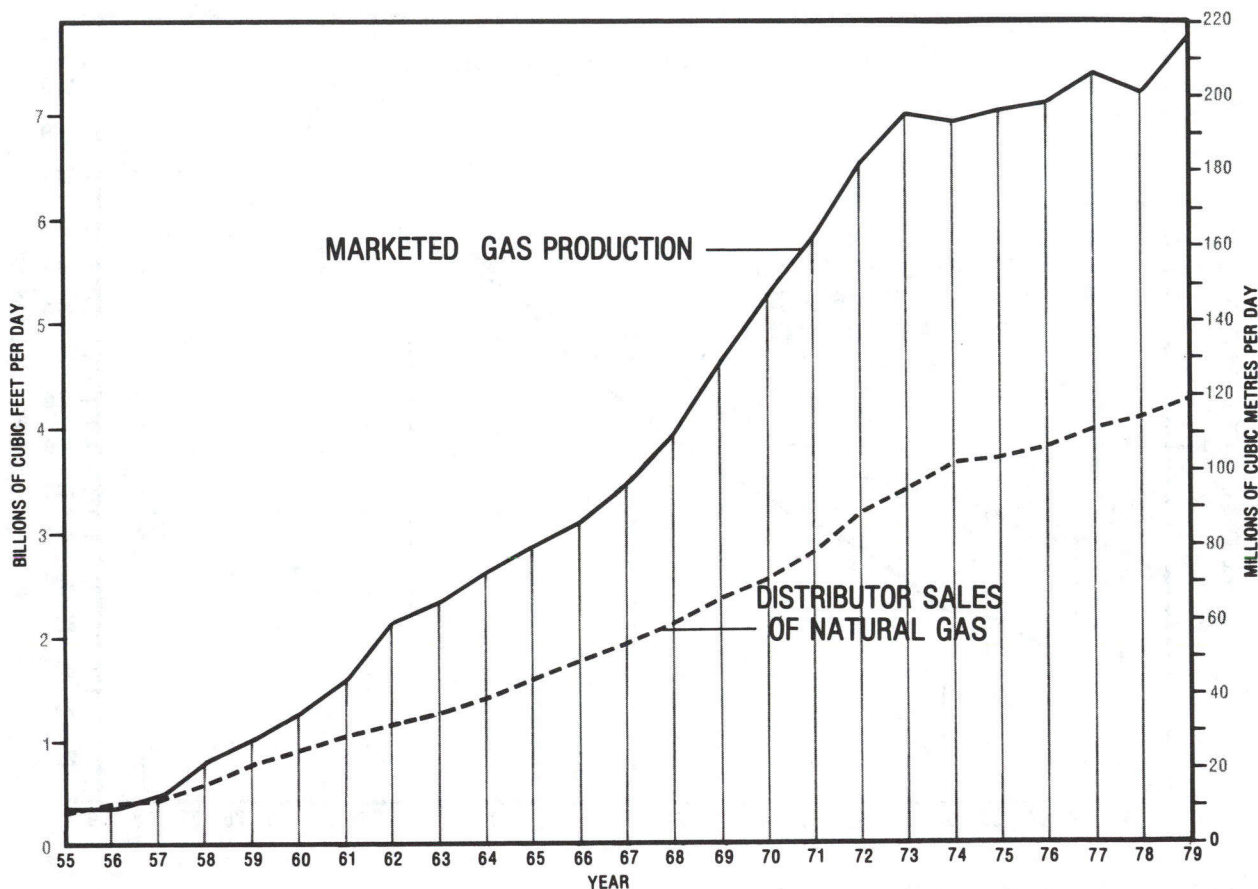


Figure 3-14: CANADA'S PRODUCTION AND CONSUMPTION OF NATURAL GAS, 1955-1979



Source: After Canadian Petroleum Association, 1980.

energy system was much smaller and less complex. Today, the inertia to change is far greater because the system is large and entrenched. Oil also found ready acceptance because it possessed obvious advantages over other energy forms. Now we are being forced to consider some options which are not as appealing. One can safely predict that it will prove much more difficult to get off oil than it was to get on it.

3. ENERGY LIFELINES

Energy moves across Canada in an extensive system of pipelines and transmission lines, supplemented in places by truck, rail, water and air transport. These energy distribution systems are so fundamental to the economy and so important to the well-being of Canadians that they may be thought of as energy "lifelines". We tend to appreciate their significance, however, only when they are disrupted. None of these systems is truly nationwide in extent, and lack of service by pipelines or

the electrical grid to a region may represent both a problem in conventional energy supply and an opportunity for the penetration of alternative energy forms.

Hydro-electricity and nuclear-electricity together satisfy about 13% of Canada's primary energy requirements. Hydro and nuclear generating stations comprised 65% of Canada's installed electrical generating capacity at the end of 1979, with the remaining capacity made up of coal-, oil- and gas-fired stations. The use of electricity is spread over all sectors of the economy and most populated regions of the country. Such widespread use has been made possible by the construction of a complex transmission system.

Over 90% of the electricity used in Canada is generated and distributed by provincially-owned public utilities. In many locations interprovincial transmission lines have been built to service areas of adjacent provinces and to spread the benefits of reliability inherent in larger electrical systems. In all there are twenty-two