

## **Consumers' Association response to the PIU Energy Review - draft**

### **1. Summary**

Consumers' Association (CA) welcomes the opportunity to respond to the Performance and Innovation Unit energy review. Reliable, affordable and clean supplies of energy are fundamental to health, prosperity and quality of life for all. This is a central consumer interest. A transparent, accountable and precautionary energy policy framework is the best way to serve the interests of both present and future generations of consumers.

The energy debacle in California has sparked concerns regarding the possibility of a similar crisis in the UK. A trend towards greater dependence on gas from abroad is said to threaten diversity and security of supply.

The situation calls for watchfulness from Government, Ofgem and stakeholders. Action to facilitate innovation that serves the consumer interest and increases security and environmental protection - for example fostering markets in energy efficiency - is to be strongly encouraged. But the case for new large-scale intervention in energy supply - through, for example, support for a programme of nuclear new build - is far from evident at this stage, and should not proceed without a truly open and accountable process of scrutiny.

All policy interventions in the market must be subject to transparent cost benefit analysis (CBA). But CBA is not by itself sufficient to drive policy. CBA is a tool that may be used to inform democratic, deliberative process where political factors, externalities and surprises are also taken into account.

Energy use in transport is a vital question, but CA is confining its response to how the interests of present and future consumers can be better served through policy changes with regard to the network utilities electricity and gas. This submission considers the goals set for energy policy, the factors driving the review, demand issues, supply issues, and process.

### **2. The goals of energy policy**

Government energy policy is "to ensure secure, diverse and sustainable supplies of energy at competitive prices". This definition should be amended to reflect more closely actual consumer concerns in a way that also serves the goals of enhancing security, environmental protection and the interests of future generations.

Consumers are concerned about the *quality* of service provided and *price* paid for that service - not the *quantity* of energy used per se. So, for example, people want well lit, warm rooms, but are not concerned whether it takes 100W or 10W to provide the lighting. Delivering increased efficiency now also serves in the interests of future generations by reducing energy consumption and hence dependency in the longer term.

Consumers' Association therefore concurs with a recommendation to the PIU from the Institute of Public Policy Research that a primary goal of energy policy should be "to

ensure...an energy system that can deliver energy services at a competitive cost using supplies that are secure, diverse and environmentally sustainable”.

The Government's commitment to eliminating fuel poverty is most welcome. But the emphasis in the fuel poverty strategy on delivering fuel at low prices is not an adequate solution. The scandal of fuel poverty - some 50,000 excess deaths every year from the cold - persists despite substantial and sustained fall in fuel prices in recent years. A composite policy document to which CA is a signatory points the way forward<sup>1</sup>. More emphasis should go to dealing with the inefficiency with which energy is used, including the exceptionally poor quality of much of the UK housing stock in comparison with other Northern European countries. This is would be in line with a goal of delivering energy services at lower cost. Responsibility is tripartite – between business, government and the regulator (with a role of energywatch as well as Ofgem).

### **3. Comments on driving concerns of the review**

Broadly, it is agreed that a competitive energy market has delivered the government's policy goal over the last few years. It is now being asked whether this outcome has been largely fortuitous and whether intervention is called for. Three driving concerns in the review are: system risk; strategic risk; and environmental issues. In this section we comment briefly on each.

#### System Risk: electricity and gas networks

The UK regulatory system is different from California's. As the DTI points out, under current arrangements, the disconnect of wholesale and retail prices seen in California could not occur here. But there is concern in some quarters that in the medium and longer-term under-investment in the network could contribute to problems akin to those in California.

Such an outcome appears unlikely, especially now that awareness of the California experience gives an additional spur to Ofgem's efforts to ensure there are adequate and appropriate incentives for network investment. Consumers' Association believes that in the case of Transco, for example, Ofgem's approach (complemented by the work of the HSE) is well founded.

The PIU asks if Ofgem's approach to measuring network quality in terms of numbers and duration of involuntary interruptions is appropriate. Research by CA and others indicates that for domestic consumers, the great majority of whom have no other options for energy supply, the number and duration of involuntary interruptions will remain a paramount concern. This is therefore a necessary measure of network quality but not necessarily a sufficient one, as performance may be maintained in the short term while a backlog of investment increases. This must not be allowed to occur, and companies must be disincentivised from backloading investments.

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<sup>1</sup> Composite Response to the Government's Draft Fuel Poverty Strategy from Energywatch, Consumers' Association, The National Consumer Council, National Energy Action, Energy Action Scotland et al. September 2001

The new electricity trading arrangements (NETA), implemented at a cost of some \$1bn, appear to have delivered gains - with reductions in the wholesale price of electricity falling by some 25% in the first few months of operation. We are concerned to see that domestic consumer sharing in these benefits.

### Strategic risk

According to the DTI, the UK faces the prospect of moving from its current roughly equal balance between coal, nuclear and gas to being 70% dependent on gas for electricity generation by 2020. By the same year, UK gas import dependency could be as high as 90%. In the European Union review of energy supply a central concern is the prospect of import dependence for energy rising to 70% of all supplies by 2030.

It is not clear that in an increasingly globally intergrated economy such import dependency is necessarily a bad thing (so long as social and environmental costs are properly accounted for). Gas supplies are more widely distributed than oil supplies, and although the emergence of an OPEC-type cartel for gas cannot be ignored and should be monitored, it does not look likely.

Potential threats to oil supplies should not be ignored but are a poor argument for nuclear power because oil is a tiny source of power generation.

The first priority in the international realm for ensuring affordable supplies of gas and electrical power should be pressure to achieve full liberalisation of EU energy markets, so that all companies operate on a level playing field.

### Environmental issues

The costs (and to a lesser extent possible benefits) of climate change resulting from anthropogenic emissions are uncertain - and unlikely to be recognised by an unregulated market. While research continues to model potential impacts, including the possibility of catastrophic change, it is prudent and serves the long-term consumer interest for government to facilitate 'decarbonisation' of the economy. But in doing so, the economic costs and benefits of various options should be made clear and open so that the choices made under democratic scrutiny are as transparent as possible.

Wherever possible, priority must go to least cost and 'no regrets' options that deliver multiple goals. Substantial support should be given to technologies and solutions that are not yet near market but which show promise - so long as the potential downsides of those technologies or solutions have been fully costed, and there is social and political acceptance of the technology or solution in question. Wherever possible, policy should foster innovation that works with the grain of the market and with market mechanisms to achieve emissions reduction goals - for example through fostering markets in energy efficiency services.

## **4. Demand**

As stated above, from a consumer perspective, the main concerns with regard to energy are the quality of the service provided and the price paid – not the amount of energy consumed per se. Increasing efficiency - and thereby reducing primary energy demand

- is one of the best ways to deliver the goals of energy and environmental security, economic gain and the alleviation of fuel poverty.

The potential for fostering efficiency is very large. An indication of this is that it is proposed that some 82% of the UK Climate Change Programme is predicted to be delivered through energy efficiency measures.

In the policy report Energy Efficiency: Warm Homes, Low Bills, Cool Planet (1999), Consumers' Association recommended:

- requiring energy efficiency obligations on energy distributors and suppliers
- requiring mortgage surveys to include an energy efficiency survey
- reducing VAT on energy saving materials; and
- amending legislation to allow Local Authorities to provide a range of energy efficiency services for their residents

We welcome the fact that some progress has been made since we made these recommendations, but a huge amount remains to be done. A primary concern still needs to be fully addressed: energy companies should be under strong incentives (using market mechanisms) to increase the efficiency of the energy services they deliver to customers.

In a scoping report, the PIU observes that the development of energy services is very important but very uncertain. It asks how such a major change in the market can be encouraged. Extending the Home Energy Efficiency Scheme and Energy Efficiency Commitments to 2010 and perhaps beyond (to provide greater security to market actors to invest in new products, services, training, infrastructure and partnerships) would be a very welcome step. Further resources and powers for Local Authorities would be another, perhaps with rewards for outperformance on efficiency targets.

In some circumstances, timeframes for investment should be reviewed. At present, many domestic energy efficiency commitments are expected to pay for themselves over about five years. A mortgage on a dwelling may typically be taken out for 25 years. Why should investments in efficiency - which enhance the value, comfort and environmental profile of the dwelling - be required to pay for themselves over a period of around five years rather than over the period they provide that service, which may be as long as a typical mortgage?

In recent years resources, attention and expertise have been lavished on the creation of a competitive wholesale market (NETA). The renewables obligation marks a powerful new commitment, at considerable expense, to fostering new energy technologies. It is now time to put much more effort into supporting the development of markets in energy services.

## **5. Supply**

If energy supply is left solely to the market, there is risk of future consumer and environmental detriment. If the government decides to intervene, the potential impacts of that intervention upon present and future consumers – not least the costs – should be carefully considered.

It is predicted that, left entirely to the market, the UK will become increasingly dependent upon gas for power generation and heating, and increasingly dependent upon supplies of gas from abroad. If this is not "a good thing", then some form of intervention to support other energy sources such as coal, nuclear power or further support for renewables would be appropriate. The costs and benefits to consumers in each case must be considered.

### Coal

Coal is abundant, widely distributed and in some circumstances competitive on conventional measures, but it has significant adverse environmental impacts. The potential of cleaner coal technology with sequestration should be actively explored. But until more progress is made in determining the integrity of reservoirs and the political acceptability of this route, further development of the coal industry is unwise, especially in view of the lower costs and superior environmental profile of combined cycle gas turbine (CCGT) generation.

### Nuclear

Much is claimed for nuclear power. The arguments for and against should be scrutinised in great detail. In particular, *all* the costs associated with nuclear power should be made transparent.

But cost-benefit analysis alone is not enough to be the basis for decisions regarding new build. Public acceptability remains a real challenge, and a constructive dialogue with various stakeholders rather than a pre-emptive decision by government is the best course.

In the UK and elsewhere, the industry runs existing plants at low cost; but, like the Concorde aircraft, this depends on the capital costs having long been forgotten, and other very big (and largely hidden) subsidies being ignored.

According to the International Energy Agency, the capital cost for today's nuclear designs are about US\$2,000 per kW as against \$1200 for coal and \$500 for CCGT<sup>2</sup>. The true cost of nuclear could be at least double the apparent figure, once debt write-offs, government subsidies and externalities are accounted for.

Bullish claims from the industry regarding the costs of 'Generation III' and 'Generation IV' technologies should be viewed with scepticism. History suggests that not everything goes as planned when turning paper designs into real life nuclear plants. Assumptions made about low discount rates, long station lifetimes and very high load factors are also dubious.

Crucially, the issue of waste disposal must be satisfactorily resolved. Consumers' Association believes it would be irresponsible and unwise to start down the route of new nuclear build until a means of disposing of existing High and Intermediate Level Waste is found which commands widespread public support and does not require continuous

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<sup>2</sup> Nuclear Power in the OECD, International Energy Agency, March 2001

monitoring for the foreseeable future. Even if it is true that the marginal cost of additional waste generated by new stations is comparatively small, this is not a reason for embarking on the course until the fundamental issue of dealing with existing liabilities is settled.

CA agrees with a point made by New Nuclear Monitor<sup>3</sup> that there are too many risks and uncertainties - involving questions of public acceptability and a range of technical and economic issues - to be adequately investigated or resolved within the six month time frame of the PIU review. But it would be appropriate to start a process to keep the cases for and against new build under active review. The best course would be for review to be undertaken by a stakeholder panel, which would: explore public acceptability issues, investigate key technical and economic issues, and monitor international developments.

Meanwhile, government should maintain its existing 'neutral stance' towards nuclear power.

### Renewables

As the DTI and PIU note, the potential of renewables such as wind, wave and solar power is immense - with the potential to meet 20-30% of total supply by 2020, accommodated into the grid without major technical problems.

But it is important to be realistic about the potential of renewables, especially in the near term. Intermittency, high cost and technological immaturity are hurdles to wider deployment, which will not be overcome without policy intervention.

What will be the cost to the consumer? It is true that renewable energy technologies have been subsidised in the past and will receive considerable subsidies in future under the renewables obligation. But these subsidies are small compared to those that have been paid to the nuclear sector, and modelling by Prof. Paul Ekins et al<sup>4</sup> indicates that renewables can contribute to carbon reduction over the next twenty years at lower cost than nuclear power.

Consumer perception is an important factor in market development. It is important to educate consumers about the real costs and problems of various renewables technologies. Comparatively costly sources such as solar power, for example, receive more attention in many arenas than potentially lower cost technologies such as wave and tidal power. According to survey work for the Scottish Executive (born out anecdotally in other circumstances) once people experience modern wind farms they tend to become more enthusiastic about them.

In addition to environmental benefits, renewables have the potential to contribute to other social and economic goals. The potential of onshore wind power, for example, to contribute to farmers' incomes has already been recognised by government, and is set to receive support.

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<sup>3</sup> New Nuclear Monitor No.2, Nuclear Free Local Authorities Briefing, September 2001

<sup>4</sup> The UK's Transition to a Low-Carbon Economy by Prof. Paul Ekins, Forum for the Future, July 2001

If it becomes possible to store electricity at competitive rates, this could markedly increase the advantages of renewables in comparison to technologies with large up front capital costs and long construction lead times such as nuclear. Such a technical breakthrough is possible during this decade.

## **6. Conclusions and Recommendations**

Consumers' Association looks to government to deliver a framework for energy that delivers affordable, reliable and environmentally friendly energy services for both present and future generations of consumers. The long-term view - 50 years - for the review is most welcome.

Precipitate new intervention in the supply market to support a supposed 'national champion' is not appropriate at this stage. The government should provide a strong lead to Ofgem and stakeholders for a much expanded programme to foster markets in energy services and energy efficiency.

The review needs to be part of a wider process involving stakeholders in determining the future of this most essential industry, on the basis of maximum transparency.

As the Major Energy Users' Council has observed, the timetable for the PIU review is very tight. "Why should a project looking at next fifty years be concluded in a matter of months?"

For this reason, Consumers' Association believes that the PIU review should conclude with a report *to* rather than a report *of* government.

Consumers' Association has campaigned for over 40 years to deliver measurable improvements in goods and services in the consumer interest. It is the largest consumer organisation in Europe. CA is funded by its range of magazines and other publications, and receives no funding from government or industry.

