

confuse the issue by making the general public feel that we are in an either/or situation — one must choose one route or the other in a mutually exclusive fashion. We believe that Canada is going to need a range of options extending from small, decentralized renewable energy sources to large, centralized sources of supply to meet demand. We further believe that conservation should be a cornerstone of any energy policy, regardless of whether that policy is described by some as soft or hard. No matter what our future sources of supply will be, in the short run conservation is the first priority in addressing the energy problems we face.

In terms of renewable energy sources, we do not yet know enough about each of them to be able to conclude definitively how much energy each will be able to supply. For example, it is difficult to assess what social ramifications a headlong plunge into large-scale use of biomass energy would have and therefore we cannot accurately assess how much energy this alternative source could realistically provide. Similarly, there are still a number of questions about what the effects of large-scale solar energy use would be — what are the material, energy and space requirements for a large number of solar installations — so we do not know how much energy solar will ultimately supply.

We believe that before any government can decide on the individual roles alternative energy sources and technologies can play, a great deal of research and development must still be done to answer questions such as those described above. This Committee believes that more RD&D in alternative energy sources and technologies should be proceeded with immediately — not because we advocate either a soft or a hard energy future, but rather because we see an urgent necessity for gaining greater insight into the options Canada should develop in the future.

Undoubtedly, one great step towards making this country more energy responsible will be to make everyone conscious of the amount of energy he or she consumes, how this energy was exploited and what the actual economic, social and environmental costs of its use are. And, since the Committee feels conservation is one of the most important aspects of an alternative energy policy, it is *essential* that the public become much more energy-aware. This can be done by increasing efforts to educate people about how and how not to use energy, and by giving people a "hands-on" feeling for energy — which can be illustrated by the following example. In apartment buildings which have a flat rate for tenants' electrical consumption there is no incentive to turn off lights and electrical appliances when they are not in use. However, when individual metering is installed in multi-unit buildings, overall electrical consumption drops because individuals can see the benefits of conservation reflected in lower electricity bills. Innovations

which generate this kind of *feedback* about the consequences of our daily energy decisions are required to help us adjust to using energy more wisely.

Thus, implicit in the energy future envisioned by the Committee is the understanding that Canadians will find it necessary to modify their habits in ways which allow them to consume less energy. Fortunately this type of change already seems to be taking place to some extent. Thousands are switching to smaller cars, people are turning down thermostats, homes are being better built, and there is a return to living in the core of cities. This trend will undoubtedly continue and broaden in the future and, as present values change, smallness and energy efficiency will become the new status symbols.

This trend bodes well for the future because it means citizens are changing habits in a direction which is characterized by decreased energy consumption and heightened environmental awareness. Social developments of this kind are encouraging because they are amongst the prime goals the Committee wishes to foster. Conservation practices and the decentralized production of energy inherent in an expanded exploitation of renewables should allow Canadians to further develop a "hands-on" feeling for their energy consumption.

As the rate of growth in per capita energy consumption in this country declines and the use of alternative energy sources increases, the rate at which large power-generating establishments have to be constructed will diminish. Those large establishments which are required, however, will keep the generation of some energy localized and the benefits to be gained from such installations, particularly the ability to more easily control emissions from a centralized source, will help provide a cleaner environment. In other words, a mixture of what have been described as soft and hard energy options, coupled with accelerated programs of public information, should permit people to become more intimately involved with and aware of how they use energy. In our opinion, this should lead to a better quality of life.

We realize that the transition from a fossil fuel to a renewables-based economy will impose its hardships on energy consumers. Although most Canadians will benefit from increases in secure energy supplies, a greater diversity in energy supply sources, new growth in energy supply and related industries and improved economy-wide energy efficiency, some Canadians may find increases in energy prices difficult to contend with. Nevertheless, *it should be remembered that even today we all pay the cost of subsidizing energy use.* The indirect nature of these costs often deludes us into thinking that they do not exist and that they never will have to be paid, so no wonder the prospect of paying