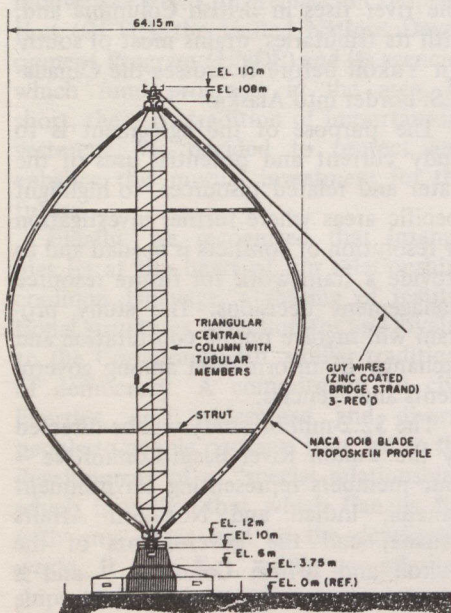


NRC explores energy sources

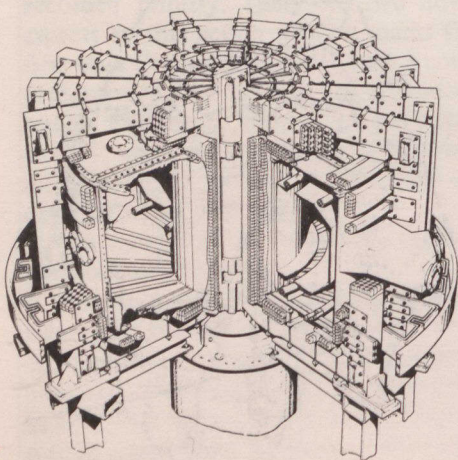
The federal government has announced funding for two research projects that will explore alternative energy sources.

The National Research Council of Canada (NRC) and Hydro-Quebec will cooperate to build a large wind turbine and a fusion device over the next five years. The government has allocated about \$36 million for both projects which will be constructed in Quebec.



AEOLUS: SWEEP AREA 4000 m²; 2 BLADES, 2.4 m CHORD; ROTOR HEIGHT 96 m; ROTOR DIAMETER 64 m; GENERATOR RATING 3.8 MW; RATED WIND SPEED 14.3 m/s; EXPECTED ENERGY OUTPUT 6.1 GWH/YEAR.

The NRC and Hydro-Quebec will build one of the world's largest and most powerful wind turbines. At 110 metres in height, the *Aeolus*, as it is called, will be capable of generating up to 3.8 megawatts of electricity, enough energy to supply the non-heating electrical requirements of 600 to 700 homes.



TOKAMAK

It is expected that the cost *per* kilowatt-hour of electricity generated by "farms" of large scale wind turbines similar to the *Aeolus* will be competitive with that of electricity obtained from conventional oil-fired generators.

The \$20-million turbine is expected to be completed by 1983. The NRC and Science Council of Canada forecast a \$1-billion market for this type of wind turbine in Canada by the year 2000, in addition to a substantial export market overseas.

The government has also approved \$18.7 million for the construction of an experimental fusion reactor called *Tokamak*. The reactor, to be built within three years, will only be three metres in diameter. It will not generate any energy but rather provide a research tool for experts from Hydro-Quebec and other Canadian researchers.

Student loans act changed

Secretary of State Francis Fox recently tabled a bill in Parliament to amend the Canada Student Loans Act.

The Act, which came into effect in 1954, provides for financial assistance in the form of guaranteed loans and, subsidized interest on those loans, to full-time post-secondary students who otherwise might not be able to continue their education.

The main purpose of the bill is to update the Act in order to take into account certain changes in educational patterns, including increasing enrolments in technical, community and vocational institutions which provide shorter and more intensive training than traditional university courses. In addition some technical and administrative changes are included.

The major changes proposed in the bill are:

- Course eligibility: the length of a course required to qualify as eligible is changed from 26 weeks to 12 weeks. This change recognizes the need to address the question of financial assistance for eligible students now seeking post-secondary education in institutions other than universities; and

- Loan limits: the annual loan limit of \$1,800 (\$900 for those in semesters forming a part of a longer course) is now expressed as a weekly limit of \$56.25. This change will relate the loan maximum available to a student to the length of the

course in which he or she is enrolled. The new weekly limit will not, however, apply to students enrolled in a semester of 13 to 15 weeks which is part of a longer course of studies, or in periods of study of 26 to 31 weeks in length, who will continue to be eligible for maximum loans of \$900 and \$1,800 respectively. The over-all maximum a student may borrow in a lifetime remains at \$9,800.

Sports projects for IYDP

The federal government has announced several sports projects as part of its participation in the 1981 International Year of Disabled Persons (IYDP). Funds for the projects totalling \$300,000 will be provided by Fitness and Amateur Sport Canada.

The programs cover the fields of recreation, research, sport and publications specially designed to suit the needs and aspirations of the physically disabled.

Fitness Canada and the National Film Board will produce a series of film strips on the coaching of disabled athletes during the next three years.

The Canadian Parks and Recreation Association, with Fitness Canada assistance, will begin a study of existing playground equipment and the need to adapt it for use by disabled children. A team of architects and designers will research existing equipment and play structures, then design, test and develop new or adapted facilities.

The knowledge and designs generated are expected to benefit recreation departments and youth agencies across the country, assisting them in the establishment of playgrounds that will allow for equal participation of disabled youngsters.

Fitness Canada also will contribute \$27,500 towards a special edition of *Recreation Canada*, a publication of the Canadian Parks and Recreation Association which is distributed to all recreation, sports and recreational institutions and government agencies. The needs, problems and concerns of disabled persons in physical recreation, fitness and sport will be featured.

Funds totalling some \$75,000 will also be allocated to projects entered into jointly by Fitness and Amateur Sport Canada and the provinces, and to projects recommended by the Canadian grants review committee of the International Year of Disabled Persons.