

that the suggestions and recommendations of Mr. Justice Hall will serve as a basis for developing, in concert with the provinces, a better common understanding of the program conditions and what they entail.

3. Active Civilian Physicians Emigrated Abroad

Year	Total (excluding interns and residents)
1975	242
1976	363
1977	549
1978	663
1979	605

Source of Data: Computer tapes purchased from Sales Management Systems, Don Mills, Ontario.

4. Known physicians practicing outside medical care: About 2,200 practitioners.

RESEARCH INTO METHODS OF IMPROVING EFFICIENCY OF ENERGY FOR HOME HEATING

Question No. 307—Mr. Herbert:

Is the government conducting research into methods of improving the efficiency of using (a) oil (b) gas (c) electricity for home heating and, if so, have any findings been made public and would such information enable the householder to compare the present day comparative costs of these fuels for heating purposes?

Hon. Marc Lalonde (Minister of Energy, Mines and Resources): The Department of Energy, Mines and Resources reports as follows:

- (a) A major program to improve the efficiency of oil heating equipment has been developed by EM&R in conjunction with the Canadian Standards Association, oil furnace and burner manufacturers, and the oil industry. When installed, this package should reduce the energy consumption by an average of 20 per cent, both as a result of the more efficient combustion of oil and as a result of matching the size of the furnace more closely to the heating demand of individual houses. Before promoting such a program on a widespread basis, it has been essential that the retrofit package be tested and shown to be completely safe. An acceptable procedure for testing retrofit equipment has been developed by the Canadian Standards Association, and seven manufacturers are currently preparing to submit equipment for testing against this standard. The cost of these tests will be financed by EM&R. In addition to encouraging development and certification of acceptable equipment, the successful implementation of a retrofit program requires the upgrading of oil burner mechanics. To achieve this, EM&R has conducted a series of seminars to train provincial instructors of furnace servicing mechanics on appropriate techniques for installing the retrofit package.

Beginning this year, a publicity and promotion campaign is planned to advise the public of the package,

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and to inform them of the benefits of installing this equipment.

- (b) No similar retrofit package has not yet been devised for gas heating equipment. A co-operative program with the gas association, the gas utilities and the provincial regulatory bodies has recently begun, and a research program designed to develop such a retrofit package will soon be initiated.
- (c) With respect to electric heating, the federal government has over the past several years, provided substantial funding for the Canadian Electrical Association to support the development of heat pump systems which are appropriate for the Canadian climate. It is expected that when such systems are prepared, they will offer a significant efficiency improvement over current electric resistance heating. Studies have also been undertaken on the cost effectiveness of hybrid heat pump oil systems which would further improve the over-all performance of such systems during the entire heating season.

Since the above studies are generally at a research stage, no specific proposals to implement programs to encourage the widespread installation of such systems are in preparation.

The information which is currently available to householders will not generally permit a realistic assessment of the relative efficiency of specific oil and gas furnaces or boilers in their home. Steady-state efficiency measurements of gas heating systems are not made publicly available by the Canadian Gas Association. Further, the seasonal efficiency of a furnace varies considerably, largely as a result of proper sizing of the furnace to the heating requirements of the house. No simple method of estimating seasonal efficiency has yet been developed to allow householders to make reasonable predictions of final use in a specific furnace.

Other initiatives have been taken by the federal government to reduce the heating bill of householders, regardless of the type of fuel they use. The CHIP program under which grants of up to \$500 are provided for insulation materials, was designed to encourage the installation of insulation materials which will reduce the average energy consumption by 37 per cent. In many cases of detached housing units, savings of over 50 per cent can be expected. This program can thus allow substantial savings in energy-related expenditures, regardless of the type of fuel which is currently used.

ECONOMIC DEVELOPMENT—NUMBER OF LAWYERS EMPLOYED

Question No. 605—Mr. Howie:

How many lawyers are employed on staff in the Ministry of State for Economic Development?

Hon. Marc Lalonde (Minister of Energy, Mines and Resources): None.