Cockenzie Power Station Approved

Plans to replace the coal fired power station at Cockenzie in East Lothian with a high efficiency gas station have been approved by Scottish Ministers.

The government say that the new 1,000 Megawatt Combined Cycle Gas Turbine power station will create up to 1,000 jobs in demolition and construction and 50 full time positions when completed.

Holyrood also stated that “Natural gas is a much more efficient fuel than coal and will more than halve carbon and nitrogen dioxide emissions compared to the existing power station.

The approval is in line with the recommendations of the report of the public inquiry and conditions imposed on the consent are intended to minimise disturbance in the area during construction and any resultant impact on the environment and on protected species.”

The development will be ‘carbon capture ready’ and will be required to fit full carbon capture and storage technology once it is commercially and technically proven.

A separate application for a 17.5 km pipeline from the existing gas network at East Fortune to the new power station has also been approved.

In addition, the Scottish Government has published a new study which it hopes will help promote the most efficient use of waste heat in generating electricity.

Energy Minister Fergus Ewing said:-

“Alongside the vast increase in renewable energy that we are

working towards, Scotland will still need conventional, clean fossil fuel power to provide a steady supply of electricity. This could be met by new build plant, upgrades to existing plants or a combination of both.

“Cockenzie power station is now over 40 years old. The new gas station will provide a far cleaner source of baseload electricity, with less than half the amount of carbon emissions, creating new jobs in East Lothian and new opportunities for existing Cockenzie staff in the process.

“The Cockenzie development is also designed to utilise the heat produced during the electricity generating process, which could help Scotland further decarbonise its heating sector. I have today published a new study on waste heat that shows it is technically possible to recover significant amounts of heat at large power stations, but that the financial case remains unattractive. We will consider how the planning system can best support heat recovery and our Expert Commission on the delivery of district heating, to be established shortly, will look at the recommendations of the study.”

Commenting on news that the Scottish Government has approved the building of a new gas-fired power station at Cockenzie, in East Lothian, WWF Scotland’s Head of Policy, Dr Dan Barlow said:

“We are extremely disappointed at this announcement. By not requiring any carbon capture from the start this decision risks locking Scotland into decades of unabated climate pollution and jeopardises the Government’s firm commitment to decarbonise energy supply by 2030.

“The government’s own energy policy shows that Scotland doesn’t need any new gas or coal to keep the lights on. If this poor decision is later followed by the approval of a new coal-fired power station at Hunterston then Scotland can kiss goodbye to any credibility it currently has globally as a

leader in tackling climate change.

“Despite the Government’s claims that it wishes to promote the most efficient use of waste heat in generating electricity this proposal provides no firm commitment to actually recover and use any waste heat. A new fossil-fuelled power plant operating at just over 50 per cent efficiency has absolutely no place in Scotland’s power sector.”

In December 2009, ScottishPower Generation Limited applied to Scottish Ministers for consent to construct and operate a 1000 MW gas-fired Combined Cycle Gas Turbine (CCGT) generating station. The development will consist of two high-efficiency CCGT units. The CCGT units combine a gas turbine and a steam generator connected to a steam turbine. Electricity is generated by both the gas turbine and the steam turbine with the exhaust gases from the gas turbine generating the steam to power the steam turbine.

The Cockenzie CCGT application was subject to wide-ranging statutory consultation. 37 public representations were received – 25 objections and 12 in support of the development. East Lothian Council, the relevant Planning Authority, objected. As a result, a Public Local Inquiry was held. In December 2010 East Lothian Council formally withdrew their objection to the proposal subject to conditions and the Reporter agreed to hear the remaining objections by written submissions and a hearing, which concluded in February 2011.

CCGT is generally recognised as best available technology for electricity generation from natural gas, due to its high fuel efficiency. On average per Megawatt hour, coal emits 0.86 tonnes of carbon dioxide while CCGT emits 0.30 tonnes.

The Scottish Government’s Draft Electricity Generating Statement, published in 2010, highlighted that Scotland needs a minimum of 2.5 Gigawatts of thermal generation by 2030 to back up our renewables targets and that this can be met by new

build plant; upgrades to existing plant; or a combination of both.

The government also said:-“The application is in line with the Scottish Government’s policy in relation to Carbon Capture and Storage on new gas-fired electricity generation that applicants should be able to demonstrate carbon capture readiness on any applications for new stations over 300 Megawatts.

The Scottish Government’s policy on waste heat is that any application for a new or significant retrofitting for any thermal generation station needs to demonstrate how the waste heat could be utilised by residential or non-domestic developments. The application for Cockenzie included a heat study and therefore aligns with Scottish Government thermal electricity generation policy.”