Renewable energy is the key to self-sufficient future

Canadians can have lots of clean, affordable energy 50 years from now without tapping Arctic oil or switching to nuclear power, says a national coalition of environmental groups.

The secret is renewable energy and better conservation, concludes an organization called Friends of the Earth after completing a two-year study funded by the federal Energy and Environment departments.

The group, based in Ottawa, says this

happy state of affairs can be achieved by 50 per cent and national economic production doubles.

Furthermore, Canadian lifestyles need not be cramped in the process. Its projections:

 decreased consumption will cut household energy costs in half even though energy prices quadruple;

- national energy consumption will decline 12 to 34 per cent;

- biomass-based fuels, produced by de-

Population hits 25 million

Canada's population has reached the 25-million milestone, doubling since the end of the Second World War, according to Statistics Canada.

While everyone may not agree that bigger is better, a comparison between the vital statistics of today with those of 1945 shows some major changes in the country's profile.

People are living longer, are better educated and more likely to be in the labour force.

Canada, once a country of farmers with large families, has become more of a nation of less-fertile, white-collar office workers. And although there may be fewer babies born, today's infants are hardier. In 1945, one baby in 20 died before reaching his or her first birthday. Today the ratio is one in 100.

However, the fertility rate has been halved. The average woman now has 1.7 babies compared with 3.4 in 1945.

Men could expect to live only 65 years in 1945. This figure has risen to 72. The gains for women are even greater. Women

can expect to live 79 years, compared to 68.5 in 1945. These trends toward living longer and having fewer babies have caused the average age of Canadians to rise to 33.7, from 30.7.

The proportion of children in the population has fallen to 22 per cent from 28 per cent, while the number of senior citizens has risen to 10 per cent from 7 per cent during the 1945-83 period.

Thirty-eight years ago, more than half of Canadians had not attended school beyond Grade 8. Now, more than fourfifths of the population have at least a Grade 9 education. And the number of people with post-secondary education has risen to one in three from one in 30.

The proportion of people with clerical jobs has almost doubled to 17 per cent from 9 per cent of the labour force, but jobs in farming have fallen to 4 per cent from 21 per cent.

Three-quarters of Canadians live in cities, compared with 58 per cent 38 years ago. And in 1945, only 24 per cent of women were in the labour force. That proportion has jumped to 50 per cent.

Population	1945 12 500 000	<u>1983</u> 25 000 000
Babies	1 in 20 died before reaching first birthday	1 in 100 will die before
Men Women	Lived to 65 years	reaching first birthday Expected to live to 72 years
Education	Lived to 68.5 years More than half did not complete Grade 8. 1 in 30 completed post secondary	Expected to live to 72 years Expected to live to 79 years More than four-fifths will completed Grade 9. 1 in 3 will complete post secondary

composing waste, will supply up to 95 per cent of transportation energy, gradually displacing petroleum fuels;

 hydro power will supply up to 95 per cent of electricity compared to 69 per cent five years ago;

 thousands of new jobs will result from the growing shift toward renewable energy;

 renewable energy will account for from 77 per cent to 82 per cent of all energy by 2025. Petroleum-based fuels will supply less than 5 per cent of national energy needs; and

 acid rain damage to lakes, fish stocks, crops and forests will decline as harmful atmospheric emissions decrease.

Achieving these objectives would require a significant shift in "non-renewable energy development" now being emphasized by the federal government and the provinces, the study acknowledges.

"Attention and dollars should instead be directed to the technologies that are most cost effective and provide the best chance at energy self-sufficiency," it recommends. "Government participation would be important, particularly in educating managers and consumers."

David Brooks, a study co-ordinator, said the findings have far-reaching implications. "Our findings imply that public policy and institutional barriers form the main barriers to an energy selfsufficient future," he argued.

"It seems ironic to be pursuing expensive, dangerous and non-renewable energy supplies when we have access to such easy alternatives." The study says the most important factor in "getting there from here" is pricing energy at replacement of marginal cost. "This study presumes that price is the driving mechanism for bring ing about a soft path."

Instant mail for W. Germany

A satellite electronic mail service has linked Canada with West Germany.

delivery service between the two countries, Canadians and West Germans can

communicate with each other in a flash says the Canada Post Corporation.

or any printed matter - are converted to

electronic messages, beamed into space

and transmitted by satellite to their destination, all in less than a minute.

from \$5 a page for international destination

tions and \$4 within Canada.

The service, called Intelpost, cost5

Documents - either letters, diagrams

Now, instead of the usual week-long

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