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7th September2001.

Dr N Hartley,
Performance and Innovation Unit,
4th Floor,
Admiralty Arch,
London.
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Dear Dr. Hartley,

PIU-UK Energy Review

1. Background

Scottish Coal [SC] is the second largest producer of coal in the UK. SC welcomes the review of UK energy policy and particularly the openness of the opportunity to contribute to the PTU Energy Project. The information presented represents our initial review of the scoping note and we welcome further opportunities to debate and contribute to a balanced summary document. It should be noted that SC also supports the response made by Coalpro and is a fully associated member of this organisation.

It is our view that the prime objective of a national energy policy should be to provide and deliver an achievable, sustainable and commercially viable solution to securing the future nations energy supply using a balanced portfolio of secure energy sources. The final policy document should be used as the Base Model to be constantly reviewed by the Energy Department.

Coal provides by far the most abundant source of fossil fuel energy in the world. In 1996 it was estimated that there was approximately one thousand billion tonnes of economically accessible reserves using current mining technology. At 1998 levels of production coal reserves are sufficient to last over 200 years.

Power plant technology exists to both "scrub" and clean coal to provide a compliant and acceptable fuel capable of contributing to reducing emissions and meet the targets set out in the Kyoto Protocol.

Dr. N. Hartley
Performance and Innovation Unit

Notwithstanding any public perception, coal is a **vital** energy mineral. Coal mining has set, and meets, the highest criteria for environmental awareness of any other bulk mineral process being delivered to meet consumer demand.

2. Role of Coal

There is an abundance of accessible reserves within the UK, estimated at 1 billion tonnes, with the rail infrastructure available to move the product to the power plants with the minimum of disturbance, environmental concern and at a lower cost of investment than other energy sources. It is our view that the current rehabilitation and upgrading of the rail network will both benefit the environment and the fare-paying passenger. No more land is required to be taken (at an environmental cost) to provide infrastructure for this energy source, as would be required from the introduction or expansion of other forms of energy.

Coal mining does create some disturbance to the land, albeit temporary. The land is always returned back to beneficial use, enhanced by the rehabilitation and restoration process and, where planning policy allows, facilitates the regeneration of the region with creation of new employment opportunities.

UK coal reserves provide the nation with a self-sufficient energy source. UK coal needs to at least maintain its current share of the portfolio balance, within an overall energy policy, in order to retain this level of energy self-sufficiency for the UK.

The price of UK coal is relatively stable when compared to other energy sources. The political stability within the UK provides for this when compared to the location of other forms of energy.

The necessary technology, expertise and the skilled labour force exists within the UK to ensure that coal can be produced, and delivered, to environmentally acceptable standards when compared to other fuels that may be introduced to displace coals position in the electricity generation mix.

3. The Energy Review

We have noted and agree with the three main challenges

-conflicts between energy supply/consumption and environment
-the need for long term security and diversity of supply
-management of conflicting policy goals on energy prices.

We set out brief comments on each.

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Energy v Environment

Scotland already has an energy focus where natural resources of coal, oil, gas, wind and water are exploited for local and national benefit. All these sources have environmental and amenity costs that are currently being sensitively managed to achieve an acceptable balance between demand and environment.

The balance between energy sources is also struck at a different level in Scotland from the rest of the UK where energy from renewables is already at a much higher level. With continuing investment in new renewables, coal can also continue to play a major role without conflicting with overall targets or disturbing the positive balance of renewables in the system.

Public concern about the environmental disbenefits of wind power, hydro-electric and nuclear is set to intensify, which will further adjust the balance in favour of the continuing acceptability of coal.

The only real concern with coal relates to CO_2 emission and we believe this is where research should be channelled in order to find technology capable of not only capturing, but harnessing the carbon content.

Security and Diversity of Supply

Others will have set out the dangers of reliance on gas, which by 2020 could be supplying 70-90% of our energy needs predominantly from other countries, which suffer political instability. This cannot be overemphasised.

Coal:-

- is abundant
- is capable of storage
- is flexible (extraction and burning)
- can be turned on and off in minutes
- is not reliant on wind, rain or limited geographical points of origin
- does not produce a toxic waste product.

Coal fired electricity production has remained a major supplier as it is robust and has survived relatively minor political/environmental antipathy. The "amount of concern per GW" is extremely low compared with a high volume nuclear plant or a low volume windfarm.

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Managing Conflicting Policies on Energy Prices

We believe transport is a significant issue, in that coal is a major supporter of non-road transport. Raw material is transported by rail and product is transported by wire. Our support of, and investment in rail, also supports the rail network and its availability for use by other freight and passengers. This is often in rural areas where the only economic alternative is environmentally costly individual transport (rather than public transport).

At relatively small financial cost (in terms of the scope of this energy review), major energy saving benefits could accrue from grants and capital allowances for rail investment.

We believe that there is a case for a very careful analysis of total environmental cost when comparing alternative sources of energy.

For example, wind power involves the cost of producing and using high quality precision metals in turbine production; transport to remote locations; the transmission inefficiencies in transporting power back from remote locations; the aggregates and cement necessary to create installations in remote and/or offshore locations; the permanent environmental cost; the loss of amenity cost; property values etc. If all these, and the green subsidy for generation, are totalled, coal will compare much more favourably in the environmental "cost" balance. The same total environmental cost analysis can apply equally to nuclear, long distance gas transmission and to other forms of generation.

4. Timing and Implementation.

Finally, whilst the project task sets out to seek a policy through 2050 there is an immediate concern of how the nations energy requirements will be met short term i.e. 2000 - 2020?

Coal fired power stations, along with indigenous coal and an existing rail infrastructure, provide a readily available and commercially acceptable source of energy to be utilised, and delivered, to the nation **- now.**

This allows time over the next 20 years whilst other valuable sources of energy, such as renewables, are harnessed successfully from a technological, safety, environmental acceptability and commercial viability point of view.

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5. **Conclusions**

- Coal has a **vital** role to play in supplying a safe, secure and cost effective source of energy.
- Minor investment will ensure this secure base load continues whilst new technologies are developed to commercial success.
- In the long term, coal should continue to be seen as an essential element of the energy mix.
- It is believed that this can be achieved with only a small proportion of the total research budget diverted tocarbon capture and re-use toremove lingering concerns on its long-term environmental acceptability.

Yours sincerely,

PP **Rod Savage**
Commercial Director