

(reprinted with permission from Bulletin of the Atomic Scientists, December 1978, www.thebulletin.org)

Energy conservation: 'not doing without but doing more'

Britain has an energy problem other countries might at first envy: too much, too cheap. Paradoxically, however, the present abundance of natural gas from the North Sea is severely complicating longer-term planning for the time when the gas wells expire. To begin with, there is deep disagreement even as to when this will occur. The other British energy supply industries assume that gas supplies will tail off before the year 2000; but the British Gas Corporation believes otherwise, emphatically so. Accordingly, gas continues to expand, cramping the market for electricity, further aggravating the already serious difficulties created by the growing surplus of electricity generating capacity, and thereby also threatening the major market for Britain's reawakening coal industry. Moreover, on a fundamental level, the current availability of cheap gas is a stubborn stumbling-block obstructing the British government's increasingly vigorous and active commitment to energy conservation.

In Britain as elsewhere energy conservation was initially perceived essentially as self-denial. The explicit measures invoked by the British Department of Energy's "energy-saving programme" announced on December 9, 1974 included compulsory limits on heating levels in buildings, on the use of electricity for display and advertising, and on vehicle speeds, and higher prices for petrol to make driving more expensive. The government's "Save It" campaign, launched in January 1975, relied on information and exhortation. Observers duly commented that the government was spending more on advertising energy conservation than it was spending on conservation itself.

Then, on September 11, 1975, the Parliamentary Select Committee on Science and Technology published its First Report for the session 1974-75, on "Energy Conservation." The report's first recommendation declared: "Henceforth the government should consider the extent to which increases in energy demand should be met by investment in additional supply capacity, or avoided by investment in energy conservation measures." The report, backed by an impressive body of detailed evidence from many organizations and witnesses, was a landmark in official British recognition of the true import of energy conservation. By stressing "investment" the report helped to underline the emerging meaning of the term "conservation:" not "doing without" energy, but doing more *with* it. The new secretary of State for Energy, Tony Benn, accepted the force of this principle, and instituted moves to put it into practice.

One of Benn's junior Ministers, John Cunningham, was given special responsibility for energy conservation. Cunningham - coincidentally the Member of Parliament for Whitehaven, the constituency which includes the Windscale nuclear installation - threw himself into the brief with enthusiasm, filling his diary with speaking engagements to carry the gospel of energy efficiency to all corners of the land. The Department of Energy poured out a stream of publications, from leaflets about household insulation to specialists' technical guides about industrial practice and facilities. In September 1977 the Department began publishing a free monthly tabloid newspaper, *Energy Management*, devoted to detailed first-hand discussions by industrial energy experts on every aspect of improved efficiency of energy use: good housekeeping, heat recovery, upgrading of plants, sophisticated controls, cogeneration of electricity and heat, insulation of buildings and processes, and particulars of energy policy issues affecting industrial planning and operations. *Energy Management* now prints 30,000 copies per month, and proudly claims to be "read in all five continents".

In October 1977 the Department organized a National Energy Managers Conference in the Midland city of Birmingham, which attracted over 800 delegates. Its success prompted the Department to make it an annual affair; in 1978 the Conference was extended to two days and over 1,000 attended. But the most substantial evidence of the Department's commitment came in a package of measures announced on December 12, 1977 by Benn. Unlike the package of December 1974, the 1977 package included a commitment to major public expenditure on behalf of energy conservation: £320 million in the following four years. Over £100 million was to be spent improving the thermal insulation of public sector dwellings - which in Britain represent a sizeable fraction of the total housing stock; £35 million for insulation and heating controls in hospitals; and similar sums for other public sector buildings. Funding was also to be increased for industrial demonstration projects.

There were, to be sure, difficulties. Critics pointed out that the prevailing standards for thermal insulation, which would be the basis for the new program, were already well below those which would be economically justifiable. Transport energy, the most awkward long-term problem, was proving politically inconvenient to address. Clearly, public transport would have to play a major role in future urban mobility, for reasons of energy efficiency among others. In most British cities private vehicular traffic is slowly strangling public transport, bringing impenetrable congestion to the narrow streets. In this connection one of the most telling recommendations in the Select Committee's 1975 Report had been a call to revise the status of company cars, which in Britain represent a staggering 40 percent of the new cars ordered each year. Drivers of company cars are shielded from most of the economic signals which induce owner-drivers to be more selective in their choice and use of vehicles. However, when the government proposed to revise the rules for company cars, the motor industry lobby reared up in wrath, and the government backed down.

Nevertheless, despite such defeats, the British government by 1978 could fairly claim to be taking energy conservation seriously, as a government responsibility. Indeed the OECD International Energy Agency rated British conservation efforts as among the best of those undertaken by OECD member governments. The British government's Green Paper discussion document on "Energy Policy," published in February 1978, gives precedence to the thoughtful chapter on energy conservation. One of the virtues of the chapter is the explicit demonstration it offers of the philosophical approach taken by Department of Energy planners toward conservation. The chapter describes the tricky task of using central policy to implement the decentralized measures frequently required for conservation. The Green Paper identifies three alternatives - higher energy prices, mandatory measures and financial incentives - of which the government must decide on "the most appropriate combination."

It will not have to decide unaided. The Department's policy and philosophy are now under searching examination by many independent groups and individuals, and a lively dialogue is in progress, with the Department as an active participant. To its credit the Department does not appear to be unduly defensive about its past policies and pronouncements. Department officials often reiterate their readiness to learn from anyone with worthwhile ideas. If they are as good as their word, the continuing evolution of British energy conservation policy will merit close international scrutiny. Britain's present surfeit of energy, by providing both the requisite challenge and the requisite time to meet it, could yet prove to be an embarrassment worth enduring.

(c) Walt Patterson 1978-2008