

### C. Transportation Mode Selection

In the previous selections, the Committee has reported on some of the challenges alternate transportation systems brought to its attention at the hearings. Based on the evidence, the Committee agrees that under certain conditions both pipeline and tanker systems are technically and environmentally feasible to transport hydrocarbons from the Arctic Region.

Nevertheless, in both the Arctic Islands and the Beaufort Sea Region cases, there are strong reasons for proceeding on a small scale and expanding incrementally. In the Arctic Island case, the factors are uncertain markets, the concept of testing a new technology on a limited scale, and a smaller investment that would generate a cash flow early in the project.

In the Beaufort Sea Region, Federal Government policy and the operators support phased development with expansion tied to demonstrated capability; proven reserve levels do not yet justify major production levels; and fluctuating oil prices all support a gradual pace of development.

At high throughput, a pipeline is more economical than a tanker system but the high capital costs associated with a large-diameter pipeline make financing difficult and cost overruns a major concern. The fixed size of the pipeline and its inflexibility, given the uncertainty in reserves (at least in the Beaufort Sea Region case) and markets do not make it a prudent investment at this time, in the Committee's view. A more flexible system to adapt production rates to meet reserve levels and market demand, including the offshore, appeals to the Committee.

Moreover, the Committee agrees with the proposed development plan to gradually build up rates of production and transportation.

*... we have identified what may be a preferable way of going about developing Beaufort oil — that is, through some kind of phase development concept. We could start on a relatively small scale, and this would allow northerners to grow with the development, to gain the skills that they could use in subsequent developments, and also allow industry to talk about real effects rather than speculative effects that the development might have. Once one has this background, one can eliminate or at least mitigate some of the impacts of major oil development. (Mr. G. Bezaire, Esso, Issue 17:35, 16-2-1982)*

The Committee has already expressed its opinion on the need for Canada to stay in the forefront of cold ocean technology and shipbuilding of arctic class ships. Tankers as a transportation choice offer this opportunity and their gradual introduction into the arctic environment will provide the time to monitor impacts.

Phasing of development would also allow northerners the time to benefit from development in employment and in business opportunities. The development of a tanker transportation system can take up to 10 years. The longer duration means a sustained level of industrial activity and less inflationary pressures. Delta communities would have time to absorb growth