D. Comparative Advantage of Production Costs

Because of existing surplus capaciaty in many provinces, the marginal cost of generation is low compared with US marginal costs. Table 9 indicates that surplus hydro electricity from Quebec, Manitoba and British Columbia has a marginal cost ranging from 1 to 5 mills per kWh. In New Brunswick, Quebec, and Ontario, the variable costs range from 3 to 5 mills/kWh for nuclear. The variable costs for coal in Canada range from 8 to 27 mills/kwh. These values can be compared to the cost of fossil fuelled electricity generation in the U.S., shown in Table 10. These figures indicate that there are substantial mutual economic gains to be realized by using Canadian surpluses to displace expensive oil-fired generation in the United States.

The economics of dedicating incremental Canadian capacity to export purposes is not so clear. The issue is whether the cost of building new plants in Canada is sufficiently less than the alternatives available to U.S. utilities (basically coal and nuclear). Table 11 summarizes a preliminary cost analysis. The results are only indicative because they exclude the cost of transmission facilities which may be required and because the cost of specific projects will vary from the generic estimates.

Although these estimates are preliminary, they suggest that new hydroelectric exports from Quebec, Manitoba and British Columbia are likely to be competitive with U.S. alternatives. This also appears to be true for nuclear in Ontario and, to a lesser extent, in the Maritimes.