussions with the EPA Licensing Division wherein the Planning Authority was apparently advised that, regardless of the final actual output of thermal energy, the proposed facility would require a licence on the basis of its maximum output (i.e. 50MW).

11.6.5 Although no application has been lodged to date with the EPA for an IPPC licence, given that such a licence would appear to be a requirement for the operation of the proposed facility, I am conscious that the control of any emissions from the proposed plant would be a matter for the EPA.

11.6.6 In my opinion, there appears to be some cause for concern as to whether or not the proposed development would require an IPPC licence, although I would refer the Board to Section 2.5.3 of the EIS which states that in terms of atmospheric emissions modelling has concluded that the development will have no significant environmental impact provided the emission limit values for the waste gases are achieved. Similarly, Section 6.4.3 of the EIS states that air dispersal modelling has concluded that the operation of the plant will not result in any significant impact on air quality in the surrounding area, with all ground level concentrations of pollutants to remain well within their respective level limit values. With regard to dust emissions arising from the transportation and handling of straw it has been submitted that this will be minimised through the use of special purpose vehicles so as to obviate any straw fragments falling off and creating nuisance along the haul route, the use of a separate building for straw storage and unloading, and as the entire plant will be operated under negative air pressure with all interior dust to be blown through the furnace.

11.6.7 Having regard to the foregoing, I would refer the Board to Appendix 12 of the EIS which comprises a '*Veterinary analysis of the hazards and risk management of the proposed development relating to animal health, especially horses*' prepared by Mr. Kevin Dodd, Consultant Veterinary Surgeon. This report acknowledges that many airborne pollutants have been identified as harmful to the respiratory system whilst dust particles can prove to be allergenic, irritant or infectious for horses if they exceed a certain threshold of concentration, however, it is submitted that the project will not be detrimental to animal health in the area provided adequate precautions are taken in terms of risk management, the technology functions as specified and provided there is strict verifiable compliance with conditions i.e. licensing and compliance with emission limit values.

11.6.8 Whilst I would acknowledge that there are conflicting debates as regards the impact of emissions from facilities such as incinerators on equine health, I am inclined to conclude that, on balance, the proposed development, subject to adherence to IPPC licensing conditions in relation to emissions (or specified emission limit values etc. imposed by the Board in the event of an IPPC licence not being required) would not have a demonstrable negative impact on animal health in the surrounding area.

11.6.9 With regard to the perception of risk to the equine / bloodstock industry this is a more difficult factor to quantify, however, given the specific nature of the

development proposed (a straw and woodchip fired CHP plant), its siting adjacent to an existing industrial / business park, its location relative to equine facilities in the wider area and the imposition of suitable mechanisms as regards the control of emissions, I am inclined to suggest that the proposal does not pose an unacceptable risk to the bloodstock / equine industry in the area.

11.7 Impact on the Amenities of the Area:

Noise:

11.7.1 Appendix 9 of the EIS considers the impact of noise levels arising as a result of the proposed development and identifies 4 No. noise sensitive locations in the vicinity of the site. The R445 Regional Road runs in a southwest-northeast direction to the north of the site and the nearest NSLs sited along this road are situated along a curved section of the roadway which has been bypassed. There are approximately 18 No. dwellings at this location (NSL1) which are situated in excess of 1,000m from the subject site whilst a nursing home (NSL2) located opposite same is situated c. 970m from the site boundary. Having visited these areas I am inclined to concur with the conclusions of the applicant that the existing noise environment in the vicinity of these NSLs is dominated by traffic travelling along the R445.

11.7.2 The second set of NSLs is located alongside the third class road which runs parallel to the R445 to the south of the site. In this respect NSL3 comprises a private dwelling house located approximately 190m southeast of the site boundary whilst NSL4 comprises a cluster of 3 No. dwellings located c.270m south of the proposed plant. All other receptors along this roadway are in excess of 500m from the application site. The noise environment this area is primarily influenced by traffic travelling along the local road and traffic noise audible from both the R445 and the M7 to the south although this varies depending on weather conditions.

11.7.3 In order to quantify the existing noise environment along both roads, baseline noise monitoring was undertaken at two locations (N1 and N2) being representative of the two sets of NSLs along the respective roadways. The results of this monitoring have indicated that Station No. N2, which was positioned alongside the R445, experienced more elevated noise levels (up to 52 dB_{LAF90 1 hour}) due to its proximity to the regional road whereas noise levels at Station No. N1 along the minor road were recorded as peaking at 47 dB_{LAF90 1 hour}).

11.7.4 Having established the baseline noise environment at the nearby NSLs the applicant then proceeded to identify the various noise sources associated with the proposed development. It was stated that these would include the transportation of straw / woodchip to the site and the unloading of same in addition to the actual operation of the plant itself (including the scarifier, burner, turbine, generator and condensing plant). Further noise was expected to arise from the removal of waste ash from the site and personnel movements to / from the site.

11.7.5 With regard to noise levels associated with truck / traffic movements to and from the site the applicant is of the opinion that the impact of same on the surrounding area will be negligible in the context of the receiving noise environment which is already dominated by road traffic noise. In determining the impact of noise levels arising from the fixed plant associated with the operation of the facility I would refer the Board to Appendix 6 of the Noise Impact Assessment (as set out in Appendix 9 of

the EIS) which states that whilst details of noise emissions arising from specific plant are not yet available a worst case emissions target of 80dB (measured internally within the building) has been adopted. It is anticipated that this is likely to be an overestimate and the Board is also advised to note that all external doors on the main building complex, including roller shutter doors, are to remain closed during normal operations in order to maintain a negative internal air pressure.

11.7.6 On the basis of the foregoing, it has been predicted that the evening and night-time operation of the proposed facility will not result in any increase in ambient noise levels, although it is acknowledged that during daytime hours there may be an increase in noise levels experienced at those dwellings located along the minor county road to the south / southeast due to the additional truck movements. With regard to the latter the applicant has submitted that this increase in noise levels will only be audible when background noise levels fall to their lowest whereas recording of background data indicates that these levels are generally raised. In addition, it should be noted that truck movements will generally be restricted to the north-western side of the site and that the submitted noise predictions take no account of any screening offered by buildings on site. It is also of relevance to note that the dominant noise feature in the surrounding environment is that of road traffic and thus the additional truck emissions will not pose a significant feature. Accordingly, on the basis of the applicants own calculations, it would appear that the noise levels expected to arise as a result of the proposed development would be within satisfactory limits and that any impact on off-site receptors or NSLs would be negligible.

11.7.7 Having reviewed the submitted information, and in the absence of any evidence to the contrary, I am inclined to accept the applicants calculations as regards the predicted noise impact of the proposed development. In this respect I would draw the Board's attention to Table 2 of the Noise Impact Assessment which indicates that the predicted noise levels will remain unchanged or will be within the generally accepted limit of 55dB (daytime) when measured at any noise sensitive receptor. Accordingly, I am satisfied that the proposed development will not significantly impact on the ambient noise environment nor will it detrimentally impact on the amenities of those properties in the surrounding area by reason of increased noise. In any event I would advise the Board that should the facility require an IPPC licence matters pertaining to noise emissions and the regulation of same would be considered by the EPA

Air Emissions / Odours:

11.7.8 With regard to air emissions / odours I would refer the Board to the dispersion modelling of emissions from the proposed CHP plant as contained in Appendix 10 of the EIS. This modelling purportedly confirms that provided the applicable emission limit values in the waste gases are achieved that the proposed development will not result in any significant impact on air quality in the surrounding area with all ground level concentrations of pollutants falling well within their respective ground level concentration limit values.

11.7.9 Accordingly, given the nature of the activity proposed, the assessment of emissions carried out, the mitigation measures proposed and the distance of the proposal from nearby residences, in my opinion, it would appear that, on balance, the

proposed development could be adequately constructed and operated to achieve the appropriate odour and air quality standards.

Water Pollution:

11.7.10 Concerns have been raised that ash and particulate matter emanating from the proposed development could be washed into surrounding watercourses thereby impacting on the aquatic life / habitats of those streams which supply the River Liffey. In this respect specific reference has been made to the possibility of ash mixing with rainwater and being deposited in nearby watercourses.

11.7.11 Given the methodologies to be employed with regard to the collection of both bottom ash and fly ash it would seem unlikely that any such material could be washed into adjacent watercourses save for accidental spillage. Similarly, it should be noted that any particulate matter discharged within the gaseous emissions will be required to meet specific emission limit values in accordance with accepted practice.

11.7.12 With regard to surface water drainage on site it is proposed to attenuate all surface water runoff in an attenuation pond to be located within the north-western corner of the site. In addition, it is proposed to install a perimeter percolation trench to surround the site with any overflow to be routed back through a French drain to the proposed surface water system / attenuation pond. Grey water is to be collected for reuse on site and silt traps and Class 1 interceptors are to be installed on the surface water network.

11.7.13 Having considered the foregoing, I am inclined to suggest that any remaining concerns with regard to potential water pollution could be satisfactorily addressed by way of condition.

Public Health:

11.7.14 Appendix 11 of the EIS includes an evaluation of the impact of emissions arising from the proposed CHP plant on human health prepared by Dr. Maria Martinez-Moratalla. It refers to the various emissions which arise from the combustion of biomass materials including carbon monoxide, carbon dioxide, sulphur dioxide, oxides of nitrogen and particulate matter. It concludes by stating that biomass is frequently cited as carbon neutral and that emissions such as NO_x, SO_x and VOCs are, in general, very low in comparison to other forms of combustion heating making it one of the less polluting forms of heating available. It is further submitted that the predicted worst-case emissions from the proposed plant when added to the current baseline atmospheric concentrations are all well below the Irish Guidelines / Limit value as set out in SI No. 271/2002 – Air Quality Standards, the EU Limit values as laid out in the EU daughter Directive on Air Quality 99/33EC and the WHO Air Quality Guidelines for particulate matter, ozone, nitrogen and sulphur dioxide, Global Update 2005.

11.7.15 On the basis of the foregoing, and noting national policy as regards the reduction of greenhouse gas emissions and the provision of energy from renewable sources, in my opinion, provided the proposed development adheres to specified emission limit values, or the requirements of any IPPC licence if so required, it should not represent a risk to public health.

11.8 The Adequacy of the EIS:

11.8.1 In my opinion, the submitted EIS can be described as fair although it contains a number of shortcomings. With regard to the assessment of alternatives the Planning Authority has submitted that inadequate information has been provided as regards the alternatives examined and specifically why the subject site was selected given the location of appropriately zoned lands adjoining the site.

11.8.2 In the first instance I would advise the Board that Schedule 6 of the Planning and Development Regulations, 2001, as amended, only requires an EIS to include ‘*An outline of the main alternatives studied by the developer and an indication of the main reasons for his or her choice, taking into account the effects on the environment*’. In this respect it should be noted that Section 2.2.2 of the EIS outlines a number of alternative CHP technologies given consideration by the applicant whereas Section 2.2.3 of the document refers to a series of three possible sites (including the subject site) which were identified as being potentially suitable for a development of the nature proposed. Each of these sites was subsequently assessed against 10 No. selection criteria including the availability of an adequate and suitable fuel supply, the availability of access to grid infrastructure, proximity to potential consumers for the heat energy produced and good road / transportation infrastructure. The applicant has set out that following an analysis of these criteria the subject site was selected as the preferred location for the proposed development and at this point I would refer the Board to Section 11.2 of this report. In my opinion, Section 2.2.3 of the EIS, as supported by the additional information provided in the grounds of appeal, sets out a reasonable rationale for the selection of the subject site. Whilst I would acknowledge that this information does not critically analyse all potentially suitable sites, including those located on zoned lands in close proximity to the subject site, I am satisfied that it nevertheless provides a reasonable outline of the alternatives examined. With regard to the vacant zoned lands within Tougher Business Park I would also note that the applicant has indicated that these lands are not available and are committed to other parties.

11.8.3 Overall, I am satisfied that the submitted EIS provides a generally satisfactory description of the receiving environment, the proposed development, its impacts and proposed mitigation measures, although I would concede that it would have been preferable if additional details had been provided with regard to certain matters including plant maintenance and the disposal of wastewater arising from boiler washdown.

11.9 Other Issues:

11.9.1 Flooding Implications:

The proposed development site would seem to be poorly drained and was noticeably wet underfoot on the day of my site inspection with a drainage ditch defining the southern boundary and a stream flowing alongside the western boundary. These poor drainage characteristics would seem to be supported by the applicants own trial pit and percolation test investigations. Although the issue of flooding on site was not raised by the Planning Authority, and whilst the national flood hazard mapping does not refer to the subject lands as being prone to flood events, I would advise the Board that the Draft Kildare County Development Plan, 2011 does refer to any proposals for the development of those lands to the immediate east of the application site as requiring site-specific Flood Risk Assessment appropriate to the type and scale of

development being proposed. Accordingly, it would appear that there may be unresolved / unidentified concerns as regards localised flood events in this area, however, in the absence of any further details I am unable to comment further on this matter.

12.0 CONCLUSION

Whilst I would acknowledge that the development of biomass fuelled CHP plants has a potentially significant role to play in achieving Ireland's international, European and national commitments as regards the reduction of greenhouse gas emissions and the provision of energy from renewable sources, and although the subject site would seem to satisfy the key selection criteria identified by the applicant, given the sites location within a possible route corridor identified for the Leinster Outer Orbital Route, in my opinion, the proposed development would be premature pending the determination by the planning authority or the road authority of a road layout for the LOR.

13.0 RECOMMENDATION

Having regard to the foregoing I recommend that permission be refused for the proposed development for the reasons and considerations set out below:

Reasons and Considerations:

1. The proposed development is located within a route corridor identified in the National Roads Authority's Leinster Orbital Route Feasibility Study, the reservation of which is an objective of the Kildare County Development Plan, 2005-2011 and the Regional Planning Guidelines for the Greater Dublin Area, 2010-2022. Accordingly, it is considered that development of the kind proposed would undermine the achievement of these strategic objectives and would be premature pending the determination by the planning authority, or the road authority, of a road layout for the Leinster Outer Orbital Route pursuant to Policy Statements RP15 and GR2 of the Kildare County Development Plan, 2005-2011. The proposed development would, therefore, be contrary to the proper planning and sustainable development of the area.

Signed: _____

Robert Speer
Inspectorate

Date: _____