



WWF *for a living planet*

WWF Scotland

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26th February 2010

By e-mail to: energyconsents@scotland.gsi.gov.uk

Dear Sir/Madam,

**APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT 1989 TO
CONSTRUCT AND OPERATE A GAS-FIRED CCGT GENERATING STATION WITH A
NOMINAL OUTPUT OF 1000MW AT COCKENZIE POWER STATION, EAST LOTHIAN**

Thank you for inviting WWF Scotland to respond to the above application and providing a short extension to the consultation period.

We do not think that a new gas-fired, unabated power plant operating at around 58% efficiency is needed for the Scottish electricity system nor is it in line with achieving Scotland's emissions reduction targets under the Climate Change (Scotland) Act 2009, nor is it consistent with the Scottish Government's aim to largely decarbonise the power sector by 2030. We also do not find it acceptable to allow any fossil-fuelled power station to go ahead without use being made of the heat output and without any element of or real commitment to carbon capture and storage.

In the decarbonised electricity mix of 2030 this proposed power plant would be a stranded asset, locking us into a high carbon infrastructure and consuming a disproportionate amount of Scotland's carbon budget in the future. There are credible alternatives that should be examined in advance of considering this proposal, in particular the role of decentralised combined heat and power (CHP) plants, dynamic demand management and increased pumped storage facilities.

WWF Scotland therefore objects in principle to this application.

Strategic need

Recent energy modelling carried out for FoE Scotland, RSPB, WDM and ourselves demonstrated that Scotland does not need a new fossil-fuel power station provided renewable electricity and energy efficiency are pursued vigorously.¹ There is therefore no need for the proposed 1000MW plant at Cockenzie.

¹ The Power of Scotland Renewed, 2009, http://assets.wwf.org.uk/downloads/powerofscotland_renewed.pdf



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Carbon capture and storage

The Scottish Government's Climate Change Delivery Plan sets out a clear policy intention to deliver "a largely de-carbonised electricity generation sector by 2030" including ensuring that all fossil-fuel generation operates with carbon capture and storage technology by 2030.

The Scottish Government Climate Change Delivery Plan (CCDP) also states that "it is necessary to impose guarantees that these power stations will be fitted with carbon capture technologies before 2030. The Scottish Government is currently considering which mechanisms might be put in place through its consenting powers to ensure that carbon capture and storage technology is installed at new and existing baseload stations as soon as possible."

Following the publication of the CCDP the Scottish Government announced its position on coal-fired power stations which includes the requirement that all new build will need to include carbon capture and storage on a minimum of 300MW (net) from their first day of operation. Exactly the same considerations about emissions apply to gas-fired stations but policy has not caught up with fact, creating an anomaly where coal and gas are treated differently.

Given Scottish Government policy to achieve the virtual decarbonisation of the electricity sector by 2030, **if this application is approved it should be subject to the same 300MW condition as would be imposed on a coal-fired plant and clear, legally-enforceable conditions requiring compliance with the implementation of a progressive decarbonisation scheme with specific measurable milestones to ensure that the emissions trajectory of the plant is in line with Scottish targets. Our preference would be that this is achieved through compliance with a legally enforceable initial Emissions Performance Standard (EPS) of 300g/kWh that is then reduced over time to meet the intended decarbonised power sector trajectory.**

Use of waste heat

It is not acceptable that 500MW of usable heat energy will just be continuously dumped to the atmosphere and the Firth of Forth. Despite its potential to increase the plant's efficiency from 58% to 80% the application rejects the possibility of using the waste heat generated by the proposed CCGT power station. The sketchy CHP assessment carried out for the developers ignored previous work on the use of heat in and around Edinburgh, including our own report with Greenpeace from 2006 which identified a total annual heat demand in the city of around 3000GWh.² Unlike CCS there are no technology barriers to the use of CHP, only economic ones, in this case determined largely by the choice of a single large station on this particular site. Using the same amount of gas in district-scale CHP plants distributed around the Lothians would provide similar amounts of electricity but increase the efficiency of the overall system by making use of the heat output. The Scottish Government should not give consent to this application unless a significant proportion of the heat output is used for a constructive purpose. At the very least the applicant should be compelled to design the plant so that the waste heat can be used at a future date.

Yours sincerely,

² Powering Edinburgh into the 21st century, 2006, <http://www.greenpeace.org.uk/files/pdfs/migrated/MultimediaFiles/Live/FullReport/8056.pdf>

A handwritten signature in black ink, appearing to read 'Richard Dixon', with a long horizontal stroke extending to the right.

Dr Richard Dixon - Director