## E. ALTERNATIVE ENERGY TECHNOLOGIES

5.25 Through many months of hearings, members of the Committee gained an acquaintance with alternative energy technologies, and consequently the possible shape of Canada's energy future, that we value highly. We recommend the minutes of the evidence presented to us to all those who share our concern for our energy future, and who have a desire to see Canada move into a sustainable development pattern. We heard from experts on hydrogen, fast-growing trees, fuel cells, integrated gasification combined cycle systems, and several others. Our witnesses communicated their enthusiasm as well as their expert knowledge, and we are grateful.

5.26 However, as with regional issues and carbon taxes, the Committee cannot make a judgement as to the efficacy of these systems or their long-term prospects. In most cases, we believe that no one is able to make that type of judgement, since the technologies are still in the development stage and their economic and social implications have scarcely been examined. In this respect they differ substantially from the methods of improving energy efficiency and conservation that we believe will dominate the 1990s. The next decade will be crucial in bringing these systems and technologies to the stage where they can make a significant contribution to meeting Canada's energy needs. We will need them very quickly if atmospheric greenhouse gas concentrations are to be stabilised by the middle of the next century; many people would say that their introduction is already overdue. In reiterating both the recommendation in para. 5.10 and the following one, we have these alternative energy technologies particularly in mind:

5.27 The Committee recommends that the federal government introduce a major research, development and demonstration program with its objective being the commercial development of transportation fuels and systems that result in the lowest economically and technically feasible emissions of greenhouse gases. (Interim recommendation no. 11)

## F. GREENHOUSE GASES AND NUCLEAR ENERGY

5.28 Although nuclear power represents a major source of electricity for a large number of Canadians, its future expansion, in both Canada and the world, is uncertain, and it arouses strong passions, both pro and con, among many members of the public. These differences of view exist also within the Committee.

5.29 The Committee recognizes that energy conservation is the most rewarding strategy to reduce greenhouse gas emissions for the near-term future, and must represent the first line of attack. It is clear that in limiting or reducing emissions between now and the end of the century, nuclear power will have little role to play. To quote Prof. Robinson once more:

[I]f you want to spend a buck on reducing carbon dioxide emissions, and you do a conservation supply curve, nuclear power is way up at the expensive end of the options. It gets relatively little carbon dioxide abatement per dollar spent. By spending all that money there, you do not have that money to spend on the really cheap conservation that would be very profitable in a financial sense and that would get you much larger amounts of efficiency.<sup>16</sup>

My own view is that given scarce resources, what you should be spending your money on is what is giving you the most bang for the buck. Right now, that is not any new supply source. We could afford to divert all our marginal investment capital and energy onto