

**Rt Honourable Alistair Darling MP,
Secretary of State for Trade and Industry
Department of Trade and Industry
1 Victoria Street
London SW1H 0ET**

Greenpeace:

1. GREENPEACE Ltd (Greenpeace UK) is the autonomous regional office of Greenpeace, a campaigning organisation which has as its main object the protection of the natural environment. Greenpeace has regional offices in 40 countries, 2.8 million supporters worldwide and around 150,000 in the UK. It is independent of governments and businesses, being funded entirely by individual subscriptions.
2. Greenpeace was one of the first organisations to campaign for action to be taken to halt anthropogenic climate change. It has built up considerable expertise and has access to independent expertise on the links between energy use and climate change. The expertise includes scientific knowledge, understanding of the economics of the electricity market, and analysis of state subsidy, as well as understanding of how the development of traditional, centralised systems of electricity generation can have detrimental effect on the development of new, cleaner technology to combat climate change.
3. Greenpeace's expertise and status on climate change and nuclear power is recognised in a number of international and national fora. At international level, Greenpeace holds Economic and Social Council NGO status at the United Nations. Greenpeace has participated in and observed the UN's Climate Change Negotiations since 1989. Among Greenpeace staff members are lead authors on reports of the many chapters of Inter-Governmental Panel on Climate Change. Greenpeace has participated in and observed at the Convention on Bio-Diversity, including contributing to consideration of the impacts of climate change on bio-diversity, participated and observed at the Earth Summit in 1992, the 2002 World Summit on Sustainable development

and the UN World Conference on Renewables. Greenpeace also has official observer status and engages in public consultations held by the World Bank, the International Energy Agency, the IMF and the Asian Development Bank.

The objection

4. Greenpeace opposes the application by E.ON for the consent of the Secretary of State under section 36 of the Electricity Act to two supercritical coal-fired generating units, each rated at 800MW, on land within EON's existing holding at Kingsnorth Power Station on the estuarial Medway in Kent.
5. The basic ground of the objection is that, although the proposed units would produce slightly less CO₂ per unit of electricity generated than the existing units, the grant of consent would perpetuate a highly carbon-intensive and inherently inefficient form of energy generation and would be contrary to Government policy on both climate change and energy sources. So far as there is an established need (notwithstanding Government policy on reduction in energy demand) for replacement capacity, more efficient units can and should be developed in preference to the proposal in its present form.
6. It is Greenpeace's case that the Secretary of state can and should take domestic and international climate change policy into account on an application for new fossil-fired plant under the EA 1989. The key policies and obligations which must be taken into account are set out below.
7. Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC) defines the policy of the Convention:

"Objective: The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system."

8. The UK has ratified the UNFCCC. UK is also a signatory of the Kyoto protocol to the UNFCCC, which came into force at the end of 2005, and through which the industrialised countries agreed to legally binding reductions in greenhouse gas emissions of an average of 6 to 8% below 1990 levels between the years 2008-2012.
9. The EC has also ratified the UNFCCC. The EU has agreed to cut 8% of global gas emissions from 1990 levels. On 10 January 2007 the European Commission announced plans for an EU energy policy that included a 20% cut in emissions by 2020.
10. The Stern Report¹ advocated an urgent and substantial decarbonisation of atmospheric concentrations, with particular emphasis on coal-related GHG emissions.
11. It is Government planning policy that climate change be incorporated as a consideration. For example, Planning Policy Statement 1: Delivering Sustainable development brings climate change explicitly into government policy in paragraph 13(ii):

“Regional planning bodies and local planning authorities should ensure that development plans contribute to global sustainability by addressing the causes and potential impacts of climate change – through policies which reduce energy use, reduce emissions (for example, by encouraging patterns of development which reduce the need to travel by private car, or reduce the impact of moving freight), promote the development of renewable energy resources, and take climate change impacts into account in the location and design of development.”
12. On March 13, 2007 the Climate Change Bill was published. It aims to put in place a framework to achieve a mandatory 60% cut (compared to 1990 levels) in the UK’s carbon emissions by 2050. There is an interim target of 32% by 2020.
13. Despite this policy framework, annual net carbon dioxide emission levels in the UK have risen by around 2 per cent since 1997. The latest Government data indicates that emissions from the power sector are rising at an accelerated

¹ ‘Stern Review: The Economics of Climate Change’ – Treasury, 30th October 2006

rate, with a 4.75% increase from 2005 to 2006². According to the DTI, this rise is due to a switch from gas towards the more carbon intensive fuel of coal. Unless drastic action is taken to curb emissions then there is no hope that the UK government will meet its policy aspirations. A recent report commissioned by World Wildlife Fund for Nature and carried out by energy consultancy IPA Energy + Water Consulting³ concludes that:

“as it stands the 2010 emissions reduction target of 20% is unlikely to be met even by 2020 (based on current projections)”

More detailed argument, which demonstrates that approval of this application would not be consistent with Government policy, is set out below.

UK energy policy and climate change

14. The Government’s 2003 Energy White Paper⁴ (EWP) identified 4 key goals of UK energy policy that constitute the bedrock of subsequent energy policy making. The 2003 EWP defines them as⁵:
 - “To put ourselves on a path to cut UK carbon dioxide emissions – the main contributor to global warming – by some 60% by about 2050, as recommended by the RCEP, with real progress by 2020;
 - To maintain the reliability of energy supplies;
 - To promote competitive markets in the UK and beyond, helping to raise the rate of sustainable economic growth and improve our productivity, and;
 - To ensure that every home is adequately and affordably heated”
15. The EWP states while the Government recognises tensions may exist between these goals, “we believe these four goals can be achieved together”. It is with reference to fulfilling all four of these policy goals that the Government states

² ‘Energy Trends’ DTI, March 2007

³ ‘UK Power Sector Emissions- targets of reality?’ - WWF UK, March 200

⁴ ‘Our Energy Future – Creating Low Carbon Economy’ – DTI, 21st February 2003

⁵ Ibid, para 1.18

that it assesses the impact of the policies put forward in the EWP and for all energy policies developed since. It is therefore with reference to these four goals that new applications for generating capacity - such as the Kingsnorth proposal - must also be assessed.

16. The Government's commitment is to cut carbon dioxide emissions in response to climate change, ensure reliable energy supplies, best value for the consumer and access to energy services for all oblige the Government to exploit fully the most efficient and most effective means of providing clean and sufficient energy as priority and before less effective, less efficient options.
17. A new power station proposing to use the most carbon intensive fuel and operating at only marginally improved efficiency compared with plants built in the 1970s does not assist in progressing further towards fulfilling one or all of the 4 key energy policy goals and ought not to be considered unless all other more efficient, more effective means have already been fully exploited.
18. The Government has already recognised that there are more effective means, including reduction in demand, of fulfilling all four objectives other than building new centralised coal capacity. These means specifically include energy efficiency, renewable energy, and widespread use of Combined Heat and Power stations as part of an increasingly decentralised energy system.
19. Evidence of the Government's recognition that other more effective means of meeting their objectives exist can be found in the 2003 EWP. In the 2003 EWP, the Government states:

“The cleanest, cheapest and safest way to address all our goals is to use less energy. We have to improve energy efficiency far more in the next 20 years than we have in the last 20.”⁶
20. The Government set itself a target of doubling the rate of energy efficiency improvements compared to the rate seen on the 30 years prior to publication of the EWP, aiming to abate the equivalent of 10 million tonnes of carbon by 2010.

⁶ Ibid, para 1.40

21. On renewable energy, the 2003 EWP states:

“Renewable energy will play an important part in reducing carbon emissions, while also strengthening energy security and improving our industrial competitiveness as we develop cleaner technologies, products and processes.”
22. The EWP set a renewable energy target of 10% by 2010 and an aspiration of 20% by 2020.
23. On the role Combined Heat and Power, the EWP said:

“CHP is an efficient form of providing heating and electricity at the same time. CHP’s overall efficiency is around 70-90% of the input fuel – much better than most power stations which are only up to around 40-50% efficient. It enables a very wide range of energy users, from heavy industry down to individual homes, to save money and help the environment by reducing overall carbon emissions.”⁷
24. On CHP, the Government has set a target of 10GWe of good quality CHP by 2010.
25. In order to establish whether approval of the Kingsnorth application would be justifiable bearing in mind the above, it is necessary to evaluate whether or not the applicant can show that it is not feasible to develop the potential of the more effective ways of meeting the four energy objectives – energy efficiency, renewable energy and CHP – in order sufficiently to satisfy whatever unmet demand will remain on decommissioning of the existing plant in 2015. In assessing the extent of demand at that stage, the Secretary of State should assume achievement of Government targets on demand reduction through improved efficiency of consumption and otherwise and also levels of electricity generation from renewables consistent with the Renewables Obligation target for 2015⁸.
26. During the course of the Environmental Audit Committee’s inquiry into possible options for meeting our short and mid term energy needs⁹, a detailed and comprehensive assessment was made into the progress of renewable

⁷ Ibid, para 4.16

⁸ As confirmed in the Renewable Obligation Order 2005

⁹ *‘Keeping the lights on: Nuclear, Renewables and Climate Change’* - Environmental Audit Committee 6th Report, 28th March 2006

energy and energy efficiency. On energy efficiency the Committee highlighted a number of failures to bring forward recommendations on energy efficiency that were set out in the 2003 EWP and concluded that:

“The Environmental Audit Committee has highlighted on previous occasions the failure by Government departments—in particular, the Treasury—to take decisive action on energy efficiency... Far greater political leadership is required and far higher priority accorded to energy efficiency if the Government is to achieve the carbon reductions set out in the Energy White Paper.”¹⁰

27. . The EAC also pointed out:

“The poor performance of the UK in making progress on energy efficiency contrasts strikingly with the commitment of other EU member states. Denmark has an exemplary history of promoting energy efficiency (as well as renewables) through a succession of energy strategies over the last 40 years, and this is reflected in the extent to which it has exploited the potential of combined heat and power (CHP).”¹¹

28. . On renewable energy, the EAC concluded that:

“The UK lags well behind almost all other EU-15 countries in terms of the percentage of electricity generated from renewables, and it is now certain—as indeed the EAC has been forecasting for several years—that the Government will fall far short of the 10% renewables target set for 2010. However, the evidence presented to us indicated that renewables can deliver 20% of electricity generated by 2020. In this sense, the vision set out in the Energy White Paper is still achievable, though it will require a far greater degree of commitment in terms of implementation than has hitherto been demonstrated.”¹²

29. Further, the Government’s flagship renewable energy policy was deemed by the European Commission to be the fourth least effective market mechanism designed to encourage the deployment of on-shore wind (the technology that has historically benefited most from the Renewable Obligation) of any market mechanism in operation in the then EU15¹³. Where market mechanisms cannot be relied on to ensure preference for renewable over carbon-based energy sources, it is all the more important that the consenting process under the 1989 Act section 36 operates as a means of implementing the Government’s policy.

¹⁰ Ibid. para 40

¹¹ Ibid. para 39

¹² Ibid. para 49

¹³ *Impact Assessment: The Support for Renewable Energy Sources* – European Commission, 17th December 2005

30. The Government has failed to resolve the policy obstacles that have hindered the development of renewables at the rate envisaged in the 2003 EWP, such as speedy and appropriate consent through the planning system. According to the British Wind Energy Association, there is currently 2GW of wind power installed in the UK. In contrast, the total amount of capacity held up in the planning queue – some of which has been there for 3 years or more – now totals 10.7GW of on and offshore wind energy capacity¹⁴. Speedy resolution of this capacity currently stalled in the planning process would enable the Government to meet its 2010 renewable energy target, and go a long way to addressing the electricity gap due to take hold from 2010 to 2015.
31. On Combined Heat and Power, based on latest Government statistics¹⁵ we remain below 6GW of installed capacity making it extremely unlikely that the Government will hit its 2010 target of 10GWe CHP, with the latest predictions indicating a capacity of around 7.4GWe by 2010. The primary reasons for this are lack of suitable incentives to drive investment in low carbon technologies, an artificially low value on the price of carbon traded in the EU Emissions Trading Scheme (EU ETS), unhelpful market frameworks including the punitive balancing mechanism contained within the British Electricity Trading and Transmission Arrangements (BETTA), no policy recognition of the economic value of heat and no clear strategy to incentivise the uptake of CHP.

Inherent inefficiency of the centralised generation system:

32. Our current centralised energy system is unacceptably ineffective in exploiting the energy potential of the primary fuels we use in our thermal power stations. This is particularly apparent in the case of fossil fuels, where the conversion of the energy available requires the emission of the principle greenhouse gas carbon dioxide. A typical UK conventional power station wastes 61.5% of the energy available in the primary fuel through inefficient generation and the emission of waste heat that is the by product of the electricity generation process. A further

¹⁴ 'UK Wind Planning Status Report' – BWEA, March 2006

¹⁵ 'UK Energy and CO2 Emissions Projections' - Annex D, DTI, July 2005

3.5% is wasted through transmission and distribution, meaning only 35% of the energy available in the fuels is actually supplied to the consumer. The consumer then wastes a further 13% through inefficient appliances and inadequately insulated building stock, meaning that of every unit of energy available in the primary fuels inputted at the power stations, only 22% of that energy is actually utilised. To put this in to context, 20% of the UK's overall CO2 emissions result directly from the generation of energy that is *wasted* in the current centralised model. The quantity of the wasted heat alone is equivalent that needed to provide the space and hot water heating needs of every building in the UK, needs which themselves constitute 82% of the energy demand in the domestic sector. Within the context of the threat of climate change and concerns over the reliability of energy supplies, this level of wastage is indefensible.

Further grounds for objection:

33. The proposals for replacement of capacity at Kingsnorth represent a **continuation of the wastage inherent within a centralised electricity system**. Although the thermal efficiency of the plant is expected to improve from 35% to 45%, over half of the available energy will still be lost in the form of waste heat that could be used if the applicant were to employ more efficient, combined heat and power technologies. Its approval would also undermine the steps necessary to instigate the transition towards decentralisation of the energy system, which is the energy model most suited not only to negating the inherent inefficiencies of our thermal power stations, but also of harnessing the significant potential of community and micro renewable energy, as well exploiting the energy efficiency potential of 30% final energy consumption identified by the Government¹⁶.
34. Approval of the proposal for replacement of capacity at Kingsnorth – and the precedent it would set for further fossil fuel power station applications that are already beginning to follow¹⁷ - would **hinder the progress of the necessary**

¹⁶ 'Energy Efficiency: The Government's Plan for Action' – DEFRA, April 2004

¹⁷ Such as the scoping application made by NPower on 13th March 2007 for a new supercritical coal-fired plant to be built at Tilbury in Essex

transition towards decentralised energy by locking the UK into a centralised distribution system for the next 50 years, at exactly the point when the opportunity for widespread refurbishment of the grid is about to begin. This point was highlighted by the Sustainable Development Commission in outlining the various disadvantages of new generation of nuclear power stations, but equally applies to new centralised coal plant on the scale proposed. Refurbishing the grid to accommodate a new generation of centralised power stations - and the inherent inefficiencies that are associated with them – would be a terrible missed opportunity.

35. Approval of the Kingsnorth proposal would also **set a precedent for similar applications that centralised thermal power stations barely achieving efficiencies only half as effective as the CHP alternatives are acceptable** despite the Government's commitment to tackling climate change and energy security and the need to make the most efficient use of fossil fuels in response to these challenges.
36. Approval of Kingsnorth would also **set a negative example for the rest of the world to follow**, where modern power stations built in advanced economies using carbon intensive fuels are allowed to operate at less than 50% efficiency.

National Examples of DE:

Woking:

37. The local borough council of Woking provides a well known example of what can be achieved with the right combination of visionary local politics and technical engineering know how. Through its network of 60 local generators – including trigeneration, cogeneration, small scale renewables like solar photovoltaics and hydrogen fuel cells – it has developed a private wire network to provide the electricity needs of the council's building assets. As of 2003, the electrical infrastructure in Woking was 98.85% self-sufficient. Through its clean electricity investments, provision of thermal stores to provide heating and basic energy efficiency measures, the council managed to reduce the carbon dioxide emissions associated with its operations by a phenomenal 77%. It also set up its

own Energy Services Company (ESCO), Thameswey Energy¹⁸ that now provides services to other councils around the country, and will expand further if certain regulatory constraints are lifted.

38. Various other examples of decentralised energy innovation can also be found at local council level, including district heating schemes in Southampton and Nottingham, and a pioneering energy demand and carbon reduction scheme implemented by Kirklees council near Leeds. At city level, the establishment of the London Climate Change Agency aims to decentralise London's energy needs in similar fashion to the path taken by Woking, proving that the decentralisation can be scaled up to meet the needs of the largest city in Europe, with the associated energy demand and carbon reductions that genuinely take us forward in our efforts to tackle climate change and energy security concerns. The Mayor of London and the GLA recently set a target of reducing London's CO₂ emissions by 60% compared to 1990 levels by the year 2025. In order to achieve that target they have focused on policies to deliver energy efficiency within London and also a target of 25% of all London's energy to be supplied from the most efficient, decentralised energy options, generating within London, by 2025.

Emissions implications of replacing Kingsnorth with a new supercritical coal fired power station:

39. According to our calculations, replacement of Kingsnorth power station with the 1.6GW supercritical coal fired power station proposed will incur carbon emissions of approximately 4.45 million tonnes of carbon dioxide each year. The most optimistic estimates of the commercial viability of the possible post combustion carbon capture technology applicable to a plant of this type appear to settle on around 2015/16, though the optimism of this estimate must be stressed. Other estimates suggest a more realistic timeframe might see the technology applied around 2020. Assuming the plant begins operation in 2012 as envisaged

¹⁸ <http://www.fuelcellmarkets.com/home.fcm?subsite=847>

by the applicant¹⁹, the carbon dioxide emissions even until 2015 will amount to over 13 million tonnes of CO₂. If the CCS technology development falls behind, then this figure could well double, with the perfectly reasonable possibility that the no carbon capture technology ever becomes technically proven on the scale required or economically viable, leaving the plant to emit around 4.5 million tonnes of CO₂ every year for the duration of its likely 40 year operating life.

Impact on achievement of UK carbon reduction targets:

40. The 2006 review of the Government's Climate Change Programme, intended to outline how the UK Government would meet its domestic carbon reduction target of 20% by 2010, essentially concluded that it had given up attempting to meet it, instead settling for a package of measures that at best will deliver CO₂ cuts of 18% below 1990 levels by 2010, a large part of which will be accounted for through purchasing carbon credits from other countries in the EU under the EU Emissions Trading Scheme, rather than reducing actual emissions at home²⁰. A significant factor contributing to this failure to put ourselves back on track can be attributed to the increased use of coal in our generation mix, which has contributed to a rise in carbon dioxide emissions over recent years – including the rise of 1.25% announced for the period 2005 to 2006 - and hindered progress to the 2010 target. Since Labour came to power in 1997, the use of coal for electricity generation has gone up from 47.3 million tonnes a year to 52.5 million tonnes a year²¹.
41. The UK has also recently committed to a Europe-wide mandatory carbon reduction target of 20% by 2020 compared to 1990 levels, rising to 30% by 2020 assuming key developed and developing countries agree to make to the cuts. It therefore must be assumed that the UK Government expects to be under an obligation to reduce its carbon dioxide emissions by 30% by 2020. This percentage discounts the possibility that the UK's contribution may in fact be

¹⁹ EON press release 11/12/2006:

http://www.eon-uk.com/libraries/uk/images/Kingsnorth_press_release_11_12_06.pdf

²⁰ 'Action in the UK: The UK Climate Change Programme' – DEFRA, April 2006

²¹ Digest of UK Energy Statistics, Long Term trends table 2.1.2

<http://www.dti.gov.uk/energy/statistics/source/coal/page18529.html>

higher than as result of burden sharing arrangements still be to addressed. The latest projections from the Department of Trade and Industry²² indicate that the outcome of policies set out in the Climate Change Programme Review will deliver savings of 16.2%. Even assuming the Government meets the projected reductions set out in the 2006 Climate Change Programme Review, which is itself by no means certain, the Government must therefore intend to put in place measures to reduce carbon dioxide emissions by a further 13.8% during the decade from 2010 to 2020 to fulfil its part of the 30% carbon reduction target. The operation of Kingsnorth will coincide with this period, with a strong likelihood that any additional carbon capture technology will not be applied until the very end of the period.

42. UK overall carbon dioxide emissions in 1990 stood at 589 million tonnes CO₂²³. Assuming we reach our carbon reduction of 18% by 2010, then emissions of carbon dioxide equivalent will stand at 493.58 million tonnes. Hitting the 30% carbon reduction target will mean cutting carbon dioxide emissions to 412 million tonnes in 2020. This requires an additional cut of around 81.5 million tonnes of carbon dioxide from 2010 to 2020. The 4.5 millions tonnes expected to be emitted annually by Kingsnorth represents 5.5% of this target. Put into context, refusal of this one proposal alone would deliver larger carbon savings than 30 of the 37 measures proposed in the 2006 UK Climate Change Programme²⁴ assuming the capacity need were met by renewable energy deployment or energy efficiency measures. If approval of this application sets a trend for more coal fired power stations, the emissions implications on already very challenging targets become considerable.
43. Its importance is magnified by the widely accepted fact that emissions reductions are easiest to achieve in the electricity generating sector than any other sector, as it is the sector responsible for the largest amount of CO₂ emissions, and as static point sources of CO₂ can be mostly easily monitored and regulated through mechanisms such as emissions trading.

²² *'The Energy Challenge: A Report'* – DTI, Annex C, July 2006

²³ DEFRA - <http://www.defra.gov.uk/environment/statistics/globalatmos/gagccukem.htm>

²⁴ *'Climate Change the UK Programme 2006'* – DEFRA, April 2006

44. The question must therefore be put to both the applicant and Government to ascertain whether either has made any assessment of how approval of this plant will affect the UK's ability to meet our carbon reduction target in 2020, both the mandatory interim target outlined in the Climate Change bill consultation and the 30% agreed as part of the recent EU commitment, and also our long term 60% carbon reduction target by 2050 outlined in the 2003 EWP.

Impact of non-replacement of Kingsnorth by 2012

45. Attempting to quantify the exact size of the so-called 'energy gap' is an exercise fraught with uncertainties, as it is reliant on a number of unknown factors, such as the weather, scale of demand, level of energy efficiency penetration and world wholesale fuel prices. On one level, the very prospect an energy gap is an admission that the market approach to determining energy provision is not working, or that the current market arrangements are inadequate. Nevertheless, some sort of energy gap - or perhaps more accurately an electricity gap - is likely, and decisions need to be taken regarding how to fill this gap now. The crucial period where the energy gap is forecast to be at its tightest centres on the year 2015, so the analysis below is therefore intended to explore what a sustainable but secure electricity mix would look like at that point specifically.
46. The UK currently uses around 400TWh of electricity (gross). According the DTI projections²⁵, power demand is not expected rise by 2015 due to measures announced in the Climate Change Programme. A number of further measures could be introduced that would enable demand to be constrained further, such as measures to ban standby features in appliances, mandatory efficiency standards to improve the operating efficiency of appliances, improved building standards and improved efficiency of motors used in industry. Even a relatively unambitious set of measures could reduce overall demand to around 380TWh. We believe however that an aggressive programme of energy efficiency measures, which drives savings through new technologies as outlined in the findings of the Market

²⁵ *UK Energy and CO2 Emissions Projections* - DTI, February 2006

Transformation Programme²⁶, could in fact reduce the electricity required from 400TWh to a little over 360TWh. As has been widely accepted,

47. If we assume that the target of 15% output by 2015 will be delivered as envisaged by the Renewable Obligation, then renewables will contribute around 54TWh. Around 100TWh of coal capacity will be retained in the form of plants that have decided to comply with the requirements of the EU's Large Combustion Plant Directive. Nuclear's contribution is set to decline to around 50TWh by 2015. A contribution of 13TWh through the European interconnector will likely continue to be available, as it is now. According to modelling conducted on behalf of Friends of the Earth, 85TWh from gas stations (reduced from 127TWh in 2005), can safely be assumed.

48. The Government's failure properly to support the development of CHP means that under current policy arrangements we are unlikely to meet the Government's target of 10GWe by 2010. The constraints are not a reflection of technical feasibility however, and could be rectified with the proper Government support reflected in radical policy reform, such as a ban on all new fossil fuel power stations that do not include CHP, greater recognition of the carbon reduction potential of CHP as part of the EU ETS, and an acknowledgement of the value of heat as the primary demand for energy in the UK. The CHPA have identified a staggering 38GW of technical CHP potential by 2020. Greenpeace's view, like that of the Combined Heat and Power association, is that it remains perfectly feasible to generate 10GWe of CHP capacity by 2010, with a further 5GWe by 2015. Assuming a conservative 70% load factor, this could contribute around 61TWh by 2015. A more likely, higher average load factor of 72 or 73% would clearly deliver an increased electrical output, but we will retain the 70% load factor for the purposes of this exercise.

49. At the moment, generators are biased towards centralised generation over decentralised power such as CHP. This is well illustrated by the latest round of

²⁶ The Market Transformation programme is a consortium of energy consultancies managed by DEFRA that informs Government policy on sustainable products. It's latest findings were published in March 2006

planning applications currently under consideration from the DTI²⁷. Of the gas fired applications considered, 8760MW are for centralised CCGT. 140MW are gas CHP. In other words, less than 1.6% of all new gas fired power plants current under consideration are CHP. A simple moratorium of fossil fuel plants without heat capture would immediately stimulate the necessary motivation on behalf developers to look harder for good quality CHP sites in order to speed up the rate of CHP deployment and catch up with our European neighbours.

50. The overall contribution from the above technologies then amount to 363TWh, enabling the UK to meet the energy gap without recourse to centralised fossil fuel capacity at the key time of 2015.
51. In summary, the ‘energy gap’ would be most effectively filled (as was concluded in essence by the 2003 EWP) through the Government meeting its own targets on renewables, meeting its own target (and sustain build rates) on CHP, with efficiency gains as predicted in the climate change programme from DTI 2006 figures, and exceeding these gains through additional feasible measures to reduce demand further as the cheapest and most effective means of tackling climate change and ensuring energy security.

What alternative should be put in Kingsnorth’s place?

52. The applicant is under a legal obligation to meet the energy needs of its customers. E.ON’s decision to propose a supercritical power station at Kingsnorth has presumably been prompted by the fact that the existing 2GW sub critical coal fired power station located at the same site is scheduled for closure after the applicant chose to opt out of complying with the requirements of the Large Combustion Plant Directive²⁸. This requirement does not dictate however that these needs need to be met through the replacement of one type of capacity with the same or similar technology, or even that these needs must be met through the provision of additional capacity at all. Alternatives to new coal fired

²⁷ ‘Electricity Applications Under Consideration’ – DTI, February 2007

²⁸ An EU directive that requires existing coal fired plants to comply with strict emission levels of nitrogen oxide and sulphur dioxide

capacity exist that would enable the applicant to continue to meet its customers needs, such as renewable energy and a provision of energy services through ESCOs (which supply energy services like warm homes rather than specifically fuel or energy and therefore encompass efficiency measures and demand reduction as part of the package that they are able to trade on). With these approaches the customers' needs could be met without resorting to new fossil fuel-fired capacity.

53. If the applicant is still intent of building new fossil fuel-fired capacity, including Combined Heat and Power in the design would double the efficiency of the plant, contributing to overall energy security through reducing primary fuel consumption, and reducing carbon emissions associated with each unit of energy produced. The design should also include the capacity to switch fuels from fossil fuels to renewable fuels like good quality biomass – a facility known as ‘flexifuel’ – in order to enable the plant to move away from fossil fuels and avoid locking the plant in to the use of one fuel alone as good quality biomass becomes available, for the duration of the plant’s life. This would also protect the applicant against the fluctuations in fossil fuel prices, which would reduce the risk to investors of taking on a new plant.

Should there be an inquiry?

54. We have not yet ascertained whether the local planning authority, Medway Council, intends to object to the application. Whether or not they do so, this is plainly a case in which the application should be rejected or be considered at a public inquiry under paragraph 4 of Schedule 8 to the 1989 Act. That perhaps goes without saying given the scale, nature and policy implications of this application. But it may assist if we nevertheless make the following comments.
55. This is the first application for significant new coal-fired generating plant in the UK for some 25 years. The last, for Drax power station, was considered at an inquiry. Since then, as the observations above make clear, the policy framework for power generation and its environmental impact has changed fundamentally. This is the first major application for coal-fired plant to engage the post-Kyoto

policy framework, and the first in which an applicant places reliance on supercritical technology and prospective carbon-capture techniques. The Secretary of State will need to inform himself about the interaction between legislative instruments, statements of policy and other material addressing a range of matters including climate change, energy sources, security of supply, and the efficacy of the various technologies proposed by the applicant. These are complex issues of huge public importance.

56. Paragraph 2(2) of Schedule 8 indicates that Parliament envisaged the need for an inquiry where a proposal raises issues about the application of local policy. The case for an inquiry is all the stronger where a proposal engages issues of national and international policy.
57. The approach taken by the Secretary of State in this case is likely to set the pattern for consideration of subsequent similar applications. A number of such applications – including proposed supercritical plant at Tilbury – are understood to be in the pipeline. The Secretary of State’s decision, and the inspector’s report, will themselves contribute to the policy framework within which those applications will be examined.
58. The task of interpreting and applying the wide range of policy sources engaged by this application can only be satisfactorily undertaken with the assistance of expert evidence on the general energy and environmental issues and, crucially, their application to this proposal. That is especially so given the likely arguments about the comparable efficiencies, environmental impacts and feasibilities of pure generating plant versus CHP in this location. It is important that the evidence on all sides should be properly tested. That will ensure both that the Secretary of State derives the maximum assistance from the evidence and that the parties themselves are treated fairly. This cannot be achieved without an inquiry.
59. The holding of an inquiry will also enable the UK Government to comply with its obligation under the Aarhus Convention to ensure meaningful public participation in decision-making on activities with environmental implications. The present 1990 Inquiries Procedure Rules provide a flexible mechanism for focusing time

and resources on the important issues; all the more so the proposed replacement Rules, which we imagine will be in force by the time the inquiry is held in this case.

60. For all those reasons, it would be unthinkable for this application to be determined without an inquiry. We shall be grateful if you would confirm at this stage that the Secretary of State intends in due course to give notice under Schedule 8 paragraph 4 that an inquiry will be held.

Yours Sincerely,

John Sauven
Executive Director
Greenpeace UK