

The 1982 report of the Canadian Industry Program for Energy Conservation (CIPEC) indicated an overall improvement in energy efficiency (intensity of energy use) of 15.4%, surpassing the 1980 target of 12%.

The Forest Industry Renewable Energy Program provides capital assistance in support of energy production from biomass (wood waste, garbage, etc.). To date, 176 projects with a total federal contribution of \$85 million have been approved. When completed, these projects will have the capacity to displace 1.3 million cubic metres of oil equivalent per annum. Over one-half of the displaced fuel is oil, one-third natural gas and the rest liquefied petroleum gas (LPG), electricity and coal.

Approved in early 1984, Enerdemo-Canada is a federally delivered program to demonstrate energy conservation, oil substitution and alternative energy to enhance their market acceptance. It replaced the former Conservation and Renewable Energy Demonstration Agreements under which some 309 projects, ranging from energy management computer systems in schools to a railway electrification project in British Columbia, were completed in co-operation with provincial governments. In 1986-87, approximately \$20 million will be spent on demonstration and technology transfer activities in the range of end-use sectors, including housing, industry and transportation and on alternative energy sources such as biomass, wind and alcohol fuels.

Three conservation programs were terminated in 1985-86: the Canada Energy Audit Program (CEAP), which assisted industrial and commercial establishments in identifying energy waste and in implementing corrective measures; the Atlantic Energy Conservation Investment Program (AECIP), which provided contributions to energy conservation initiatives in the Atlantic region; and the Industrial Conversion Assistance Program (ICAP), which provided contributions for conversion from heavy fuel oil to pipeline natural gas. The termination of these programs, which required \$30.3 million in 1985-86, will be offset, in part, by less expensive technology transfer and informational initiatives to demonstrate the profitability of specific energy conservation measures to commercial and industrial establishments.

As the government moves away from direct funding of specific conservation and renewable energy programs, it has put into place National Conservation and Alternative Energy Initiatives (NCAEI). This is a three-year, \$306 million program to provide support for consumer aware-

ness, technology transfer, research, development and demonstration projects. NCAEI Memoranda of Agreements had been signed with the majority of provinces by the end of 1986.

11.2.3 Legislation

In March 1986, Bill C-85, an act to amend the Petroleum Incentives Program Act received Royal Assent. It provides the legislative framework for the orderly phasing-out of the Petroleum Incentives Program (PIP). The winding down of PIP is one of the elements of the federal government's new Frontier Energy Policy, announced December 20, 1985.

In November 1986, Bill C-5, the Canada Petroleum Resources Act (CPRA) received Royal Assent. This act gives legal force to the Frontier Energy Policy and is the basis for a co-ordinated approach between the government of Canada and the provincial and territorial governments to the management of oil and gas resources in Canada's frontier lands. The CPRA will not be in force in the Newfoundland and Nova Scotia offshore areas; these areas will be governed by separate, but similar, legislation implementing the Atlantic and Nova Scotia accords.

In December 1986, Bill C-17, an act to amend the Petroleum and Gas Revenue Tax (PGRT) and the Income Tax Act, and repeal the Petroleum and Gas Revenue Tax Act, received Royal Assent. The total cost of the provisions of the bill will be \$700 million from the early phase-out of the PGRT, plus \$175 million from the increased small producer credit.

11.3 Energy supply and demand

Canadian primary energy needs are met by oil, natural gas, coal, uranium, hydro-electricity and wood. Over the last few years, wood has accounted for about 4% of the primary energy consumed in Canada. In 1985, the consumption of primary energy in Canada was 37.3% from oil, 30.6% from natural gas and by-products, 14.4% from hydro and nuclear, 13.6% from coal and 4.2% from wood.

Canada's trade surplus in energy products in 1985, the last year for which complete figures are available, was \$10.7 billion, an increase of 47% over the value in 1983, and almost four times as great as the value in 1979.

In 1985, the final demand for all forms of energy products was accounted for as follows: refined petroleum products accounted for 40.6%, natural gas and liquefied petroleum gases for 31.5%, electricity and steam for 20.4%, biomass for 3.9% and coal and coal products for