



An
Bord
Pleanála

Inspector's Report ABP-301594-18

Type of Application	Strategic Infrastructure pre-application (Seventh Schedule).
Development	Modifications to, and continued operation of, the existing peat-fuelled power station and a phased transition to exclusive firing with biomass. Additional capacity is also proposed at an existing ash disposal facility.
Location	Existing Lough Ree Power Station, Lanesborough and the existing Ash Disposal Site at Derraghan, Co. Longford.
Issue	SID Pre-application – whether proposed development is or is not strategic infrastructure development.
Planning Authority	Longford County Council.
Applicant	Electricity Supply Board (ESB).
Type of Application	Strategic Infrastructure pre-application.
Date of Site Inspection	None.
Inspector	Patricia Calleary.

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1.0 Introduction

- 1.1. ESB International submitted a pre-application consultation request to An Bord Pleanála on behalf of ESB (the prospective applicant), seeking a determination as to whether or not development that they propose to undertake would constitute strategic infrastructure within the meaning of section 37A and 37B of the Planning and Development Act 2000, as amended (hereinafter 'the Act').
- 1.2. The development would include modifications to, and the continued operation of, their existing peat-fuelled power station known as Lough Ree Power (LRP) located at Lanesborough in County Longford and the phased transition from firing the station with milled peat fuel to exclusively firing it with biomass fuel. Works are also proposed to an existing ash disposal facility (ADF) which would continue to operate.
- 1.3. A pre-application meeting was held between representatives of An Bord Pleanála and the prospective applicant on the 22nd day of June 2018. A record of the meeting is contained on the file.

2.0 Site Location and Description

- 2.1. The site is located on the banks of the River Shannon in Lanesborough, Co. Longford. It was originally occupied by a peat fuelled station, which commenced operations in 1958 with an initial 20 MW unit. The station was extended twice to provide 85 MW generation capacity, before decommissioning in 2003. The current power station was commissioned in 2005 and has an installed electricity generation capacity of 100 MW.
- 2.2. The power station site is accessed off the N63 National secondary road. It comprises the existing power station, associated structures together with ancillary services including water treatment, management systems, offices and administration areas. At present, LRP is exclusively powered by milled peat, all of which is supplied by Bord na Móna. Most of the milled peat is delivered to the power station via a narrow gauge private railway which extends to the bogs and the on-site harvested milled peat stockpiles. Milled peat is also delivered by road transport.
- 2.3. The existing ADF is located in an area of cutaway bog c.10km south east of the power station at Derraghan (in the townlands of Derraghan More and Derraghan Beg) in County Longford. It is accessed via an access road that links the site with the R392

regional road. Ash is currently transposed from LRP to the ADF via a dedicated narrow-gauge railway line. The ADF is operated by Bord Na Móna in accordance with ESB Industrial Emissions (IE) licence requirements.

3.0 Proposed Development

- 3.1. The proposed development would consist of the continued operation of the power station at Lanesborough beyond 2020, its permitted period. It is proposed to operate by co-firing peat and biomass immediately post 2020, with a phased transition and a reduced reliance on peat, leading to exclusive firing by biomass fuel by a defined date, anticipated to be 2030.
- 3.2. It is intended that the power station would operate at its maximum electrical generation capacity which is 100 MW.
- 3.3. The development of infrastructure and use of the existing facilities on the site would generally comprise the following:
 - Use of existing open-air, hard surfaced areas within the existing power station to accommodate deliveries and storage of bulk biomass;
 - The development of new areas of hard-standing and dedicated silos to facilitate biomass deliveries and storage;
 - The development of new handling facilities to convey the biomass from new silos to the existing fuel handling systems.
- 3.4. The biomass to be utilised would comprise indigenous and imported material including non-pelleted woody biomass, residues and by-products from timber industry and manufactured wood pellets.
- 3.5. The development would also utilise the existing ADF and develop additional landfill cells to accept increased volumes of ash associated with the extended operational life of the power station. It is stated that the power station operated under an IE licence issued by the EPA to ESB and the ADF site is managed and operated by Bord na Móna, in accordance with IE licence requirements.
- 3.6. Only peat and biomass ash from the LRP station would be disposed of at the ADF. It is stated that consent for peat harvesting by Bord na Móna would not be included in a

planning application submitted by ESB, however environmental impacts associated with the activity would nonetheless be considered in the planning application and the supporting documentation, including an Environmental Impact Assessment Report and screening for Appropriate Assessment.

4.0 Prospective Applicant's case

4.1. Seventh Schedule

4.1.1. It is the prospective applicant's view that the project is of a type specified in the Seventh Schedule but lies below the mandatory threshold specified. Specifically, the prospective applicant references Class 1 (Energy Infrastructure – 3rd indent) of the Seventh Schedule of the Act is relevant:

- A thermal power station or other combustion installation with a total energy output of 300 megawatts or more.

4.1.2. The prospective applicant stated that the proposed development is currently and would remain a thermal power station, initially co-firing by peat and biomass from 2020, before moving to firing exclusively by biomass by the end of 2030.

4.1.3. Of the stated 100 MW of electricity produced at the power station, 9 MW is stated to be required as a house load to power fans and pumps resulting in 91 MW electricity which is ultimately exported from the power station to the national electricity grid.

4.1.4. In addition, the prospective applicant submits that during the electricity generation process, heat produced in the boiler from the burning of fuel is lost through two outlets, with 20 MW of heat exhausted up the stack and 134 MW dissipated through cooling of low-grade exhaust steam back to water using cooling water from the River Shannon. It is their case that the total energy output comprises the electricity which leaves the power station and the heat which is lost during the generation process. The breakdown of the electricity produced and heat lost are set out in Table 1 which follows.

Table 1 - Electricity produced and heat exhausted/lost in electricity generation process.

A	B	C	D	E	F
Total Electricity generated at the power station	Electricity used in the generation process for powering fans and pumps (house load)	Electricity which leaves the power station and is exported to the national electricity grid (A-B)	Heat exhausted up the stack	Heat lost through cooling of exhaust steam to water using cooling water from River Shannon	Total Heat Lost in the electricity generation process (D+E)
100 MW	9 MW	91 MW	20 MW	134 MW	154 MW

4.1.5. In this regard, it is the prospective applicant’s case that the **total energy output** is 245 MW comprising exported electricity (91 MW) and heat which is lost in the generation process (154 MW). They submit that while the development type falls within this category of the Seventh Schedule, it does not meet the threshold and therefore based on this category, the development is not of a type specified in the Seventh Schedule of the Act.

4.1.6. The prospective applicant also considers that the proposal could potentially fall within the following category of the same class (Energy Infrastructure):

-An industrial installation for the production of electricity, steam or hot water with a heat output of 300 megawatts or more.

4.1.7. It is their case that the calculated heat output referenced in this category varies depending on whether the heat output from the boiler or the heat output from the power station is the relevant figure.

4.1.8. The prospective applicant submits that the **heat output from the boiler** is the sum of the heat lost up the stack (20 MW) and the heat transferred to the generator as steam

(233 MW) or a combined **heat output from the boiler** during the electricity generation of 253 MW¹.

4.1.9. The prospective applicant also submits that the **heat output from the power station** is the sum of the heat lost up the stack (20 MW) and that which is dissipated during cooling process using water from the River Shannon (134 MW) or a combined **heat output from the power station** of 154 MW. However, in both of these scenarios the threshold of 300 MW would not be met and therefore based on this category, the prospective applicant is of the view that the development is not of a type specified in the Seventh Schedule of the Act.

4.1.10. A breakdown of the biomass fuel proposed to be used was provided by the prospective applicant, which I have set out under Section 3.4 above. It is submitted by the prospective applicant that none of the biomass would constitute waste, that there are no plans to utilise waste for the generation of energy and that therefore the development type would not fit any category of Class 3 (Environmental Infrastructure) particularly that set out under the 3rd indent of this class '*An installation for the disposal, treatment or recovery of waste with a capacity for an annual intake greater than 100,000 tonnes*'.

4.2. Section 37A(2)

4.2.1. The prospective applicant is of the opinion that pending confirmation by the Board whether the proposed development is or is not of a type set out in the Seventh Schedule, it would comply with the provisions of section 37A(2) (a), (b) and (c) of the Act, putting forward their views as follows:

37(2)(a)

- The proposed development is of strategic economic and social importance to the State and the Eastern and Midland region in which it is situate in that the alternative would result in the closure of the existing power station, which in turn would lead to loss of employment and significant negative socio-economic impacts.

¹ (Inspectors note: Another method of calculation would include the gross electricity produced of 100 MW and heat subsequently lost comprising 154 MW with a total heat leaving the boiler of 254 MW).

- The proposed development would provide dispatchable low carbon renewable generation capacity which is of national and regional significance. Decarbonisation of the energy sector is a national priority, as reflected in national policy documents.
- There would be significant benefits to the indigenous forestry, timber processing, biomass industries and the agricultural sector.

37(2)(b)

- The proposed development would strongly align with the regional level policies as set out in the Midlands Regional Planning Guidelines (MRPGs), 2010-2022.
- The proposed development is also in line with the objectives of the recently published National Planning Framework under Project Ireland 2040.

37(2)(c)

- The proposed development might also have a significant effect on a catchment beyond County Longford given that the proposal is intended to be carried out in parallel with a similar but larger scale proposal at ESB's West Offaly Power station in Shannonbridge, Co. Offaly with potential for significant impacts on the Midlands Region. It is also considered that diversification and decarbonisation of the energy generation sector would meet the objectives of more than one planning authority in the region and the project would assist each of these authorities in attaining that objective.
- The use of biomass from both indigenous and international sources has the potential to have economic and environmental impacts on areas that extend beyond the boundaries of a single planning authority.

5.0 Planning History

- 5.1. **PL19.125540 (LCC Ref 01/115)** – Permission granted by An Bord Pleanála (2002) for the current power station and ADF, both of which operate under an IE Licence granted by the EPA.

- 5.2. **LCC Ref: 17/320** – Permission granted by Longford County Council (2018) to allow for an increase in the capacity of the operational ADF to allow for the deposition of 130,000 tonnes of dry ash over and above the 550,000 tonnes permitted under An Bord Pleanála Reg. Ref. PL14.125540. It is stated that the facility would exclusively accept ash from Lough Ree Power Station in Lanesborough and would operate until 31st December 2020.
- 5.3. **ABP-300774-18 (current)** - The prospective applicant has entered into discussions with the Board in relation to a similar but larger scale proposal at their West Offaly Power station (WOP) located in Shannonbridge in County Offaly.

6.0 Strategic Infrastructure – Legislative Provisions

- 6.1. Under Section 37A(1) of the Act, an application for permission for any development specified in the Seventh Schedule shall, subject to Section 37A(2), be made to An Bord Pleanála under section 37E and not to a planning authority.
- 6.2. The Seventh Schedule sets out infrastructure developments for the purposes of sections 37A and 37B, including the following classes:

Class 1 ‘Energy Infrastructure’

A thermal power station or other combustion installation with a total energy output of 300 megawatts or more including a category listed in the 3rd indent as follows:

—A thermal power station or other combustion installation with a total energy output of 300 megawatts or more.

Class 1 ‘Energy Infrastructure’ also includes a category set out as the 4th indent in this class as follows:

—An industrial installation for the production of electricity, steam or hot water with a heat output of 300 megawatts or more.

Class 3 ‘Environmental Infrastructure’ includes a category set out as the 3rd indent in this class as follows:

—An installation for the disposal, treatment or recovery of waste with a capacity for an annual intake greater than 100,000 tonnes.

- 6.3. In addition, Section 37A(1) of the Act, as amended, provides that any development specified in the Seventh Schedule of the Act, shall, if the following condition is satisfied, be made to the Board under Section 37E and not the planning authority.
- 6.4. The condition is set out under Section 37A(2) and provides that, following consultation under Section 37B, the Board serves on the prospective applicant a notice in writing that, in the opinion of the Board, the proposed development would, if carried out, fall within one or more of the following paragraphs, namely -
- (a) the development would be of strategic economic or social importance to the State or the region in which it would be situate;
 - (b) the development would contribute substantially to the fulfilment of any of the objectives in the National Spatial Strategy or in any regional spatial and economic strategy in force in respect of the area or areas in which it would be situate;
 - (c) the development would have a significant effect on the area of more than one planning authority.

7.0 **Assessment**

7.1. **Is the Development specified in the Seventh Schedule?**

- 7.1.1. In my assessment on the matter as to whether or not the proposed development would constitute strategic infrastructure within the meaning of the Act, I firstly consider if the development type would fit within any category set out under Class 1 (Energy Infrastructure) of the Seventh Schedule. I also consider if it might fall within any other class within the same schedule.
- 7.1.2. In relation to Class 1 (**Energy Infrastructure** – 3rd indent) ‘a thermal power station or other combustion installation with a total energy output of 300 megawatts or more’, I am satisfied that the total energy output is the total amount of electricity produced at the power station, stated to be 100 MW of which 9 MW is used as house load to power fans and pumps during the generation process and 91 MW is exported to the national electricity grid. In relation to the amount of heat stated to be lost in the generation process in the form of 20 MW lost up the stack and 134 MW lost during

cooling, I am satisfied that this represents 154 MW of waste energy in the form of heat lost to the surrounding environment rather than energy output. Waste heat is a form of thermal energy which is an inherent feature of electricity generation in a thermal power plant. The amount of waste energy lost as heat compared to the energy input from the fuel are factors that make up thermal efficiency of the power station. This waste energy (lost heat) is not recovered or further utilised to generate more electricity or heat and therefore should not be included as part of the total energy output figure. Accordingly, noting that the total energy output of 100 MW of electricity lies below the stated 300 MW threshold, the proposed development is not of a type specified within this category of Class 1 (Energy Infrastructure).

- 7.1.3. In relation to the category set out under Class 1 (**Energy Infrastructure – 4th** indent), ‘an industrial installation for the production of electricity, steam or hot water with a heat output of 300 megawatts or more’, I am satisfied that this category is intended to mean industrial installations (other than dedicated thermal power stations or combustion installations) which produce electricity, steam or hot water. Accordingly, consideration of this category does not need to be pursued as the development is clearly a thermal power station which is a development type specified under Class 1 (Energy Infrastructure – 3rd indent). Notwithstanding my view on this category as outlined above, I am also of the view that the heat lost should not be included in calculating the heat output which I am satisfied is intended to mean (useful) heat output rather than waste energy lost as heat in the electricity generation process.
- 7.1.4. In discussions at the pre-application meetings, questions arose in respect of the type of biomass fuel which would be utilised and whether the proposal might also fit within Class 3 (Environment Infrastructure – 3rd indent) being ‘an installation for the disposal, treatment or recovery of waste with a capacity for an annual intake greater than 100,000 tonnes’ noting that biomass can also comprise ‘waste’. The omission of reference to ‘waste’ in this category of Class 3 (Environment Infrastructure) could be read to allow other categories of development whose primary purpose is not a dedicated waste installation, but which can nonetheless also function as an installation to dispose, treat or recover waste. In this regard, the prospective applicant stated that the proposed biomass fuel would not include any waste.

7.1.5. In addition, while details of quantities of ash that would arise from the co-firing of peat and biomass and subsequently disposed of at the associated ADF were not presented to the Board by the prospective applicant, it can be reasonably assumed based on scientific data available and noting the annual intake of the fuel streams which at peak would not exceed c.900,000 tonnes per annum, the amount of ash arising from peat production in the boiler and disposed of at the ADF would not exceed 100,000 tonnes per annum.

7.1.6. Accordingly, further consideration of Class 3 (Environment Infrastructure) is not required.

7.2. Conclusion on Section 37A(1) (Seventh Schedule)

7.2.1. The proposed development does not comprise a category of development which fits within Class 1 (Energy infrastructure) under the 3rd indent, being 'a thermal power station or other combustion installation with a total energy output of 300 megawatts or more' as it does not meet the mandatory threshold applicable to the class, as specified in the Seventh Schedule of the Act. Neither is it considered to fall within any other category of development specified in either the same class or any other class within the Seventh Schedule. Therefore, in conclusion on Section 37A(1) the development is not of a type specified in the Seventh Schedule.

7.3. Section 37A(2)

7.3.1. As the proposed development is not of a type specified in the Seventh Schedule, consideration of Section 37A(2) is not required.

8.0 Conclusion and Recommendation

8.1. Having regard to the nature and scale of the proposed development and given that the total energy output would consist of 100 megawatts of electricity produced, it is considered the development type would not fit within the definition of Class 1 (Energy infrastructure) in the Seventh Schedule of the Planning and Development Act 2000, as amended, under the category of 'a thermal power station or other combustion installation with a total energy output of 300 megawatts or more'. Furthermore, it is not considered that the development type would fit within any other

category of development specified in either the same class or any other class within the Seventh Schedule. I therefore recommend that the Board should determine that the development in question does not constitute strategic infrastructure development within the meaning of sections 37A and 37B of the Planning and Development Act 2000, as amended, and that the prospective applicant be informed accordingly. An application for permission for the proposed development must therefore be made directly to Longford County Council.

Patricia Calleary
Senior Planning Inspector

3rd September 2018