Competitive electric cars may become available as early as 1985 but we do not see electric vehicles contributing significantly to Canadian transportation before 1990 to 1995. After this time electric vehicles should become increasingly common as we enter the electric-hydrogen age. We would also urge that careful consideration be given to electrifying elements of Canada's rail transport system.

Hydrogen-powered vehicles may take somewhat longer to come on-stream as a great deal of work must still be done to make hydrogen vehicles a competitive alternative. We do, however, see them having some slight impact as early as 1990 (perhaps in the form of modified internal combustion engines burning hydrogen) with broad penetration, possibly in the form of fuel-cell-powered cars, occurring only around the turn of the century.

Fuel alcohols (ethanol used primarily in gasoline blends and methanol primarily used straight) may have a significant impact on the transportation sector. Methanol cars and the fuel they require could be made available as early as 1985 and if a major commitment is made to go with methanol, this alcohol could become a very important player in the transition to the hydrogen and electric future we have described.

Since methanol can be derived from renewable energy sources such as biomass and since methanol is essentially a liquid hydride (hydrogen carrier), it could continue to play an important role in road transport for the indefinite future. (It is also interesting to note that methanol can be synthesized from CO_2 and hydrogen. Thus this currency fits in well to a hydrogen economy and provides a means of converting waste CO_2 into a utilizable energy commodity. This process would not, however, reduce the concentration of carbon dioxide in the atmosphere.)