

- 9. The Committee concludes that Canada's electric utilities are a key element in reducing greenhouse gas emissions and urges provincial, territorial and municipal governments to direct utilities to take the lead in developing programs for electricity demand management and for introducing new technologies which improve—in both an energy and an environmental sense—the production, transmission and consumption of electricity.**

Energy use in the transportation sector is another key element in modifying patterns of Canadian energy production and consumption. The Committee supports continuing efforts to increase fuel efficiency in motor vehicles and the intelligent development of mass transit systems. Substantial gains remain to be made in increasing the fuel efficiency of vehicles with internal combustion engines.

- 10. The Committee recommends that fuel efficiency standards be legislated for cars and trucks.**

Beyond improved fuel efficiency and an increased reliance on mass transit, the Committee sees a need to make basic changes in the energy sources for the transportation sector. It is possible, for example, to design production systems for biomass-derived fuel alcohols that are CO₂-neutral in their impact. When the technology for producing fuel ethanol from forest biomass is commercialized, the Committee visualizes energy plantations being developed in support of the transportation sector. In the longer term, the Committee sees a major role for hydrogen and electricity as transportation fuels. Depending upon the means by which fuel alcohols, hydrogen and electricity are produced, these energy “carriers” could be far smaller net contributors to greenhouse gas emissions than are motor vehicle, aviation, rail and marine transport fuels today. Although the federal government supports a modest program of research, development and demonstration in transportation fuels, the Committee does not consider this effort to be at all commensurate with the magnitude of the challenge and the opportunities involved.

- 11. 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.**

Forests play an important role in the global-warming equation. As a tree increases in size, it accumulates CO₂ from the atmosphere through photosynthesis, converting it into wood. As long as the tree is alive and growing, it acts as a sink or repository for atmospheric carbon. Deforestation causes an increase in the concentration of CO₂ in the atmosphere, partly through a reduction in overall photosynthetic activity and partly through the release