
Asteroids named after Canadian scientists

Three Canadian astronomers have been honoured by the naming of two planets between Mars and Jupiter by the International Astronomical Union in Cambridge, Massachusetts. The minor planets were named after the Canadians in recognition of their research efforts.

There are about 2 500 tiny asteroids or minor planets named after Greek gods and astronomers. A planet is a heavenly body that revolves around the sun in a solar system.

Minor planet 2905 now is called Plaskett after both John S. Plaskett, the founder and first director of the Dominion Astrophysical Observatory in Victoria, British Columbia, who died in 1941 and his son, Harold H. Plaskett who died in 1980 and is best known for his studies at Oxford University.

Formerly known as planet 2904, the tiny mass, less than 50 kilometres in diameter and 150 million miles from earth was christened Millman after Peter M. Millman, 78, of Ottawa. Dr. Millman, who spent more than 60 years studying planets and dust in the solar system, was a former professor at the University of Toronto and an astronomer at the Dominion Observatory and the National Research Council (NRC). Since his retirement in 1971, he has been a guest worker at NRC's Herzberg Institute of Astrophysics.



Peter Millman, in front of a lunar map, recently became the third Canadian to have an object that travels around the sun named in his honour.

New energy forecasts presented in report

A new study, *Canadian Energy Supply and Demand 1983-2005*, has been published by the National Energy Board (NEB).

The report is an overview of some 65 submissions received in early 1984 from provincial governments, industry, major energy consumers and public interest groups, representing a broad cross section of the energy community as well as analyses and projections prepared by NEB.

The current study was undertaken because of the substantial changes that have occurred in energy markets since the last report was published in 1981.

Crude oil production

Canada currently produces more crude oil than it consumes, when both light and heavy crude oil are considered together, maintains the report. There is a further suggestion in the report that there is a "reasonable likelihood" that this situation will continue over the next two decades.

The report, cautions, however, that there is a great deal of uncertainty about the future domestic supply of crude oil because of a number of unknown elements related to the development of frontier areas and the oil sands. It emphasizes the importance

of examining the balances for light and heavy crude oil separately.

The current and projected requirements of Canadian refiners are largely for light crude oil, and a portion of this demand will continue to be met by imports. These imports of light crude oil into eastern Canada will be offset by exports of surplus heavy crude oil from western Canada which are expected to continue throughout the forecast period.

Change in energy use

The report points to an increase in the consumption of natural gas and electricity and a decline in the use of oil as the major source of energy.

It indicates that demand for natural gas in Canada could increase by 2.8 per cent a year, from 1 600 petajoules in 1983 to about 2 900 in 2005. Demand for electricity is expected to grow by 3 per cent a year over the projection period, from about 356 terawatt hours in 1983 to about 675 terawatt hours in 2005. Demand for oil is expected to decline to about 200 000 cubic metres a day by 1990 and return to the 1983 level of about 230 000 cubic metres a day by 2005.

On the supply side, established reserves of natural gas in western Canada at the end of 1983 were estimated to be about 81 exajoules, some 30 times current annual production of 2.8 exajoules. Projected additions to reserves are estimated to be 45.5 exajoules from 1983 to 2005.

Excess of electricity

For electrical energy, the projections imply that expansion of electricity generating capacity beyond that already committed will not be required for some time to come and that a considerable excess capacity is available in some provinces, particularly Quebec and Ontario.

The projections show that total electrical generating capacity in Canada will have to grow from about 84 gigawatts in 1983 to about 150 gigawatts in 2005 to meet projected demand.

Remaining crude oil reserves in Western Canada were estimated to be about 715 million cubic metres at the end of 1983, about ten times current annual production. Enhanced recovery methods and new discoveries are forecast to add about 678 million cubic metres between 1983 and 2005.

Natural gas liquids will continue to be available to meet Canadian needs, with substantial excess volumes remaining for export.

Coal production will increase to satisfy a growing requirement for electricity generation in Alberta and Saskatchewan, and for the export market.

The use of alternative energy forms, including wood, wood wastes and solar power will increase significantly over the projection period but their share of total energy use will remain relatively small, less than 8 per cent.

The report concludes that energy consumption in Canada is likely to increase by about 1.6 per cent a year over the next two decades, a significant decline from the annual rate of growth of some 5 per cent experienced in the 1960s and 1970s. The lower rate of increase is expected to result from a more efficient use of energy and from lower economic growth compared with levels experienced during much of the past two decades.

All of the estimates appear in a detailed 300-page "Technical Report" as well as in a "Summary Report" that has been published separately and which provides a broad outline of the major trends in Canadian energy markets.

Both reports are available from the secretary of the National Energy Board, 473 Albert Street, Ottawa K1A 0E5.