

# Building a Hydrogen and Electric Economy

Taken together, the recommendations contained in this Report constitute a fundamental reshaping of Canada's energy system. Although our proposals span much of the field of alternative energy, there are four areas in which we believe primary emphasis should be laid.

First, an intensified effort in energy conservation is required without delay, especially as this is the fastest and least expensive approach to minimizing Canada's petroleum shortfall in the 1980s. Second, solar energy is a large and promising resource and we are recommending expanded activity in most aspects of solar research, development, demonstration and commercialization. In the next century, solar energy will be an important element in Canada's energy mix, particularly in the provision of lower-quality heat. Third, methanol should become a major player in Canada's energy future because of its attractiveness in the transportation sector. It can extend, and preferably substitute for, gasoline—a desirable goal in itself—while at the same time opening up the use of Canada's biomass resources. Fourth, we see hydrogen and electricity in tandem (the two being interconvertible via electrolysis and fuel cells) becoming the dominant energy currencies in this country in the long term.

If our recommendations are to be acted upon, we consider it essential that some vehicle be created to coordinate and promote the various activities to be undertaken. We have decided that the first three areas of emphasis named above should become the responsibility of a new Ministry of State.

## RECOMMENDATION

**The Committee recommends that a Ministry of State for Alternative Energy and Conservation be created under the Ministry of Energy, Mines and Resources. We further recommend that this**

**new Ministry be divided into four sections responsible for Conservation, Solar Energy, Methanol, and Other Alternatives.**

The fourth area of concentration, dealing with hydrogen, we believe should be coordinated by a new lead agency entitled Hydrogen Canada, as described in the Hydrogen section of the chapter on Alternative Energy Sources, Currencies and Technologies. This agency should have prime responsibility for fostering the development of a hydrogen-based energy system in this country and should report directly to the proposed Minister of State, as is recommended in the Hydrogen section of our Report.

The Committee also believes that the proposed Ministry should oversee most aspects of renewable energy and conservation developments in Canada. This includes the efforts to commercialize new energy forms and technologies.

## RECOMMENDATION

**The Committee recommends that the new alternative energy corporation, Canertech, report to the proposed Minister of State for Alternative Energy and Conservation at the time that it becomes an independent Crown corporation.**

By gathering together much of the responsibility for promoting alternative energy and conservation into one Ministry, the Committee expects that more consistent and effective development of these elements of Canada's energy system will result. We consider this restructuring necessary because of the inconsistent and inadequate manner in which alternative energy RD&D has been supported in the past and because insufficient emphasis has been placed upon commercializing the results of Canadian energy research.