Meanwhile, the many large deposits of coal provide a possible future source of northern energy.

e) **Natural Gas**

Natural gas consumption in Canada is currently almost 28% of total energy consumption while the NWT rate is only 4% even though the NWT has 50% (4769Bm^3) of Canada's known and potential reserves of natural gas.

Current technology allows natural gas to be used for space heating, electrical generation and natural gas household appliances. However, the production equipment and distribution systems are expensive and lead to higher consumer prices in some NWT communities than other sources of energy. There have been studies by both levels of government and industry on how to best extract and transport natural gas to both northern and southern demand centers. Natural gas can be used as a gas or converted to liquid methanol for most conventional uses. The gas can be transported as a gas or methanol as well as in a liquified or compressed form.

It is not presently feasible to use liquified natural gas (LNG) for remote community use because of costs and safety hazard problems associated with large storage facilities. Also, the "boil-off", liquid returning to its normal gaseous state, would normally be too high for community use when the needed volumes could only be supplied once a year.

Methanol, a safe and non-polluting fuel which can be used in a conventional oil furnace, can be produced in the arctic from natural gas and transported and stored in much the same way as oil products. Supplies can be obtained from almost any proposed natural gas project such as was planned with the Arctic Pilot Project on Melville Island. Estimates made in 1981 place production and capital costs at approximately 43 cents per litre energy equivalent of diesel oil. This can be compared to GNWT diesel costs nearly twice that amount for some remote communities in the High Artic.

In the Western NWT, conventional natural gas seems to be the most feasible and economic form of all the natural gas products. The Federal and Territorial Governments recently commissioned a study on this subject focussing on Great Slave Lake and Mackenzie Delta communities. Supply points, forms of natural gas, supply routes, and serviced locations were examined. The study recommended two proposals: Cameron Hills natural gas to Hay River and Pine Point by pipeline, and Parsons Lake natural gas to Inuvik and Tutktoyaktuk by pipeline. It was estimated that a capital grant of $5.3 million would be needed for the southern system, Hay River and Pine Point, in order to bring the final price down to where consumers would be willing to convert to natural gas. However, no grant would be needed if ony Hay River were supplied.