

Planning Department
Longford County Council,
Aras An Chontae,
Great Water Street,
Longford
09/08/2019

Planning Reference: 19/188

Application for development at existing electricity generating station (Lough Ree Power station located in Lanesborough, Co Longford) and an existing ash disposal facility (ADF).

Dear Sir/Madam,

I am writing to object to the proposal to extend the permit for Lough Ree Power Station to continue operating and to transition to biomass. I am submitting this objection on behalf of Biofuelwatch (www.biofuelwatch.org.uk) and Dogwood Alliance. Biofuelwatch is a UK/US non-profit organisation which has been undertaking research, education and advocacy related to the impacts of large-scale bioenergy since 2006, and Dogwood Alliance is an environmental NGO campaigning to protect forests in the US South.

We are objecting to the planning proposal on two grounds:

1) We believe that it is not compatible with Ireland's climate change commitments and with the goal of the Paris Agreement to restrict warming to 1.5 degrees;

2) We believe that ESB's claims in relation to the sourcing of 'sustainable biomass' are not meaningful because sustainability of biomass sourcing does not guarantee low greenhouse gas emissions, and because ESB and its fuel supplier, Bord na Móna, have provided no evidence and no guarantees on which to base any assessment of future biomass burning in this power station being sustainable.

We believe that Lough Ree power station must be closed at the end of 2020 at the latest and that ESB should develop genuinely low-carbon renewable energy options instead.

Together with this letter, we enclose as evidence

- An Open Letter from 2018 signed by 33 environmental NGOs in the USA, which state: "closing down peat power stations is vital for meeting the goals of the Paris Climate Agreement. Burning peat and burning biomass for electricity are both clearly incompatible with the goal of the Paris Climate Agreement to keep global warming to 1.5C. Ireland's three remaining peat power stations must be shut down, with the capacity being replaced by genuine low-carbon renewable energy and greater energy efficiency and conservation";
- A 2018 Open Letter signed by 800 scientists to the European Parliament, pointing out: "Even if forests are allowed to regrow, using wood

deliberately harvested for burning will increase carbon in the atmosphere and warming for decades to centuries – as many studies have shown – even when wood replaces coal, oil or natural gas. The reasons are fundamental and occur regardless of whether forest management is 'sustainable.' Burning wood is inefficient and therefore emits far more carbon than burning fossil fuels for each kilowatt hour of electricity produced."

1) Climate Impacts:

Continued peat burning to 2027:

ESB's Environmental Impact Assessment admits: "*The 'Do Nothing' alternative would see LRP Station cease electricity generation from the end of 2020 with its subsequent decommissioning and demolition. There would be a very significant reduction in direct greenhouse gas emissions from the generating station which is of major benefit to reducing contributions to climate change.*" According to the latest Annual Report by the Climate Change Advisory Council,¹ Ireland is not on track to meeting either its 2020 or its 2030 greenhouse gas targets. In view of this, the Council recommends: "*Support for biomass co-firing with peat has the effect of supporting continued burning of peat for electricity generation, contributing to higher emissions. The Council recommends the closure of Moneypoint by 2025, and cessation of peat-fired generation in 2020.*"

ESB's Environmental Impact Assessment justifies its proposed failure to help reduce Ireland's greenhouse gas emissions by claiming: "*The carbon allowances available under the EU's emission trading scheme would not be reduced by this closure and would be available to other generating plant in Europe. Any savings in GHG emissions from the plant could therefore be tempered by increases elsewhere in Europe with no resultant benefit to climate overall*". This ignores the EU's decision on the revision of the EU Emissions Trading Scheme for the period 2021-2030, i.e. the period that is relevant to this planning application. Three different measures have been adopted by the EU in order to prevent other member states and energy companies from increasing their own carbon emissions as a response to coal and other high carbon power stations being closed elsewhere.² This means that, from 1st January 2021, the effect predicted by ESB should no longer be possible. Closing peat power stations would, instead, lead to a genuine reduction in greenhouse gas emissions by Ireland and by the EU.

Transition to biomass and carbon emission:

Meeting the goal of the Paris Agreement, i.e. keeping global warming to well below 2°C and pursuing efforts to keep it to 1.5°C, requires drastic genuine cuts to greenhouse gas emissions, in line with the latest science.

Scientific evidence overwhelmingly shows that biomass energy is not inherently carbon neutral or low carbon, but that it can have a climate impact as bad as or even worse than that of fossil fuels (and thus by implication peat) per unit of energy. This evidence includes:

¹ <http://www.climatecouncil.ie/media/Climate%20Change%20Advisory%20Council%20Annual%20Review%202019.pdf>

² <https://carbonmarketwatch.org/wp-content/uploads/2017/12/CMW-BEYOND-THE-EU-ETS-STRENGTHENING-EUROPE%E2%80%99S-CARBON-MARKET-THROUGH-NATIONAL-ACTION.pdf>

- A 2019 article by scientists from the University of Michigan and the Cary Institute of Ecosystem Studies, which argues: “*To maximize the role of the biosphere in mitigation, we must focus on and start with measurably raising rates of net carbon uptake on land—rather than seeking to use biomass for energy. The most ecologically sound, economical, and scalable ways to accomplish that task are by protecting and enhancing natural climate sinks*”;³
- A 2017 report and 2018 follow-up Commentary by the European Academies Science Advisory Council, stating: “The concept of all bioenergy being carbon-neutral is too simplistic and does not offer any general context-independent justification to increase forest utilisation. Carbon neutrality involves a ‘payback’ period (the time taken for forests to reabsorb the carbon dioxide emitted during biomass combustion), which ranges from decades to hundreds of years (depending on the type of biomass and what happens to the forest and land area after harvesting)...Until payback is achieved, the effects on climate are negative”;⁴
- A 2018 peer-reviewed study which shows that even biomass energy from forestry residues is not compatible with the timescale for greenhouse gas emission reduction required to meet the Paris Agreement goal of keeping global warming to 1.5 degrees;⁵
- A 2018 peer-reviewed study by authors from the Massachusetts Institute of Technology, which concluded that replacing coal with forest wood from the USA in power stations increased CO₂ levels in the atmosphere and that this carbon debt ranges from 44-104 years after logging. The authors pointed out that when fast-growing pine was planted following the clearcutting of natural hardwood forests, the carbon debt from biomass energy was even higher. Note that the authors did not consider the carbon debt created by the ongoing use of biomass year after year, hence the findings are conservative;⁶
- A 2017 peer-reviewed study, which looked at the potential climate impacts of growing trees or crops for biomass energy on ‘surplus’ land not covered by natural ecosystems or used for agricultural or other human purposes. The authors concluded that devoting 1% of such land to solar power and the rest to carbon sequestration by forests and other vegetation would benefit the climate 100 times more than converting it for bioenergy production;⁷
- A 2015 study, which showed that methane emissions from the storage of woodchips and storage (including for processing to wood pellets) alone can be so high that they exceed the greenhouse gas emissions from coal-

³ Opinion: Reconsidering bioenergy given the urgency of climate protection, John M. DeCiccio & William H. Schlesinger, PNAS, 25th September 2018, <https://www.pnas.org/content/115/39/9642>

⁴ Commentary by the European Academies’ Science Advisory Council (EASAC) on Forest Bioenergy and Carbon Neutrality, 15th June 2018,

https://easac.eu/fileadmin/PDF_s/reports_statements/Carbon_Neutrality/EASAC_commentary_on_Carbon_Neutrality_15_June_2018.pdf

⁵ Not carbon neutral: Assessing the net emissions impact of residues burned for bioenergy, Mary S Booth, Environmental Research Letters, 21st February 2018, <https://iopscience.iop.org/article/10.1088/1748-9326/aaac88>

⁶ Does replacing coal with wood lower CO₂ emissions? Dynamic lifecycle analysis of wood bioenergy, John D Sterman et.al., Environmental Research Letters, 18th January 2018, <https://iopscience.iop.org/article/10.1088/1748-9326/aaa512/meta>

⁷ Does the world have low-carbon bioenergy potential from the dedicated use of land? Timothy D Searchinger et.al., Energy Policy, November 2017, <https://www.sciencedirect.com/science/article/pii/S0301421517305104>;

generated electricity (per unit of energy). Note that those methane emissions are not accounted for by anyone.⁸

Claims about “sustainable biomass sourcing”:

As shown above and as emphasised in the Open Letter by 800 scientists, sourcing wood biomass from ‘sustainable forest management’ practices does not mitigate its climate impacts. We believe that in the context of energy, ‘sustainable’ must always mean ‘low-carbon’. Burning large quantities of wood, most likely in the form of imported wood pellets, for electricity is not a low-carbon form of energy when considered over the period of time during which global greenhouse gas emissions must be drastically reduced if we want to have a realistic chance of avoiding the worst impacts of climate change.

In addition to those fundamental concerns, we note that neither ESB nor Bord na Móna, who seek to supply the biomass for this power station, have any transparency in relation to biomass sourcing, nor any published sustainability criteria.

We understand that Bord na Móna has refused a request by The Green News under Access to Information on the Environment (AIE) Regulations for information about the type and source of biomass it imported during 2017 and 2018.⁹

Bord na Móna has just received a first shipment of wood pellets from Western Australia. The company has not released any details about how those pellets were sourced, however the fossil-fuel emissions from shipping pellets across such a vast distance will be very high. Furthermore, Australian forest campaigners have successfully campaigned against subsidies for burning wood from native forests in power stations, fearing that such a new demand could accelerate the destruction of the country’s remaining highly biodiverse ancient forests.¹⁰ Burning Australian wood pellets in Irish power stations could pose a new threat to Australia’s forests.

In the application, ESB claims that the amount of domestically available biomass will increase in coming years. However, is contradicted by evidence presented by Bord na Móna to the Joint Committee on Climate Action in November 2018.¹¹ Bord na Móna stated:

- *“We have increased that [domestic biomass supplies] to approximately 400,000 tonnes this year. We think we are at a limit...There needs to be serious planting and land use change to do that”;*
- *“[It is] very difficult to persuade Irish farmers or landowners to change land use [to willow and other short-rotation energy crops].”*

⁸ How certain are greenhouse gas reductions from bioenergy? Life cycle assessment and uncertainty analysis of wood pellet-to-electricity supply chains from forest residues, Mirjam Roeder et.al., Biomass and Bioenergy, August 2015, <https://www.sciencedirect.com/science/article/pii/S0961953415001166>

⁹ <https://greennews.ie/at-biomass-co-firing-esb>

¹⁰ See for example https://issuu.com/marketsforchange/docs/biomassacre_report_website

¹¹ oireachtas.ie/en/debates/debate/joint_committee_on_climate_action/2018-11-13/2

We understand that Bord na Móna already imports around 30% of the biomass it burns in its Edenderry Power Station. The only obvious way of burning significant amounts of domestic biomass in the Lough Ree Power Station that we can see would seem to be diverting wood from Edenderry and making that power station more reliant on imports as a result.

We have read the decision by An Bord Pleanála to refuse planning consent for a similar application in respect of the Shannonbridge/West Offaly Power Station. We hope that this application will be similarly refused.

Yours faithfully,

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