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Major Capital Projects Inventory

OCTOBER 1981

Office of Industrial and Regional Benefits



Government
of Canada

Gouvernement
du Canada

Industry, Trade
and Commerce

Industrie
et Commerce

MAJOR CAPITAL PROJECTS INVENTORY

This inventory has been compiled from a variety of sources and the information in it has been verified by one or more of each project's sponsors. All projects listed have been publicly announced as having already started or as expected to start before 1990. Since many are in the planning stage and susceptible to changing market demand conditions, the inventory is also likely to change. The fact that some projects are or could be competing with others may lead to cancellations or modifications. Some details were supplied in the spring of 1981 and may no longer be fully up-to-date. Further verification with the sponsor companies is therefore recommended before using the information as the basis of any business decision. Within the restrictions described below, as many major capital projects as possible have been identified. If any have been missed, we will be glad to include them in future issues.

The inventory is restricted to projects with an investment value of more than \$100 million, the values being quoted in constant 1980 dollars excluding Allowance for Cost of Funds Used During Construction (ACFUDC). A number of projects that have received considerable publicity in the past few years are not included because they no longer seem likely to start in this decade. Projects over \$500 million have been classified as "Committed", "Planned" or "Possible", in accordance with the definitions on page iv. No attempt has been made to assign a probability factor to the lower valued projects in the inventory.

Each project is listed under one of the seven industrial groups referred to in the "Contents and Investment

Summary" (page ii). Each industrial group is subdivided into projects over \$500 million and those between \$100 million and \$500 million in investment value. For easy identification, the industrial group and investment value categories are indicated at the top of each page of the inventory. Within each of these two categories, the projects are also grouped by province (starting from the west) and within provincial groupings by investment value (starting with the highest value). Double lines denote the end of one provincial grouping and the beginning of another. For projects involving more than one province, a primary province has been selected and underlined in the "Location" column on the inventory pages. The same designation has been used for the breakdown of "Investment Totals by Province" (page iii).

At the back of the inventory is an address list of all the sponsor companies, including a contact name and the relevant project number(s). If industry interest warrants it, we expect to up-date the inventory every 12 months.

If you have new information to contribute or would like additional copies of the inventory, please contact:

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CONTENTS AND INVESTMENT SUMMARY

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| SPONSOR COMPANY LIST | | | 52 - 66 |
| | TOTAL | 255,831 | |

INVESTMENT TOTALS BY PROVINCE

| <u>PROVINCE</u> | <u>INVESTMENTS</u> (\$ Millions) |
|---|-------------------------------------|
| British Columbia | \$ 38,274 |
| Alberta | 46,897 |
| Saskatchewan | 7,604 |
| Manitoba | 3,447 |
| Ontario | 21,742 |
| Quebec | 44,185 |
| New Brunswick | 6,253 |
| Nova Scotia | 3,072 |
| Prince Edward Island | 0 |
| Newfoundland | 10,092 |
| Yukon, Northwest Territories | 67,105 |
| All provinces or undefined locations..... | <u>7,160</u> |
| TOTAL | \$255,831 |

This breakdown of investment by provinces has been based on the primary location of the project indicated in the inventory. For Arctic projects involving one or more province, such as the Polar Gas Pipeline, the Arctic Pilot Project or Foothills' Alaska Highway Gas Pipeline, the total value of the projects has been included in the Yukon, Northwest Territories category. For other projects involving more than one province, the total value of the projects has been included in the total for the primary province (underlined in the inventory). Of course, project expenditures will not all be incurred in the area of the location of the project, but will be distributed throughout Canada and among some foreign sources.

DEFINITIONS OF PROJECT STATUS CATEGORIES

"Committed" (90% to 100% probable)

indicates that the project either:

- is under construction or is about to start construction, or
- has been given approval by the Company's Board authorizing construction of the project, or
- has received all principal approvals from appropriate government regulatory agencies necessary to authorize the project to proceed.

"Planned" (60% to 90% probable)

indicates that the project:

- is expected to become "Committed" within the next few years based on secured markets, contracts, letters of intent, and/or established economic viability, or
- has received company approval "in principle" and is currently being studied to confirm the economic, marketing and technical viability and is expected to become "Committed" within the next few years.

"Possible" (30% to 60% probable)

indicates that the project:

- has been identified as a potentially attractive business opportunity and that preliminary technological, economic and market viability studies are being undertaken. However, insufficient analysis has been carried out to expect the project to become "Committed" within the next few years.

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|---|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Export of LNG to Pacific Rim Countries | Prince Rupert, B.C. | Carter Energy Ltd. (Carter Oil & Gas Ltd.) | ? | ? | 3,300 | 1982/88 | 101 |
| <u>DESCRIPTION:</u> 670 mi. pipeline to Prince Rupert (\$760 million), 500 million cu.-ft./d LNG liquefaction plant (\$610 million) on Ridley Island and four 125,000 cu. meter LNG tankers (\$580 million) and gasfield development (\$450 million). An associated ethylene/polyethylene plant is included (\$800 million). | | | | | | | |
| <u>STATUS:</u> Engineering, environmental and economic studies underway, application for regulatory approval expected December 1, 1981. Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Export of LNG to Japan - Dome | West coast of B.C. | Dome-Nissho-Iwai Corp. (Dome Petroleum Ltd.) | 8,200 | 200 | 2,000 | 1982/85 | 102 |
| <u>DESCRIPTION:</u> 20 yr. contract to export 2.6 million metric tonnes/yr. (400 million cu. ft./day) of LNG to Japan Nissho-Iwai Corp., Chubu Electric Power Corp. Inc., Kyushu Electric Power Co. Inc., Osaka Gas Co. Ltd., and Toho Gas Co. Ltd. | | | | | | | |
| <u>STATUS:</u> Letter of Intent signed with Japanese, proposal being prepared for provincial and federal regulatory approval, 2-125,000 cu. meter cap. ships to be built in Canada & 2 in Japan (\$750 million), also the liquefaction plant (\$650 million), pipeline (\$450 million). Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Petrochemical Plants | B.C. various locations coast and inland | Canadian Occidental Petroleum Ltd. 30%, Dome Petroleum Ltd. 27.5%, Westcoast Transmission 22.5%, Mitsubishi Corp. 20% | 10,000 | 500 | 2,000 | 1982/85 | 103 |
| <u>DESCRIPTION:</u> Extraction plant, located in northeastern B.C., will process 16 million m ³ /day of "wet" gas to extract some 3620m ³ /day of natural gas liquids (ethane, propane, butane, pentanes). Ethane and some of the propane will be pipelined to the coast, to be used as feedstock to produce 270,000 tonnes of ethylene per year. Remaining natural gas liquids will be sold to domestic and export markets. A petrochemical complex, located on tidewater, includes the ethylene plant and will upgrade the ethylene to produce 140,000 tonnes of ethylene dichloride, 300,000 tonnes of vinyl chloride monomer and 80,000 tonnes of polyethylene per year. A chlor-alkali plant will produce chlorine for use in the petrochemical processes plus 310,000 tonnes per year of caustic soda for sale. Extraction plant will be owned 50% each by Dome and Westcoast. | | | | | | | |
| <u>STATUS:</u> Requires B.C. Government approval and internal corporate approvals; application to be filed by mid-1981. Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|---------------------------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Rim Gas Project | West coast of B.C. | Petro-Canada, Westcoast Transmission Co. Ltd. Mitsui and Co. Ltd. | 2,000 | 120 | 1,400 (2,000 In 1985 \$) | 1983/86 | 104 |
| <u>DESCRIPTION:</u> Export 250 million cu. ft./d of LNG to Japan, 270 million cu. ft./d liquefaction plant (\$420 million), pipeline (\$230 million) and 4 ships 125 thousand cu. m. capacity (\$750 million). Natural Gas from B.C. gas fields to be transmitted in a new pipeline to a west coast B.C. tidewater port. | | | | | | | |
| <u>STATUS:</u> Study underway. Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| Trans Mountain Oil Pipe Line | Vancouver, B.C. to Edmonton, Alta. | Trans Mountain Pipe Line Co. Ltd. | ? | ? | 875 | 1983/85* | 105 |
| <u>DESCRIPTION:</u> A 30" dia oil pipeline from Low Point, Washington to Edmonton, Alberta, 700 miles along the present Trans Mountain right of way, with capacity of 500,000 b/d. | | | | | | | |
| <u>STATUS:</u> NEB approval has been given but Cabinet approval is still pending. *The U.S. Energy Facilities Site Evaluation Council hearing has been put off indefinitely pending improved demand and financing conditions. Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Nitrogen Fertilizer Complex | Powell River, B.C. | West Coast Transmission Company Limited, British Columbia Resources Investment Corporation, Chlefion Development Company Ltd., Union Oil Company of California | 1,800 | 240 | 670 | 1982/1985 | 106 |
| <u>DESCRIPTION:</u> Construction of Nitrogen Fertilizer Complex on West Coast B.C. tidewater to consist of an ammonia plant, a urea plant and a nitrogen solutions plant. Natural gas will be the feedstock of the complex to be supplied by a new gas pipeline originally from Wilharm Lab., B.C. to Powell River. 1600 t/d ammonia urea and 900 t/d of nitrogen solution. | | | | | | | |
| <u>STATUS:</u> Proposal status only must be approved by B.C. Government. B.C. Government has rejected pipeline proposal through Powell River to Vancouver Island and has requested the fertilizer plant be located at another port of the B.C. west coast. Studies of an alternative site are underway. Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|----------------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Aisands Project | North of Fort McMurray, Alta. | Shell Canada Ltd. et al | 35,000 | 4,800 | 7,900 | 1982/88 | 107 |
| <u>DESCRIPTION:</u> Tar sands mining, extraction and upgrading plant with capacity of 130,000 b/d of synthetic crude (Managing Contractor: Bechtel, Monenco & Loram). | | | | | | | |
| <u>STATUS:</u> Final government approval pending. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Cold Lake In-situ Oil Sands Project | Cold Lake area Alta. | Esso Resources Canada Ltd. seeking partners to take up to a 50% interest in project. | 28,500 | 3,300 | 5,900 (Initial) | 1981/89* | 108 |
| <u>DESCRIPTION:</u> Recovery and upgrading of bitumin to provide 140,000 b/d synthetic oil | | | | | | | |
| <u>STATUS:</u> AERCB approved project in October 1979 - not approved by Alberta Cabinet waiting resolution of federal oil pricing agreement, *now indefinitely postponed. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Peace River In-situ | Peace River, Alta. | Shell Canada Ltd. et al | ? | 2,000 | 5,400 | 1987/94 | 109 |
| <u>DESCRIPTION:</u> In-situ tar sands synthetic crude development about 140,000 b/d. | | | | | | | |
| <u>STATUS:</u> Pilot operating since October 1979. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|------------------------------|----------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Oil Sands Mining, Constar | Near Fort McMurray, Alta. | Nova & Petro-Canada | 27,000 | 3,500 | 5,000 | 1985/89 | 110 |
| <u>DESCRIPTION:</u> 130,000 - 140,000 b/d tar sands plant. | | | | | | | |
| <u>STATUS:</u> Sponsors to prepare technical and economic feasibility studies in '80-81 with formal application to AERCB in late 1982. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| Sandalta | Fort McKay, Alta. | Gulf Canada Resources Inc. | 35,000 | 2,700 | 4,000 | 1986/93 | 111 |
| <u>DESCRIPTION:</u> Oil sands open pit mining project 38,000 acre site 45 miles north of Fort McMurray east of the Athabasca River. | | | | | | | |
| <u>STATUS:</u> Winter program this year will cost \$4.5 million. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| Hardisty Upgrading Plant | Near Hardisty Alta. | Petro-Canada | 5,000 | 300 | 800 | 1985/90 | 112 |
| <u>DESCRIPTION:</u> Heavy Oil Upgrading - 100,000 b/d | | | | | | | |
| <u>STATUS:</u> Under Study | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|----------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Judy Creek Oil Field | Swan Hills, Alta. | Esso Resources Canada Ltd. | 1,000 | 100 | 740 | INDEFINITELY POSTPONED | 113 |
| <u>DESCRIPTION:</u> Modifications to gas processing plant, construction of field facilities and pipelines to transport compressed CO ₂ to recover over 100 million barrels of oil by CO ₂ miscible flooding of the Judy Creek Reservoir. | | | | | | | |
| <u>STATUS:</u> Recent engineering studies and new cost estimates have resulted in a re-evaluation of the project | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Synthetic Crude Oil Refinery and Benzene Plant | Scotford, Alta. | Refinery: Shell Canada Ltd. (60%) Husky Oil Ltd. (40%) Benzene Plant: Shell Canada Ltd. (100%) | 5,000 | 270 | 600 | 1981/84 | 114 |
| <u>DESCRIPTION:</u> Refinery unit will have initial capacity of 50,000 b/d with expansions to 70,000 b/d. Pipelines would include those for feedstocks and products. Benzene Plant will have capacity of 670 tonnes/day. | | | | | | | |
| <u>STATUS:</u> Approval has been given by Alberta Government and the AERCB. Start of construction should be on schedule. PCL-Braun-Simons Ltd., (Calgary) selected as prime contractor of proposed refinery. | | | | | | | |
| Committed <u> X </u> Planned _____ Possible _____ | | | | | | | |
| Alberta Gas Liquids (Olefins) | Alta. | Consortium (Gulf Canada Ltd.) | ? | ? | 500 | 1983/85 | 115 |
| <u>DESCRIPTION:</u> 1.2 billion lbs./yr. ethylene plant (4th in Alberta) | | | | | | | |
| <u>STATUS:</u> Under active study depending on availability of feed stock. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Heavy Oil Reserves Development and Upgrading Plant | Lloydminster, Sask. | Husky Oil Ltd. 25%, Gulf Canada Resources Inc. 20%, Saskatchewan Oil & Gas Corp. 25%, Petro Canada 15%, Shell Canada Ltd. 15% | ? | ? | 2,000 | 1980/90 | 116 |
| <u>DESCRIPTION:</u> 5-year project development program in effort to double heavy oil reserves. 100,000 b/d - \$1 billion | | | | | | | |
| <u>STATUS:</u> Upgrader (\$1 billion) tentatively 1982/86 in abeyance pending assurance of adequate heavy oil supplies | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Refinery Add-on to Heavy Oil Upgrader | Saskatchewan | Consortium (Gulf Canada Ltd.), Saskatchewan Oil & Gas Corp. Husky, Petro-Canada, Shell | ? | ? | 700 | 1984/87 | 117 |
| <u>DESCRIPTION:</u> Refinery to utilize output of upgrader. | | | | | | | |
| <u>STATUS:</u> Dependent on economics of heavy oil upgrader. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |
| Carmont Consortium Heavy Fuel Oil Upgrader | Montreal Quebec | Gulf Canada Ltd., B.P. Explorations Canada Ltd., Texaco Canada Inc., Shell Canada Ltd., Petro-Canada Products Ltd., Soquip. | ? | 180 | 2,600 | 1982/86 | 118 |
| <u>DESCRIPTION:</u> Residual Oil Upgrading 50-80,000 b/d | | | | | | | |
| <u>STATUS:</u> Currently being studied for feasibility, initial consultant's report received May, 1980. The sponsors will initiate further engineering studies, review the financing and Government/Industry Agreements, following which a decision as to whether to proceed further with the project will be reviewed in March, 1982. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Trans Quebec Maritimes Pipeline | Quebec/ New Brunswick/ Nova Scotia | Trans Quebec Maritimes Pipeline Ltd. (Trans Canada Pipelines Ltd. and Q&M Pipeline Ltd.-Nova) | 11,457 | 324 | 861 | 1981/85 | 119 |
| <u>DESCRIPTION:</u> A 1200 kilometer gas pipeline from the present Trans Canada Pipelines Ltd. terminus in Montreal to Halifax, Nova Scotia. Laterals and sub-laterals to serve communities in the three provinces will add another 2170 kilometers of pipeline. The pipeline will range in diameter from 114 millimeter to 762 millimeter. These figures exclude the associated natural gas distribution systems. The contract for engineering and construction management has been awarded to Canest (a consortium of Canuck, Lavalin, SNC and Monenco). | | | | | | | |
| <u>STATUS:</u> The TQM was designed to extend the Canadian natural gas grid through the Provinces of Quebec, New Brunswick and Nova Scotia. The NEB approved the extension to Quebec City in 1980. A second NEB Hearing regarding the extension into New Brunswick and Nova Scotia was completed in April and approved the extension of natural gas into the Maritimes. Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Offshore Sable Island Gas Development | Offshore, N.S. | Mobil Oil Canada Ltd. 42%; Petro-Canada, 30%; British Columbia Resources Investment Corp., 10%; Texaco Canada Inc., 18% | ? | ? | 2,000 | 1983/87 | 120 |
| <u>DESCRIPTION:</u> Offshore Gas Production to central facility and submarine pipeline to mainland Nova Scotia. | | | | | | | |
| <u>STATUS:</u> Delineation drilling underway. Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Hibernia Oil Development | Offshore, Nfld. | Mobil Oil Canada Ltd. 28%, Gulf Canada Resources Inc. 25%, Chevron Standard Ltd. 16%, Petro-Canada 25 %, Columbia Gas Canada Ltd. 6% | ? | ? | 4,000 | 1983/88 | 121 |
| <u>DESCRIPTION:</u> Offshore Oil Production, Resources estimated at minimum 1 billion bbls sufficient to support design production capacity of 200,000 b/d. | | | | | | | |
| <u>STATUS:</u> Delineation drilling underway, dispute over jurisdiction could delay. Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Offshore Labrador Developments | Offshore Labrador, Nfld. | Laborador Group (Petro-Canada) | ? | ? | 1,000 | 1980/90 | 122 |
| <u>DESCRIPTION:</u> Offshore exploration along Labrador coast | | | | | | | |
| <u>STATUS:</u> Exploration drilling underway | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned _____ Possible _____ | | | | | | | |
| Beaufort Sea Oil and Gas Development | Beaufort Sea off Mackenzie Delta, N.W.T. | Dome Petroleum Ltd. | 10,000 | 4,600 | 44,000 | 1981/90 | 123 |
| <u>DESCRIPTION:</u> Exploration and Development of the Beaufort Sea | | | | | | | |
| <u>STATUS:</u> Exploration and delineation drilling underway | | | | | | | |
| Committed _____ Planned <input checked="" type="checkbox"/> Possible _____ | | | | | | | |
| 1124 | | | | | | | |
| Polar Gas Pipeline | Ont., Man., Sask. and N.W.T. | Polar Gas Project (Trans Canada Pipelines Ltd., Ontario Energy Corp., Tenneco Oil Canada, Panarctic Oils Ltd., & Petro-Canada) | 36,950 | 743 | 10,700 | 1987/95 | 124 |
| <u>DESCRIPTION:</u> To bring Arctic Gas 4800 km from Melville Island and the Beaufort Delta to southern markets about 2.15 bcf/d including expansion of TCPL facilities. | | | | | | | |
| <u>STATUS:</u> New "Y" line proposal to be presented to NEB by December 1981. | | | | | | | |
| Committed _____ Planned <input checked="" type="checkbox"/> Possible _____ | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|----------------------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Alaska Highway Gas Pipeline | Yukon, B.C., Alta., Sask. | Foothills Pipeline (Yukon) Ltd. (Nova 50%, Westcoast Transmission Co. Ltd. 50%) | 11,875 | 400 | 5,100* | 1980/85 | 125 |
| <u>DESCRIPTION:</u> 48", 56", 42" & 36" pipeline to run from Prudhoe Bay through Yukon and Northern B.C. into Alberta where it will divide into 2 lines to take Alaskan gas to U.S. eastern and western markets. The Canadian portion of the pipeline exceeds 2027 miles (3423 km). | | | | | | | |
| <u>STATUS:</u> Volume of gas exports approved by NEB. Cost of Canadian pre-build sections currently estimated at \$685 million in unescalated dollars. Phase I Western Leg complete. Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> *Overall project cost estimate currently being revised. | | | | | | | |
| Dempster Gas Pipeline | Yukon/N.W.T. | Foothills Pipeline (Yukon) Ltd. (Nova 50%, Westcoast Transmission Co. Ltd. 50%) | 6,000 | 130 | 1,700 | 1986/89 | 126 |
| <u>DESCRIPTION:</u> To connect MacKenzie Delta Gas with Foothills Pipeline near Whitehorse, 34" dia., 1.2 bcf/d, 747 miles long. | | | | | | | |
| <u>STATUS:</u> Application to NEB complete, but project is not expected to be reviewed for some time depending upon reserve discoveries. Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Arctic Pilot Project | Melville Island Arctic N.W.T. | Petro-Canada (38%), Nova (25%), Melville Shipping (17%) & Dome Petroleum (20%) (TransCanada Pipelines) | ? | ? | 1,600 | 1981/86 | 127 |
| <u>DESCRIPTION:</u> Project designed to demonstrate the feasibility of producing and delivering 250 mmcf/d of natural gas as LNG from Melville Island to southern markets includes field development (\$160 million), Pipeline (\$130 million), LNG Facilities (\$610 million), 2 - 140,000 cu. m. LNG ships arctic class 7 (\$530 million) and southern terminal (\$170 million). | | | | | | | |
| <u>STATUS:</u> Application to NEB filed October 1980, hearing pending in fall of 1981. Southern terminal location (Quebec or Nova Scotia) not yet settled. Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|----------------------------|----------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Taglu Gas Plant | MacKenzie Delta, N.W.T. | Esso Resources Canada Ltd. | ? | ? | 1,000 ? | 1990/95 | 128 |
| <u>DESCRIPTION:</u> Construction of a 1 bcf/d initial capacity gas processing plant | | | | | | | |
| <u>STATUS:</u> Awaiting construction of pipeline to transport gas | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Gulf Beaufort Sea Drilling System | Beaufort Sea N.W.T. | Gulf Canada Resources Inc | ? | ? | 700 | 1981/83 | 129 |
| <u>DESCRIPTION:</u> Drilling Units, Shore Base and Support Fleet. | | | | | | | |
| <u>STATUS:</u> Board approval given but need Government decision on Beaufort Exploration Permits. | | | | | | | |
| Committed <u> X </u> Planned _____ Possible _____ | | | | | | | |
| Norman Wells Oil Field Development | Norman Wells, N.W.T. | Esso Resources Canada Ltd. | 1,200 | 100 | 600 | 1981/84 | 130 |
| <u>DESCRIPTION:</u> A 25,000 b/d oil field development including island construction and waterflood stimulation | | | | | | | |
| <u>STATUS:</u> Currently seeking NEB, ERP and IAND approvals. | | | | | | | |
| Committed _____ Planned <u> X </u> Possible _____ | | | | | | | |

HYDROCARBONS & PETROCHEMICALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|----------------------------|-------------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Parsons Lake Gas Plant | Mackenzie Delta, N.W.T. | Gulf Canada Resources Inc. | 2,773 | 120 | 500 | 1990/95 | 131 |
| <u>DESCRIPTION:</u> 300 mm cf/d gas plant | | | | | | | |
| <u>STATUS:</u> Awaiting construction of pipeline to transport gas. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| East Coast Gas Liquids (Olefins) | Atlantic Provinces | Consortium (Gulf Canada Ltd.) | ? | ? | 500 | 1987/90 | 132 |
| <u>DESCRIPTION:</u> 1.5 billion lbs./yr. ethylene plant. | | | | | | | |
| <u>STATUS:</u> Under active study for economic feasibility. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Lubricating Oil Plant | To be determined ? | Gulf Canada Ltd. | ? | ? | 500 | 1990/91 | 133 |
| <u>DESCRIPTION:</u> 1 million b/yr. lubricating oil plant. | | | | | | | |
| <u>STATUS:</u> Market investigation being carried out. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |

HYDROCARBONS & PETROCHEMICALS

\$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--|---|---------------------------|-----------------------|---------------------------------|---|-------------------|
| Sour Gas Plant | Fort St. John, B.C. | Petro-Canada | ? | ? | 250 | ?? | 134 |
| New Methanol Plant | Kitimat, B.C. | Westcoast Transmission | 2,000 | 60 | 175 | Deferred Indefinitely due to uncertainty over feedstock prices | 135 |
| Gas Pipeline Looping | B.C. | Westcoast Transmission Co. Ltd. | 500 | 10 | 150 | 1982/83 Dependent upon export gas markets | 136 |
| New Methanol Plant | Kitimat, B.C. | Ocelot Industries Ltd. | 250 | 80 | 140 | 1980/82 | 137 |
| Gas Pipeline to Vancouver Island (Committed) | Lower Mainland to Vancouver Island, B.C. | British Columbia Hydro | 350 | 5 | 124 | 1982/84 | 138 |
| Nitrogenous Fertilizer Plant 527Kt Ammonia/492Kt Urea | Redwater, Alta. | Esso Chemical Canada (Imperial Oil Limited) | 1,500 | 150 | 400 | 1981/83 | 139 |

HYDROCARBONS & PETROCHEMICALS

\$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--------------------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Ethylene Plant II 680Kt/yr. | Joffre, Alta. | Alberta Gas Ethylene Co. | 1,810 | 93 | 355 | 1981/84 | 140 |
| Ethylene Plant III 680Kt/yr | Joffre, Alta. | Alberta Gas Ethylene Co. | 1,810 | 93 | 355 | 1982/85 | 141 |
| Petala Benzene Plant 110MG/yr. | Bruderheim, Alta. | Alberta Energy Co. Ltd. 50% Esso Chemical Canada 50%. | 1,000 | 80 | 350 | 1981/84 | 142 |
| Ethylene Derivatives Plant 400 million lb. ethylene oxide and 500 million lb. ethylene glycol/yr | Prentiss, Alta. | Union Carbide Canada Ltd. | 1,070 | 120 | 300 | 1981/84 | 143 |
| Petala Styrene Monomer Plant 400 Kt/yr. | Bruderheim, Alta. | Alberta Energy Co. Ltd. 50%, Esso Chemical Canada 50% | 1,300 | 116 | 300 | 1981/84 | 144 |
| World Scale Nitrogen Fertilizer Plant 1,100 t/d ammonia 1,000 t/d urea | Fort Sask., Alta. | Sherritt-Gordon Mines | 677 | 120 | 265 | 1980/83 | 145 |
| New Methanol Plant | Clover Bar, Edmonton, Alta. | Celanese Canada Ltd. | ? | 57 | 250 | 1980/82 | 146 |

HYDROCARBONS & PETROCHEMICALS

\$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-------------------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Benzene Plant 1.6 mb/d | Edmonton, Alta.* | Gulf Canada Ltd. *located at Gulf Refinery | 1200 | 30 | 200 | 1982/85 | 147 |
| Refinery Expansion 40,000 b/d to handle synthetic crude (Committed) | Edmonton, Alta. | Gulf Canada Ltd. | ? | ? | 200 | 1980/83 | 148 |
| Fully Integrated Crude Oil Refinery 30,000 b/d (Committed) | Balzac near Calgary, Alta. | Turbo Resources Limited | 450 | 110 | 200 | 1980/81 | 149 |
| Hanlan-Robb Field Development Sour Gas Plant 304 mm cf/d | near Edson, Alta. | Gulf Canada Resources Inc. (Contractor - Partech Lavalin) | 400 | 45 | 200 | 1980/83 | 150 |
| Suncor Expansion Program 13,000 b/d | Fort McMurray, Alta. | Suncor Inc. Resources Group | 900 | 175 | 185 | 1979/81 | 151 |
| Styrene Monomer Plant 300 Kt/yr. | Scotford, Alta | Nova 60%/Shell Canada Ltd. 40% | 600 | 120 | 160 | 1981/84 | 152 |
| Aromatics Extraction (Planned) | Edmonton, Alta. | Gulf Canada Ltd. | ? | ? | 150 | 1983/84 | 153 |

HYDROCARBONS & PETROCHEMICALS

\$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|----------------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Polyethylene Plant 270 Kt/yr. | Joffre, Alta. | Nova 60%, Shell Canada Ltd. 40% | 546 | 150 | 142 | 1981/84 | 154 |
| Expansion of Methanol Plant by 1200 tons/day | Medicine Hat, Alta. | Alberta Gas Chemicals Ltd. | 700 | 60 | 140 | 1980/82 | 155 |
| Expansion of Polyethylene Plant from 75 to 175 thousand tons/yr | Edmonton, Alta. | Canadian Industries Ltd. (50%) Trimac, Calgary (50%) | 370 | 85 | 128 | 1982/84 | 156 |
| Strathcona Refinery Expansion | Edmonton, Alta. | Imperial Oil Ltd. | ? | ? | 100 | 1981/84 | 157 |
| Surmont (underground & surface in-situ experiment) | Surmont, Alta. | Alberta Oil Sands Technology and Research Authority/Gulf Canada Resources Inc. | 300 | 20 - 30 | 100 | 1982/90 | 158 |
| Trans Canada Pipeline Expansion 295 mi. of 42" and 48" looping, 216 MW of Compression | Sask., Man. & <u>Ont.</u> | Trans Canada Pipelines Ltd. | 950 | 10 | 360 | 1980/82 | 159 |
| Trans Canada Pipeline 254 mi. 42" Dia. North Bay to Montreal By Pass | North Bay to Morrisburg, Ont. | Trans Canada Pipelines Ltd. | 1,200 | 4 | 357 | 1981/82 | 160 |

HYDROCARBONS & PETROCHEMICALS

\$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|---------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Heavy Fuel Oil Upgrader | Sarnia, Ont. | Petrosar Ltd. | 4,000 | 70 | 350 | 1981/84 | 161 |
| Butyl Rubber Plant Expansion | Sarnia, Ont. | Polysar Ltd. | 850 | 150 | 200 | 1980/82 | 162 |
| Hydrocarbon Upgrading (Planned) | Sarnia, Ont. | Suncor Inc. Sunoco Group | 1,700 | 50 | 200 | 1982/84 | 163 |
| Linear Low Density Polyethylene Resin Plant | Sarnia, Ont. | Esso Chemical Canada (Imperial Oil Limited) | 500 | 100 | 180 | 1981/83 | 164 |
| Petromont Ethylene Plant Expansion (Planned) | Montreal, Quebec | Petromont, Gulf Canada Ltd. 33% | ? | ? | 300 | 1986/88 | 165 |
| Petrochemical Expansion (Phenols) (Planned) | Montreal, Quebec | Gulf Canada Ltd. | ? | ? | 150 | 1983/84 | 166 |
| Ultramar Refinery Upgrader 20,000 b/d Residuals | St. Romuald, Quebec | Ultramar Canada Ltd. | ? | ? | 150? | 1980/83 | 167 |
| Offshore Exploration & Oil Drilling | Nfld. | Esso Resources Canada Ltd. | 450 | 200 | 240 | 1980/85 | 168 |

HYDROCARBONS & PETROCHEMICALS

\$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Come by Chance Refinery (reactivation) | Come by Chance, Nfld. | Petro-Canada | ? | ? | 200 | 1981/82 | 169 |
| Semi-Submersible Drill Rig | East Coast Nfld. | Petro-Canada 50%, Peter Bawden Drilling Ltd. 50% | ? | ? | 125 | 1981/83 | 170 |
| Norman Wells Oil Pipeline (Planned) | 12" 540 ml. Norman Wells, N.W.T. to Zama Alta. | Interprovincial Pipeline Ltd. | 800 | 50 | 400 | 1981/84 | 171 |
| Beaufort Sea Offshore Exploration (Caisson Drilling System) | Beaufort Sea N.W.T. | Esso Resources Canada Ltd. | 250 | 200 | 130 | 1981/85 | 172 |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|---|------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Liard Hydro Development | Liard River near Yukon/B.C. border | British Columbia Hydro | 18,920 | 90 | 4,685 | 1988/99 | 173 |
| <u>DESCRIPTION:</u> 4470 MW generating plant & transmission facilities | | | | | | | |
| <u>STATUS:</u> Included in the company's 15 yr. plan. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Stikine-Iskut Hydro Development | Stikine-Iskut Rivers in N.W. B.C. | British Columbia Hydro | 16,000 | 70 | 3,201 | 1986/94 | 174 |
| <u>DESCRIPTION:</u> Development of 2,765 MW generating plant & transmission facilities | | | | | | | |
| <u>STATUS:</u> Included in the company's 15 yr. plan. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Hat Creek Thermal Project | Hat Creek Valley near Ashcroft, B.C. | British Columbia Hydro | 12,545 | 1,165 | 2,716 | 1983/91 | 175 |
| <u>DESCRIPTION:</u> Development of a coal mine (\$500 million) & construction of 4-500 MW unit generating plant & transmission lines with the first 2 units in service by 1987. | | | | | | | |
| <u>STATUS:</u> Expect to seek regulatory approval soon. | | | | | | | |
| Committed _____ Planned <u> X </u> Possible _____ | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|------------------------|-----------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Revelstoke Hydro Project | Revelstoke, B.C. | British Columbia Hydro | 8,025 | 28 | 1,115 | 1976/84 | 176 |
| <u>DESCRIPTION:</u> 4-450 MW hydro generating units on Columbia River & related transmission lines. | | | | | | | |
| <u>STATUS:</u> 4 units are under construction as part of current project, 2 more units could be added later, 3 units to be operating in 1983. | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Peace Site "C" Hydro Development | Fort St. John, B.C. | British Columbia Hydro | 5,110 | 25 | 1,007 | 1982/88 | 177 |
| <u>DESCRIPTION:</u> 6-150 MW hydro plant on Peace River and associated transmission, first units in service by 1987. | | | | | | | |
| <u>STATUS:</u> Seeking regulatory approval. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Kemano Completion | Kemano, B.C. | Aluminum Co. of Canada Ltd. | 3,000 | 0 | 800 | 1987/91* | 178 |
| <u>DESCRIPTION:</u> Hydro generating station | | | | | | | |
| <u>STATUS:</u> Project being redefined to take account of multiple resource requirements for water. *Date for construction indefinite. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-----------------------------------|------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| East Kootenay Thermal | Sparwood, B.C. | British Columbia Hydro | 4,150 | 154 | 674 | 1989/? | 179 |
| <u>DESCRIPTION:</u> 2-300 MW coal-fired generating plant and transmission lines. | | | | | | | |
| <u>STATUS:</u> Project not economically viable when compared to alternatives. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Cheekye/Dunsmuir Transmission Project | Squamish to Qualicum Bay, B.C. | British Columbia Hydro | 740 | 0 | 576 | 1979/84 | 180 |
| <u>DESCRIPTION:</u> 2-500 KV submarine cables interconnecting Vancouver Island and B.C. mainland. | | | | | | | |
| <u>STATUS:</u> Under construction. | | | | | | | |
| Committed <u>X</u> Planned _____ Possible _____ | | | | | | | |
| Murphy Creek Hydro Development | Trail, B.C. | British Columbia Hydro | 3,650 | 9 | 554 | 1984/90 | 181 |
| <u>DESCRIPTION:</u> 10-40 MW units generating plant and transmission lines, first units in service in 1987. | | | | | | | |
| <u>STATUS:</u> Next planned project subsequent to Hat Creek (project 175). | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Thermal Power Plant | Red Deer, Alta. | Fording Coal Ltd. | ? | ? | 4,500 | 1985/91 | 182 |
| <u>DESCRIPTION:</u> A 2,000 megawatt thermal power plant and 9 mt/yr of coal from associated coal mine. | | | | | | | |
| <u>STATUS:</u> Economic feasibility studies under way. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Dunvegan Hydro | On Peace River, 60 mi. N of Grande Prairie, Alta. | Alberta Power Ltd., Edmonton Power & the City of Medicine Hat (50%) and Transalta Utilities Corp. (50%) (formerly Calgary Power Ltd.) | 6,230 | 30 | 1,297 | 1983/91 | 183 |
| <u>DESCRIPTION:</u> 1000 MW hydro generating station | | | | | | | |
| <u>STATUS:</u> Proposals submitted to the Alberta Government but sponsor not yet approved. | | | | | | | |
| Committed _____ Planned _____ Possible <u> X </u> | | | | | | | |
| Sheerness Thermal Plant Units 1 & 2 | Hanna, Alta. | Alberta Power Ltd. 50%, and Transalta Utilities Corp. 50%, (formerly Calgary Power Ltd.) | 2,250 | 124 | 607 | 1980/86 | 184 |
| <u>DESCRIPTION:</u> Thermal power station with first 375,000 KW unit to be commissioned in 1985 and the second in 1986. | | | | | | | |
| <u>STATUS:</u> Project has received approval from AERCB. Detailed engineering work now in progress, major equipment orders expected to be made by mid 1980. | | | | | | | |
| Committed <u> X </u> Planned _____ Possible _____ | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-----------------------------------|---------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Genesee Thermal Generating Station | 65 km. S.W. of Edmonton, Alta. | Edmonton Power Ltd. | ? | 240 | 595 | 1980/88 | 185 |

DESCRIPTION: 2-375 MW coal fired generating units & transmission lines with the first unit operational by 1987 and the second by 1988.

STATUS: Proposal approved by the Alberta Government in November 1980.

Committed Planned Possible

| | | | | | | | |
|-------------------------------------|--------------------|----------------|-------|----|-----|---------|-----|
| Limestone Generating Station | Nelson River, Man. | Manitoba Hydro | 6,410 | 45 | 800 | 1983/93 | 186 |
|-------------------------------------|--------------------|----------------|-------|----|-----|---------|-----|

DESCRIPTION: 1200 MW hydro electric facility on the Nelson River

STATUS: Preliminary design completed - construction will depend on energy demand, contract awarded to pave existing road to the project. May be started earlier if western power grid becomes a reality.

Committed Planned Possible

| | | | | | | | |
|--|-------------------------------|--|-----------------------|----|-----|---------|-----|
| Western Grid HVDC Transmission and Conversion | Henday, Man., Sask., Alta. | Manitoba Hydro, Saskatchewan Power Corp., & Alberta Utilities, sponsors not yet Identified | (Man. portion) 1,150 | 8 | 600 | 1983/87 | 187 |
| | | | (Sask. portion) 1,200 | 80 | 190 | 1982/87 | |
| | | | (Alta. portion) ? | ? | ? | ? | |

DESCRIPTION: Installation of Bipole 3 consisting of 1800 megawatts of conversion & associated equipment, 1/3 in Saskatchewan and 2/3 in Alberta.

STATUS:

Committed Planned Possible

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--------------------------|----------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Wuskwatim Generating Station | Burntwood River, Man. | Manitoba Hydro | 3,730 | 32 | 500 | 1995/2000 | 188 |
| <u>DESCRIPTION:</u> 280 MW hydro electric facility | | | | | | | |
| <u>STATUS:</u> Proposal | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Darlington Generating Station | Bowmanville, Ont. | Ontario Hydro | 16,000 | 600 | 2,539 | 1979/91 | 189 |
| <u>DESCRIPTION:</u> 3500 MW nuclear generation station - 4 units | | | | | | | |
| <u>STATUS:</u> Construction program accelerated as a result of Provincial Government "BILD" Program. | | | | | | | |
| Committed <u>X</u> Planned _____ Possible _____ | | | | | | | |
| Nuclear Generating Station Ontario Hydro | Ont. | Ontario Hydro | 15,000 | ? | 2,483 | 1986/97 | 190 |
| <u>DESCRIPTION:</u> 1-3400 MW Nuclear Generating Station. | | | | | | | |
| <u>STATUS:</u> Program will depend on demand for energy. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|----------------------------|---------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Bruce "B" Generating Station | Port Elgin, Ont. | Ontario Hydro | 18,300 | 600 | 2,287 | 1979/87 | 191 |
| <u>DESCRIPTION:</u> 3400 MW nuclear generating station | | | | | | | |
| <u>STATUS:</u> Under construction, first 850 MW unit in service by 1983, 2nd by 1984 | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Pickering "B" Generating Station | Pickering, Ont. | Ontario Hydro | 13,900 | 450 | 1,805 | 1979/85 | 192 |
| <u>DESCRIPTION:</u> 2000 MW nuclear generating station | | | | | | | |
| <u>STATUS:</u> Replacement of defective boilers has slowed construction & increased costs, first 500 MW unit on stream by late 1982. | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Hydro-Electric Generating Stations Ontario Hydro | Various locations, Ont. | Ontario Hydro | ? | ? | 968 | 1985/94 | 193 |
| <u>DESCRIPTION:</u> 6 hydro-electric generating stations ranging from 100 - 300 MW | | | | | | | |
| <u>STATUS:</u> Program will depend on demand of energy | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-------------------------------------|---------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Atikokan Generating Station | Marmion Lake, Ont. | Ontario Hydro | 3,100 | 122 | 563 | 1979/88 | 194 |
| <u>DESCRIPTION:</u> 400 MW coal fired generating station | | | | | | | |
| <u>STATUS:</u> Detailed design work continues, but first 200 MW unit not scheduled to be in operation until 1984, and the second unit by 1988 | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Nottaway Complex, Broadback, Rupert | 700 km north of Montreal, Quebec | Hydro-Québec | 66,000 | | 10,680 | 1987-98 | 195 |
| <u>DESCRIPTION:</u> A complex of 9 power stations of which 7 are to be set up along the Broadback River and 2 on the Rupert. The capacity of this complex is 7,250 MW. | | | | | | | |
| <u>STATUS:</u> Possible. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input checked="" type="checkbox"/> | | | | | | | |
| La Grande, Phase I | James Bay, Quebec | Hydro-Québec | 61,400 | | 9,000 | 1974-85 | 196 |
| <u>DESCRIPTION:</u> A complex of 3 power stations--i.e., LG-2, LG-3 and LG-4--to be set up along the La Grande River. The capacity of these 3 power stations is 10,282 MW. | | | | | | | |
| <u>STATUS:</u> Under construction. | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| James Bay transmission networks | James Bay, Quebec | Hydro-Québec | 18,000 | | 3,719 | 1978-85 | 197 |
| <u>DESCRIPTION:</u> Integrating the La Grande Stage I production by means of five 735-kV transmission lines. | | | | | | | |
| <u>STATUS:</u> Under construction. | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|---|--------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| La Grande, Phase 2 | James Bay, Quebec | Hydro-Québec | 21,300 | ? | 3,487 | 1984/96 | 198 |
| <u>DESCRIPTION:</u> 5 power stations (LG-1, Brisay, Laforge 1 and 2, and Eastmain 1) to be set up along the La Grande, Laforge, & Eastmain rivers, adding about 3,290 MW of installed capacity. | | | | | | | |
| <u>STATUS:</u> Planning completed. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| Grande Baleine Complex | 200 km north of the La Grande River, Quebec | Hydro-Québec | 18,600 | ? | 2,845 | 1982/91 | 199 |
| <u>DESCRIPTION:</u> A complex of 3 power stations (Grande Baleine 1, 2 and 3) with a reservoir upstream (Lake Bienville) and the diverting of the small La Baleine River. This complex has a capacity of 2,896 MW. | | | | | | | |
| <u>STATUS:</u> Planning completed. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| Gentilly No 3 | Gentilly, Quebec | Hydro-Québec | 5,400 | ? | 2,195 | 1986/92 | 200 |
| <u>DESCRIPTION:</u> 850-MW Candu nuclear power station. | | | | | | | |
| <u>STATUS:</u> Possible. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Romaine | 900 km from Montreal on the north shore of the St. Lawrence River, Quebec | Hydro-Québec | 14,000 | ? | 2,025 | 1989/94 | 201 |
| <u>DESCRIPTION:</u> A complex of 4 power stations on the Romaine River with a capacity of 1,390 MW. | | | | | | | |
| <u>STATUS:</u> Possible. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|---|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Gas Turbine | South Shore between Quebec and Montreal, Quebec | Hydro-Québec | 3,200 | ? | 1,764 | 1985/90 | 202 |
| <u>DESCRIPTION:</u> Installation of gas turbines with a capacity of approximately 2,800 MW. | | | | | | | |
| <u>STATUS:</u> Possible. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Delaney Hydro Project | St. Raymond de Portneuf, Quebec | Hydro-Québec | 7,100 | ? | 961 | 1983/89 | 203 |
| <u>DESCRIPTION:</u> Installation of a pumping station on the Ste-Anne River with 2,110 MW capacity. | | | | | | | |
| <u>STATUS:</u> Approved but awaiting government permits. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| Gentilly 2 | Gentilly, Quebec | Hydro-Québec | 6,400 | ? | 746 | 1973/83 | 204 |
| <u>DESCRIPTION:</u> Construction of a 685-MWQ Candu nuclear power station. | | | | | | | |
| <u>STATUS:</u> Under construction. | | | | | | | |
| Committed <u>X</u> Planned _____ Possible _____ | | | | | | | |
| Pointe Lepreau Generating Stn. #2 | 30 mi West of Saint John, N.B. | New Brunswick - Electric Power Commission | 9,500 | 219 | 2,300 | 1982/88 | 205 |
| <u>DESCRIPTION:</u> 630 MW nuclear fired CANDU generating station | | | | | | | |
| <u>STATUS:</u> | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-----------------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Point Lepreau Generating Stn. #1 | 30 mi West of Saint John, N.B. | New Brunswick - Electric Power Commission | 10,500 | 231 | 1,300 | 1974/82 | 206 |
| <u>DESCRIPTION:</u> 630 MW nuclear fired CANDU generating station | | | | | | | |
| <u>STATUS:</u> Labour problems & repairs to faulty steam generators are causes of cost increases | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned _____ Possible _____ | | | | | | | |
| Lower Churchill Project Phase II | Gull Island Labrador, Nfld. | Lower Churchill Development Corporation (Federal Government 49%, Newfoundland Govt. 51%) | 9,800 | 75 | 1,850 | 1987/92 | 207 |
| <u>DESCRIPTION:</u> 1700 MW hydro electric facility at Gull Island on the Lower Churchill River and the second -400KV+ DC line to the island. | | | | | | | |
| <u>STATUS:</u> Federal decision on financial support pending | | | | | | | |
| Committed _____ Planned _____ Possible <input checked="" type="checkbox"/> | | | | | | | |
| Lower Churchill Project Phase I | Muskrat Falls Labrador, Nfld. | Lower Churchill Development Corporation (Federal Government 49%, Newfoundland Govt. 51%) | 6,500 | 140 | 1,650 | 1982/87 | 208 |
| <u>DESCRIPTION:</u> 600 MW at Muskrat Falls on Lower Churchill River and the first 2-400KV+ DC line to the island. | | | | | | | |
| <u>STATUS:</u> Federal decision on financial support pending | | | | | | | |
| Committed _____ Planned <input checked="" type="checkbox"/> Possible _____ | | | | | | | |

ELECTRICAL GENERATION AND DISTRIBUTION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|-------------------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Pressurized fluidized bed combustion demonstration project 180 MW capacity - for low grade coal (Possible) | Southern B.C. | British Columbia Hydro | ? | ? | 194 | 1990?? | 209 |
| Kootenay Diversion into Columbia River (Increase output at Mica and Revelstoke) (Possible) | Canal Flats, B.C. | British Columbia Hydro | 500 | 0 | 174 | 1985/? | 210 |
| Keepikis Thermal Station Units 1 & 2 750 MW (Committed) | 5 miles S.E. of Lake Wabamun, Alta. | Transalta Utilities Corp. (formerly Calgary Power Ltd.) | 1,950 | 103 | 470 | 1977/84 | 211 |
| Keepikis Thermal Station Units 3 & 4 2-375MW units (Committed) | 5 miles S.E. of Lake Wabamun, Alta. | Transalta Utilities Corp. (formerly Calgary Power Ltd.) | ? | 86 | 423 | 1981/86 | 212 |
| Sundance Thermal Generating Station Unit #6 - 375 MW Coal-fired | Lake Wabamun, Alta. | Transalta Utilities Corp. (formerly Calgary Power Ltd.) | ? | ? | 200? | 1979/81? | 213 |
| Battle River #5 Thermal Generating Station 375 MW (Completed July 81) | Forestburg, Alta. | Alberta Power Ltd. | 1,080 | N/A | 195 | 1976/81 | 214 |

ELECTRICAL GENERATION AND DISTRIBUTION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|------------------------|--------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Nipawin Hydro Electric Station 252 MW 3-84 MW units (Planned) | Nipawin, Sask. | Saskatchewan Power Corp. | 1,500 | 6 | 266 | 1981/86 | 215 |
| Steam #1-300 MW Lignite Fired Unit | Sask. | Saskatchewan Power Corp. | 1,400 | 100 | 230 | 1982/87 | 216 |
| Steam #2-300 MW Lignite Fired Unit | Sask. | Saskatchewan Power Corp. | 615 | 40 | 150 | 1985/89 | 217 |
| Poplar River Thermal Power Station Unit #2 300 MW Lignite fired | Poplar River, Sask. | Saskatchewan Power Corp. | 615 | 40 | 150 | 1979/83 | 218 |
| Northern Grid 800 Kilometres of H.V. Transmission Lines | Northern, Sask. | Saskatchewan Power Corp. | 960 | 10 | 100 | 1982/86 | 219 |
| First Rapids Hydro Generating Station 210 MW | First Rapids, Man. | Manitoba Hydro | ? | ? | 497 | 1987/92 | 220 |
| G.P.U. Interconnection 230 kv Submarine Line/Station (Possible) | Nanitcoke, Ont. | Ontario Hydro | ? | ? | 490 | 1982/85 | 221 |

ELECTRICAL GENERATION AND DISTRIBUTION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--|------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Thunder Bay Thermal G.S. Extension 300 MW (Committed) | Thunder Bay, Ont. | Ontario Hydro | 2,400 | 247 | 383 | 1979/82 | 222 |
| St. Marys River Dam & Dist. | Sault Ste. Marie, Ont. | Inco Metals Ltd. | ? | ? | 170 | 1985/90 | 223 |
| Hydroelectric Power Generation St. Mary River 54 MW | Sault Ste. Marie, Ont. | Great Lakes Power Ltd. | 600 | 0 | 110 | 1979/82 | 224 |
| Manic No 5 Project (under construction) 1,000 MW on the right bank of the Daniel Johnson Dam | Manicouagan River, Quebec | Hydro-Québec | 2,700 | ? | 334 | 1981/85 | 225 |
| Interconnection construction of station and d-c lines (Châteauguay, 1,000 MW; Nepool, 600 MW; and Madawaska, 500 MW) | Châteauguay and In the Eastern Townships, Quebec Near Edmunston, N.B. | Hydro-Québec | 1,400 | ? | 232 | 1982/84 1984/86 | 226 |

ELECTRICAL GENERATION AND DISTRIBUTION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-----------------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Grand Lake #9 - Thermal | Newcastle Creek, N.B. | New Brunswick Electric Power Commission | 925 | 40 | 180 | 1989/93 | 227 |
| Grand Falls Hydro Power Redevelopment (320 MW) | Grand Falls, N.B. | New Brunswick Electric Power Commission | 1,300 | 15 | 135 | 1986/89 | 228 |
| Expansion of Lingan Station 2 additional 150 MLW Units | New Waterford N.S. | Nova Scotia Power Corp. | ? | ? | 200 | 1981/84 | 229 |
| Cat Arm River 127 MW Hydro Electric Generating Station (Committed) | Cat Arm River, Northeast Nfld. | Newfoundland & Labrador Hydro | 1,200 | 3 | 287 | 1981/84 | 230 |
| Power Generation & Transmission, Upper Salmon River 84 MW | South Central Nfld. | Newfoundland & Labrador Hydro | 1,000 | 3 | 155 | 1979/83 | 231 |
| 5 Finger Rapids Hydro Power Dam Project (Improbable due to environmental considerations) | Yukon River, Yukon | Northern Canada Power Commission | ? | ? | 100 | 1981/83 | 232 |

METAL MINING \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|------------------------------|--------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Modernization and Expansion Program | Trail and Kimberley, B.C. | ComInco Ltd. | ? | ? | 700 | 1977/85 | 233 |
| <u>DESCRIPTION:</u> Modernization and expansion of trail metallurgical operations and modernization of Sullivan Mine at Kimberley, B.C. | | | | | | | |
| <u>STATUS:</u> Work underway. | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

| | | | | | | | |
|--|---|----------------------------|---|-----|-------|---------|-----|
| Iron Ore Project | Lake St. Joseph area, Northern Ont. | Steep Rock Iron Mines Ltd. | ? | 725 | 1,200 | 1985/90 | 234 |
| <u>DESCRIPTION:</u> 4 million gross tons of pellets/yr. (first phase - \$520 million) | | | | | | | |
| <u>STATUS:</u> Present market over capacity, controls decision to go ahead. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

METAL MINING \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|---|---|---------------------------|-----------------------|---------------------------------|--|-------------------|
| Berg Mine Copper-molybdenum property (Possible) | Houston, B.C. (to S.W.) | Placer Development Limited | 1,500 | 600 | 320 | 1986/89 dependent on market | 235 |
| Adanac Mine - Molybdenum property (Planned) | Atlin, B.C. | Adanac Mining and Exploration Ltd., Placer Development Limited | 1,300 | 290 | 250 | 1985/88 dependent on molybdenum market | 236 |
| Highland Valley Copper Molybdenum Mine | Kamloops, B.C. | Rio Algom Ltd. (Lornex Mining Corp.) | 625 | 325 | 160 | 1979/81 | 237 |
| Reactivation and Expansion of Climax Molybdenum Mine | Kitsault, B.C. | Amax of Canada Ltd. | ? | ? | 160 | 1979/81 | 238 |
| Highmont Copper Molybdenum Mine 23kt/d | Highland Valley, near Kamloops, B.C. | Teck Corp. | 780 | 380 | 150 | 1979/80 | 239 |
| Kutcho Creek Copper/Zinc Mine 4 million tons/yr. | Kutcho Creek, B.C. | Esso Resources (50%) | ? | 450 | 150 | 1987/90 | 240 |
| Equity Silver Mine Silver-Copper-Gold Property | Houston, B.C. | Equity Silver Mines Limited/Placer Development Limited | 870 | 250 | 139 | 1979/81 | 241 |

METAL MINING \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--------------------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Uranium Mine and Mill 4,150 t/yr. Uranium | Key Lake, Sask. | Key Lake Mines Ltd. (Uranerz 33 1/3%, Saskatchewan Mining Development Corp. 50%, and Eldor Resources 16 2/3%) | 1,600 | 500 | 480 | 1981/83 | 242 |
| Midwest Lake Uranium Mine | Midwest Lake, Sask. | Eso Resources (50%) Saskatchewan Mining Development Corp., Numac Oil & Gas Ltd., Bow Valley Exploration | ? | 200 | 370 | 1983/87 | 243 |
| Amok Uranium Mine and Mill Phase II 1,500 t/yr. Uranium | Cluff Lake, Sask. | Amok Cluff Mining Ltd., (Amok Ltd. 80%, Saskatchewan Mining Development Corp. 20%) | 275 | 400 | 138 | 1984/85 | 244 |
| Uranium Refinery & Conversion Plant | Warman, Sask. | Eldorado Nuclear | 750 | 250 | 130 | 1984/87 | 245 |
| Uranium Mine Expansion and Rehabilitation | Elliot Lake, Ont. | Rio Algom Ltd. | 660 | 1,068 | 385 | 1979/84 | 246 |
| New Copper Smelter - Refinery | Timmins, Ont. | Texas Gulf Canada Ltd. | 1,550 | 243 | 300 | 1979/81 | 247 |
| Uranium Mine and Mill Expansion | Elliot Lake, Ont. | Denison Mines Ltd. | ? | 2,100 | 300 | 1980/85 | 248 |
| Detour Lake Gold Mine (2,000 t/d by 1983) 4,000 t/d open pit & underground | 90 mi. N. of Cochrane, Ont. | Campbell Red Lake Mines Ltd. 25%, Dome Mines 25%, Amoco Canada Petroleum Ltd. 50% | 1,140 | 500 | 200 | 1981/87 | 249 |

METAL MINING \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--|------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Uranium Refinery | Blind River, Ont. | Eldorado Nuclear | 700 | 200 | 110 | 1981/83 | 250 |
| Copper Smelter and Refinery Phase I Expansion | Timmins, Ont. | Texas Gulf Canada Ltd. | 575 | ? | 100 | 1982/84 | 251 |
| Kitts/Michelin Uranium Development | Makkovik Area, Labrador, Nfld. | BrInco Ltd. | ? | ? | 160 | 1981 (deferred) | 252 |
| Development of 2 New open Pit Lead/Zinc/Silver Deposits | Faro, Yukon | Cyprus Anvil Mining | 500 | 150 | 165 | 1986/90 | 253 |
| Mactung Mine 100 t/d (ore) | Yukon, N.W.T. | Amex of Canada Ltd. | ? | ? | 150 | 1980/85 | 254 |
| Polaris Mine Project Development of Zinc-Lead Deposit | Little Cornwallis Is. (High Arctic) N.W.T. | Cominco Ltd. | ? | ? | 150 | 1979/82 | 255 |
| Lupin Gold Mine 350,000 t/yr (ore) | Contwoyto Lake, N.W.T. | Echo Bay Mines Ltd. | 400 | 250 | 110 | 1980/82 | 256 |

INDUSTRIAL MINERALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--------------------------------------|--|---------------------------|-----------------------|---------------------------------|--|-------------------|
| Quintette Coal Development | Dawson Creek, B.C. | Denison Mines Ltd. (43.2%), Esso Resources Canada Ltd. (6.0%), Mitsui Mining Co. Ltd. (14.1%) Mitsui Mining Overseas Co. Ltd. (5.6%), Tokyo Bockl Ltd. (14.1%), Tokyo Bockl Resources (5.6%), Charbonnages De France & Mines et Ressources (11.3%) | ? | ? | 700-800 | 1981/83 | 257 |
| <u>DESCRIPTION:</u> Development of coal property to produce metallurgical and thermal coal - 6.5 million tons/yr., requires expanded facilities at Prince Rupert | | | | | | | |
| <u>STATUS:</u> Project is part of major metallurgical coal development in northeastern B.C. | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Elk River Coking Coal Project | 50 km North of Upper Elk Valley B.C. | Operator: Elco Mining Ltd. (Elk River joint venture consisting of Stelco Inc., Home Oil, Consortium of European Steel Mills.) | 1,090 | 1,140 | 600 | 1987/90 Postponed. Implementation date not yet decided | 258 |
| <u>DESCRIPTION:</u> 4 million t/yr open pit coal mine | | | | | | | |
| <u>STATUS:</u> | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Houliere, Monkman Pass | Monkman Pass B.C. | Petro-Canada, Canadian Superior Oil Ltd. | ? | ? | 500 | 1985/89 | 259 |
| <u>DESCRIPTION:</u> 3 millions de t/a | | | | | | | |
| <u>SITUATION:</u> | | | | | | | |
| En voie de réalisation <input type="checkbox"/> Probable <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

INDUSTRIAL MINERALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Rehabilitation and Expansion Program Potash Mines | Saskatoon, Sask. | Potash Corp. of Saskatchewan | ? | 250+ | 2,000 | 1979/89 | 260 |
| <u>DESCRIPTION:</u> Addition to refinery, new mining machines, conveying system to increase capacity to 11.3 million tons of potassium chloride | | | | | | | |
| <u>STATUS:</u> Work underway on initial stages (Includes Lanigan Mine \$430 million 2,000,000 tons increase) | | | | | | | |
| Committed <input checked="" type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Bredenbury Mine | Bredenbury, Sask. 25 miles S.E. of Yorkton | Potash Corp. of Saskatchewan | ? | ? | 700+ | 1982/86 | 261 |
| <u>DESCRIPTION:</u> 3.6 million tons/yr new potash mine to operate for 35 years | | | | | | | |
| <u>STATUS:</u> Field work including drilling to determine exact size of the ore body and preparation of E.I.S. is underway. Drilling of pilot holes for two shafts planned for third and fourth quarters 1981. | | | | | | | |
| Committed <input type="checkbox"/> Planned <input checked="" type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |
| Potash Plant | McAuley, Man. | Manitoba Potash Company (International Minerals and Chemicals Corp. of Canada Ltd., 75%; Manitoba Mineral Resources Ltd., a Crown Corporation, 25%) | | 500 | 550 | Soon | 262 |
| <u>DESCRIPTION:</u> 1.8 mt/yr potash plant | | | | | | | |
| <u>STATUS:</u> | | | | | | | |
| Committed <input type="checkbox"/> Planned <input type="checkbox"/> Possible <input type="checkbox"/> | | | | | | | |

INDUSTRIAL MINERALS \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Sukunka Coal Mine Development | Chetwynd, Sukunka area, B.C. | B.P. Explorations Canada Ltd. | ? | ? | 400 | 1982/84 | 263 |
| Line Creek Coal Mine Expansion 3mt/yr | Near Fernie, B.C. | Shell Canada Resources Ltd. | ? | 1,080 | 350 | 1984/86 | 264 |
| New Line Creek Coal Mine 2.4 mt/yr | Near Fernie, B.C. | Shell Canada Ltd. | ? | 630 | 260 | 1979/83 | 265 |
| Greenhills Surface Coal Mining Project 1,800,000 clean tonnes of metallurgical coal per year for 20 years | 35 km North of existing operations at Sparwood, B.C. | British Columbia Coal Ltd., (formerly Kaiser Resources Ltd.) | 530 | 830 | 223 | 1980/83 | 266 |
| Metallurgical Coal Mines Expansion 5.5 mt/yr. | Elkford, B.C. | Fording Coal Ltd. | ? | ? | 150 | 1981/86 | 267 |
| Coal Mine Development 1.5M t/yr | Bullmoose, B.C. (Chetwynd area) | Teck Corp. | ? | ? | 150 | 1979/83 | 268 |
| Rescon Thermal Coal Open Pit Mine 3,000,000 tons/yr. (Committed) | Obed, Hinton Area, Alta. | Union Oil Co. of Canada Ltd. (90%) Rescon Coal Holdings Ltd. (10%) | ? | 340 | 400 | 1981/83 | 269 |

INDUSTRIAL MINERALS \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Coalspur Thermal Coal Development | Hinton, Alta. | Denison Mines Ltd. 65%, Charbonnages de France 15%, Tiwon Power Co. 10%, Denimil Energie en Mineral Ag. & Co. 10% | ? | ? | 300 | 1982/86 | 270 |
| Sheerness Thermal Coal Mine | Hanna, Alta. | Luscar Limited (Forestburg Collieries Ltd.) and Manalta Coal Ltd. | ? | ? | 200 ? | 1979/85 | 271 |
| Gleichen Thermal Coal Mine | Gleichen, Alta. | Shell Canada Ltd. | ? | ? | 200 ? | 1982/87 | 272 |
| Genesee Thermal Coal Mine 300 kt/yr ? | Genesee Alta. | Edmonton Power Ltd. | ? | ? | 200 ? | 1982/92 | 273 |
| Judy Creek Coal Mine | Judy Creek, Alta. | Esso Resources Canada Ltd. | ? | 330 | 200 | 1985/94 | 274 |
| Gregg River Open Pit Metallurgical Coal Mine (Committed) | near Hinton, Alta. | Gregg River Resources Ltd. (Operator) (Manalta Coal Ltd. 60%, Japanese Group 40%) | 800 | 600 | 185 | 1981/83 | 275 |
| Open Pit Coal Mine 9 Mt/yr. | Red Deer, Alta. | Fording Coal Ltd. | ? | ? | 150 | 1985/91 | 276 |

INDUSTRIAL MINERALS \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-------------------------------------|---|-------------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Thermal Coal Mine 3.5 Mt/yr. | Genesee, Alta. | Fording Coal Ltd., Edmonton Power Ltd. | ? | ? | 150 | 1983/86 | 277 |
| Thermal Coal Mine 1 to 3 Mt/yr. | Shaughnessy Lethbridge, Alta. | Fording Coal Ltd. | 500 | 350 | 100 | 1983/85 | 278 |
| Potash Mine and Refinery | Salt Springs, N.B. | Denison Mines Ltd. (Potash Company of Canada) | ? | ? | 150 | 1979/83 | 279 |
| Development - Potash Mine and Refinery 1,000,000 t/yr. | Sussex, N.B. | Potash Company of America | 700 | 300 | 140 | 1983 | 280 |
| Donkin Morien Colliery | Donkin, Cape Breton County, N.S. | Cape Breton Development Corp. (Devco) | 1,500* | 1,000* | 400* | 1979/86* | 281 |
| | | | *Items currently under review | | | | |
| New Mine at #26 Colliery | Sydney, N.S. | Cape Breton Development Corp. (Devco) | ? | ? | 100? | 1983/? | 282 |
| Lingan Pholen Mine | Glace Bay, N.S. | Cape Breton Development Corp. (Devco) | ? | ? | 100 | 1982/87 | 283 |

FOREST PRODUCTS \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|---------------------------------------|----------------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Bleached Kraft Mill Expansion | Prince George, B.C. | Northwood Pulp and Timber Ltd. | 985 | 150 | 300 | 1980/82 | 284 |
| Modernization and Expansion Program Kraft Pulp | Squamish, B.C. | Western Forest Products Ltd. | 906 | 0 | 205 | 1981/84 | 285 |
| Newsprint Machine, Elk Falls Pulp and Paper Mill | Elk Falls, B.C. | Crown Zellerbach Canada Ltd. | ? | ? | 163 | 1979/82 | 286 |
| New Newsprint Machine Thermomechanical Pulp Mill | Crofton, B.C. | British Columbia Forest Products | 500 | 92 | 141 | 1979/82 | 287 |
| Pulp and Paper Harmac Mill Modernization and Expansion (Committed) | Nanaimo, B.C. | MacMillan Bloedel | 250 | 0 | 100 | 1981/84 | 288 |
| Alberta Project 2 Sawmills and 1 Papermill | Grande Cache, Knight, Hurdy, Alta. | British Columbia Forest Products | 900 | 975 | 259 | 1981/85 | 289 |

FOREST PRODUCTS \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--|--------------------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Modernization and Expansion Program Pulp Mill and Fine Paper Mill | Dryden, Ont. | Great Lakes Forest Products | 1,480 | 0 | 340 | 1980/83 | 290 |
| Major Modernization and Expansion Program | Thorold, Ont. | Ontario Paper Company | 1,400 | 0 | 260 | 1980/82 | 291 |
| Modernization and Expansion Program | Espanola, Ont. | E.B. Eddy Forest Products | 1,800 | 0 | 250 | 1980/83 | 292 |
| Pulp and Paper Mill Modernization - New Newsprint Machine | Iroquois Falls, Ont. | Abitibi Price Inc. | 550 | 0 | 111 | 1979/82 | 293 |
| Modernization and Expansion of Quebec Mills | Trois-Rivières, Shawinigan, and Grand-Mère, Que. | Consolidated Bathurst Inc. | ? | ? | 350 | 1980/83 | 294 |
| New 160,000 tons Newsprint Mill | Amos, Que. | Donohue Inc. | 597 | 246 | 190 | 1980/82 | 295 |
| Expansion and Modernization of Newsprint Mill | Dalhousie, N.B. | Canadian International Paper Company | 500 | 0 | 158 | 1980/82 | 296 |

PRIMARY METALS \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|-----------------|-----------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Aluminum Smelter - Kemano Completion | North West B.C. | Aluminum Co. of Canada Ltd. | 3,000 | 700 | 1,700 | 1987/91 ? | 297 |
| <u>DESCRIPTION:</u> Aluminum Smelter (540,000 t/yr ultimate capacity) based on Kemano Completion. Capacity depends on scope of power project. | | | | | | | |
| <u>STATUS:</u> Proposal being studied, delayed to resolve effect on salmon fishery and uncertainty re power rights. Depends on Kemano Completion power project. Date for construction Indefinite. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Aluminum Smelter - Manitoba | Man. | Aluminum Co. of Canada Ltd. | 1,500 | 700+ | 500 | 1984/88 ? | 298 |
| <u>DESCRIPTION:</u> Aluminum smelter. | | | | | | | |
| <u>STATUS:</u> Feasibility Study underway to be completed in 1982. Date for construction Indefinite. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |
| Grande Bale Aluminum Smelter | Jonquière, Que. | Aluminum Co. of Canada Ltd. | ? | 600 | 500 | 1980/82 | 299 |
| <u>DESCRIPTION:</u> 171,000 tonnes/yr aluminum smelter | | | | | | | |
| <u>STATUS:</u> Started production Dec. 13, 1980 57,000 t/yr, 2 further stages to be complete by 1982 | | | | | | | |
| Committed <u>X</u> Planned _____ Possible _____ | | | | | | | |

PRIMARY METALS \$100 - \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|---------------------------|--------------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| New Hot Strip Mill - capacity 1.2 million tons/yr | Hamilton, Ont. | Dofasco | 1,400 | 379 | 450 | 1980/83 | 300 |
| Seamless Tube Mill - 200 kt/yr (Committed) | Sault Ste. Marie, Ont. | Algoma Steel Corp. Ltd. | 700 | 500 | 300 | 1980/84 | 301 |
| Expansion Program - Hot Strip Mill | Nanticoke, Ont. | Stelco Inc. | ? | ? | 253 | 1979/83 | 302 |
| Expansion Program - New Coking Ovens | Nanticoke, Ont. | Stelco Inc. | ? | ? | 153 | 1979/81 | 303 |
| New Coke Oven Battery (75-Five meter Ovens) (Committed) | Sault Ste. Marie, Ont. | Algoma Steel Corp. Ltd. | 350 | 0 | 120 | 1982/84 | 304 |
| Modernization of Steel Plant | Welland, Ont. | Rio Algom Ltd., (Atlas Steels) | ? | ? | 100 | 1981/89 | 305 |
| Copper Smelter Refinery Phase I Expansion | Kidd Creek, Ont. | Texas Gulf Canada Ltd. | 575 | ? | 100 | 1982/84 | 306 |

TRANSPORTATION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Plant Expansion Program | Western Canada B.C. and others | Canadian National Railways | ? | ? | 1,500* | 1981/79 | 307 |
| <u>DESCRIPTION:</u> A program of double tracking, yard and signal improvements. | | | | | | | |
| <u>STATUS:</u> Based on current planning - subject to change. | | | | | | | |
| *Above figure reflects estimated cost of overall program but does not include any individual project over \$100 M. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |
| CF-18 Hornet Fighter Aircraft Project | Ont., Que. and others | Department of National Defence CF-18 Hornet Project | N.A. | 0 | 2,990 | 1980/88 | 308 |
| <u>DESCRIPTION:</u> Fighter Aircraft for Canadian Defence | | | | | | | |
| <u>STATUS:</u> Commenced | | | | | | | |
| Committed <u>X</u> Planned _____ Possible _____ | | | | | | | |
| Canadian Patrol Frigates | Saint John, N.B., or Lauzon, P.Q., and other locations | Department of National Defence Canadian Patrol Frigate Office | ? | 0* | 1,890 | 1983/92 | 309 |
| <u>DESCRIPTION:</u> 6 Ships for Defence | | | | | | | |
| <u>STATUS:</u> Contract definition phase | | | | | | | |
| *1200 personnel but no new employment. | | | | | | | |
| Committed _____ Planned <u>X</u> Possible _____ | | | | | | | |

TRANSPORTATION \$500 MILLION AND OVER

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|---------------|-------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| HH310 | | | | | | | |
| Electrification of the Main Line Freight System | All Provinces | Canadian Railways | 25,000 | 1,000 | 4,000 to 8,000 | 1990/2010 | 310 |
| <u>DESCRIPTION:</u> Progressive introduction of electrified operations into the rail system. | | | | | | | |
| <u>STATUS:</u> Uncertain. | | | | | | | |
| Committed _____ Planned _____ Possible <u>X</u> | | | | | | | |

TRANSPORTATION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|---|--------------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Upgrade B.C. Northline | Northern B.C. | Canadian National Railways | ? | ? | 400* | 1981/90 | 311 |
| *This program does not contain any individual project over \$100 million. | | | | | | | |
| Note: Based on current planning, project will depend on outcome of negotiations now underway regarding shipment of Northeast B.C. coal and signing of final agreements. | | | | | | | |
| Beaver-Connaught tunnel (10 miles) | Rogers Pass Area B.C. | Canadian Pacific Ltd. | ? | ? | 360 | 1983/85 | 312 |
| Tumbler Ridge Branchline North East Coal Rail Extension 129 km | North East B.C. | British Columbia Railway | 2,200 | 35 | 315 | 1981/83 | 313 |
| Ridley Island, Grain Terminal | Prince Rupert, B.C. | National Harbours Board, Prince Rupert Grain Ltd., (Alberta Wheat Pool, Cargill Grain Co., Manitoba Wheat Pool Elevators, James Richardson & Sons, Saskatchewan Wheat Pool, United Grain Growers) | 1,600 | 100 | 255 | 1981/84 | 314 |
| Coquihalla Pass Highway | B.C. | British Columbia Ministry of Transportation and Highways | 3,000 | 20 | 250 | 1978/90 | 315 |
| Ridley Island Coal Terminal | Prince Rupert, B.C. | National Harbours Board, Fednav Ltd. | ? | 100 | 148 | 1982/84 | 316 |
| Annacis Crossing of Fraser River | B.C. | British Columbia Ministry of Transportation and Highways | 1,500 | 15 | 130 | 1980/84 | 317 |

TRANSPORTATION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|-------------------------------|--|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Robert's Bank Westshore Terminals Ltd. Port Expansion | Vancouver, B.C. | National Harbours Board, B.C. Coal Ltd. | 230 | 125 | 115 | 1981/83 | 318 |
| Transit System - North West LRT Extension (Planned) | Calgary, Alta. | City of Calgary, Transportation Department | ? | 80 | 257 | 1982/85 | 319 |
| Transit System - North East - LRT (Planned) | Calgary, Alta. | City of Calgary, Transportation Department | ? | 80 | 250 | 1982/86 | 320 |
| High Speed Rail Link | Edmonton to Calgary, Alta. | Government of Alberta, Dept. of Economic Development | ? | ? | 200 ? | 1988/90 ? | 321 |
| Transit System - South East LRT (Committed) | Calgary, Alta. | City of Calgary, Transportation Department | ? | 110 | 167 | 1980/81 | 322 |
| LRT-University Area (Possible) | Edmonton, Alta. | City of Edmonton, Transit Department | ? | ? | 158 | 1982/86 | 323 |
| LRT - South-east Leg | Edmonton, Alta. | City of Edmonton, Transit Department | ? | ? | 129 | 1980/83 | 324 |

TRANSPORTATION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|--------------------|---|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| LRT-51 Ave. to 37 St. (Planned) | Edmonton, Alta. | City of Edmonton, Transit Department | ? | ? | 120 | 1982/86 | 325 |
| LRT-98 Ave. Station to 51 Ave. (Planned) | Edmonton, Alta. | City of Edmonton, Transit Department | ? | ? | 115 | 1982/86 | 326 |
| Plant Conversion - Windsor Assembly Plant | Windsor, Ont. | Chrysler Canada Ltd. | 2,200 | 6,000 | 164 | 1982/83 | 327 |
| Transit System - Scarborough Line | Toronto, Ont. | Toronto Transit Commission | 2,000 | 100 | 110 | 1978/84 | 328 |
| Plant Conversion - Pillette Road Assembly Plant | Windsor, Ont. | Chrysler Canada Ltd. | 1,400 | 2,100 | 101 | 1984/85 | 329 |
| Subway Line #5 - 15 km | Montreal, Quebec | Montreal Urban Community | ? | 300 | 370 | 1979/88 | 330 |
| Gros Cacouna Port Development | Port Cacouna, Que. | Transport Canada, Misener Holdings Ltd. | ? | ? | 315 | 1979/81 | 331 |

TRANSPORTATION \$100 - \$500 MILLION

| PROJECT NAME | LOCATION | SPONSOR | CONSTRUCTION MAN-YEARS | OPERATING MANPOWER | INVESTMENT (\$ 1980 MILLION) | EST. CONSTRUCTION START/COMPLETION | PROJECT NUMBER |
|--|-----------------------|--------------------------------|---------------------------|-----------------------|---------------------------------|---------------------------------------|-------------------|
| Oil Fired Ice-Breaker 100,000 H.P., 37,000 Tons, 194 m. long | Que. or Maritimes | Transport Canada - Coast Guard | 4,350 | 117 | 275 | 1982/87 | 332 |
| 150 Subway Cars | Montreal, Que. | Montreal Urban Community | ? | ? | 136 | 1983/85 | 333 |
| New Tire Plant | Waterville, N.S. | Michelin Tires (Canada) Ltd. | 553 | 1,510 | 272 | 1980/84 | 334 |
| Shipyard (large LNG or oil carriers) (Planned) | East or West Coast | Dome Petroleum | 3,200 | 1,560 | 160 | 1981/84 | 335 |

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