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Application by Ayrshire Power to Scottish Government to Construct a Coal Fired Power Station at Hunterston, North Ayrshire

On behalf of Friends of the Earth Scotland Scotland I wish to formally object to the proposed coal fired power station at Hunterston and ask that the Scottish Government reject outright the planning application from Ayrshire Power.

Summary
The proposed development has serious environmental impacts, notably in respect of greenhouse gas emissions. The plant is likely to lead to a significant increase in overall Scottish emissions, and a higher intensity of emissions than associated with alternative new generation capacity (section 1). The proposals for mitigation are insufficient and not credible (section 2, 3 & 4). The application and supporting materials fail to assess likely serious environmental and sustainability impacts in adequate detail (sections 5, 6 and 7).

On close examination, the potential benefits of the development as a demonstration of CCS technology In Scotland, and as a contribution to energy security in Scotland and the UK, both prove to be illusory. Approval for this development would create a significant risk to the implementation of a CCS demonstration at Longannet (section 8), and is not required for energy security in Scotland, which will be delivered through the increased interconnection required to facilitate panned growth in renewable electricity generation (section 9).

The proposal does not offer overriding economic benefits that might be considered justify the environmental impacts (section 10). In fact it risks creating additional

economic liabilities for the Scottish taxpayer and consumer (section 11).

The application has not been subject to adequate consultation (section 12). It also fails to demonstrate how the proposed development fits the criteria for development at this site in line with the National Planning Framework, and fails to independently demonstrate the need for the proposed development (Section 13). If not rejected outright at this stage, the proposal should therefore be referred to a full public local inquiry with a broad remit.

1. The proposal should be rejected because it would increase emissions of greenhouse gases and is incompatible with the targets and duties established by the Climate Change (Scotland) Act

The proposed development is likely to significantly increase emissions of greenhouse gases in Scotland. Even though the developers intend to comply with the current requirement to fit carbon capture and storage, and to co-fire the highest technically feasible percentage of biomass, the plant will still generate (under the most optimistic assumptions) around 540 grammes of carbon per kWh of electricity exported to the grid[1]. This is substantially higher than emissions from additional renewable generation or even from unabated gas-fired generating capacity (320 g/kWh) and would lead to cumulative additional emissions of over 2.5m tonnes per year for around 40 years in comparison with unabated gas. Under less favourable assumptions the emissions per kWh rise to 680g/kWh or more[2] and the annual additional emissions to around 3.9m tonnes.

If, as seems more likely, additional thermal capacity is not needed in Scotland (see section 9 below), the cumulative additional annual emissions rise to around 8m tonnes. This is equivalent to 14% of Scotland's current annual emissions, roughly 25% of the 2020 target level, and 70% of the 2050 target level (from this single facility).

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1 Based on unabated emissions of 730g/kWh, 83% plant utilisation; 100% utilisation of CCS capacity (327MW net); 14% biomass by weight (treated as almost zero carbon – 15g/kWh); gross efficiency 45% before parasitic load, parasitic load 8.4%; average efficiency degradation 2.9%. This figure is lower than than cited in the carbon balance report because that report does not explicitly consider the effects of biomass co-firing. These and other figures have been based on analysis undertaken for FoES and WWFS by *element energy*. The consultants are currently completing their report, which will be forwarded to the ECU on request, once finalised.

2 Based on unabated emissions of 730g/kWh, 83% plant utilisation; 50% utilisation of CCS capacity (327MW net); 0% biomass; gross efficiency 45% before parasitic load, parasitic load 8.4%; average efficiency degradation 2.9%.

In this context, approval of the Hunterston application would dramatically undermine the likely effectiveness of the Government's Public Engagement Strategy on climate change (required by the Climate Change (Scotland) Act) through its demotivating effect on individual action.

Of course, the ultimate impacts of emissions on climate change depend on both their magnitude and timing. The Scottish Government is under an obligation to consider a fair and safe level of cumulative emissions when setting emissions targets, and this concept of cumulative emissions is useful in assessing specific developments or policies, especially in the context of the 2020 and 2050 targets for Scottish emissions reductions.

This development proposes a trajectory which permits high emissions from a largely unabated coal plant for at least a decade, before introducing further emissions abatement (retrofitting CCS to the remaining 75% of the plant). Such a trajectory is commensurate with high cumulative emissions, and *prima facie* therefore incompatible with the approach to meeting the 2020 and 2050 targets set out in the Climate Change (Scotland) Act 2009. The proposed development also leads to higher short term emissions, in a period when scientists concur that global emissions must pass a peak and begin to decline.

The proposal is therefore clearly contrary to the intent and spirit of the Climate Change (Scotland) Act.

2. The proposal should be rejected because the measures proposed to mitigate greenhouse gas emissions are not credible

The developers have argued that their plans represent a step forward in practice on carbon emissions, and have offered a series of figures purported to demonstrate this. In reality their estimates are misleading and misrepresent the potential abatement arising from proposed mitigation measures. The application suggests that the plant will be modern coal-fired technology, with a lower initial level of emissions than existing coal-fired power stations, and that, in addition, two measures will be used to further mitigate emissions: cofiring of biomass and carbon capture and storage.

The scenarios provided in the supporting documentation assume that the partial CCS capacity planned from the outset will run at 100% capacity regardless of the level to which the power station itself is operating. This assumption is flawed in three respects. First it makes no allowance for the fact that this installation will be an early example of a technology which has yet to be commercially demonstrated at this scale. CCS experts have suggested that it is highly unlikely that a new installation will run anywhere near full capacity for up to several years while the technology is being developed and demonstrated (this issue was discussed at some length by the industry and other stakeholders at the recent Green Alliance Emissions Performance Standard workshop at Edinburgh University on 26th July 2010)

Second, it ignores the impacts of variable operation of the plant. To illustrate the importance of the operating pattern consider two scenarios in which the station operates at 50% of its maximum capacity. In the first the plant runs at full capacity for half the time. In the second it runs at 50% capacity for 100% of the time. In the first scenario a partial (25%) CCS facility can theoretically process half of the total emissions for a capture rate of roughly 45% (90% x 50%). In the second scenario it can only process a quarter of the emissions, delivering a capture rate of 22.5% (90% x 25%). The operating pattern has a further impact in that when running at a low utilisation rate, emissions intensity rises. A new supercritical coal plant (such as that applied for) running at full capacity may achieve emissions of 730g-CO2 per kWh. The same plant running at just 25% of maximum would produce up to 830g-CO2 per kWh (before accounting for the effects of the partial CCS). The application provides no indication of the expected pattern of operation: merely two examples of possible average load factors. These are not sufficient to predict the actual emissions likely to arise.

Third, it appears blind to the day-to-day economics of operation of such a plant. As was the case with flue-gas desulphurisation, it is clear that despite the costs of installation, the CCS plant will only be operated when it is most profitable to do so. At times when the value of the extra electricity that can be sold (rather than powering the CCS process) exceeds the net value of any incentives to operate the plant (any subsidy provided from the proposed consumer levy, plus the costs of carbon credits), a rational operator will choose to emit more carbon. This is likely to occur only rarely given what little we know of the proposed financing regime, but it is likely to become more frequent insofar as

growth in renewables capacity increases intermittency on the network.

The developer's scenarios are also based on an assumption of complete retrofit of the plant with full CCS by 2025. However no policy mechanisms have as yet been established to require this, and indeed the commercial viability of such retrofit has yet to be established.

The developer's scenarios also make flawed comparisons. In particular their lifetime emissions scenario assumes complete retrofit on coal. For the comparison with a gas-fired station, the applicant assumes there will be no retrofit of CCS on gas, although the existing policy that gas-fired capacity must demonstrate carbon capture readiness implies that retrofit may be expected, as does the ‘virtual decarbonisation’ policy advocated by the Committee on Climate Change (CCC). Indeed in June 2010 the CCC has advised the UK Government that CCS on gas should be pursued as part of the energy sector strategy for emissions reduction.

This is highly significant as it is only by such a misleading comparison that the developers are able to claim that their plans would lead to less lifetime emissions than a comparable gas station. In fact running the proposed Hunterston facility with partial CCS would lead to 56-150mt higher cumulative emissions than unabated gas over 40 years; and if full CCS were only retrofit to a comparable gas station in 2030, rather than to Hunterston in 2025, the gas option would still lead to 17% less emissions.

With respect to biomass co-firing, the scenarios presented are inconsistent, and tend to exaggerate the actual benefits of such an approach. It is not technically accurate to assume that biomass used as fuel in a power station is net zero carbon. This is for two basic reasons. First, the timescale has to be taken into account: even if the biomass comes from a well managed forest or rotation, it takes many years, and even decades for the equivalent of carbon released in combustion to be captured in new growth. In the interim that carbon has a cumulative impact on the atmosphere.

Recent research from the Massachusets Manomet Centre concludes that *'Under comparable forest management assumptions, dividends from biomass replacement of*

coal-fired electric capacity begin at approximately 20 years.' [3] In other words, for a period of 20 years biomass use leads to higher net GHG concentrations in the atmosphere than coal use, and it is a longer period (perhaps several decades more) before climate forcing equivalence is achieved as a result of the continued sink of CO2 into the forest area managed for biomass.

Second, the carbon impacts of fuel sourcing, processing and transport has to be taken into account. Lifecycle studies tend to provide an estimate of these factors. The Biomass Energy Centre therefore estimate an equilibrium emissions intensity for biomass of 15g-CO2/kWh. But these figures do not appear to recognise that the carbon in the biomass captured for combustion may be only a fraction of the carbon released from the vegetation and soils as a result of forest operations.

Of course a full assessment of the carbon impacts of the plan will need to take account of what electricity generation (or energy saving activity) is displaced from the UK grid by this new capacity. However it appears that central to the developers' claims of reduced emissions is an undisclosed assumption that the new plant will displace an existing coal fired power station from the grid (ie Longannet). We discuss this matter at greater length below, but it should be noted that the consequences of such displacement for Longannet's investment in CCS demonstration could be severe.

3. The proposal should be rejected because it fails to provide adequate mitigation (using BAT) for the impacts of thermal pollution on the Clyde.

The Environmental Impact Assessment (EIA) acknowledges that the plant could generate significant thermal pollution, raising local temperatures by as much as 14ºC for prolonged periods of time. The proposal claims that 'once through direct cooling' is the best available technology (BAT) for such a coastal power plant. However analysis undertaken for the Countryside Council for Wales (CCW) with respect to a proposed power plant at Milford Haven indicates the commercial availability of environmentally preferable techniques for cooling, already being deployed in the USA.

In June 2008, CCW received an independent report from Cambrensis Ltd., which

[3] Biomass sustainability and carbon policy study, prepared for Massachusetts Department of Energy Resources by the Manomet Centre for Conservation Scirence. http://www.manomet.org/sites/manomet.org/files/Manomet_Biomass_Report_Full_LoRez.pdf

concluded that in relation to BAT the EA was under a legal obligation to consider the latest scientific information concerning direct once-through cooling. The Cambrensis report notes, in particular (at paragraph 1.7): "*On IPPC, the guidance of what should be considered 'best available techniques' or BAT is not fully up to date. We conclude that both the developer and EAW should fully consider alternatives to direct cooling for this installation at this site, particularly give [sic] significant developments in BAT since the European BREF guidance was last assessed in 2001, particularly in the USA, where they no longer regard direct cooling as best available technologies for coastal power stations, but also given the examples of successful application of alternative technologies within the UK*"[4]. The EIA for the present proposal makes reference to the EIA for the Milford Haven plant, without acknowledging the objections raised by CCW regarding the adverse impacts of thermal pollution on the Milford Haven SAC, or the fact that case has subsequently been referred to the European Commission[5].

Moreover, it is unclear from the EIA whether the construction and operation of the development would cause deterioration of ecological status of the Largs Channel coastal water body. Consideration must also be given to the legislative requirements of the EU Water Framework Directive.

4. The proposal should be rejected because the environmental and social impacts of the supply of biomass for cofiring are unacceptable

As well as underestimating the climatic impacts of biomass cofiring, the application also fails to consider the wider implications of such use of biomass. The quantities concerned are up to 0.8million tonnes per year. This is a highly significant amount: it compares to 16% of Scotland's total forest products yield (a yield which is forecast to decline for some years before recovering). Moreover it is a significant fraction of the total global international trade in biomass for energy of around 27m tonnes[6].

At this scale it cannot be simply assumed that the development will be able to source a properly sustainable, certified supply of biomass. Indeed given their apparent intent to source biomass on global markets, there is a very real risk that the biomass will be taken

4 Independent BAT assessment for Pembroke power station cooling water discharge, Cambrensis Ltd, 2008, CCW Contract Science Report No 846

5 Complaint at http://www.foe.co.uk/resource/submissions/pembroke_power_station_com.pdf

6 *Wood fibre availability and demand in Britain, 2007-2025, by John Clegg Consulting Ltd*, April 2010, for ConFor, the UK Forest Products Association and the Wood Panel Industries Federation.

from low-cost, unsustainable operations such as those currently being established in tropical forest regions in Africa, Latin America and the Far East. In these cases even if the trees felled are replaced, there is a serious risk of significant negative impacts on biological diversity and on the long-term carbon capacity of the affected forests. Alternatively where biomass production is established on agricultural land this will contribute to the already significant impacts of biofuel production on world food availability and prices.

5. The proposal should be rejected because the environmental and social impacts of the supply of coal for the plant are unacceptable

The EIA also fails to address the likely impacts of coal supply on the environment. These cannot be ignored on the grounds that coal will be purchased on the global market.

Coal mining, particularly opencast mining, is one of the most environmentally destructive processes known, and in several countries – including Colombia - the mining industry is associated with abuses of human rights and labour rights. Colombia is one of the cheapest sources of coal on the global market, and one already identified as a likely source for this development. Open-pit mining in Colombia causes major river pollution from tailings, contributes to widespread respiratory ill-health, and is highly risky. A Colombian miner is seven times more likely to die or get injured than in the U.S.

The developer has made no commitment to use Scottish coal. In fact, because of their financial interest in the deepwater port, they have a financial incentive to use imported coal. However even if this were overcome and use of Scottish coal seen as a benefit to indigenous energy security, it must be recognised that opencasting has been condemned by the Royal Commission on Environmental Pollution as environmentally devastating, and is highly controversial with affected communities within Scotland. Increased coal production in Scotland to fuel such a plant would raise serious environmental and health concerns.

6. The proposal should be rejected because it threatens unacceptable damage to important recognised biodiversity interests.

The proposal would result in the loss of over 30 ha of intertidal habitats. The sandflat, eelgrass bed and mussel bed habitats that would be lost are regionally uncommon and

this site is the largest area of these habitats on the Ayrshire coast.

The site is particularly important for wintering birds, which are likely to be significantly affected by loss of feeding habitat, loss of roost sites and disturbance. The loss of habitat would result in a significant impact on the integrity of the Portencross Coast SSSI.

7. The proposal should be rejected because the EIA is seriously inadequate in multiple respects, and cannot be relied upon to provide a fair assessment of impacts.

Amongst other shortcomings the EIA fails to assess the climatic implications of GHG emissions. It fails to consider the environmental effects of coal and biomass supplies. It fails to adequately consider the requirements for, and impacts of supply and storage of limestone, and storage and disposal of gypsum, and ash.

8. The proposal should be rejected because it could undermine more socially and economically valuable investment decisions elsewhere in Scotland (such as the Lonngannet CCS demonstration).

There are two particular risks to consider. First, albeit only at a marginal level, that the development could have negative impacts on the case for additional renewables capacity, leading to lower investment and thus lower economic benefits in the growing Scottish renewables sector. The employment and economic benefits of the Hunterston investment are likely to have a lower Scottish content than renewables investments.

More significantly we have to consider the effects of displacement of generation capacity within the merit order. Although technically part of the UK market, as long as interconnection is dominated by renewable power, the most likely plant to be displaced will be the most similar, but next more expensive to operate within Scotland: that is, Scottish Power's coal fired station at Longannet. The result would be to reduce the financial incentives for Scottish Power to proceed with the CCS demonstration proposed for that facility. As a result rather than increasing the likelihood of Scotland hosting an early CCS demonstration, approval for Hunterston could instead mean the loss of advanced plans for an early, and well developed CCS trial/demonstration (at Longannet); and their replacement by sketchy plans for a later, less certain one (at

Hunterston) - with commensurately less benefits to the Scottish economy.

The attached analysis by Garrad Hassan approaches the same issue from a different perspective, reaching a complementary conclusion. It notes that: "*it is very likely that capacity factors of fossil and nuclear generating plant in GB will fall in future as more variable renewables are added. The effect is likely to be more extreme in Scotland, as so much of the output is likely to be exported south, and as noted above interconnection capacity is likely to cause constraints for economic reasons. It is much more likely that thermal generation will be constrained (because at least the fuel costs are saved) than wind, wave, tidal or run-of-river hydro (where the 'fuel' is effectively wasted) … If the capacity factor of a fossil or nuclear plant declines sufficiently, it will eventually be closed on economic grounds, unless it can remain economic as a 'peaking' plant (i.e. running only at the times of highest electricity prices), or if it receives payment for providing other services. In Scotland, the most likely candidate for closure is Longannet, especially if the Hunterston coal plant ... proceeds*."

9. The proposal is not necessary to ensure energy security in the Scottish electricity grid.

It could be argued that with a growing level of variable renewable capacity in Scotland, additional mid-merit or peaking capacity is actually desirable or needed for system security. It is true that one way to back up a high level of renewables penetration is with conventional thermal plant kept in reserve. FoES asked Garrad Hassan to examine the options available to Scotland to ensure energy security with very high levels of renewables penetration (above 75% of total generation). Their analysis (attached) reveals that additional thermal capacity is neither necessary, nor even desirable on cost grounds, given Government policies for decarbonisation which would require CCS. It also demonstrates that even with low rates of renewables development there is no clear case for Hunterston on these grounds.

Instead they confirm the findings of a European wide study for the European Climate Foundation[7] that with improved interconnection, and no more than small additional investments in energy storage and deferrable demand, very high levels of renewable penetration can be handled without risks to system security. Such alternative

7 http://www.roadmap2050.eu/

approaches are of a similar level of cost to thermal back-up with CCS, but carry significantly lower climate risks.

If adequate interconnection is developed to export a high share of Scotland's surplus renewable electricity when generation levels are high, then there will be more than adequate capacity to import electricity to ensure energy security when renewable capacity in Scotland is generating at a low level. In this case Hunterston would be unnecessary for Scotland's energy security, while from a UK perspective if such extra capacity is justifiable, it would more logically be located close to the major markets in Southern England.

These findings indicate that the analysis commissioned by Ayrshire Power from Poyry consultants to make the case for the need for this development is fundamentally flawed, due to its lack of insight into the realities of generation and transmission in the Scottish electricity system. It is also flawed in its simplistic approach to demand at a UK scale, largely ignoring the policies and drivers now in place to reduce overall demand (despite previous work for the same consultancy which came to very different conclusions)[8]. The Garrad Hassan analysis (attached) highlights the importance of lowering demand to reducing the costs of delivering sustainable secure energy.

Moreover if additional thermal generation were actually required for energy security in Scotland, it would be irresponsible to attempt to meet that requirement with this proposal, whose financial viability depends upon an as yet undecided UK mechanism for the funding of commercial scale CCS demonstration plant.

10. The proposal does not offer overriding economic benefits of an appropriate scale or significance

The proposers suggest the potential creation of 160 long term jobs, and a larger amount of construction phase employment. However, there is widespread evidence that renewables and energy conservation offer more employment (and greater local employment multipliers) than coal. For example according to an analysis of 13 independent reports and studies of the clean energy industry by UC Berkeley's Renewable and Appropriate Energy Laboratory (RAEL), renewable energy technologies

8 The Poyry research is summarised in 'Closing the Energy Gap': http://www.wwf.org.uk/filelibrary/pdf/energy_gap_summary.pdf

create more jobs per average megawatt (MW) of power generated, and per dollar invested in construction, manufacturing, and installation when compared to coal. Over the course of a 10-year period the solar industry creates 5.65 jobs per million dollars in investment, the wind energy industry 5.7 jobs, and the coal industry only 3.96.[9] According to the EST efficiency and conservation programmes in the UK create more than 24 job years per £1m spend[10].

The construction phase employment could have long-term negative effects as has been recorded for previous major construction projects such as the Milford Haven Refinery or the Torness nuclear plant. The short term demand was met by significant in-migration, subsequently resulting in major local economic distortions. In the case of Milford Haven local unemployment rates after the construction was completed were higher than before it commenced.

This is related to the short and long term impacts on existing local jobs. The long term implications of the development may be detrimental to the local economy as the area relies heavily on tourism. For example, Fencebay Farm, which is located within 0.5km of the site, employs up to 40 people in peak season in their farm, restaurant and accommodation business. The owners feel the visual, noise and air pollution impacts of development will have a serious impact on their business. No apparent consideration has been given to potential job losses by the developer.

11. The proposal should be rejected because the development would create significant, unnecessary, risks and liabilities for Scotland.

The proposed development exposes Scotland rather than the developer, to unnecessary CCS related risks, both technical and economic. If the proposed plant were constructed it would effectively commit Scotland to a dependence on successful commercial scale operation of CCS to meet our climate targets.

However, the proposal cannot offer any guarantees. For example, there are serious uncertainties regarding the availability of storage. We particularly note that the

9 Daniel Kammen, Kamal Kapadia, and Matthias Fripp, "Putting Renewables to Work: How Many Jobs Can the Clean Energy Industry Create?" UC Berkeley: Renewable and Appropriate Energy Laboratory (RAEL), April 2004 (updated January 2006), 12, http://rael.berkeley.edu/files/2004/Kammen-Renewable-Jobs-2004.pdf

10 Sustainable energy and job creation, EST briefing note, last updated 2007.

applicants have only identified one potential storage site, where even guidance on carbon capture readiness would suggest that two sites should be identified, with an assessment of the transport implications. If the preferred location proves unviable, the extra costs of transport of CO2 to proven east coast storage locations may be imposed on the Scottish Government or Scottish consumers.

Similarly if full scale CCS fails to prove commercially viable it is the Scottish Government and consumer/taxpayer who will face the tab for full retrofit and associated pipeline and storage infrastructure necessary to deliver climate change targets.

While outside the remit of this section 36 application, Ayrshire Power's lack of explanation to concerned community and organisations about how they would expect to deal with the transportation and storage of CO2, and the future proposed full CCS plant, is cause for concern.

12. The proposal should be rejected because local consultation and community engagement has been inadequate

The failure to adequately consult over the inclusion of the Hunterston site as a national priority in the National Planning Framework 2 (NPF) has led to an ongoing legal challenge.

Ayrshire Power now claim to that "consultation and engagement has been central to the development of APL's proposals" (Technical Summary pg3), and highlight in particular their engagement with the local community. This has been directly contradicted by local community groups, and key individuals and organisations who would be most directly affected by the development, who feel they were overlooked. CONCH highlights that no direct consultation took place with the public between October 2009 and June 2010 and many areas of North Ayrshire have had no opportunity to take part in community consultation events.

13. The proposed development does not meet the criteria set out in the NPF for the site as it cannot reasonably be described as 'clean coal', and moreover is unlikely to operate as baseload capacity

The NPF states *"There is a need for new baseload electricity generating capacity to*

replace the power stations programmed for closure over the next 20 years. Land at Hunterston offers the opportunity to develop a clean coal fired power station"(emphasis added)

As outlined earlier the mitigation and carbon abatement measures proposed are inadequate. Without the installation and operation of 100% carbon capture from day one of operation, the development could not conceivably be described as 'clean' coal.

Nor is the proposal truly for a baseload facility. Power plants are generally divided into three categories according to their overall average capacity utilisation: baseload, mid-merit and peaking. Baseload plant typically operates at over 60% capacity, and peaking plant at less than 20%. Mid merit falls between. All mainstream forecasts for the future of Scottish generating capacity expect variable renewables to constitute 40% or more of total electricity generated in Scotland (equivalent to a much higher share of Scottish consumption) by 2020. Recent work by Garrad Hassan (attached) suggests the figure will be over 60% of generation (and as much as 140% of consumption). In such scenarios, it is to be expected that both the total amount of thermal capacity, and its utilisation rate (load factor) will shrink for sound economic reasons.

Thermal plant in Scotland may well face particular constraints as the capacity of interconnectors to the wider UK market is likely to grow more slowly than total renewables capacity. Thus such thermal plant will not simply export power to the rest of the UK instead when renewable generation is plentiful, it will have to operate at reduced capacity.

To describe the Hunterston proposal as 'clean' coal and 'baseload' generation is therefore misleading, and the proposal cannot legitimately benefit from the statement of need for the site in the NPF for a clean coal baseload plant[11].

It now also appears that a further material consideration could supersede the implications of the site's inclusion in the NPF. The Energy Minister, Jim Mather, recently provided the following in a written Parliamentary Answer in response to Parliamentary

11 FoES does not accept the argument that baseload plant is needed, but recognises that such a policy is included in the NPF. We also do not accept that the inclusion of a Hunterston development within the NPF was subject to adequate consultation, and thus believe it will be struck out should a court consider this matter.

Question S3W-34742:

"As part of their obligations under s.38 of the Climate Change (Scotland) Act (2009), Scottish Ministers are required to lay a report outlining the impact on emissions of the exercise of their electricity generation related functions. To fulfil this obligation, and in light of recent developments in our renewables potential, the Scottish Government is currently conducting an internal study on the extent of the need for new thermal generation. This ... will reflect the competitive and dynamic nature of the electricity market. The report will include an assessment of energy demand and supply projections – including the current electricity supply base, projected rates of renewables deployment and planned retirement of existing baseload plants. It will also be informed by the energy storage and demand management study. The outcome of the study will provide a high level assessment on the extent of need for new thermal generation capacity and an evaluation of the potential security of supply issues that may occur in Scotland during the expected transformation towards a decarbonised electricity supply sector by 2030. This assessment will be one of the factors taken into account in considering policy on future generation options, alongside environmental, social and economic criteria."

Clearly, the findings of this study on the extent of need for new thermal generation capacity could further influence whether the need for a new coal plant at Hunterston remains established and would therefore need to be a material consideration in the determination of the current application.

Similarly, developments in overall UK energy policy with respect to an Emissions Performance Standard (to be consulted on in detail later this year); a carbon floor price; and a consumer levy to support CCS demonstration, potentially based on contracts for difference; will all have a bearing on whether this proposed development is financially viable, and whether it can be justified within a UK market analysis and thus on the question of need.

Conclusion

For all the above reasons, FoES calls on the Scottish Government to reject the application. FoES also calls on Ministers to ensure that should the application be considered at a Public Local Inquiry for any reason, that the Inquiry have a broad remit,

including consideration of the need for the development.

This conclusion has been endorsed and supported by Friends of the Earth Europe and the following Friends of the Earth International member groups, who wish this ***to be treated as a formal record of their objection to the application***:

- Nnimmo Bassey, ERA, FoE Nigeria
- Ricardo Navarro, CESTA, FoE El Salvador
- Cam Walker, National Coordinator, FoE Australia
- Lucia Ortiz, FoE Brazil
- Bobby Peek, Groundwork, FoE South Africa
- Liliane Spendeler, Environmental Director, Amigos de la Tierra Espana
- Rikke Rasmussen, NOAH, FoE Denmark
- Anabela A Lemos, Director, Justica Ambiental, FoE Mozambique
- Helen Wolfson, International Co-ordinator, FoE England Wales and Northern
- Klitos Papastylianou, CJE Sovereignty Campaigner, FoE Cyprus
- David Heller, FoE Flanders and Brussels
- Magda Stoczkiewicz, Director, FoE Europe

Our international colleagues have followed Scotland's progress on climate change with great interest. It is clear that an approval for Hunterston would be profoundly damaging to Scotland's international leadership on climate change legislation and policy.

Yours sincerely

Duncan McLaren, Chief Executive

Cc SEPA: Dr James Gemmill, Area Manager via ayrshirepowerapplication@sepa.org.uk
SNH: Ross Johnston, Strathclyde & Ayrshire Area Manager ross.johnston@snh.gov.uk
NAC: Robert Forrest, Planning Services Manager, rforrest@north-ayrshire.gov.uk

Attachment: Draft report from Garrad Hassan