An Bord Pleanála

Inspector's Report

PL19.245295.

DEVELOPMENT:-	Extension of the continued use and operation until the end of 2030 of previously permitted peat and biomass co-fired power plant currently existing at Ballykilleen, Edenderry, Co. Offaly.

PLANNING APPLICATION.

Planning Authority:	Offaly County Council.
Planning Authority Reg. No:	15/129.
Applicant:	Edenderry Power Limited.
Application Type:	Permission.
Planning Authority Decision:	Grant Permission with conditions.

APPEAL.

Appellants:	1. An Taisce. 2. Friends of the Irish Environment.
OBSERVERS:	Michael Hoey**.**
TYPE OF APPEAL:	Third Party.
DATES OF SITE INSPECTION:	20th December 2015 and 27th January 2016.
Inspector:	**Derek Daly.**

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1.0 SITE DESCRIPTION.

The site is located in the townland of Ballykilleen in a rural area in the east of County Offaly.

The area relating to the development is located approximately 6 kilometres to the south of the town of Edenderry and approximately 3.5 kilometres to the north of the village of Clonbullogue and is part of a low lying topography with a mix of agricultural land, forestry and commercial bogs. The site fronts onto the R401 Regional Route which defines the site's western boundary.

The Figile River, which is a tributary of the River Barrow, flows to the south of the site. Kilcumber Bridge, which spans the river and which forms part of the R401, is located immediately to the south of the appeal site.

The area is characterised by a mix of farmhouses and other dwellings fronting onto the road network.

On the appeal site is a power station. In addition to the power station there are two stand-alone diesel fired peaking plants (each unit has two associated engines with a combined capacity of approximately 104MW) on the site. The overall site has a stated area of 31.7 hectares and is irregular in configuration.

2.0 THE PROPOSED DEVELOPMENT.

The proposed development as initially submitted and stated in the public notices to the planning authority on the 10th of August 2015 was for the following,

- The extension of the continued use and operation until the end of 2030 of previously permitted peat and biomass co-fired power plant currently existing on the site.
- Permitting the development would cease removal of the existing power generation plant required in previous grants of permission ABP. Reg. No PL19.211173 / P.A. Reg. Ref 04/210 and ABP. Reg. No PL19.107858 / P.A. Reg. No.PL2/98/437 where under conditions stated in these permissions the plant shall have cease effect on the 31st day of December, 2015.
- The development as submitted proposes no new structures or any change to existing operations, fuel inputs or emission limit values at the facility.

The application was accompanied by associated maps and drawings and an Environmental Impact Statement and a Natura Impact Statement and other reports.

3.0 PLANNING HISTORY.

The site has a planning history.

ABP. Reg.No PL19.107858 / P.A. Reg. PL2/98/437.

An Bord Pleanála granted permission subject to 14 conditions on the 24th of December 1998 for a peat power 120MW electricity generating station

Condition no.2 stated.

2. (1) This permission shall have effect for the period up to the 31st day of December, 2015, unless before the end of that period, a further permission for the continuance of the development beyond that date shall have been granted by the planning authority or by An Bord Pleanála on appeal.

(2) Decommissioning of the plant shall be carried out in accordance with –

(a) section 2.8 of the Environmental Impact Statement, and

(b) requirements to be agreed with the planning authority within five years of the date of this order. In default of agreement, these matters shall be determined by An Bord Pleanála.

ABP. Reg. No PL19.211173 / P.A. Reg. Ref 04/210.

An Bord Pleanála granted permission subject to 11 conditions on the 12th of July, 2005 for a development which was for a material change of use of an electricity generating station which was previously granted permission under planning register reference number ABP. Reg.No PL19.107858 / P.A. Reg. No.PL2/98/437.

The nature of the proposed change of use permitted was from use as a power station for the generation of electrical power from the combustion of peat, to use as a power station and a waste recovery facility for the generation of electrical power from the combustion of a mix of fuels including biomass in the form of wood material and recovered (treated) meat and bone meal.

The following conditions are of relevance.

Condition no. 2 stated,
"The permission shall have effect for the period up to and including the 31st day of December, 2015. The electricity generating station shall then be removed in accordance with condition number 2(2) of the parent permission governing the development at this location (An Bord Pleanála appeal reference number PL19.107858) unless, prior to the end of that period, planning permission shall have been granted for the retention of the development for a further period.

Reason: To provide for the orderly decommissioning of the electricity generation station and to enable the impact of the development to be reassessed, having regard to changes in technology and emissions requirements".

Condition no.3 stated
"This permission is solely for the co-fuelling of peat with wood biomass to a maximum of 140,000 tonnes per annum and with Category 2 and Category 3 meat and bone meal (MBM) to a maximum of 60,000 tonnes per annum.

Reason: To clarify the nature and extent of the development".

Condition no.5 stated,
"This permission is for a maximum of 200,000 tonnes of peat/biomass/meat and bone meal to be delivered to the site by road annually. Not more than 35 heavy goods vehicles deliveries of fuel shall be delivered to the site by road on a daily basis.

Reason: To clarify the nature and extent of deliveries of fuel by road to the site."

P.A. Reg. No.PL2/11/113.

Planning permission was subsequently granted by the Planning Authority for a development comprising of a 14,750 square metres (1.48 hectares) concrete slab for the storage of biomass.

ABP. Reg. No PL19.242226 / P.A. Reg. No. 13/72.

An Bord Pleanála granted permission subject to 8 conditions on the 19th of November, 2013 for a development which was for the continued use and operation of the previously permitted peat and biomass co-fired power plant.

The following conditions are of relevance.

Condition no.2 stated

"The permission shall have effect for a period of ten years from the date of this order. The electricity generating station shall then be removed in accordance with condition number 2(2) of the parent permission governing the development at this location (An Bord Pleanála appeal reference number PL19.107858) unless, prior to the end of that period, planning permission shall have been granted for the retention of the development for a further period.

Reason: To provide for the orderly decommissioning of the electricity generation station and to enable the impact of the development to be reassessed, having regard to changes in technology and emissions requirements"

Condition no.3 stated

"This permission shall be for the co-fuelling of peat with biomass (as defined in the planning application) to a maximum of 300,000 tonnes per annum of

biomass of which meat and bone meal (MBM) may constitute a maximum 60,000 tonnes per annum.

Reason: To clarify the nature and extent of the development".

2014 No. 38 J.R.

The decision of An Bord Pleanála ABP. Reg.No PL19.242226 was the subject of a High Court Judicial Review by An Taisce 2014 No. 43 J.R.

IPPC Licence.

EPA Register PO482-04 which is updating a review of previous licences arising from changes to the European Communities Environmental Objectives (Surface Water) Regulations 2009 and the European Communities Environmental Objectives (Groundwater) Regulations 2010 which was issued on the 19th of July 2012. The Licence was further updated on the 19th of December 2013 in relation to Industrial Emissions.

EPA IPC Licences P0503-01 and P0501-01.

These licences relate to P0501-01 (Derrygreenagh Group) and P0503-01; (Allen Group) which are bogs covering an extensive area in the midlands covering parts of counties Offaly, Kildare, Laois, Westmeath and Meath dating back to 1999 and which have been subject of ongoing review. The licences relate to the processes associated with the commercial extraction of peat focussing on issues relating to emissions in particular emissions to water and air and the imposition of conditions in relation to the management of the bogs. The bogs in question supply peat to the Edenderry power plant in addition to other power plants and other commercial activities including the production of horticultural products.

4.0 PLANNING AUTHORITY REPORTS.

The CFO report dated the 9th of June 2015 has no objections in relation to the development.

The area engineer's roads report dated the 22nd of June 2015 has no objections subject to conditions.

The road office in a report dated the 25th of June recommends conditions to be included in a grant pf permission.

The environmental and water services report dated the 30th of June 2015 refers to the submitted EIS and recommended conditions in relation to water;

The planning report dated the 6th of July 2015 refers to,

- The background including planning history.
- Submissions received.

- An assessment of the proposal under a series of headings including,
- European and national policy.
- Provisions of the County Development Plan in relation to energy, and landscape,
- Appropriate Assessment.
- Comment and observations on the various chapters in the EIS.
- The report concluded the principle of the development is acceptable.
- The report concludes with a recommendation to grant planning permission.

5.0 SUBMISSIONS BY OTHER PARTIES DURING PLANNING APPLICATION.

The **Environmental Protection Agency** in a submission dated the 5th of June made a number of observations which refer to the updating of the IPPC Licence and that the application was accompanied by an EIS which appears to address the key points in relation to environmental aspects of the proposed activity which relate to the matters that come within the functions of the Agency.

An Taisce in a submission dated the 22nd of June 2015 refers to

- The methodology applied in the NIS is flawed in relation to the legal obligations.
- Reference is made to the screening process for AA.
- Reference to harvesting peat.
- The impacts on qualifying habitats and species.
- Reference to other plans and projects.
- Deficiencies in the EIS.
- Premature in complying with UN and EU climate emission reduction commitments and presenting problems in meeting current targets.
- There is a failure to demonstrate sustainability of development.
- Issues relating to the future of milled peat power stations in the overall policy of future power generation.
- In its current form permission cannot be granted.

The **HSE** made a submission/report dated the 18th of June 2015 raises no objections.

Inland Fisheries Ireland in a submission dated the 24th of June 2015 raises no objections.

Laois County Council in a submission dated the 26th of June 2015 raises no objections.

Third Parties.

I would note that during the assessment of the application a number of submissions were made by third parties. The submissions also cover a wide

range of issues relating to impacts arising on the wider area and the economy of the area. Issues raised include,

- The issue of cutaway bogs and the assessment of impacts arising.
- The methodology applied in the NIS is flawed in relation to the legal obligations.
- Reference is made to the screening process for AA.
- Reference to harvesting peat.
- The impacts on qualifying habitats and species.
- Reference to other plans and projects.
- Deficiencies in the EIS.
- Premature in complying with UN and EU climate emission reduction commitments and presenting problems in meeting current targets.
- There is a failure to demonstrate sustainability of development.
- Issues relating to the future of milled peat power stations in the overall policy of future power generation.

The matters raised are considered in the assessment section of this report.

6.0 THE PLANNING AUTHORITY'S DECISION.

The planning authority's decision was to grant planning permission subject to 7 conditions. Among the conditions of note,

- Condition no.2 refers to the maximum tonnage of material to be delivered to the site and refers to previous permissions.
- Condition no.3 relates to a special contribution in relation to road maintenance.
- Condition no.5 limits the period of permission to 31/12/2030.

7.0 APPEAL SUBMISSIONS.

7.1 THIRD PARTY APPEALS.

An Taisce in a submission indicate,

- The submission of information on the environmental impacts of peat extraction and biomass is welcomed.
- The planning authority has, however, failed to assess all of the effects of the Edenderry power station including peat extraction in breach of EIA and Habitats Directives.
- Reference is made to the IPPC licences for the environmental operation of the extraction of milled peat in the planning authority reasons and considerations but no EIA or AA was carried out by the EPA before the grant of licences.
- The applicant did not submit an EIS or NIS in respect of the licences and the existence of licences cannot provide an answer for failure to assess peat extraction now particularly in circumstances where no EIA or AA has ever been carried out of such extraction at any point in the past.

- The Board is under a current obligation to carry out an EIA as part of the appeal that considers all of the direct and indirect effects of the power station including peat extraction and is also under remedial obligation to do so in circumstances where the EIA Directive has not been complied with at an earlier point in the plant life cycle.
- In this regard reference is made to ECJ case C-275/09.
- If the Board is to rely on the IPC licences in respect of peat extraction to support an argument that an EIA or AA of peat extraction is not needed now the Board is legally obliged to satisfy itself in this regard in relation to EIA and /or AA in respect of the EIA Directive and or Habitats Directive.
- Reference is made to the planning report of the planning authority regarding NIS and AA and the appellant's view of the absence of AA in in the granting of relevant licences.
- In this context the conclusions of the Planning Authority's re AA in relation to this matter are questioned.
- Reference is made to the issue of peat supply and peat extraction and that the planning authority appears to draw a distinction in this regard.
- The approach of the Applicant in relation to obligations under the Habitats Directive is fundamentally flawed.
- There was also a need for the planning authority to screen as per regulation 42 of the European Communities (Birds and Natural Habitats Regulations 2011 (S.I. 477 OF 2011) and the ECJ in C127/02 has taken broad approach in relation to screening.
- Reference is made to the NIS submitted including section 3.7.7 and table 3.13 where potential for significant effects are identified but despite this the applicant in the NIS conclusion having identified that other plans and projects in combination may have the potential to effect the River Barrow and River Nore SAC concludes consent is not sought for any pan activity other than the continued use of the plant and is excluding in-combination effects.
- This misstates the obligation under Article 6(3) of the Habitats Directive.
- What is important is the implication of the Edenderry Power Plant project in combination with other plans and projects for Natura 2000 sites and effects cannot be excluded.
- In this context the power plant can only be legally granted of the derogation in Article 6(4) is available and is applied.
- Reference is made to Kelly v An Bord Pleanala 2014 IEHC 400 and the decision in this regard which set the bar for AA in relation to the planning authority in the first instance and also the Board.
- Reference is made to the planning report of the planning authority and to the issue of peat extraction and not taking into account that the judicial review which relates to the failure to carry out EIA of all of the direct and indirect effects of the power station including peat extraction.
- It is not a question of applying for peat extraction but assessment of the direct and indirect effects of peat extraction and as the planning

authority has not done this for the purposes of EIA and the decision of the planning authority is therefore legally flawed.

- There is a clear relationship between peat extraction and the power plant established and in this regard reference is made to Appendix 5 of the EIS and the reference to peat to power.
- Reference is made to ABP PL.19.225687.
- The appellant refers to deficiencies in the EIS and that these were raised in the submission to the planning authority prior to the decision of the planning authority.
- In relation to the proposal granting permission would be premature and prejudice the meeting of Ireland's international and EU targets in relation to emission reduction limits until the appropriate national strategy is put in place.
- There is insufficient evaluation to establish that mass burning of biomass is the most carbon efficient way of using biomass and that the plant in question is the most efficient way.
- Issues of loss of biodiversity arise.
- There is an absence to demonstrate that the continuation of peat burning and secondary biomass co-firing until 2030 is a sustainable form of development both environmentally and economically.
- Reference is made to the subsidy of peat power generation and that the basis of the initial Public Service Obligation no longer applies with the provision of alternative indigenous power supply sources such as wind. Reference is also made to the EU Emissions Trading Scheme (EU-ETS) and that it is discredited in its operation,
- In relation to the current proposal a legally compliant EIA should be carried out.
- On the basis of the Habitats Directive it would seem that the development should be denied permission as the test in Article 6(3) is inevitably failed meaning the project can only be granted by derogation as per Article 6(4) and the appellant cannot see how this derogation would be legally available.
- Reference is also made to prematurity and the obligations current and future at national level in relation to carbon emissions.

Friends of the Irish Environment in a submission indicate,

- The NIS assumes that indirect peat extraction to feed the power station is not part of the project to be evaluated.
- No consent can legally be given until a full and proper assessment of its effect on the Natura 2000 network and overall environment has been undertaken.
- Drainage of peat lands lead to adverse impacts on water quality.
- Burning of peat is inconsistent with national EU and international policy.
- Reference is made to the National Renewable Energy Action Plan (NREAP).
- The EIS states the cutaway bogs are irreversibly damaged but there is no analysis submitted that reverse cannot occur.

- Reference is made to the planning report of the planning authority and there is reference in the submission of the appellant to the need for the appropriate assessment of direct and indirect effects arising from the power plant and this should have formed part of the planning authority's assessment.
- There is an absence of recognition in the NIS of initially identifying potential for significant effects arising from harvesting peat on the River Barrow and River Nore SAC and the assumption that the indirect impacts of peat extraction to feed the power plant are not part of the project being evaluated.
- The indirect effects on SAC sites must be assessed and the planning authority assumption that the existence of the IPC licence means that no EIA and AA is mistaken as the IPC licences were granted without environmental impact assessment or Natura 2000 assessment.
- There has in effect been no EIA.
- The development is contrary to overall policy in relation to controls on emissions and limits.

8.0 OBSERVERS

8.1 **Michael Hoey** in a submission dated the 4th of September 2015 indicates,

- The observer believes the role of the Board, which is not a competent authority, is to consider whether or not the continued use has been achieved before considering the fact that Offaly County Council has made a decision has made a decision to grant planning permission for the third time for the same development and then to establish whether the Articles of various Directives have been complied with or infringed.
- The observer believes that the role of the Board in this case, because the development has a defined life span and is not a SID, is not to correct any errors or attempt in any way to grant development consent, i.e. it is either to agree with the decision of the competent authority or to annul the consequences of the non or incorrect application of these directives.
- The observer believes the role of the Board is to consider whether the developer has engaged in project splitting in the attempt to extend the life of the power station a process prohibited by European Law, both by the EIA and Habitats Directives and by decisions of the ECJ and whether the competent authority has complied with their obligations under the Directives in their permitting of project splitting and whether Article 6(4) of the Habitat Directives has been complied with.
- The observer believes the role of the Board is to consider whether the manner in which various applications and decisions have been made with the benefit of derogation from the European Commission without giving full effect to the relevant directives and whether these practices are or should continue.
- Reference is made in this regard to ECJ case C-420/11 in relation to economic consequences and claims for damages.

- In relation to competent authority the planner has completely misconstrues hid role and the workings of Article 6 and that the consideration of the application is and has to be confined to Article 6(4) of the Directive.
- In relation to the application the planners report confirms that Waterways Ireland was not notified of the application and they should have been notified and this is in breach of Article 6 and 7 of the EIA Directive.
- There is reference to a regional impact and to the Memorandum of Understanding which the planning authority and the Board have a duty to examine. (The Memorandum in section 4 refers to cutaway bogs and a development plan and the implementation of the plan for these bogs following peat production). The potential to restore the water supply to the Barrow and Boyne Navigations will have a regional impact.
- Reference is made to other works on the bogs and the absence of an intention of complying with the Memorandum of Understanding.
- The board has known of this Memorandum of Understanding since the original application.
- Reference is made to the need to carry out a SEA.
- Reference is made to CO_2 emissions and the need to maintain a high watertable to minimise persistent loss of CO_2. In this context the need for the creation and return of wetland is integral to this.
- Reference is made to the benefits of conservation in the context of the protection and restoration of raised bogs.
- In a broader context there is reference to the sixth Community Environmental Programme 1600/2002/EC in the context of climate change and the need for reduction of greenhouse emissions and also the annual Environment Policy Review on the state of the environment across the EU.
- In summary the submission refers to that, in the absence of a SEA, AA or an EIA for this project individually or cumulatively on the River Barrow SAC for the last 27 years, there is no basis for making a decision which complies with the SEA, AA and EIA Directives.
- Because of the failure to comply with Kyoto and exclude our previous commitments in the National Biodiversity Plan 2008 or to reveal the long term plan for cutaway bogs or to publicise our derogation granted for the parent permission under Article 1.4(b) of the EIA Directive there is no basis for continuing with a determination.
- The only option other than extension of derogation is to nullify the consequences. In relation to derogation the decision maker is not in a position to ignore the Memorandum of Understanding and the application of Community Law must be applied.
- Copy of the Operational Programme for Economic Infrastructure 1994-1999 is submitted and also a CD with further documentation,

9.0 RESPONSES TO APPEAL SUBMISSIONS.

9.1 RESPONSE OF THE PLANNING AUTHORITY

The planning authority in a planning report dated the 6th of July 2015 addressed the concerns raised in the appeal and requests the Board upholds the decision to grant planning permission.

The planning authority in a planning report dated the 6th of October 2015 in relation to the first party response has no observations and requests the Board upholds the decision to grant planning permission

9.2 FIRST PARTY RESPONSE.

9.2.1 The applicant in a response dated the 8th of September 2015 to the grounds of appeals refers to;

9.2.2 In relation to the appeal by An Taisce.

In relation initially to legal matters,

- The application is made on the precautionary basis that it is to be treated as being made without prejudice to ongoing litigation.
- The current application contains two relevant modifications of firstly an extended length of operation until 2030 and secondly an expanded approach to the EIS and NIS to take into account the impact of peat extraction involved in the supply of peat to the Edenderry Power Plant as a direct or indirect effect of the power plant.
- The extension of the operational life to 2030 is necessary to provide a more economically sustainable development matching the economic design life of the plant with the necessary regulatory consent.
- The second modification is to address claims made by An Taisce and the Friends of the Environment in the judicial proceedings should the Court decide in their favour in relation extraction of peat as a direct or indirect effect of the operation of the plant.
- This issue is addressed in the current application/appeal.
- The appeal submissions acknowledge the matter is addressed but contend that the planning authority has failed to correctly assess these impacts.
- The applicant considers that the Board is entitled to come to the same view as the planning authority that on the basis of the EIS and NIS as furnished which address the impact of direct and indirect effects of peat extraction on a cumulative basis with the ongoing operation of the power plant that no significant cumulative effects will arise on Natura 2000 sites within the meaning of Article 6(3) of the Habitats Directive.
- The Board is not obliged to carry out and EIA and/or AA in respect of peat extraction *simpliciter*, other than assessing as a direct or indirect effect, the impacts of peat extraction in the context of supply of peat to the power plant.
- Whether it is called a remedial assessment of obligation or a current obligation to carry out an EIA and/or AA does not matter as the Board is obliged to carry out an EIA and/or AA in this case.

- The reference to the assessment of a project in combination with other plans and projects does not mean that such plans and projects must themselves be the subject of a fresh AA. Rather any effects of the project the subject matter of the application before the Board on European Sites must be assessed cumulatively with the likely effects on those sites of other projects. Reference is made to ECJ case C-404/09 in this regard.
- If the Board conclude that there are no effects from the plant on SACs then there are no effects to be assessed cumulatively jointly or in combination with other projects such as the effects (if and insofar as there are any) on the same SACs of peat extraction.
- In relation to the reference to table 13.8 of the NIS the conclusion reached is clear that the ongoing operation of the power plant taking into account peat extraction has no effects on the referenced Natura 2000 sites.
- Reference is made to the licence review by the EPA and its impact on receiving waters which concluded discharges are not likely to have a significant impact on the River Barrow and River Nore SAC.

In relation to technical matters

- The scope of the planning application and EIS is clearly stated in the planning application and that it was not the intention of the application to apply for permission for the supply of peat.
- The An Taisce submission has a narrow reading of the energy crop socio-economic study and there are other customers of extracted peat than power stations.
- In relation to biomass reference is made to section 9.2.4.3 of the EIS and the use of biomass is in compliance with current EU and UN commitments.
- Reference is made to the issue of bogs as carbon sinks and section 9.2.4.2 of the EIS debunks the simplistic notion that rewetting bogs will lead to the restoration of an active carbon accumulating bog.
- The power plant is cost effective and closing it when it has 15 years of design life makes no economic sense.
- There needs to be distinction made between biomass for the production of biofuels and that for the production of energy.
- EU-ETS is not discredited in its operation and remains the cornerstone of EU policy since 2005 to combat climate change and was further enhanced this year in line with the 2030 climate and energy policy.
- In the early phases of EU-ETS the applicant and ESB did receive free EU-ETS allocations but all thermal plants received these allocations and there are no free allocations.
- There will be no PSO funding for the power plant from 2016 to 2030.
- The power plant is not a stranded or ghost asset it is currently extant, operational and producing electricity.
- Irish and EU energy and climate policy is comprehensively detailed in section 2.3 of the EIS and there is no credible suggestion or initiative

by policy makers that coal or peat will be phased out by 2020. There is a transparent instrument to decarbonise the power sector by 2050.

- The assertion that a post Kyoto agreement which include emissions and sequestrations associated with land use is speculative and this approach has difficulties and the EU to date has refused to include land use within the scope of emissions counted.
- The production of electricity from fossil energy sources is a well recognised contributor to greenhouse gas emissions but fossil energy sources are still required for electricity generation for a variety of reasons. Co firing with biomass reduces emissions.
- There will be no land use change impact on the use of peat lands. All the areas which will supply milled peat to the power station have already been drained, developed, had their surface vegetation removed and are actively used for milled peat production and are not active carbon sinks.
- Many of the peatlands have been harvested since the 1950s.
- There will be marginal impacts in relation to lands used to produce biomass as material is drawn from established forests.
- Imported biomass is residues from crops grown for food and no grown for co-firing purposes.
- Cutaway bogs will contain considerable amounts of carbon stock. After uses of these bogs have been examined and in recent years more emphasis has been placed on their future use for amenity and tourism and for biodiversity ecosystem services in accordance with the NPWS draft National Peatland Strategy and section 6.4.24 of the EIS is referred to in this regard the use of peat lands for wind energy is also being considered.
- Rewetting of bogs will not lead to the restoration of an active carbon accumulating bog given the level of loss of peat over many years and changes in drainage.
- Reference is made to the Bogland Sustainable Management of Peatlands in Ireland which in detail examines the value of carbon including losses from various sources including power stations.

9.2.3 In relation to the appeal by the Friends of the Environment.

- The position in relation to burning of peat as inconsistent with national, EU and international is stated but no evidence is presented in relation to this.
- Section 2.3 of the EIS indicates how the power station is aligned with policy and legislation.
- Reference is also made to section 4.6.2 of NREAP where there is reference to co-firing biomass and peat.
- The plant is proposed to operate until 2030 and is part of the transition to low carbon by 2050 and there will be no permission sought to combust peat after 2030.
- The issue of rewetting the bog is raised but the solution as suggested is one dimensional and lacks rigour and credibility and the evidence in relation to midland cutaway bogs is otherwise and that rewetting will

not lead to the restoration of an active carbon accumulating bog owing to changes in hydrology arising from changes in level, drainage and harvesting.

Concluding the submission there is no reason in law why the Board must refuse permission and grant planning permission for the continued operation of the power plant.

9.2.4 A further response by the applicant c/o Arthur Cox Solicitors dated the 8th of December 2015 in relation to the An Taisce response dated the 15th of October 2015 indicates,

- **In relation to the EIA Directive**,
- It is accepted that the Board as a result of the recent judgement 2014/38R should now take into account in its EIA the indirect effects on the environment of extracting the peat source for the power plant.
- An Taisce have raised the relevance of the IPC Licences granted by the EPA in respect of the extraction of peat and the manner in which the Board ought to take them into account.
- In relation to these licences initially granted in 2000 they were subsequently reviewed in 2012 and 2013 to implement the requirements of the EC Environmental Objectives (Groundwater) Regulations 2010-2012 and the Waste Management (Management of Waste from Extractive Industries) Regulations 2012 in additional to permitting boundary changes to the licenced activity.
- These reviews operating conditions including monitoring and new trigger levels allow for greater and more stringent regulation.
- The An Taisce submission seeks to minimise the significance of the IPC Licences their process and operation but under section 83(3) of the Environmental Protection Act 1992 the EPA shall not grant a licence or a revised licence for an activity unless satisfied it will not cause significant environmental pollution and this applies to the licence for peat extraction.
- The licences are therefore relevant in the context of the EIA which the Board have to undertake.
- The Board can have regard to and take comfort that many of the environmental impacts have been assessed and regulated by the EPA and the regulation is ongoing.
- An Taisce are incorrect in stating the licences are out of date and do not reflect the receiving environment.
- As indicated the licences were reviewed in 2012 and 2013, they reflect the current receiving environment through monitoring and a requirement for an annual environmental report which includes an Environmental Management Programme.
- The reference to PL.19.225687 Kilballyskea, Shinrone in the context of the ongoing operation of the power plant is not relevant or probative as that development related to proposed development of an Annex 1 habitat.

- None of the peat harvested for the plant will be from an Annex 1 habitat and no evidence is proffered of any alleged impact on a European site associated with the operation of the plant.
- The EIS has identified two Annex 1 sites that adjoin the peat extraction areas, Daingean Townparks and Lodge Bog. Both are recognised in the Bord na Mona Diversity Action Plan 2010-2015 and there is a long term relationship with the NPWS and Irish Peatland Conservation Council in relation to preserve these areas and the Annex 1 habitats they contain.
- The EIS submitted indicates that the existing and licenced peat extraction activities have no direct or indirect impacts on these Annex 1 habitats and it follows that the continued use and operation of the plant cannot have indirect effects.
- Section 6.5.2 of the EIS outlines a methodical approach to the conservation of these habitats.
- The impact in relation to Annex 1 has therefore been addressed in the EIS.
- **In relation to the Habitats Directive**,
- As already stated in the submission of the 8th of September 2015 the application of the term "in combination with other plans and projects" does not mean that such other plans and projects must be the subject to a fresh AA by the Board.
- It simply means that any effects of the proposed development which is the subject matter of the application on European Sites must be assessed along with the likely effects on those sites on other projects.
- The NIS includes a Stage 1 assessment in respect of the Long Derries SAC and the River Barrow and River Nore SAC and a Stage 2 assessment of the River Barrow and River Nore SAC in relation to effects of the proposed development which is the continued operation of the plant together with the likely effects of other projects including but not limited to peat extraction.
- Reference is made to section 2.6 of the NIS in relation to the question of Stage 2 and it clearly indicates that a Stage 2 assessment was recommended in relation the River Barrow and River Nore SAC.
- The Stage 2 assessment considered the proposed development individually or in combination with other plans and projects to adversely effect the River Barrow and River Nore SAC in view of its conservation objectives.
- Reference is made to section 3.7.7 of the NIS which refers to peat harvesting and its potential impacts including silt washing into rivers and the measures to address this.
- Effluent discharges are conditioned in the licences which were reviewed and mitigation measures are conditioned in the licences.
- Although the An Taisce submission refers to table 3.13 the submission makes no reference to section 3.8 and the conclusions relating to potential for cumulative and in combination effects.
- It is for the Board as competent authority to consider and satisfy itself in relation to AA.

- An Taisce has not proffered any evidence in relation to adversely affecting the integrity of a European site.
- The licences are relevant in relation to AA as they regulate the impacts of peat extraction on the environment and the Board can conclude on the evidence available that peat extraction completed in accordance with the IPC licence alone will not have significant effects on Natura 2000 sites.
- The Stage 2 assessment of the River Barrow and River Nore SAC is not in dispute but it does not follow that merely because a Stage 2 assessment is required that permission must be refused. Refusal should only be on the basis that the Board is not satisfied that there will not be an adverse effect on the integrity of a European site.
- On the basis of the information submitted in the NIS the proposed development will not adversely affect the integrity of the River Barrow and River Nore SAC.
- **In relation to the table on pages 9/10 of the EPL response**,
- Bord na Mona has in conjunction with UCD and the EPA has been involved since 2008 in a programme of measuring greenhouse gas fluxes associated with different restored habitats on cutaway peatlands.
- The table is a summary of initial results of the study.
- The table was included to demonstrate that wetting a cutaway peatland area does not automatically lead to a carbon sink.
- Also it is indicated that high yielding willow used for energy crop plantations will not thrive on cutaway bogs.
- **In relation to failure to demonstrate sustainability of development**.
- The An Taisce submission focusses almost exclusively on carbon but carbon is only one aspect of sustainability.
- In seeking to continue operating the plant the applicant considered a range of matters such as the socio-economic factors, the environmental impact of the plant and the economic viability of the plant.
- The plant will from 2016 to 2030 will operate as a hybrid plant and in this regard will have to have lower carbon emissions than any plant that it is displacing from the grid.
- If the plant did not produce electricity an equivalent amount of carbon emissions would still be produced from other thermal on the Irish Grid.

9.3 THIRD PARTY RESPONSES.

An Taisce in a response to the Friends of the Environment appeal dated the 8th of September 2015 refers to the application purporting to address the grounds of the legal challenges and that it does not. The Board is requested to suspend consideration of the appeal until judicial matters are resolved.

An Taisce in a response to the first party response dated the 15th of October 2015 indicates,

- Not all matters raised are responded to and the absence of response does not infer acceptance of the first party submission.

- Reference is made to the EIA Directive and the recent judgement of An Taisce v An Bord Pleanala 2014/38 JR which found in favour of An Taisce.
- Certain sections of the judgement are referred to in particular 19, 20, 21 64, 65, 68, 69, 72 and 73 and the Board should take full and proper account of the judgement in determining the appeal and it is now beyond question that an EIA of the indirect effects on the environment of the peat extraction which fuels the power plant must be carried out by the Board.
- Relevance of IPC Licences P0503-01 and P0501-01 in relation to the appeal which paragraph 72 of the HC Judgement could be taken into account. There was no EIS or NIS submitted with these licences, no evidence of EIA or AA carried out and this questions their value in relation to assessment of indirect effects of the power station for the purpose of the EIA Directive.
- It is equally clear that the applicant did not consider when the licences were applied for that it was in respect of peat extraction a requirement for planning permission, EIA or AA and it is therefore clear that no EIA or AA of the peat extraction was carried out prior to the granting of the licences.
- The EPA in any event did not have the legal power to request an EIS or to consider all of the matters necessary to carry out an EIA.
- The licences reflect the remit of the EPA and were assessed within that remit.
- It is also noted that the licences date to 1999/2000.
- It was clear from the court proceedings that the applicant did not consider peat extraction was subject to the EIA Directive.
- The Board could request the applicant to clarify if an EIS was prepared in relation to peat extraction at the time of the licence.
- Reference is made to PL.19.225687 where the Board refused permission for peat extraction and the relevance of the Board's decision in that appeal.
- The submission of the Irish Peatland Conservation Council is also relevant to consider in relation to conservation matters.
- In relation to the Habitats Directive the first party response does not address the legal position.
- The question is whether AA is required of the peat extraction which fuels the power station in combination with the operation of the power plant and other plants/projects.
- There is in table 3.13 of the NIS reference to potential for significant effects in relation to the River Barrow and River Nore SAC but the applicant in section 3.8 of the NIS tries to limit the impact of the Directive in a manner not legally permissible but limiting the plan, project and activity solely to the power plant which misstates the obligation under Article 6(3).
- What are important are the implications of the Edenderry Power Plant in combination with other plans and activities for Natura 2000 sites and

effects that cannot be excluded. Reference is made to the Waddenzee ECJ case in this regard.

- An Taisce's view is that permission cannot be granted under Article 6(3) and will only be possible if the possible if the conditions of Article 6(4) can be met.
- The view previously stated relating to the licences granted for peat extraction also apply in relation to the Habitats Directive and the granting of these licences as no NIS was submitted and AA carried out cannot be used to form the basis that peat extraction and the effects on Natura sites was assessed.
- It appears the applicants view is that vast quantities of carbon should continue for the next 15 years from the bogs rather than allow restoration efforts which would reduce the carbon source effect of these bogs.

Friends of the Environment in a response received on the 15th of October 2015 refers to

- National climate policy in Ireland.
- The wider context of that policy includes existing and future obligations to meet national EU and international obligations on greenhouse gas emissions.
- The policy provides for a transition to achieving this in the period to 2050.
- The submission includes a number of papers.

9.4 OBSERVER RESPONSE.

Michael Hoey in a submission dated the 15th of October 2015 refers to,

- The observer indicates that he is prohibited from participating fully in the decision making process as he was not provided with documentation.
- The ruling of Mr Justice White in case 2014 No.38 is referred to and in particular refers to paragraph 73 of the judgement in relation to the extraction of the peat fuel source was not properly assessed for the purpose of the EIA Directive.
- Reference is made to the application made and as stated in page 2 of the EIS and based on this the Board do not have the necessary information to carry out an assessment, AA or a SEA.

9.5 ENVIRONMENTAL PROTECTION AGENCY RESPONSE.

The EPA in a response dated the 21st of December 2015 to the Board indicated,

- Reference is made to licence register no P082-04 relating to operation at the power station.
- The activity is an Industrial Emissions Directive (IED) activity and the licence in relation to the power plant was amended on the 19th of December 2013 to incorporate the requirements of an IE Licence.

10.0 POLICY.

10.1 EUROPEAN CONTEXT.

EU and individual Member States policy is largely governed by the UN Framework Convention on Climate Change and the Kyoto Protocol.

Renewable Energy Directive – 2009/28/EC.

Directive 2009/28/EC, referred to as the RES Directive is a Directive to promote the use of energy from renewable sources by setting an overall mandatory renewable energy target of 20% by 2020 for the European Union as a whole. Under the RES Directive Ireland was apportioned a mandatory target of at least 16% of total final energy consumption to be met by renewable sources. The Directive leaves the specific allocation of the renewable sources, between the main energy sectors; electricity, heating/cooling and transport, to individual Member States, but individual Member States are also mandated to provide either priority access or guaranteed access to the grid system for electricity produced from renewable energy sources.

Climate and Energy Framework 2030 October 2014.

This framework document affirms the commitment to renewable energy sources mandating an EU wide binding target of 27% energy consumed from renewable sources by 2030. The 2030 Climate and Energy Policy Framework, represents the continuing and ongoing evolution of European and by extension Irish policy. The Climate and Energy Policy Framework were informed by preceding publications outlining a long term roadmap on energy policy to 2050 which outline a commitment to reduce greenhouse gas emissions, with an objective of cutting emissions by at least 80% by 2050.

In addition to the reduction in greenhouse gases, the roadmap stresses the importance of ensuring both European security of energy supply and European economic competitiveness and also recognising the role that renewable energy, and in particular indigenous and renewable electricity, can make in meeting these objectives.

EU Emissions Trading System (ETS) and non-ETS sectors.

The EU-ETS is based on the ‘cap and trade’ principle, where a 'cap', or limit, is set on the total amount of greenhouse gases that can be emitted by participants in the scheme and is in effect an emissions trading scheme and operates across the EU covering prescribed industrial activities including electricity generation. The cap is being reduced over time so that total greenhouse emissions fall. In addition, the individual Member States also have binding greenhouse gas reduction targets from sectors which are not

included and separate from the EU-ETS and these sectors include transport, buildings, waste and agriculture.

Electricity generating plants including the Edenderry Power Station, in common with conventional electricity generation plants, must participate in the EU-ETS and has a Greenhouse Gas Permit and the plant must purchase EU-ETS Allowances (EUAs) to cover all CO_2 emissions from the use of peat, ancillary oil fuels and limestone at the plant.

10.2 NATIONAL CONTEXT.

National policy on energy including sources of energy and the use of renewable energy has arisen primarily in response to international agreements, most particularly the UN Framework Convention on Climate Change and the Kyoto Protocol.

Current government policy in relation to renewables is outlined in the National Climate Change Strategy 2007 – 2012 which highlights the need for a radical strategy to meet the climate change commitments made under Kyoto.

Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007-2020 **(Department of Communications, Marine and Natural Resources, March 2007**).

This is a white paper to deliver a sustainable energy future for Ireland and is set firmly in the global and European context which has put energy security and climate change among the most urgent international challenges. It is indicated that energy policy and climate change goals are closely aligned and will be fully reflected in the Climate Change Strategy and that plans for reducing energy demand and energy related emissions through ambitious renewable energy targets (including co-firing biomass with peat), new state-of-the-art power generation plant and interconnection to wider markets will contribute in a major way to national climate change targets.

Section 3 of the White Paper sets out an action-oriented Energy Policy Framework to 2020 under stated actions in relation to strategic goals for security of supply; sustainability of energy and competitiveness of energy supply.

The goals outlined include;

- Ensuring that electricity supply consistently meets demand.
- Enhancing the diversity of fuels used for power generation
- Addressing climate change by reducing energy related greenhouse gas emissions
- Accelerating the growth of renewable energy sources
- Ensuring a sustainable future for Semi-State Energy Enterprises
- Ensuring affordable energy for everyone.

Specifically, in relation to Underpinning the Strategic Goals to enhance the diversity of fuels for power generation in section 3.4.8 among the actions that are underway or planned is,

- Setting the target of 30% co-firing at the three State owned peat power generation stations to be achieved progressively by 2015 beginning with immediate development by Bord na Móna of its pilot project at Edenderry Power Station (page 28).

- Extend the REFIT electricity support scheme to encompass co-firing and maintain the REFIT scheme in support of biomass electricity (page 29).
- Achieve 1 5% of electricity consumption from renewable sources by 2010 through existing and new projects under the REFIT Scheme, extended as required and achieve 33% of electricity consumption from renewable sources by 2020 through support for research, development, commercialisation, and technology transfer as well as grid connections and planning issues for offshore wind, ocean technology and biomass;

Edenderry Power Station is also specifically referred to in the White Paper in;

- Section 3.16.11 in relation to an action to encourage Bord na Móna to develop their role in power generation and supply in competition through their investment in the Edenderry Power Plant.
- Section 3.19, which outlines the strategic goal of supporting a sustainable future for the Semi-State energy enterprises including Bord na Móna.
- Section 3.91.7 where there is reference that Bord na Móna has recently purchased Edenderry with Government approval which will provide a key testing ground for co-firing potential.

The white paper also provides for an integrated approach to delivery which is set out in section 4 of the document and also provides for interim reviews of the Energy Policy Framework.

National Renewable Energy Action Plan (NREAP) 2010.

Article 4 of Directive 2009/28/EC on renewable energy requires each Member State to adopt a national renewable energy action plan (NREAP) to be submitted to the European Commission. The 2010 NREAP sets out the national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and how Ireland will meet its overall national target established under the Directive. The plan essentially sets out the national strategic approach and measures to deliver on Ireland's 16% target under Directive 2009/28/EC.

The NREAP refers to the increased generation of electricity from renewable sources and the overall change in the approach and pattern as to how electricity will be generated. There is recognition of the role of bioenergy in meeting goals initially to 2020 but also beyond this date. Progress reports in relation to the NREAP were published in 2012 and 2014 indicating the

changing environment in relation to energy policy and progress in attaining the required targets.

Planning Policy Statement 2015. The Department of the Environment, Community and Local Government January 2015.

The document reaffirms a strong belief in the value of a forward-looking, visionary and dynamic planning process because it will ensure that the right development takes place in the right locations and at the right time and in providing the social, economic and physical infrastructure necessary to meet the needs of our people in a way that protects the many qualities of our natural and built environment. The non-statutory planning policy statement sets out a number of 10 key principles including,

- Principle 4 which states "*planning must support the transition to a low carbon future and adapt to a changing climate taking full account of flood risk and facilitating, as appropriate, the use of renewable resources, particularly the development of alternative indigenous energy resources*".

Draft National Bioenergy Plan. The Department of the Communications, Energy and Natural Resources October 2014.

The plan reaffirms that the objective of national energy policy is to ensure secure and sustainable supplies of competitively priced energy to all consumers and that the development of Ireland's renewable energy resources is critical for the achievement of each element of this objective.

The plan in page 11 refers to the need for a cohesive approach to developing national bioenergy resources which addresses both demand and supply side issues and the use of the Renewable Energy Feed-in Tariff (REFIT) scheme for biomass technologies which underpins the provision of a stable demand for biomass and which is designed to support a range of technologies including the co-firing of biomass in peat power stations.

In the section referring to next steps and looking forward there is reference that REFIT 3 will be kept under review to ensure it is contributing to meeting 40% of electricity demand and 12% of heat demand from renewable sources by 2020, and to assess the most cost-effective way to support co-firing of biomass with peat and possibly other fossil fuels in electricity generation out to 2030.

The draft plan is an update on the **Bioenergy Action Plan March 2007** which sets out an integrated strategy for collective delivery of the potential benefits of bioenergy resources across the agriculture, enterprise, transport, environment and energy sectors.

Other national policy includes,

Sustainable Development – A Strategy for Ireland, includes an emphasis on the use of renewable resources.

*The National Spatial Strategy 2002 – 2020***,** states, "in economic development the environment provides a resource base that supports a wide range of activities that include agriculture, forestry, fishing, aqua-culture, mineral use, energy use, industry, services and tourism. For these activities, the aim should be to ensure that the resources are used in sustainable ways that put as much emphasis as possible on their renewability" (page 114).

National Biodiversity Plan 2002 was prepared in response to Article 6 of the Convention on Biological Diversity and 'pays special attention to the need for the integration of the conservation and sustainable use of biological diversity into all relevant sectors.'

10.3 COUNTY CONTEXT.

10.3.1 **DEVELOPMENT PLAN**.

The operative plan is the Offaly County Development Plan 2014-2020.

Relevant provisions include,
Policy Reference EP-08 of Offaly County Council's County Development Plan 2014 – 2020 states that, '*having regard to the county's long tradition in power generation, it is Council policy to facilitate the continuance of power generation stations within the county, as appropriate including the consideration of co-fuelling and in line with National Policy Guidelines'.*

No specific policies or objectives relevant to the development are detailed in the County Development Plan.

Chapter 2 of the county plan relates to economic and enterprise strategy and specifically to peatlands; to the opportunities that cutaway bogs offers in relation to diversification of the rural economy as a natural and archaeological resource and in relation to employment (section 2.3.2) and also for windfarm development (section 2.4.5).

Section 2.8.5 specifically refers to energy and policy RDP-08 indicates
"It is Council policy to support the development of renewable energy in rural areas, where it is considered appropriate i.e. where it is demonstrated that such development will not result in significant environmental effects. Such development will be assessed on a case-by-case basis".

Chapter 4 relates to infrastructure and environment and outlines general policies in relation to protection of water resources and flood risk management.

Chapter 7 relates to heritage and landscape and the need to conserve, protect and enhance the natural heritage of the county (section 7.2). Areas of

high amenity are also referred to and are indicated on map 7.17 with policy AHAP-01 indicating a policy to protect and conserve these areas. The site is not located within these areas.

While the zoning map included in the *Edenderry Local Area Plan 2011-2017* (LAP) does not extend to Edenderry Power Plant, the LAP does cite the proximity to power generation and the national grid as a key asset in the attraction and creation of new development in the town.

10.4 OTHER DESIGNATIONS NATURE CONSERVATION.

In relation to Natura 2000 sites there are no designated sites in relation to conservation located within the site of the power plant. There are 6 sites within a 15 kilometre radius of the appeal site with only one site the River Barrow and River Nore SAC having a direct link to the power plant through the Figile River.

The site has a relationship to peatlands given that peat forms s source of energy to the power plant. The bogs that supply milled peat to Edenderry Power Plant are regulated by the EPA under IPC Licence Registration Numbers P0501-01 (Derrygreenagh Group) and P0503-01; (Allen Group).

These bogs cover a vast area covering parts of a number of counties Offaly, Kildare, Laois, Westmeath and Meath and are located within the catchment of a number of rivers. I would refer to the mapping and other documentation illustrating the locations of all of the bogs that supply peat to Edenderry Power Plant which are presented in both the EIS and the NIS as for example figure 3.1 is a map which outlines licenced bogs (page 32) and table 3.1 which indicates Peat Bogs Supplying Edenderry Power Plant. The maps indicate that these bogs form part of a very mixed landscape and that there is no uniformity in relation in relation the nature of extraction of peat. Applying a wider criteria considering nature conservation sites within a 15 kilometre radius of the bogs encompasses many potential sites including areas of intact raised bogs.

11.0 ASSESSMENT.

11.1 INTRODUCTION.

11.1.1 The proposed development as submitted to the planning authority on the 10th of August 2015 was for the following,

- The extension of the continued use and operation until the end of 2030 of previously permitted peat and biomass co-fired power plant currently existing.
- Permitting the development would postpone removal of the existing power generation plant required in previous grants of permission ABP. Reg. No PL19.211173 / P.A. Reg. Ref 04/210 and ABP. Reg. No PL19.107858 / P.A. Reg. No.PL2/98/437 where under conditions stated

in these permissions the plant shall have to cease effect on the 31st day of December, 2015.

- **ABP. Reg. No PL19.242226 / P.A. Reg. No. 13/72 in which** An Bord Pleanála granted permission subject to 8 conditions on the 19th of November, 2013 for a development which was for the continued use and operation of the previously permitted peat and biomass co-fired power plant was the subject of judicial review 2014 No. 38 J.R. and although the current application predated the written judgement the application is to address matters in particular arising in relation to Appropriate Assessment arising in 2014 No. 38 J.R.
- The development as submitted proposes no new structures or any change to existing operations, fuel inputs or emission limit values at the facility.

The application was accompanied by associated maps and drawings and an Environmental Impact Statement and a Natura Impact Statement and other reports.

In relation to the existing power plant it is a peat/biomass co-fired power plant in accordance with the conditions of an Industrial Emissions Licence (Registration Number P0482-04) regulated by the EPA.

The fuel inputs during 2014 were approximately 669,994 tonnes of peat (supplied by a spur from Bord na Móna Energy Limited's peatland rail network) and approximately 212,013 tonnes of biomass which is predominantly delivered by road. Biomass accounts for approximately 27% of the fuel feedstock of the power plant.

In relation to the existing plant, processes and operations on the site they include the following;

- A fuel handling system where the two main materials used as feedstock milled peat and biomass are initially stored in an intermediate storage facility, with a storage capacity of up to 7,000 tonnes. The fuels are blended and fed to the boiler via conveyors to silos which are located on the top of the turbine hall roof.
- Fuel oil storage and handling. The plant uses only gas oil to fire up the power plant since 2014 and if required to run the auxiliary diesel generator on site. The gas oil is stored in two tanks of 300m^3 and 70m^3 storage capacity. Both tanks are located within 110% capacity bunds. Water collected in the bunds is pumped to the oil / water interceptor.
- The bubbling fluidised bed boiler; which is used for combusting. Combustion takes place in a dense fluidised area at the bottom of the furnace above a bed, which is composed of sand, fuel and ash. Sand is added to the fluidised bed to aid heat transfer. Bottom ash is directed via a system of water cooled conveyors to the collection system and sand, screened from the bottom ash, is redirected to the boiler as a waste minimisation measure. A part of the process dry limestone is injected into the system via injection pipelines to limit sulphur dioxide (SO2) emissions. The limestone (calcium carbonate) absorbs the SO2

in the exhaust gas to form calcium sulphate (gypsum) and the gypsum and ash from the process are both removed from the exhaust gas by electrostatic precipitators. The electrostatic precipitator serves to remove fly ash from the flue gas prior to its discharge through the stack.

- Waste management in which residual ash arising from the process is disposed of at Clonbullogue ash repository approximately 3 kilometres to the southwest of the site and which is accessed by Bord na Móna Energy Limited's peatland rail network and thereby directly links the ash collection system at the power plant with the repository.
- Water demand. The water demands of the power plant are met by water abstraction from the Figile River. The abstraction point is located approximately four kilometres downstream of the power plant, downstream of the river's confluence with the Phillipson River approximately 80 metres upstream of Clonbullogue Bridge. The upper limit of abstraction is determined as not exceeding one third of the established dry weather flow (DWF) at the abstraction point. The DWF is estimated at $720m^3$/hr, and therefore the maximum permitted abstraction rate is $240m^3$/hr. There is also a supplementary water supply for the power plant provided by two on-site groundwater wells.
- Process water. The plant uses water in the process and there are pre-treatment processes where the raw river water undergoes a number of treatments prior to use as make-up water in the cooling towers. The maximum water demand for cooling water purposes is $240m^3$/hr. The function of the cooling water circuit is to dissipate heat from the condenser. In relation to boiler feedwater the maximum demands is approximately $5m^3$/hr.
- Effluent treatment and discharges.
- Process water. The plant generates a number of process wastewater effluent streams which pass through a settlement lagoon prior to discharge to the Figile River. The primary function of the settlement lagoon is settlement of solids prior to discharge to the Figile River. The lagoon also acts as a cooling lagoon for cooling tower and boiler blow-down streams, reducing the level of thermal discharges to the river. The capacity of the settlement lagoon is $3,000m^3$ and the lagoon typically provides a residence time of approximately three days for influent waters and are ultimately discharged to the Figile River.
- Surface and storm water. In addition to process water surface and storm water arising from impermeable surfaces on site is also directed to the settlement lagoon. The discharge pipes are separate from the process effluent stream. Oil interceptors are provided on surface water drains where there is potential for oil contamination. Washing of the fuel handling system which may contain quantities of peat and biomass, are also discharged to the settlement lagoon via the surface water drains. A sluice gate at the lagoon enables discharges to be stopped in the case of an emergency.
- Foul water. Treated effluent from the power plant's Puraflo domestic sewage secondary treatment plant is discharged to ground via a percolation area of approximately $300m^2$.

- A transformer and electrical system. Which provides for electrical transmission and distribution equipment on the site

In relation to the feed stock the two primary fuels used are milled peat and biomass. In relation to the milled peat the bogs that supply milled peat to Edenderry Power Plant are regulated by the EPA under IPC Licence Registration Numbers P0501-01 (Derrygreenagh Group) and P0503-01; (Allen Group).

These bogs as commercial/industrial bogs commenced production prior to the commissioning of Edenderry Power Plant in 2000. It is indicated that as there is sufficient remaining capacity to supply peat to Edenderry Power Plant up to the end of 2030 as stated by the applicants, no new bogs will be opened to supply peat to Edenderry Power Plant.

As part of the development of these bogs they have previously been drained and the active (acrotelm) layer that supports living plants has been completely removed. I would refer to the mapping and other documentation illustrating the locations of all of the bogs that supply peat to Edenderry Power Plant which are presented in both the EIS and the NIS as for example figure 3.1 is a map which outlines licenced bogs (page 32) and table 3.1 which indicates Peat Bogs Supplying Edenderry Power Plant to 2030.

In relation to biomass EPL has not been able to procure all of the biomass that it needs within the island of Ireland and consequently also imports biomass from established international markets. Forest thinnings, sawmill residues such as wood chips and sawdust and energy crops are sourced within Ireland; while other agro-industrial residues including almond shells, sunflower husk pellets and palm kernel shells are imported.

11.1.2 Having inspected the site and examined the associated documentation, the following are the relevant issues.

- Principle of development in a policy context.
- Environmental Impact Statement.
- Environment Impact Assessment.
- Appropriate Assessment.

11.2 PRINCIPLE OF DEVELOPMENT/POLICY.

In section 10 of this report I have outlined the policy context at global, national and county level relating to energy.

There is an evolving policy in particular in relation to energy with an overriding policy and goal to reduce dependence on the use of non-renewable fossil fuels as a source of energy generation and also a commitment to reduce greenhouse gas emissions at national level in accordance with global policy. As peat is a fossil fuel, which is not renewable and also a contributor to greenhouse emissions, the future use of peat as a significant source for the

generation of electricity is increasingly unlikely, therefore, to be retained long term if national targets regarding greenhouse emissions are to be achieved.

In this context a transition to phasing out of peat sourced power generation which has been an integral fuel source of electricity generation since 1950s is recognised and will occur. A similar approach is similarly recognised as necessary for other forms of fossil fuels used for electricity generation. It is also generally recognised that the expansion of other forms of electricity generation will occur over time to replace many of the fossil fuel electricity generation plants in order to provide for a rational transition and security of electricity supply. This is recognised in the evolving policy at international, EU and national level including in the National Renewable Energy Action Plan (NREAP) 2010 and progress reports in relation to the NREAP which were published in 2012 and 2014 indicating the changing environment in relation to energy policy, the growth of renewable energy and progress in attaining the required targets.

There is also recognition that security of supply requires the maintenance of an infrastructure to meet variable and peak electricity demands as they arise and immediate response should that also arise. The current proposal is to phase out the use of peat as a source of electricity generation at the Edenderry plant by 2030. The plant has also included for a gradual increase in the use of biomass as an alternative contributor to the feedstock to generate electricity and the level of biomass is being increased to 30% of the feedstock.

This change in the relative proportion of feedstock is specifically referred to in the policy document *Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007-2020* published by the Department of Communications, Marine and Natural Resources in March 2007 and subsequent publications.

In addition to the issue of greenhouse emissions arising from the combustion of peat, the extraction of peat on an industrial scale has led to the loss and degradation of bogs, in particular raised bogs, and a loss of habitats and biodiversity.

The development of an industrial scale of peat extraction, it is noted, dates back to the middle of the 20th century with the production of milled peat. Since that period the milled peat has been the source of fuel for the production of electricity. With the initial power stations being replaced by newer stations such as the Edenderry Power Plant the use of milled peat has continued as the primary energy source. The Edenderry power station and two other similar plants are not, however, the exclusive recipients of milled peat as the milled peat is used in a range of other commercial enterprises including horticulture.

The reason for referring to this is that the issue of fuel source peat extraction is a matter to be considered in relation to the current proposal and is identified in 2014 No. 38 J.R. The use of peat as the fuel source at the power station is without question a contributor to ongoing peat extraction. The current power

station is not, however, the exclusive consumer of the milled peat extracted and whether or not the power station ceases operations peat will continue to be industrially harvested from the commercial bogs as a significant source of raw material for other commercial activities. The cessation of operations at the Edenderry power plant will not, therefore, result in the cessation of industrial scale peat extraction; it may result in its reduction, but not necessarily its elimination.

The current plan is the Offaly County Development Plan 2014-2020. The provisions of the plan recognise the historic significance of bogs as a source of energy and power generation and policy P08-06 of the plan states that, '*having regard to the county's long tradition in power generation, it is Council policy to facilitate the continuance of power generation stations within the county, as appropriate including the consideration of co-fuelling'.* There is, therefore, a clear policy in support of the power station and its continuance into the future.

In overall terms in relation to national policy there is recognition that to reduce and then to eliminate greenhouse gases power plants which use peat and other non-renewable fossil fuels have no long term future as a source of generating electricity. There is recognition also that a transition to achieving this is necessary to provide for security in providing energy and the development of alternative sources of power generation.

In this context the proposal is for extending the operational life of the plant until 2030 and I would conclude that there is no policy objection broadly to the principle of considering this development having regard to EU, National and Local policy considerations within a defined timeframe for the elimination of peat as a source of generation of electricity.

Notwithstanding this, the development requires also to be considered in the wider context of other matters including site specific matters and other issues including potential effects and impacts on area designations and criteria which require examination and assessment and which are considered in detail under the relevant headings below.

11.3 ENVIRONMENTAL IMPACT STATEMENT.

The application is accompanied by an Environmental Impact Statement.

In relation to the adequacy of the EIS, I consider that it contains the information specified in Schedule 6 of the Planning and Development Regulations 2001, as amended and can be considered as a contribution towards the process of assisting the relevant decision maker and the competent authority, in this case the Board, to enable a decision to be made.

The EIS has set out impacts and identified these under a series of headings and chapters including:

- Need for the project and alternatives.

- Human environment and material assets.
- Flora and Fauna.
- Water quality.
- Soils, Geology and Hydrogeology.
- Air quality and climate.
- Noise and vibration
- Landscape and visual.
- Traffic.
- Cultural heritage.
- Interaction of the foregoing.

The EIS also under the various heading and subheadings considers impacts initially in the context of the power plant itself and subsequently in the context of peat fuel supply to the Edenderry Power Plant. This widens aspects of the consideration of impacts to a number of counties which include parts of Offaly, Kildare, Laois, Westmeath and Meath.

11.4 ENVIRONMENTAL IMPACT ASSESSMENT.

In accordance with the requirements of the European Directive 2011/92/EU and Section 171A of the Planning & Development Act 2000-2010, this process requires the Board, as the competent authority, to identify, describe and assess in an appropriate manner, in light of each individual case and in accordance with Articles 4 to 11 of the Environmental Impact Assessment Directive, the direct and indirect effects of the proposed development on the four indents listed in Article 3 of that Directive as set out below:

a) Human beings, flora and fauna,
b) Soil, water, air, climate and the landscape,
c) Material assets and the cultural heritage, and
d) The interaction between the factors mentioned in paragraphs (a), (b) and (c).

I would note that many of the appellants' and observers' submissions raise concerns and objections which would arise within the four indents (a) to (d) referred to above. There is also a degree of overlap in relation to the indents outlined.

11.4.1 Impacts on human beings.

In relation to the impact on human beings this is considered in chapter 5 of the EIS. There is reference to the historical importance of both electricity generation and commercial peat extraction to the economy of the area. Sections 5.4.2 and 5.5.2 specifically refer to employment indicating that the plant itself employs 54 people directly and 75 people are employed indirectly through the supply of goods and services to the plant and also approximately 215 full time equivalents, including both permanent and seasonal employees, are engaged by Bord na Móna Energy Limited in peat production and supply.

The site is located within a mixed landscape including an actively farmed and living landscape with isolated farms and housing in the countryside. The wider area also has extensive tracts of bogland which have been worked commercially and some newer areas of commercial forestry. The power station itself and infrastructure serving the power plant has an established purpose built and dedicated rail network to supply peat to the power station. The road network which supplies biomass is in situ. As a consequence no significant alteration to the receiving landscape and to the people who reside in the immediate area will occur.

I propose to consider impacts under a series of headings.

11.4.1.1 **Employment.**

In relation to ongoing employment as detailed in the EIS it is indicated that from the commercial view point it would be Bord na Móna Energy Limited's intention not to source alternative markets for the supply of milled peat to the bogs that currently supply Edenderry Power Plant in the event that the power plant is required to close. Consequently, it is understood that activities in the bogs that currently supply peat fuel to the power plant would remain unchanged. However, the employment profile may be altered with the overall inference that irrespective of whether the power plant operates or ceases to operate ongoing production of milled peat will continue.

The increasing opportunity arising from increased usage of bioenergy crops as a source of feedstock has potential for domestic growers of bioenergy plants but in this regard supply of this material to the plant is dependent on global market forces and it is difficult to evaluate the nature of any benefits in relation to domestic production of these crops.

The primary direct effect is relation to human beings relates to employment. In the short term and the proposed life time of the facility this is unlikely to alter if the power station remains in operation. In this regard the ongoing provision of employment and the overall contribution to the local economy is the main issue and closure of the plant will potentially be an identifiable and adverse impact on the area in this regard in the absence of alternative opportunities arising.

11.4.1.2 **Noise.**

Section10 of the EIS relates to noise and vibration impact assessment. The study area for the consideration of noise and vibration impacts associated with the continued operation of Edenderry Power Plant is the power plant itself and its immediate environs. The study area for the consideration of indirect environmental impacts associated with the production and supply of peat fuel to Edenderry Power Plant is as described in Section 3.5 of the EIS incorporating areas of County Offaly, County Kildare, County Laois, County Westmeath and County Meath.

Sensitive receptors in relation to both study areas are identified and the main sources of noise in relation to the plant itself and the peat areas are identified. Noise arising from traffic and transportation of material is also considered. The site, it is noted, is the subject of ongoing monitoring in relation to noise arising from existing permissions and licencing permits.

The documentation submitted would indicate compliance with existing noise limits and subject to existing practice being retained no alteration on the receiving environment is likely to arise. I would therefore consider that issues in relation to noise and vibration do not arise.

9.4.1.3 **Transportation and traffic.**

Traffic is largely assessed in chapter 12 of the EIS. In relation to peat supply to the power plant there is a network of permanent rail tracks and all of the peat fuel supplied to Edenderry Power Plant is transported via this internal rail network. With the projected decline in peat fuel use it is indicated that the rail network has sufficient capacity to operate within these areas up to 2030 with no additional infrastructural or expansion requirements. In relation to the peat supply traffic issues do not arise.

The primary impact in relation to traffic arises from the use of the road network for the transportation of biomass fuel to the plant. The level of biomass is restricted by condition no.3 of An Bord Pleanála Planning Reference Number PL 19.242226 to a maximum of 300,000 tonnes of biomass on an annual basis. The biomass is predominantly transported to Edenderry Power Plant by road via haul routes previously designated and agreed with Offaly County Council and in terms of vehicular movement the plant is limited to a maximum of 63 heavy goods vehicle (HGV) deliveries of fuel to the site by road on a daily basis. It is noted that no change to these limits is proposed as part of the current planning application.

The EIS assesses the impact of the development including the carriage of the maximum 300,000 tonnes per annum on the road network. The overall traffic assessment based on 300,000 tonnes per annum concluded that this level of traffic is not expected to have a significant effect on the general operation, safety and capacity of the road network and that residual traffic impacts associated with the continued use and operation of Edenderry Power Plant are, based on the assessment, considered to be imperceptible.

I would consider that the increased level of traffic movements arising from the transportation of biomass will have an impact on the road network but the transportation to the site is via an established regional road network in the immediate area and the national and motorway network further distant. The plant is currently supplied by biomass material which is increasing in terms of tonnage transported on an annual basis but there is nothing to suggest that the increased tonnage which has continued over a period of time and will increase up to the maximum tonnage permitted will significantly or adversely impact on the road network based on the anticipated traffic volumes. Based

on the information submitted the road network has the capacity to accommodate the level of traffic which the development at its maximum demand will generate.

Conclusion.

Overall in relation to impacts on human beings the current proposal represents a continuance of a power plant. There is no alteration to the position other than an increased level of traffic arising from additional importation of biomass fuel to the plant as feedstock up to a permitted maximum of 300,000tpa and this increase will not significantly impact on the environment.

11.4.2 Flora and Fauna.

11.4.2.1 General.

In relation to flora and fauna chapter 6 of the EIS relates to Ecology. In relation to the actual development the format of the EIS refers to both the immediate plant and the peat fuel supply to the plant and the survey works arising in relation to both aspects and considers both areas under different headings. In considering flora and fauna the structure of the EIS examines the plant and also under a separate heading the peat supply for the plant.

In relation to the plant itself it is indicated that, as there are no changes proposed to the existing operations or emission limit values as part of the application, additional field studies of the power plant site in the context of the EIS were not required as the initial proposal flora and fauna surveys and surveys of the River Figile were undertaken.

In relation to the areas/bogs which have been the subject of habitat and flora surveys since 2009, and formed the basis of the draft rehabilitation plans of the said bogs submitted to the EPA in 2013, these rehabilitation plans are included in Appendix 6.1 of the EIS.

For the purpose of this assessment the two areas are considered separately.

11.4.2.2 Impacts on habitats.

The Existing Plant.

Specifically, in relation to the site of the power plant it is currently an industrial site which is modified from its previous use and has artificial and manmade surfaces and is by virtue of its altered state not of any terrestrial ecological value. In relation to designated sites the EIS has identified 6 sites within a 15 kilometre radius and these are outlined in table 6.1 of the EIS. There are no designated Natura 2000 sites located within the proposed site boundary. The plant as it is constructed and operational, therefore, does not represent any

loss or alteration of habitat and there are also no proposals to alter the existing plant or its operations.

The EIS does identify that, as with any operational industrial facility, there is the potential for accidental leaks and spills of potentially polluting substances to impact on adjacent habitats. These are currently mitigated through design and the implementation of control measures and these will be continued as part of future operations.

There are a number of designated sites identified in the EIS and the AA screening within 15km of the power station site. The River Barrow and River Nore SAC Site Code 002162, located 14.5 kilometres from the site, is of significance as the Figile River in close proximity to the site is a tributary and part of the overall catchment of this river system. The Figile River is an integral part of the process of the plant as it is used as a source of abstraction and discharge in relation to the operations of the plant. These operations are regulated by conditions and there is an overall water management plan which controls flows, rates of discharge and potential sources of pollution.

In terms of identified impacts, the primary issue specific to the plant is that it is an operational plant and changes to the receiving water environment can occur. The abstraction and discharge is currently regulated and subject to ongoing monitoring. There are mitigation measures in situ to prevent accidental spillage and controls in relation to discharge. In this regard the maintenance of water quality is of importance and there is nothing to suggest, subject to ongoing mitigation and monitoring, that impact on the receiving environment and habitats will arise.

The Bogs that are a Source of Peat Supply to the Plant.

The bogs in question cover a vast area and are located in a number of counties and within the catchments of a number of major rivers. The bogs are in different stages of peat extraction varying from worked out areas, areas currently subject to current extraction, areas currently mothballed in relation to extraction and uncut areas. The nature of the habitat of the bogs, therefore, varies considerably as they are not uniform in character. They have also been the subject of varying levels of extraction in relation to timeline and scale of extraction and include areas within the overall bog where works have ceased. Some of the bogs have also been the subject of afforestation and initial stages of recolonisation. Aside from the bogs themselves, which are extensive in area and extent, figure 6.2 of the EIS indicates designated areas within 15 kilometres of these bogs, which greatly extends the area of interest in relation to ecology.

Intrinsic to the character of the bogs is the nature of the drainage of these areas as, given the high constituent level of water present, drainage of the peatland is a significant element of the operations of commercial peat bogs. Drainage can alter the character of the bog, impair or reduce the possibility of

its regeneration and, in discharging water off the peatland, has potential to impact on receiving watercourses.

It is, however, important to consider that the extracted peat areas under consideration have already been largely altered and are not in their original state. The peat has largely been excavated and removed and this is an irreversible impact. It is also important to state that, although these works including drainage will continue, no new areas of extraction are proposed. It is also noted that in some situations recolonisation and also afforestation has occurred in what is a patchwork of diverse sections of landscape.

An overall appraisal of the bogs in terms of ecological importance is outlined in table 6.2 of the EIS. Essentially it identifies the diversity referred to, the varied nature of the bogs and also the bog extraction areas are identified as largely of low ecological value given the major alteration of the original habitat.

In relation to future use of the bogs post extraction the applicant has implemented a strategy for responsible peatland management through the development of a Biodiversity Action Plan (section 6.4.2.4 of the EIS). With the diversity and continued harvesting often in close proximity it is reasonable, I consider, to conclude that there is no uniform approach that can be adopted in relation to the afterlife of worked out bogs. It is equally reasonable to conclude, given the diversity and variation, that direct impact by continued peat extraction in relation to habitats will continue and this is acknowledged and outlined in section 6.5.2.1 of the EIS. In overall terms the direct impact of future extraction is rated by the applicant, given the history and ongoing commercial operations, as not significant and the focus is on management of ongoing operations in particular drainage systems.

Specifically, in relation to habitats and future impacts the issue will centre on areas of ecological importance including areas of remnant high bog, cutover bog and developing wetland habitats in former productions areas which can often support important populations of breeding and wintering birds and provide habitat for protected species, such as badger and pine marten which are outlined in figures 6-2 to 6-8.

There are no proposals that these remnant high bog areas will be subject of future extraction and this is clearly stated in the EIS. As a consequence, therefore, no direct effects can occur but there is recognition that given the nature of the overall drainage of bogs indirect effects cannot be effectively eliminated in the future. In this context, therefore, notwithstanding the absence of removal of peat on these sites of ecological importance, the ongoing effects of drainage works past, ongoing and future to facilitate the extraction of peat could affect the hydrology of areas of high bog which adjoin or occur close to the peat harvesting fields. This is acknowledged in the EIS and is a reasonable conclusion.

As a consequence, the EIS considers that, while the listed examples of degraded raised bog in figures 6-2 to 6-8 are potentially capable of natural

regeneration, some of these sites are unlikely to regenerate to active raised bog. The basis of reaching this conclusion would, I consider, largely relate to the absence of a critical size and mass in what I could best describe as isolated pockets of bog in a wider area allied and totally dependent on local topographical and hydrogeological factors.

In the absence of an overall cessation of peat harvesting in the areas proximate to the raised bogs, and this application is not an application in relation to the commercial operation of the bogs, it is difficult to envisage, given the continuing alteration of the drainage regime, how these pockets would develop the required hydrological regime to promote regeneration.

The third party submissions, in this regard, refer to rewetting the area and that this will facilitate the regeneration of these pockets. The applicant, however, contends that regeneration and future recolonisation of bogs have been the subject of ongoing examination in the context of all the major bogs and that, due to the isolated nature and elevated topography of the majority of these sites, there are significant challenges to attempting to raise the water table to rewet the high bog and, as a consequence, to promote the development of active raised bog in these situations.

The main issue relates to the remnants of the bogs which may be of ecological value and their future protection. The simplest conclusion would centre on future operations being conducted in a manner whereby no works would directly impact on these areas. These areas, it is indicated, will not be the subject of future extraction and there are no proposals to extract in these areas. Whether that in itself is sufficient is hard to evaluate. As a result of the history of extraction indirect and residual impacts have and are likely to continue which will potentially degrade these areas and cessation of peat extraction, in itself, does not, on the basis of the evidence presented, infer that extant bogs will regenerate, given the history and residual impacts to the original drainage regime which was integral to the formation and preservation of the bogs in question.

In mitigation there is a recognition of avoidance of operations which will actively contribute to potential further degradation and also the habitat condition of the high bog remnants will continue to be monitored by a team of ecologists though a programme of peatland management. Where it is identified that there is potential to rehabilitate the cutaway adjoining high bog, to improve the long-term habitat quality of the high bog remnants, this will be carried out as part of the rehabilitation programme of the bogs.

It is, however, also important to consider that a rehabilitation programme does not necessarily infer that circumstances and conditions can be implemented to allow for regeneration to an original state. Given the diverse nature of the bogs it may occur where local conditions and the hydrological conditions permit in some areas and not in others.

Other habitats of significance include aquatic habitats which have a direct hydrological relationship to the peatlands. The management of outfalls from the bogs to watercourses is, therefore, of significance to the integrity of these aquatic habitats. The vast land area and extent of the operations impacts a large number of watercourses and river catchments. The control of discharge and, in particular, control of silt levels is integral to maintaining balance in the watercourses and this, it is noted, is regulated by the licences which currently operate for the commercial bogs.

Conclusion.

In relation to flora and fauna the EIS examines this matter in the context of the plant and then in the wider aspects of the peat supply to the plant. The EIS, and generally the documentation as submitted, has followed a methodology of identifying potential impacts having carried out survey work. The evaluation of risk has been carried out in the context of an absence of mitigation and also in the context of mitigation measures. Many of the mitigation measures are in operation arising from permissions already granted.

In relation to the plant, given the established nature of the plant over a period of time, the position is unlikely to alter in relation to residual impacts. I would note that indirect impacts may arise in relation to water in the context that the plant abstracts water from the Figile River for the purpose of cooling and after processing the water is returned to the river. The plant is, however, subject to ongoing monitoring and licensing in relation to the nature of discharges to the watercourse and there are management procedures in place in this regard.

In relation to the extraction of peat from the bogs the operation of the plant contributes to removal of peat but is not the sole contributor to the removal of peat. In this context it is, therefore, important to consider that any assessment of habitats takes into consideration that, although the power plant which is the subject of this application is a contributor to harvesting of peat, there are other power stations and other non-power related commercial activities which also source peat from these bogs. The cessation of operations of the Edenderry plant or elimination/reduction of milled peat as a feedstock will not necessarily result in cessation of commercial peat harvesting.

It is indicated by third parties that, if extraction ceases, a rehabilitation programme, including rewetting, will assist in regeneration of the bogs, in particular, the raised bogs and, more specifically, the remnant raised bogs. It may well be the position that if all extraction ceases in the commercial bogs such an approach can be considered but as already stated the cessation of the power station does not necessarily infer that all peat harvesting of the commercial bogs will cease. Given the diverse nature of the bogs it would appear reasonable to conclude that no uniform approach to rehabilitation can be applied and that rehabilitation can be successful or uniform in all cases.

Rehabilitation and mitigation has been examined and is the subject of ongoing assessment. The success or otherwise of rehabilitation is largely determined

by ongoing drainage associated with the bogs as drainage of the bog area is an integral component of peat extraction and topographical features specific to the remnant areas. There will, therefore, be ongoing residual impacts even where harvesting of peat ceases. In this context it is difficult to conclude that there is a solution such as rewetting which will in itself rehabilitate and preserve remnant areas and also that rewetting and other measures, in the absence of a wider approach to rehabilitation and recolonization, will restore peatland areas where the peat layer is largely removed.

The removal of peat is a direct and in many respects, I consider, an irreversible impact but this has occurred over a period of time commencing prior to commissioning of the plant. The original bog has largely disappeared through removal of the surface material, extraction of the lower strata of peat and an associated system of drainage to facilitate removal of water, a major constituent of the peatland. In terms of habitat the removal is, therefore, largely permanent and irreversible. There are some isolated remnants of raised bogs but their status is compromised by the relative small area that remains in the context of the overall bogs and ongoing extraction and the related processes associated with extraction. It is, however, indicated that extraction of these remnant areas will not occur.

It is also important to indicate that an equally significant indirect impact relates to impacts arising from extraction on the receiving watercourses. In this regard the EIS has indicated the current measures applied in relation to drainage, to the placement of silt traps to prevent silt entering watercourses and that the current operations have been assessed as part of the licence permitted for the bogs. The regulation of these bogs also provides for review of the measures and monitoring to ensure discharges comply with approved standards in relation to discharges.

In relation to the details submitted I consider that the potential impact on habitats on the actual site of the power plant is not, therefore, significant. In relation to areas which supply peat the impacts largely occur on areas with a long history of human intervention through commercial peat extraction occurring since the 1950s. Many of the impacts which have occurred are irreversible and although the plant has contributed to these impacts it is not the sole contributor and the cessation of activities will not in itself stop peat extraction. There is recognition of protection of remnants of peat of ecological importance and that these will not be the subject future extraction and measures will be examined to try and maintain these remnants but there is recognition that this, although desirable, may not be readily possible.

11.5.1 Soil, water, air, climate and the landscape.

11.5.2 Soils geology and hydrogeology.

This issue is considered in chapter 8 of the EIS and the EIS considers the plant itself and the lands supplying peat to the power station under separate headings.

Specifically, in relation to the site of the power station there are no alterations proposed in relation to the current site. The site abstracts water to provide potable water and feed water for the on-site demineralisation plant and there is also a proprietary sewage wastewater treatment plant that discharges to ground via a percolation area of approximately 300m^2. The site is the subject of ongoing monitoring in relation to groundwater as the plant discharges to ground and the monitoring has not identified any impacts. The mitigation measures and monitoring were conditioned in previous permissions. In the context that no alteration is proposed to the current plant, and that ongoing monitoring will continue, I consider that no impacts will arise.

In relation to the areas of peat supply these have been the subject of ongoing peat harvesting over a long period of time. As a consequence, the overlying layers above bedrock have been altered while the upper acrotelm layer, which includes living plants, has been completely removed and the remaining deeper peat layer radically altered by the removal of this material. The removal of the peat material has also impacted on the hydrogeological regime given the high water content of these soils. Given the proximity of the production bogs to water sources the EIS has recognised the requirement for an appraisal of the impact of peat harvesting on these water sources.

The continuing extraction of peat will result in ongoing impacts which have already occurred in relation to the alteration of the geological soil profile through the removal and loss of the peat layer, alteration to drainage systems, which are significant and in many cases permanent and the risk of contaminants entering water bodies and the subsoil. The EIS has identified that risks have been evaluated to sources for water supply and they are not impacted.

I would note that the current licencing of the bogs does provide for conditions to address matters relating to contaminants entering water. I would also note from an examination of these licences that details were submitted in relation to measures to address particulate matter entering surface water and groundwater through the provision of silt traps and the ongoing monitoring of these measures. The licensing documentation clearly indicated that the physical location, quantity and the sizing of the silt traps was correlated to the bogs and drainage of the area.

It cannot be disputed that the past and ongoing extraction of peat has resulted in permanent and irreversible alteration of these bogs. I would, however, note that the extraction has occurred under a licence which has required the inclusion of measures to protect receiving waters and ongoing monitoring to objectively ascertain the effectiveness of these measures.

11.5.3 Water.

The issue of water, surface water and hydrology is considered in chapter 7 of the EIS.

The appraisal of water addresses the power station and also under separate headings the peat areas which supply the power station. Specific to the power station the EIS considers water quality in relation to both surface water and groundwater.

In relation to the operations of the plant itself two wells are currently operated to provide a source of water supply for both potable water and also the demineralisation plant with the bulk of the water used in the mineralisation plant, 120m^3/d compared to the daily demand for potable water of 2m^3. There is no anticipated alteration in relation to demand.

Surface water is abstracted from the Figile River for cooling and this was developed in accordance with the conditions prescribed within the existing water abstraction consent. Abstraction rates are determined and the requirement is that the plant maintains a rate of abstraction not exceeding one third of the established DWF at the abstraction point of 240m^3/hr.

In relation to discharges arising from the plant foul water is treated in an on-site domestic sewage secondary treatment plant prior to discharge to ground via a percolation area. The largest discharge arises from process water where the combined process wastewater streams pass through a settlement lagoon prior to discharge to the Figile River. The lagoon acts as a cooling lagoon for the process water cooling tower and boiler streams, reducing the level of thermal discharges to the river.

Additional water discharge arises from surface and roof water from the plant. There are areas with a potential for oil contamination identified, such as car parks, truck unloading facilities and water is directed via oil interceptors to the settlement pond.

In relation to discharge rate from the settlement lagoon into the Figile River this is monitored in relation to rate of discharge and temperature with a sluice gate installed at the lagoon allowing discharges to be controlled.

Water quality downstream of the plant is monitored and the Figile has been assessed in relation to the impact of the plant on this river, a tributary of the River Barrow, and in the context that the Figile is significant in the upper River Barrow catchment area. Results of monitoring upstream and downstream of the discharge of the plant as outlined in tables 7.4 and 7.5 would appear to indicate no impact on the status of the river. The Figile River was the subject of the 2010 Figile Water Management Unit (WMU) Action Plan to improve the overall status of the river.

The action plan has identified pressures/risks to the river as primarily relating to nutrient sources. The plant itself is identified as a pressure but not a risk and in relation to peat production it is not identified as either a pressure or a risk in the Action Plan. Emission Limit Values (ELVs) are subject to review

within the terms of the EPA licence as the plant is identified as posing a risk to the receiving aquatic environment.

There is no alteration proposed in relation to the plant which is regulated and subject of licence in relation to emission levels. There is ongoing monitoring of the plant and discharges to water arising from the plant. I am satisfied that the EIS in relation to the plant has identified potential impacts to water, has assessed current operations and mitigation measures are in place in relation to ensuring water impacts comply with accepted discharge values.

In relation to the bogland used as a source of peat for the plant the sources of peat are drawn from a wide geographic area which is identified in the EIS and are located within the catchment areas of the Eastern River Basin District (River Boyne Upper, River Liffey) the South Eastern River Basin District (River Barrow) and the Shannon International River Basin District (River Shannon). The quality of the water in the watercourses is very variable as indicated in table 7.7 of the EIS with many of poor status. The extraction of peat is identified as a contributing pressure in relation to the water quality of the receiving watercourses and wider river catchment.

The harvesting of peat, therefore, has a direct relationship to water given the large constituent presence of water in peat but also in relation to the receiving water environment.

Water from the harvested bogs drains to piped outfalls which in turn discharge to the nearest watercourse via silt ponds which are designed to a capacity of $50m^3$/hectare. The design and maintenance of the drains and silt ponds are regulated in accordance with the conditions outlined in Industrial Pollution and Control (IPC) Licence Registration Numbers P0501-01 (Derrygreenagh Group) and P0503-01; (Allen Group). By condition effluent discharges are limited to 35mg/l suspended solids. As part of the assessment of the licences, based on my examination of the documentation for the licences, the overall nature of the drainage scheme was submitted in detail at the time of the application for licences.

The licences also, in addition to considering particulate matter, set out trigger levels for ammonia and COD, introduced in August 2013, requiring Bord na Móna Energy Limited to notify the EPA if limits as specified are exceeded.

In relation to potential risks the EIS has identified that harvesting of peat, if not carried out without safeguards and implementation of mitigation measures, can result in adverse discharges to the receiving watercourses. There are mitigation measures in place to control discharges of silt by the provision of silt ponds commensurate with identified levels of silt runoff. Accidental discharges from machinery is also identified as a potential impact and considered in the overall management of discharges to receiving waters.

The discharges from the bogs that supply fuel to Edenderry Power Plant are and have been regulated and controlled by the EPA under the IPC licensing

regime in relation to emission limits and the provision of a satisfactory level of mitigating infrastructure. It is also noted that the licences have been examined and revised by the EPA in line with the objectives of the Water Framework Directive.

In general, I consider that the measures outlined are satisfactory in addressing the potential risks identified and are of importance in the general sense of protection of water quality. In overall terms I consider that, subject to ongoing application of current mitigation measures, the development will not adversely impact on the aquatic environment.

11.5.4 Air and Climate

Air and climate are addressed in chapter 9 of the EIS. The issue is not exclusively in the context of the immediate plant and its environs and also the peat areas but there is also consideration of the broad context of national and international parameters of emissions and the impact of burning of peat and the indirect effects on air quality arising from the loss of peat areas.

The ongoing use of the Edenderry power station and the use of peat as a feedstock for the generation of electricity is largely part of the overall debate in relation to climate change projections and CO^2 emissions. As already indicated in relation to policy there is recognition that the burning of fossil fuels should cease or be phased out within a defined time frame. In this regard the phasing out of these stations by 2030 and the provision of alternative sources of power supply is stated national policy. There is also recognition of this policy by a reduction in using peat exclusively and increased inclusion of biomass. Another wider issue is the overall loss of peat bogs as sources of carbon sinks in the overall wider context of climate and the applicant and third parties have offered divergent views on this and whether the bogs in their current and projected state would constitute an offset in relation to carbon.

There is no dispute that the plant is a contributor to CO^2 emissions. The Edenderry plant, in terms to national emission value, is part of a complex Pan-European EU Emissions Trading Scheme (EU-ETS) agreement to cover all CO^2 emissions from the use of peat fuel, oil as a start-up fuel and limestone at the plant and the Edenderry plant is specifically referred to in terms of national targets and emission trading. There are identified timescales in relation to the eventual elimination of peat as a fuel in combustion and production of electricity. The increased use of a biomass as a feedstock mixture in Edenderry will also contribute to a reduction in greenhouse emissions, in particular CO^2. It may be that the transportation of biomass to the site may offset any benefit arising. There is also a question of whether carbon changes arise in the countries and area where the biomass is produced which may also offset any benefits but this is difficult to quantify.

In the context of policy this is constantly evolving but there is an identifiable trend in the reduction and elimination of fossils fuels and current policy does provide for its eventual cessation. The continued use of the site as a co fired

peat and biomass power is, I consider, consistent with policy and the extension of the operation until 2030 is not at variance with future projects and targets in relation to greenhouse emissions.

In relation to the peat lands there are technologies applied in the harvesting of peat to reduce greenhouse emissions but it is reduction rather than elimination and, therefore, as a consequence, harvesting of peat is and will continue to be a contributor to greenhouse emissions. There are also measures in place to minimise the dispersal of fugitive dust and information submitted would indicate that air quality standards are within approved limits and subject to monitoring.

I would, however, note that the cessation of the plant's operation in relation to the combustion of peat does not necessarily infer that the peat lands currently supplying the Edenderry plant will cease to be harvested. It is also difficult to evaluate the nature and extent of any perceived gain as carbon sinks and how it could or will be attained as the future use and composition of the harvested bogs is a complex area to evaluate and the bogs are not uniform in their composition. It is also outside of the scope of this appeal to evaluate this matter.

Specific to plant itself, and the issue of air quality, the plant produces emissions which are the subject of regulation and monitoring and comply with current air quality standards. There are no additional proposals other than what currently applies on the site. The provision of altering the feedstock is already accounted for and will assist in reduction of greenhouse gases and that can be considered as a reduction of impact. I would note that this reduction will, as a result of increased traffic movements, be offset by emissions from the HGVs transporting the 300,000 tonnes of biomass to the site but this increase will in turn be offset by the reduction in traffic transporting peat on the rail network.

In overall terms the ongoing operation of the plant will not result in an increase in greenhouse emissions and, with the application of co-firing, the levels of emissions have reduced and this will continue during the operational period of the plant.

11.5.5 Landscape

Chapter 11 of the EIS considers landscape and visual impact. The methodology applied considers the plant itself and then evaluates the peatlands which supply the plant which are identified in figure 11.1.

In relation to the plant itself the visual impact of the plant is readily evident as the plant is in situ and there are no proposals for any alteration to the plant. Given the receiving environment, which is a relatively flat terrain, the plant is visible on approaches to the site. The visual impact is limited to the immediate area and I would have no issues in relation to visual impact as currently exists.

In relation to the peat lands supplying the plant the area of these bogs covers a vast area of this part of Ireland and considerable tracts of land in counties Offaly and Kildare and areas of counties Laois, Westmeath and Meath. The lands in question are for the most part cutaway bog in relatively flat terrain. There is an established infrastructure of rail lines associated with the harvesting of peat within what is a commercial / industrial landscape. The commercial bogs form part of an overall landscape which is rural in character with active farming and areas of forestry and a diverse settlement pattern with isolated housing and towns and villages.

The EIS has evaluated the bogs in the context of their landscape character and relevant landscape policies in the development plans of the relevant counties.

The visual impacts arising from the harvesting of peat has occurred for over fifty years and the landscape has, in the commercial peat lands, altered considerably. The ongoing harvesting of peat will not alter this and, as no additional areas are proposed for peat extraction to those already used, there will be no physical extension of the commercial peatland area.

As part of the licences permitting the removal of peat there are requirements set out in relation to decommissioning of the bogs which cease to be used and these include dismantling of infrastructure and stabilisation of the peat production area. There will also be rehabilitation of the bogs through regeneration with recolonisation but the nature of the rehabilitation will vary depending on the individual bogs and also in relation to timescale.

In overall visual terms harvesting of peat on a commercial scale has resulted in significant visual impacts and a change in the landscape but many of these visual impacts have already occurred over a long period. In effect what was a natural landscape has been transformed to an industrial type landscape where vegetation has been removed and uniformly flat areas exist largely different to the original landscape. As there is no proposal that the power station will result in additional new areas of peatland being developed no additional visual impact will arise and the visual character of the landscape will remain largely unaltered to its current state.

11.6.1 Material Assets.

The increased use of biomass in the co-firing of the power station will have certain impacts on the structure and carrying capacity of the existing road network, and in particular sections of the local road network arising from the additional levels of HGV traffic, but the material is being transported on major routes and regional roads which I am satisfied have the capacity to accommodate this traffic.

The use of peat as a feedstock in the generation of electricity will reduce the reserves of peat which are not a renewable resource but the power station is

not the sole consumer of peat from the areas currently harvested. It is noted that additional areas of bog not currently harvested are and will be used in relation to the power plant. The increased use of biomass does create opportunities for the production of biomass material within the state or any benefit for the agricultural sector but this aspect is difficult to evaluate as the sourcing of this material will be determined by economic factors. In relation to the local economy the employment provided by the plant and the harvesting operation are tangible benefits to the local economy.

11.6.2 Cultural Heritage.

Cultural heritage is addressed in chapter 13 of the EIS.

The methodology applied in relation to cultural heritage is similar to that followed in other chapters of the EIS with separate headings in relation to the plant and the peatland areas.

Specific to the power plant itself the site was subject to archaeological monitoring when constructed and no physical additions are proposed. I do not consider that impacts in relation to cultural heritage arise in relation to the power plant.

In relation to the peat lands the EIS has identified that, because of the acidity of peat and the anaerobic environment which exists within peatland deposits, objects can be preserved in peat lands. Consequently, there is a very high to moderate potential to uncover previously unrecorded archaeological finds in the peat bogs and the high level of archaeological heritage uncovered and identified in the bogs is outlined in table 11.1 of the EIS. There is a code of practice agreed between the Department of Arts, Heritage and the Gaeltacht, the National Museum of Ireland and Bord na Móna in relation to archaeological investigation and this is carried out throughout the harvested bogs.

I consider that the potential impact to cultural heritage is recognised and that there is appropriate mitigation and monitoring measures in place and as a consequence I would have no objections in relation to cultural heritage.

11.7.1 Interactions and Cumulative Effects.

In the EIS impacts are generally addressed under different headings. Chapter, 14 considers the interaction of potential different effects and the matrix of these interactions is outlined in tabular form in table 14.1. A development of this nature will have interactions and there is also recognition of the potential of different impacts to potentially effect directly and indirectly matters such as water, ecology and the overall wider issue of climate change. With regard to the inter-relationships between matters referred in the assessment I am satisfied that these interactions have been satisfactorily addressed.

Cumulative effects are addressed largely in the context of the bogs supplying peat to the power station and are also presented in tabular form in table 14.2 and are I consider satisfactorily addressed in the EIS.

11.8 Overall conclusion.

The EIS has essentially followed a format of assessing the plant and separately the areas providing peat to the power station under various headings. In adopting this approach the EIS has adopted a wider approach than a direct assessment of the power station and has also considered the bogs which in part supply peat as the dominant source of feedstock to the power station.

Specifically, in relation to the plant itself it is a power station which has operated for a number of years and is regulated and subject to ongoing monitoring in relation to the various aspects of its operations. This provides for an opportunity to assess the development on what is currently in operation as distinct to evaluating potential impacts. Other than the change to the use of an ongoing increased use of biomass in co-firing over a period of time, with a corresponding reduction in the volume of peat used in the plant, the development as submitted represents no change in relation to its operation. There is no physical change in the infrastructure or building form.

The issues and impacts have been considered and assessed and the presence of the development and the history of monitoring have enabled a robust assessment and evaluation of the current plant. I am satisfied that the EIS has submitted identified potential impacts, has outlined mitigation measures in place and that, with the application of these mitigation measures, the plant complies with standards required by conditions of previous permissions and current licences.

In relation to the peat lands the application as submitted does is not an application for the extraction of peat. The power station uses peat extracted in peat lands as a raw material in producing electricity. The peat lands are licenced and operate under conditions of an EPA licence. The peat extracted from the licenced peat lands is not extracted for the exclusive use of the power station which is the subject of this application or other power stations and the cessation of operations at the Edenderry power plant does not necessarily infer peat extraction will cease.

However, as determined in the recent court decision, the commercial bogs in question are an indirect effect with a physical relation to the power plant and, as such, should be evaluated. I would also note, in this context, that it was determined that having a separate licencing regime in place is not a reason for exclusion of peat extraction from consideration of the current proposal but that the licences can be taken into account in the assessment of the current proposal.

In relation to peat extraction and an assessment of impacts arising, the various chapters have identified and assessed impacts. In relation to the peat lands used for harvesting peat which supplies the power station the physical land area is an extensive area covering parts of a number of counties and river systems. It is part of a large and vast area that in many respects has no visual and physical connection to the plant other than that part of the output of these peat lands is used as feedstock for the power plant. In acknowledging there is a relationship between the plant and the peatland it is noted that the bogs are not harvested exclusively for Edenderry power station and that if the power plant ceases to operate or use peat as a feedstock that this in itself does not infer that the harvesting of the bogs will necessarily cease.

In the context of assessing impacts the EIS has identified risks of impact arising from harvesting of bogs which largely centre; on loss of original habitat and landform; on the alteration of the drainage regime; and on the risk, in particular, of silt entering watercourses with consequent impacts on habitats and species downstream. It is noted that the bogs have been the subject of licencing, that the licences, by conditions applied in the various reviews, address emissions, in particular, to the watercourses and water quality and also other parameters, including air quality.

I would also note that given the complexity and range of lands within the peat lands there is recognition that the afterlife of these bogs will not be uniform and that a suite of solutions will be necessary. In this regard current monitoring and studies identified in the EIS will inform future use, aftercare and recolonisation.

Directive 2011/92/EU is a directive relating to the assessment of the effects of certain public and private projects on the environment and in effect provides for the codification of 85/337/EEC and subsequent amending directives. There is a requirement that development consent for public and private projects which are likely to have significant effects on the environment should be granted only after an assessment of the likely significant environmental effects of those projects has been carried out.

I am satisfied, in relation to EIA, that the applicant has presented documentation in relation to identification and evaluation of impacts arising from the harvesting of peat. I consider that the harvesting of peat, which has predated the power plant and which is not dependent on the power plant, has resulted in impacts that are permanent and irreversible by the removal of material and altering the visual form of the landscape and this is not in dispute by the applicant.

The issue to consider is whether future harvesting will continue to impact on the environment. The potential to impact on the receiving environment is recognised, in particular, in the absence of controls and operational procedures. It is also not necessarily the case that the identification of impacts in itself infers totally a negative impact. In relation to peat harvesting peat extraction was carried out in the context of national requirements in relation to

energy, the development of a domestic source of energy and the necessity for a secure supply of fuel. The harvesting and development of power stations has benefitted the economy of the area through employment and this is a parameter to be considered in EIA.

The position in relation to peat as a fuel for power production is, however, evolving and changing in the context of a range of policy considerations, including the reducing reliance on non-renewable fossil fuels and a transitional phasing out of their use.

The current proposal is to continue use of peat until 2030 and is part of this transition and policy change. The application and EIS is submitted and requires to be assessed in this context and in relation to the other criteria identified under the different heading and indents in the Directive. Having identified the potential impacts, and based on the history of production, there are mitigation measures currently in operation to address identified impacts relating to drainage and the relationship with watercourses.

These largely reflect the requirements as set in the licences permitting the commercial bogs. The extraction has been carried out in the context of licences which have regulated the operation and required implementation of an ongoing programme of review, mitigation measures and monitoring. In this regard I consider that the EIS and associated documentation have addressed the impacts arising.

12.0 APPROPRIATE ASSESSMENT.

The application also includes a Natura Impact Statement (NIS) in support of Appropriate Assessment (AA).

I would note that activities, plans and projects can only be permitted where it has been ascertained that there would be no adverse effect on the integrity of a Natura 2000 site, apart from in exceptional circumstances.

The primary issue to consider is whether the development individually and in combination with other plans or projects adversely affects the integrity of the European site concerned having regard to its conservation objectives.

The four main stages of Appropriate Assessment are: Stage 1 Screening; Stage 2 Appropriate Assessment; Stage 3 Assessment of alternative solutions and Stage 4 Assessment where no alternatives exist and whether Imperative Reasons of Overriding Public Interest (IROPI) applies.

12.1 Stage 1 Screening - Power Plant operation.

The NIS has initially followed the process of a Stage 1 screening. The NIS firstly considered the site of the power plant and follows the format of Stage 1 screening initially identifying designated sites within 20 kilometres of the power plant and these are outlined in Table 2.1.

12.1.1 Long Derries SAC.

The nearest designated site is the Long Derries SAC (000925) at 4.7 kilometres distant and this SAC forms part of a low esker ridge which primarily consists of glacial gravels interspersed with loam and peat soils. This habitat is under threat principally by changes in the agricultural regime e.g. by intensification of agriculture or changes in grazing patterns and by the destruction of habitat through sand and gravel extraction. The plant was not identified directly in relation to potential significant effect.

12.1.2 River Barrow and River Nore SAC.

The NIS has also identified the significance of the Figile River which is used for the abstraction of water and the discharge of process water as an integral element of the operations of the power plant. The Figile River is a tributary of the River Barrow and the power plant is located 14.9km from the River Barrow and River Nore SAC (Site Code: 002162).

In relation to the River Barrow and River Nore SAC it is a long linear site consisting of most of the freshwater stretches of the Barrow/Nore River catchments and also includes tidal reaches and areas of Waterford Harbour. As a consequence, it includes a wide range of habitats including 11 Annex 1 habitats and supports 10 Annex 2 species.

12.1.3 In relation to likely significant effects on Natura 2000 Sites the NIS does acknowledge that, although no new structures are proposed as part of the planning application, the continued use and operation of Edenderry Power Plant will continue to result in atmospheric emissions, noise emissions, water abstraction and wastewater discharges with potential for these to significantly impact on the qualifying features of the River Barrow and River Nore SAC, given an identifiable source pathway receptor between the Figile River and the River Barrow and River Nore SAC. An assessment of potential effects is carried out in relation to emissions and discharges in relation to the SACs outlined including the nearest Long Derries SAC.

In the assessment of potential effects, the abstraction of water from the Figile River was assessed and, in doing so, it was noted that abstraction has occurred since 2000. No impact was identified in relation to the flow regime of the river and the wider River Barrow catchment. Data collected in the intervening years indicates no change in water quality status or impact on macroinvertebrate ecology in the river. Similarly no impact on juvenile salmon smolts, a qualifying species, was identified and the presence of otters is taken as an indicator that water abstraction is not deterring the species from inhabiting the area. On this basis The NIS considered that river water abstraction for the continued use and operation of the plant to 2030 is not likely to have a significant effect on the qualifying interests of the River Barrow and River Nore SAC. Other sampling and surveys would indicate that the

emissions and discharges arising from the plant to air and water do not impact on the status of the receiving environment.

12.1.4 Cumulative and in-combination effects including peat harvesting.

Cumulative and in-combination effects are addressed in section 2.5 of the NIS in particular examining the River Barrow catchment. I would, in this regard, note agricultural related activities as the predominant land use in examining both the Barrow and Figile, a sub area of the Barrow catchment.

The NIS does consider peat harvesting in the Barrow catchment noting that extensive peat harvesting activities have been undertaken within the Barrow catchment since the 1950s in areas drained by tributaries of the Figile, the Figile main channel, the Cushina and Slate Rivers. It is noted that ongoing peat extraction activities within the catchment include, but are not limited to, the supply of peat fuel to the Edenderry Power Plant, which became operational in 2000.

The risks to watercourses are identified from peat harvesting activities, identifying the potential effect of washing peat from the extraction areas to rivers leading in turn to accumulations of silt in downstream areas including the main channel, reducing the areas and quality of habitat available to protected species; salmon, lampreys (brook, river and sea) and white-clawed crayfish.

12.1.5 Conclusions Screening.

12.1.5.1 Power Plant

Arising from the initial Stage 1 screening the NIS concluded that, in isolation, river water abstraction and effluent discharge arising from the power plant was not likely to significantly affect water quality such that the conservation objectives of the River Barrow and River Nore SAC could be effected. Specific to the plant itself no effect on any other designated site was identified.

12.1.5.2 Other plans and projects.

It was considered that there may be potential for other plans and projects within the Barrow catchment, incombination, to impact the River Barrow and River Nore SAC.

The risks to watercourses are identified from peat harvesting activities, identifying the potential effect of washing peat from the extraction areas to rivers leading in turn to accumulations of silt in downstream areas was identified.

12.1.5.3 Consideration of all Natura sites.

The stage 1 screening focused on River Barrow and River Nore SAC and in particular the Figile River catchment in which bogs accounting for 73% of the bogs supplying peat are located. However, I would note that harvesting bogs supplying the plant are not exclusive to this catchment area and other Natura sites with a hydrological link to a harvesting bog also could be potentially effected by the such activities and should activities require further consideration and assessment.

Arising from the Stage 1 screening, Stage 2 Appropriate Assessment for the assessment of implications on conservation objectives on the River Barrow and River Nore SAC of the continued river water abstraction for and wastewater discharge from Edenderry Power Plant was considered to be required. I would however consider that other Natura sites which have a hydrological link to harvested bogs also require assessment.

12.2 Stage 2 - Appropriate Assessment.

12.2.1 Power Plant operation.

12.2.1.1 Long Derries SAC.

The qualifying interest for the SAC is “semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco Brometalia*) (* important orchid sites.

In relation to the Long Derries SAC, further assessment identified that there was no hydrological link between this SAC and the plant or watercourses affected by the operations of the power plant.

Air emissions were also assessed in relation to connectivity and potential effects and no impacts were identified in relation to the plant.

The NIS concluded that there no significant effect on the qualifying features of Long Derries SAC or in relation to atmospheric emissions or water abstraction.

12.2.1.2 River Barrow and River Nore SAC.

The initial focus was on the qualifying interests of the River Barrow and River Nore SAC which are diverse and include freshwater and tidal and estuarine habitats. The diverse range of habitats within the SAC include:

Code Habitat

91A0 Old sessile oak woods with *Ilex* and *Blechnum* in British Isles.

91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*)

3260 Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation

1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)

1410 Mediterranean salt meadows (*Juncetalia maritimi*)

4030 European dry heaths

1130 Estuaries

7220 Petrifying springs with tufa formation (*Cratoneurion*)

6430 Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels

1140 Mudflats and sandflats not covered by seawater at low tide

1310 *Salicornia* and other annuals colonizing mud and sand

Given the long linear nature of the SAC, and due to the considerable distance between the power plant and the tidal and estuary habitats, the assessment concluded that these particular habitats are not likely to be affected by the power plant. Given the amount of activity in the immediate area of power plant, an unrecorded petrifying spring, a listed qualifying habitat located in proximity to the plant, was also not included in the assessment on the basis of potential impact.

Focussing on qualifying freshwater habitats on the River Nore it was concluded that there is no hydrological connection between these habitats and the power station. The habitats were assessed and reasons for this conclusion outlined.

In relation to the dry heath habitat, this habitat is recorded as occurring on the steep, free draining, river valley sides especially the Barrow and tributaries in the foothills of the Blackstairs Mountains and on this basis was excluded due to the distance from the power plant.

The habitat Hydrophilous tall herb fringe communities were excluded on the basis of the nature of the flow pattern of the river as the communities favour slower sections of the river rather than the faster flowing sections of the Barrow. On this basis it was concluded that there is no potential connectivity between the power plant and these habitats.

In relation to Old sessile oak woods they are identified as not to occur in proximity to the power plant.

Arising from the assessment it was concluded that no potential impacts to the qualifying habitats of the River Barrow and River Nore SAC would occur.

I would have issue with these conclusions given the distance between the power plant and these habitats and in some cases in particular in relation to the River Nore an absence of a hydrological link.

12.2.1.3 Species.

Having assessed habitats qualifying species were then considered with a focus on aquatic species on watercourses in close proximity to the plant. The NIS identifies that although the upper sections of the Figile River, including the area where the power plant is located, is not within the SAC. There is however a direct hydrological pathway to the River Barrow and River Nore SAC and the impact on the water quality status and any potential impact on this river is of importance in restoring and maintaining conservation objectives and the favourable conservation condition of listed qualifying species.

In assessing the river catchment and potential impacts the assessment largely refers to the Water Management Units (WMU) of the Figile River, an area of 638.3 km^2, and the Barrow Main WMU, an area of 1110.1 km^2, an overall area of approximately 1,748 km^2, which is illustrated in Figure 3.1 of the NIS. Given that there are clearly identified hydrological links, aquatic ecological surveys were undertaken on three sites on the Figile River largely on the basis that any impacts which identified in the Figile River catchment could potentially have a significant influence on the upper River Barrow given the relationship between the two watercourses.

This is largely based on a number of criteria. Firstly, the River Barrow is considered to be under ecological pressure with unsatisfactory water quality conditions prevailing. Secondly, the Figile River is larger than the River Barrow at its confluence above Monasterevin and the power plant abstracts and discharges to the Figile River and therefore is a potential contributor to any effect on the Figile and, through connectivity, the River Barrow.

Specific to qualifying freshwater species the studies as undertaken have indicated that the continued abstraction from and discharge to the Figile River is not considered to affect the distribution of White-clawed crayfish in the River Barrow and River Nore SAC via indirect impacts associated with water quality. The Figile River is not identified as suitable to Brook Lamprey where the paucity of spawning gravels is identified as a limiting factor.

In relation to Atlantic salmon the Figile River and tributaries upstream of Edenderry Power Plant are, the NIS considered, suboptimal with regard to salmon spawning, with such habitat limited by low gradient, substratum silt and water quality issues. The NIS also refers to an issue of water quality in relation to both the Figile and Barrow in that the water quality is generally lower than the Q4 good quality standard desirable to achieve favourable conservation status for the species. It is also contended that the discharge from the plant is not causing deterioration in water quality to an extent that

affects salmon recruitment in the River Barrow and River Nore SAC and no mitigation measures are outlined.

12.2.1.4 Other plans and projects.

River Barrow and River Nore SAC.

The NIS then addresses other plans and projects. In relation to the Barrow Main and Figile WMUs the NIS identifies the wide variety of landcover within the area. In identifying potential risk I would refer to table 3.13 of the NIS which indicates a summary of potential for other plans/projects to affect the River Barrow and River Nore SAC which includes a large range of identified activities and land uses. The NIS outlines in detail a number of these activities which discharge to receiving watercourses including wastewater treatment plants and in this regard 27 such plants are identified as posing risk within the WMUs.

It is also indicated that watercourses within the study area have been heavily modified by arterial drainage programmes. Activities associated with these programmes, including dredging, dumping of peat silt and debris etc. from the river bank and bed can, it is indicated, result in habitat loss / damage of species of conservation interest and therefore affect species population dynamics possibly impacting salmon spawning beds in the main channel of the River Barrow. Nutrient discharges arising from the high level of agricultural activity is also referred to.

12.2.1.5 Peat.

Specifically in relation to the Figile River WMU lands for peat areas account for a higher proportion of landcover than in the overall joint WMUs. The presence of peat, it is indicated, would account for a higher natural occurrence of ammonia and the practice of peat harvesting would give rise to the potential for increased discharge of silt to watercourses with increased potential risk to water based species.

It is noted that the commercial harvesting of peat has occurred since the 1950s and that the harvested peat is not exclusively for the power plant at Edenderry. It is also clearly indicated that 73% of bogs that supply milled peat to Edenderry Power Plant are located within the Figile River WMU, 1% come from the Barrow Main WMU and the remaining 26% elsewhere.

In relation to the operation of these bogs they are licenced and subject to regulation and the discharge and emission of water from these bogs is controlled via a network of silt ponds sized and determined by the requirements of the licence.

Having identified the risks the NIS concludes that having considered other plans and projects with the potential to adversely affect the qualifying features of the River Barrow and River Nore SAC, it is considered that the continued

use and operation of Edenderry Power Plant does not have potential for significant in-combination impacts. In this regard it is considered, by virtue of the insignificance of the impact from the continued operation of the power plant in accordance with the conditions of IE licence P0482-04, i.e. the impacts associated with water abstraction for and effluent discharges from Edenderry Power Plant, the impacts are not significant when combined with the impacts from other plans and projects within the same receiving environment.

12.3 Comment.

12.3.1 Returning to the initial matter in relation to AA the primary issue to consider is whether the development individually and in combination with other plans or projects adversely affects the integrity of the European site concerned having regard to its conservation objectives. In this regard I would note that activities, plans and projects can only be permitted where it has been ascertained that there would be no adverse effect on the integrity of a Natura 2000 site, apart from in exceptional circumstances.

The applicant's contention is that on the basis of the EIS and NIS as furnished which address the impact of direct and indirect effects of peat extraction on a cumulative basis with the ongoing operation of the power plant that no significant cumulative effects will arise on Natura 2000 sites within the meaning of Article 6(3) of the Habitats Directive.

It is contended that in relation to the Habitats Directive, the term "in combination with other plans and projects" does not mean that such other plans and projects must be the subject to a fresh AA by the Board. It simply means that any effects of the proposed development, which is the subject matter of the application, on European Sites must be assessed along with the likely effects on those sites from other projects.

The Board is required as a competent authority to consider and satisfy itself in relation to AA. The onus, however, is on the applicant to submit sufficient documentation and data in relation to adversely or otherwise affecting the integrity of a European site.

The NIS has largely focussed on Natura 2000 sites within 20 kilometres of the site and after initial screening includes a Stage 2 assessment of the River Barrow and River Nore SAC in relation to effects of the proposed development which is the continued operation of the plant together with the likely effects of other projects including but not limited to peat extraction. In this regard the power plant itself and its connectivity to habitats and species has been largely the focus of screening and assessment.

The process and methodology followed I consider was reasonable in the context of the power station itself both in relation to direct effects and indirect effects. The assessment I consider focused on habitats and species related to the aquatic and riparian environment which had a potential pathway link from

the appeal site, in particular via the Figile River. Having identified the pathway and potential for significant effects the stage 2 screening follows a methodical assessment of the qualifying habitats and species identified in the SAC eliminating most of the habitats on the basis of an absence of proximity and the nature of the habitats, saline, tidal etc.

The stage 1 screening however focused on River Barrow and River Nore SAC and in particular the Figile River catchment in which bogs accounting for 73% of the bogs supplying peat are located. However, I would note that harvesting bogs supplying the plant are not exclusive to this catchment area and other Natura sites with a hydrological link to a harvesting bog also could be potentially effected by the such activities and should activities require further consideration and assessment and this matter requires to be addressed.

12.3.2 The Stage 2 assessment considered the potential of the proposed development individually or in combination with other plans and projects to adversely effect Natura 2000 sites in view of its conservation objectives. In relation to the Long Derries SAC it was concluded that there no significant effect on the qualifying features of Long Derries SAC or in relation to atmospheric emissions or water abstraction arising from the operations of the plant. The issue of the impact of the plant operations on water abstraction are assessed and also of waste water on receiving waters are also addressed and I consider that the assessment is robust in relation to considering the direct effects of the plant and its operations

12.3.3 In relation to the matter of indirect effects with particular reference to the effects arising from peat harvesting I would make a number of observations.

The NIS focussed on the Figile River WMU and its relationship to the River Barrow and River Nore SAC. It identified that peat lands in this catchment that in effect contain 73% of the bogs that supply milled peat to Edenderry Power Plant are located within the Figile River WMU. It examined the effects arising on the receiving habitats and species in a general sense in considering the effects of the harvested bogs including bogs outside of the Figile catchment and also on mitigating measures in relation to the bogs with the focus of mitigation referred to as the conditions included in the licencing of these bogs.

It is subsequently contended by the applicant that the licences are relevant in relation to AA as they regulate the impacts of peat extraction on the environment and the Board can conclude on the evidence available that peat extraction completed in accordance with the IPC licence alone will not have significant effects on Natura 2000 sites.

It is not in dispute that the regulatory regime and the conditions applied by the licences set out standards, in particular, for emissions to the receiving environment, in particular, water. In this regard they assist in coming to a conclusion that peat extraction completed in accordance with the IPC licence alone will not have significant effects on Natura 2000 sites. I would also note in this regard that the licences are relevant in considering this application as

the procedures adopted comply with statutory requirements from the initial consideration of the licence but also subsequent reviews of these licences. AA did not and has not formed part of the procedures of the assessment of the initial licences and this was, it would appear, in conformity with the legislative provisions as they applied at that time.

12.3.4 There are, however, issues in relation to AA. Leaving aside that a level of detailed assessment was carried out in the NIS in relation to 73% of the bogs that supply milled peat to Edenderry Power Plant the question arises in relation to whether the remaining 27% of bogs have been satisfactorily assessed and considered to enable an assessment of whether the development individually and in combination with other plans or projects adversely affects the integrity of the European site concerned having regard to its conservation objectives.

As already indicated the NIS has focussed in detail on the Figile River WMU and the identified pathway link to Natura sites. There is, however, an absence of any detailed or considered assessment of other Natura 2000 sites, in particular, in relation to the remaining 27% of bogs identified as sources of milled peat to the power station. I would accept that these bogs are further removed from the power station but there is a clear requirement that indirect effects require to be assessed. These peat land areas are identified in the EIS and NIS.

There is also I consider a requirement that a structured and reasoned assessment should be adopted in which a stage by stage assessment would be carried out with an initial screening process of conservation sites to identify whether advancement to Stage 2 AA is required.

There is, I consider, an absence of a Stage 1 screening in relation to the remaining 27% of bogs identified as sources of milled peat to the power station. Other than identification of the peat lands in question, and reference to their operation being the subject of licence, there is an absence of any assessment of connection, applying consideration of source pathway receptor, from the peat lands to any European site. In the absence of such an approach sites cannot be identified or assessed for exclusion from stage 2.

Essentially the question arises as to whether the project is likely to have a significant effect, either individually or in combination with other plans and projects, on the European site(s) in view of the site's conservation objectives. This requires a Stage 1 screening to determine this position and determine if a Stage 2 assessment can be excluded or is required.

It is, I consider, insufficient to conclude that a declaration that peat extraction completed in accordance with the IPC licence alone will not have significant effects on Natura 2000 sites.

In accepting that the licences are relevant in relation to AA as they regulate the impacts of peat extraction on the receiving environment it is, I consider, of

a necessity that satisfactory screening procedures are outlined and that the Board can only conclude no adverse finding based on a satisfactory level of evidence presented. In the absence of such information I do not consider that compliance with the requirements of the IPC licence alone is sufficient to conclude that indirect effects of peat extraction will not have significant effects on Natura 2000 sites.

I would note that third parties have not proffered any evidence in relation to adversely affecting the integrity of a European site but the onus on the applicant is to present the evidence and for the Board as a competent authority to consider and satisfy itself in relation to AA based on the information submitted.

Conclusion.

Specific to the power plant itself, the process and methodology followed I consider was reasonable in relation to the plant and the identified pathway arising from the Figile River. The assessment I consider focused on habitats and species related to the aquatic and riparian environment which had a potential pathway link from the power plant site and examined potential impacts in relation to these sites and species. The mitigation measures outlined in large part address issues relating to the protection of water quality.

having considered the issues arising, I am satisfied that no adverse effects arise from the development in relation to a Natura Site and any qualifying interest or objectives.

In relation to potential indirect impacts the primary indirect impact arising from the development is, I consider, via watercourses arising from the extraction of peat. In this regard as the plant sources milled peat from a wide area which is not contiguous to the site itself the peat extraction area is within the catchment of a number of major rivers which downstream have conservation interests. The NIS has identified as a potential impact arising from the extraction of peat, in particular, silt entering surface water channels and watercourses.

In relation to peat extraction and the supply of peat to the power station the NIS and the screening and assessment in relation to Natura 2000 sites focussed attention on the Figile River which is a source of abstraction and discharge for the power plant and has a pathway to the River Barrow which is part of a significant Natura site.

The issue of peat extraction was examined in relation to other plans and projects in combination with the power plant and having identified potential impacts these, and mitigation measures in place, were assessed. This, however, focused on peat lands identified as 73% of the bogs supplying peat to Edenderry power plant but there is no similar level of detailed or structured screening assessment in relation to the remaining 27%.

The AA process is, I consider, deficient in not carrying out a screening process of indirect effects and has not satisfactorily addressed potential effects on Natura 2000 sites which are outside of the Figile River WMU and on bogs used for peat extraction.

There is an absolute necessity, I consider, for an initial screening assessment to be applied to all of the bogs that supply the power station site. In the absence of a robust and clearly defined Stage 1 screening, initially identifying European sites and evaluating a potential source pathway and receptor between the peat land and these sites, it cannot be concluded that the development would not be likely to have significant effects.

I, therefore, consider that it cannot be concluded that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on any European site, in view of any site's Conservation Objectives.

Equally on the basis of the information submitted and consideration and assessment of same, I do not consider that it is demonstrated that the development would not be likely to have a significant effect on the conservation of a number of water dependent Annex II species or conservation objectives.

13.0 OTHER MATTERS.

This is an application for a period extending to 2030. I have no objection in principle to granting permission for the period outlined.

14.0 CONCLUSION AND RECOMMENDATION.

The development is for extension of time for continued use of the power station until 2030. The rationale, as set out for the development in the context of national and local policy, is, I consider, reasonable.

Arising from my assessment above and based on the information available I conclude that it is not clearly demonstrated that the development will not give rise to significant adverse effects on the environment in terms of scale and significance and that can be remediated.

I also consider that it cannot be clearly demonstrated that the subject development, either individually or in combination with other plans or projects, will not adversely affect the integrity of a European site.

I, therefore, recommend that planning permission be refused in this instance based on the reasons and considerations set out below.

REASONS AND CONSIDERATIONS

The Board completed an Appropriate Assessment in relation to potential impacts of the proposed development on Natura 2000 Sites. Having regard to the Natura Impact Statement submitted and the Inspector's report and submissions on file, the Board concluded that, on the basis of the information available; documentation submitted, in particular in relation to all of the peat bogs identified as servicing the power plant, the absence of a satisfactory level of information in relation to identification and screening of sites relating to the commercial extraction of peat and the absence of a proven identifiable link to European sites that either individually or in combination with other plans or projects, it could not exclude the possibility that the development would not adversely affect the integrity of the any European site in view of the site's conservation objectives for such sites.

The Board therefore is not satisfied that the proposed development, either individually or in combination with other plans or projects, would not be likely to have a significant effect on a European Site, in view of the site's Conservation Objectives.

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Derek Daly
Senior Planning Inspector.
25th February 2016.