

Appendices

Appendix A **Average Electricity Costs Newfoundland and Labrador**

Appendix B **Comparison of Average Electricity Costs, Newfoundland and Labrador and Other Canadian Jurisdictions**

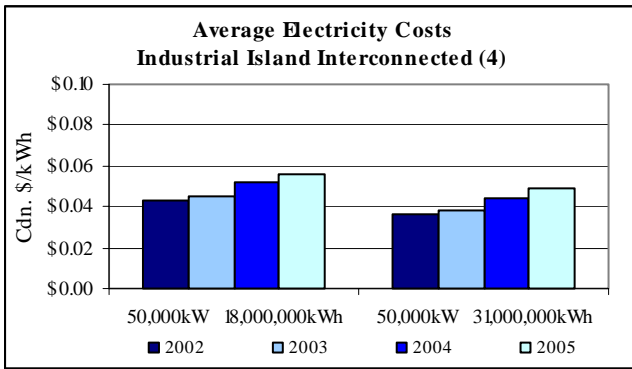
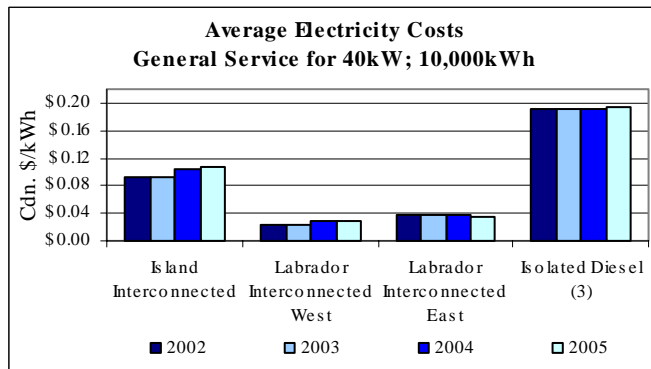
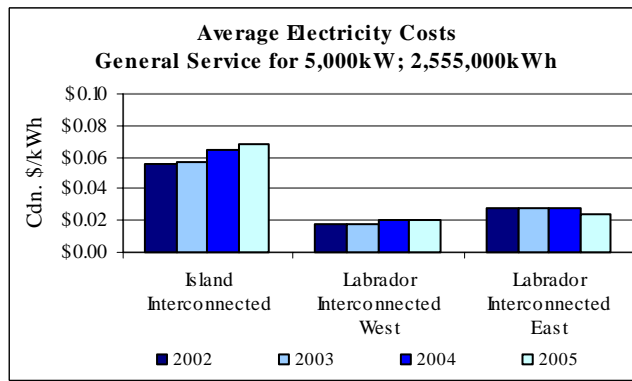
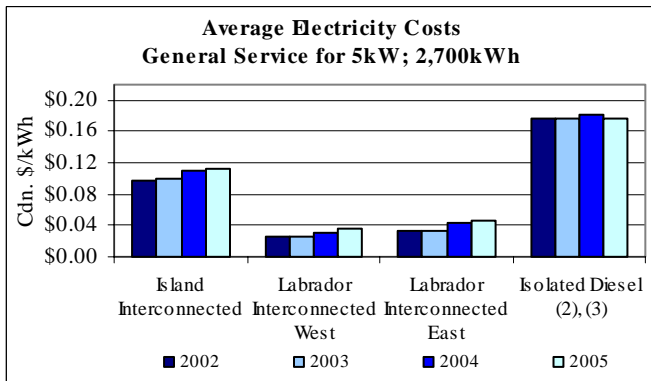
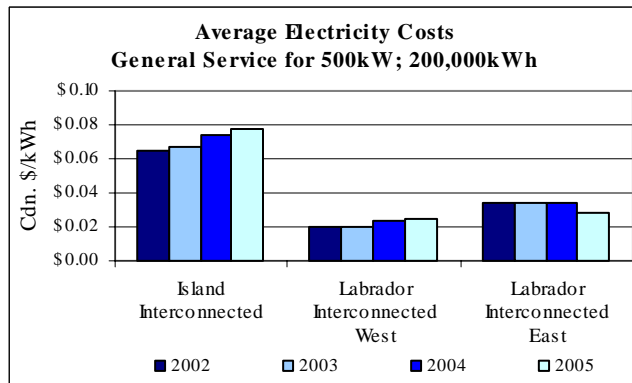
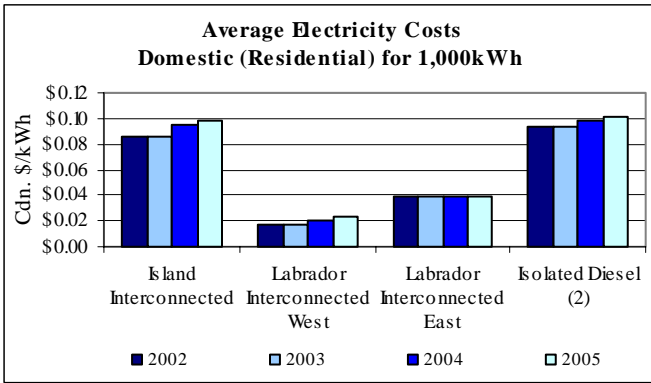
Appendix C **Petroleum Product Prices, Newfoundland and Labrador and Other Canadian Jurisdictions**

Appendix D **Maps**

Appendix E **Glossary**

Appendix A - Average Electricity Costs excluding HST - 2002 to 2005 (1)

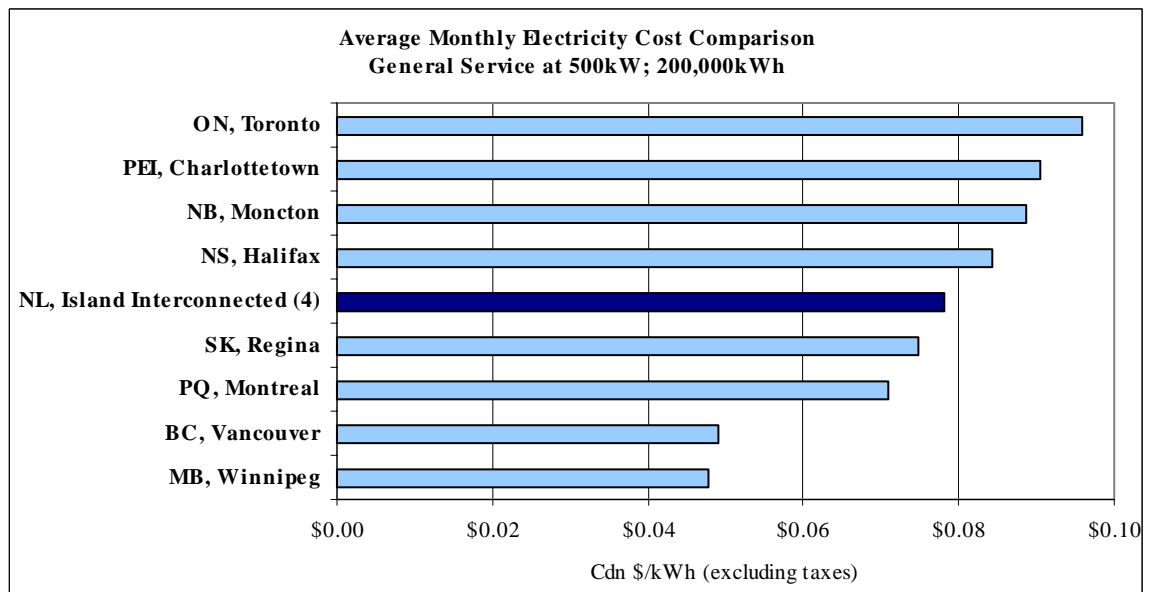
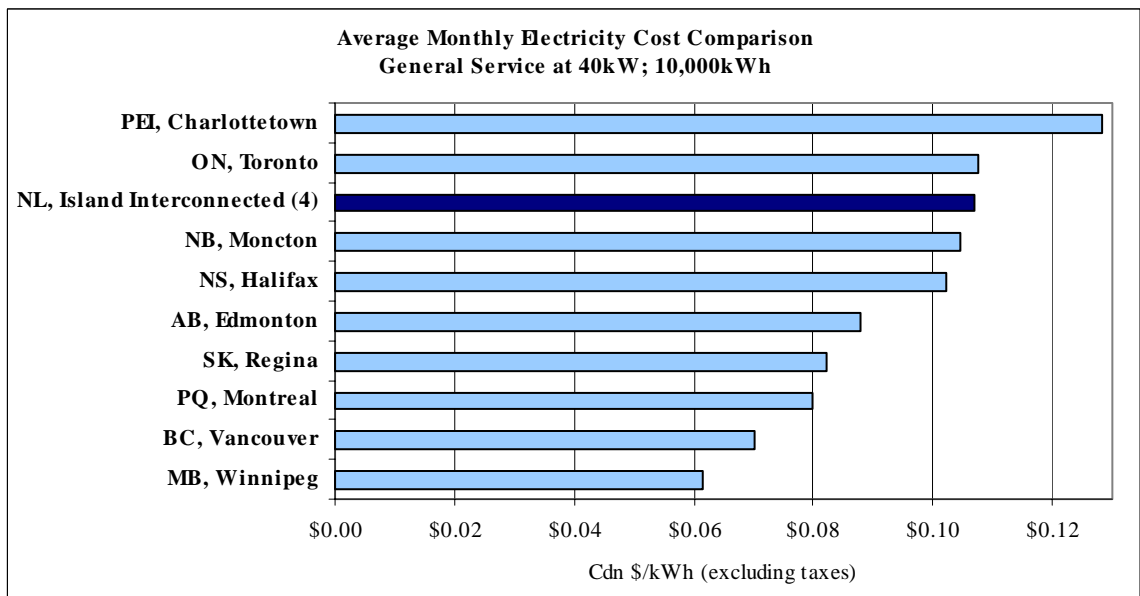
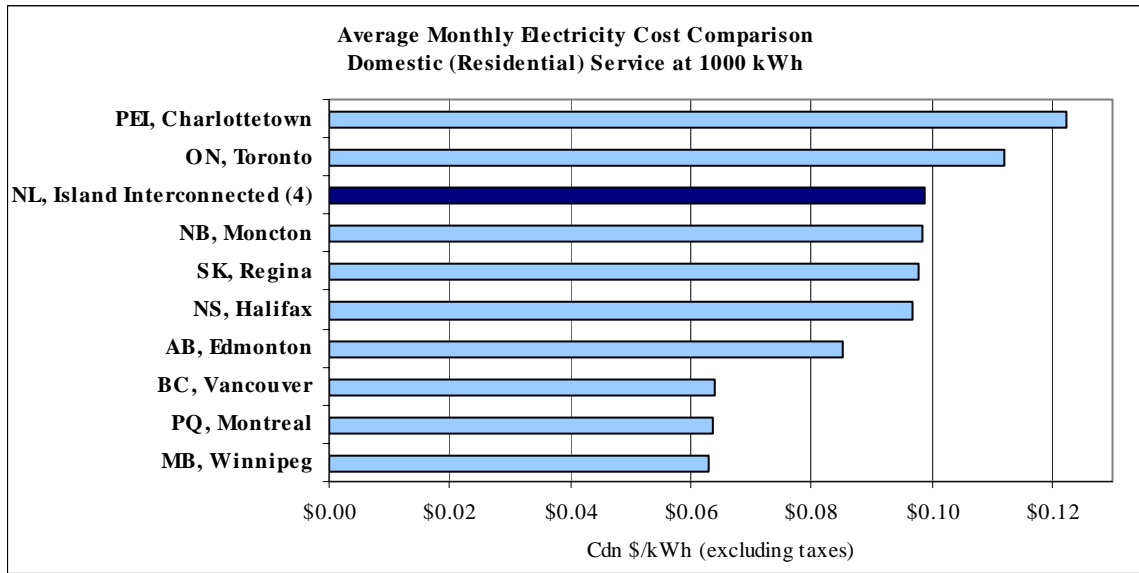
Regions of Newfoundland and Labrador

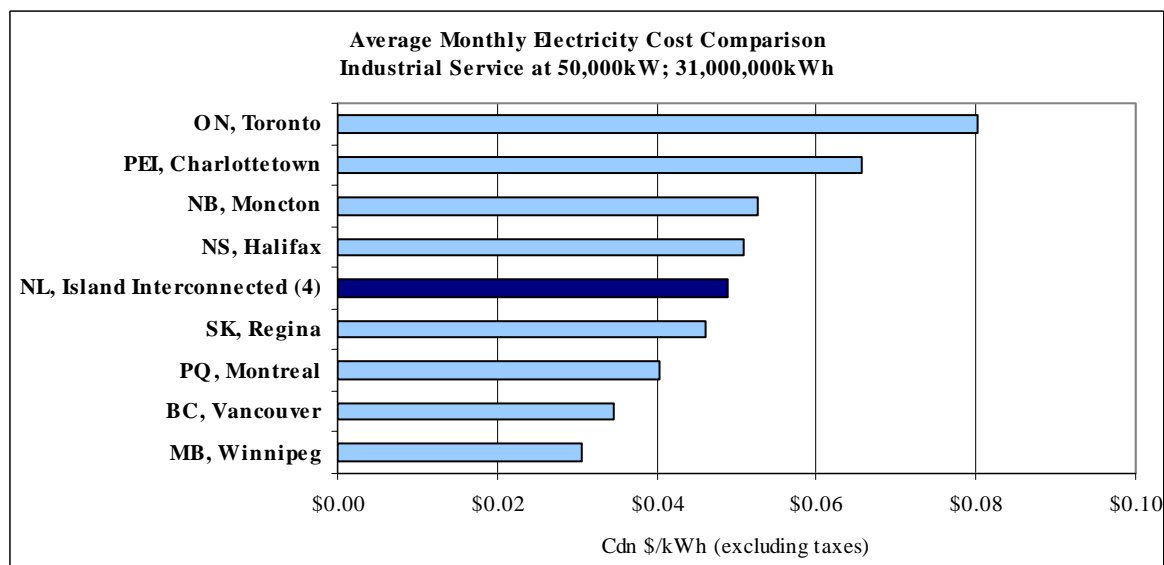
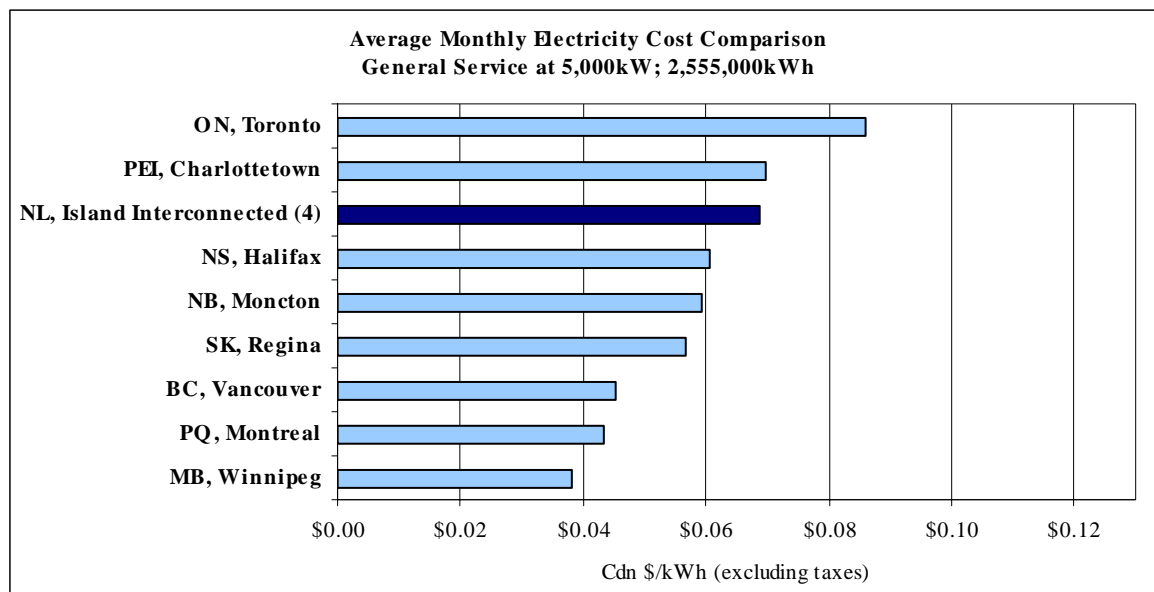


1. Average costs are calculated based on stated monthly consumption. Average costs are calculated based on applicable electricity rates as at Dec. 31 for the years 2002 through 2004 and as of July 1 for 2005 as approved by the Newfoundland & Labrador Board of Commissioners of Public Utilities. Specific customer average electricity costs may vary depending on applicable electricity rate and customer consumption level. For example, many of the average electricity costs shown here would be reduced at higher load factors.
2. Customers on isolated diesel systems pay higher electricity rates for monthly consumption above the "lifeline" block currently set at 700 to 1000 kWh (varies from summer to winter months) for domestic (residential) customers and 700 kWh per month for small general service (0 to 10 kW) customers. The lifeline block for these isolated customers is set to allow basic electricity requirements, excluding any space heating requirements, to be priced at Island interconnected energy rates.
3. On the isolated systems, there are only two general service rate categories which include rates for customers with demand of 0 kW to 10 kW and customers with demand greater than 10 kW. This is unlike the Island and Labrador interconnected systems which have different rate categories for larger general service customers.
4. There are no regulated industrial electricity rates on the Labrador interconnected system or the isolated diesel systems.

Source: Calculated based on rates set by the Newfoundland & Labrador Board of Commissioners of Public Utilities

Appendix B - Comparison of Average Electricity Costs (1), (2) Newfoundland and Labrador and Other Canadian Jurisdictions (3), (4)





Notes:

1. All average costs are net of discounts, income tax rebates, etc. and exclude GST, HST, provincial or municipal taxes or surcharges. Newfoundland Power and Newfoundland and Labrador Hydro do include a Municipal Tax and Rate Stabilization Adjustment which is built into each utility's rates.
2. Average costs are calculated based on stated monthly consumption. Specific electricity customer average costs may vary depending on applicable electricity rate and customer consumption level. For example, in the case of Newfoundland and Labrador (NL), many of the average electricity costs shown here would be reduced at higher load factors.
3. This cost comparison represents a snapshot of Canadian electric utility average costs based on rates as of May 1, 2005 and Newfoundland and Labrador costs based on rates as of July 1, 2005. Electricity rate changes in the various jurisdictions that may have occurred subsequent to these dates have not been reflected in this comparison. Any rate changes that may have occurred subsequent to these dates could impact this regional ranking of electricity costs.
4. Only the Newfoundland and Labrador Island Interconnected electricity costs have been included for comparison with other Canadian jurisdictions as these are the applicable rates for the majority of electricity consumers in the Province.

Sources:

1) *Newfoundland and Labrador*

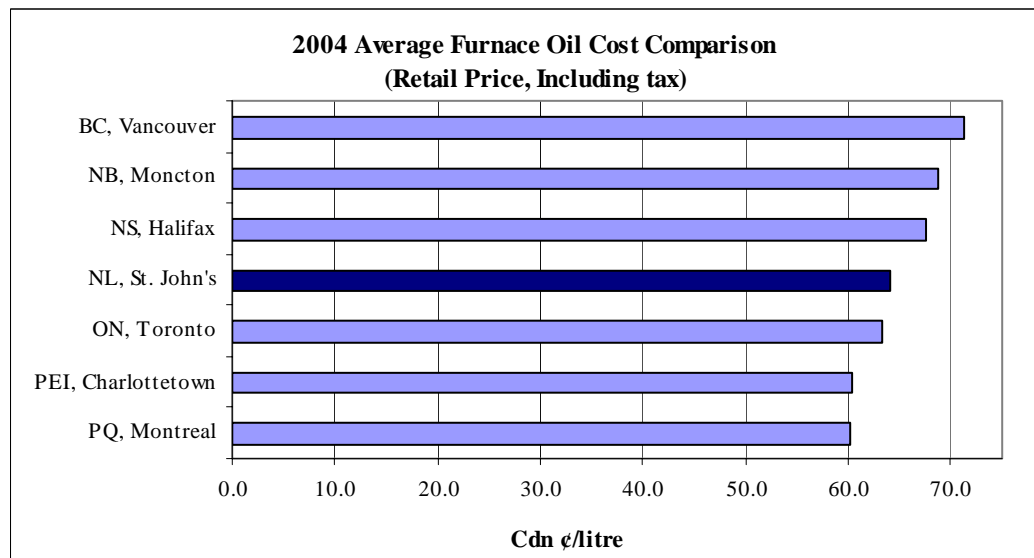
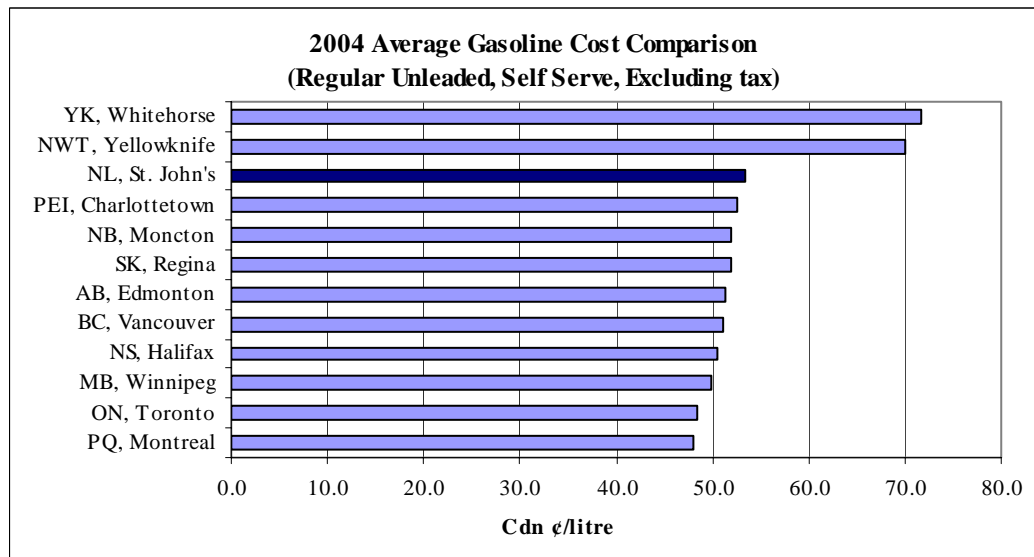
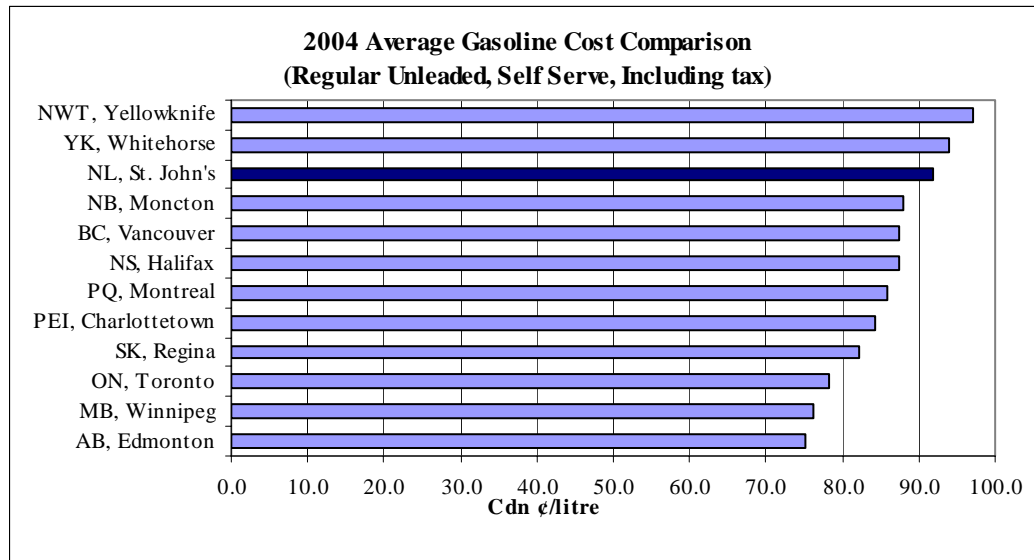
i) Average costs calculated based on applicable electricity rates as at July 1, 2005 as approved by the Newfoundland & Labrador Board of Commissioners of Public Utilities.

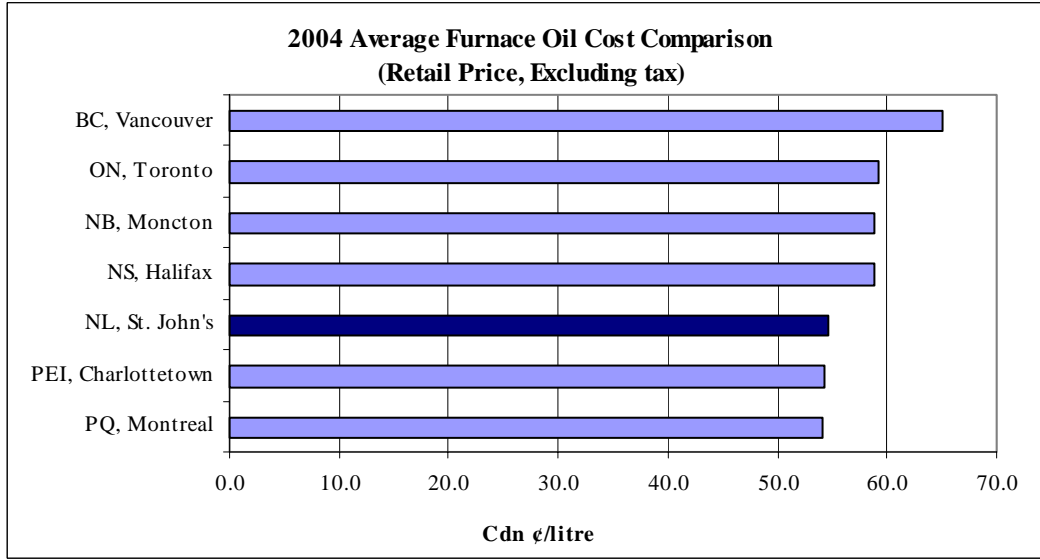
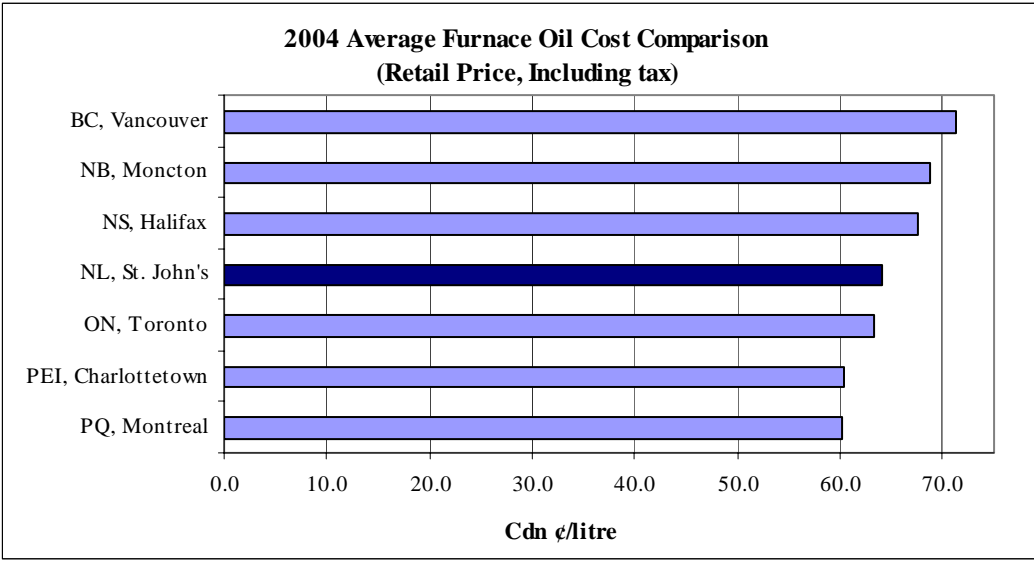
2) *Other Cdn. Jurisdictions*

i) Manitoba Hydro: Survey of Canadian Electricity Bills, May 2005.

Appendix C - Petroleum Product Prices

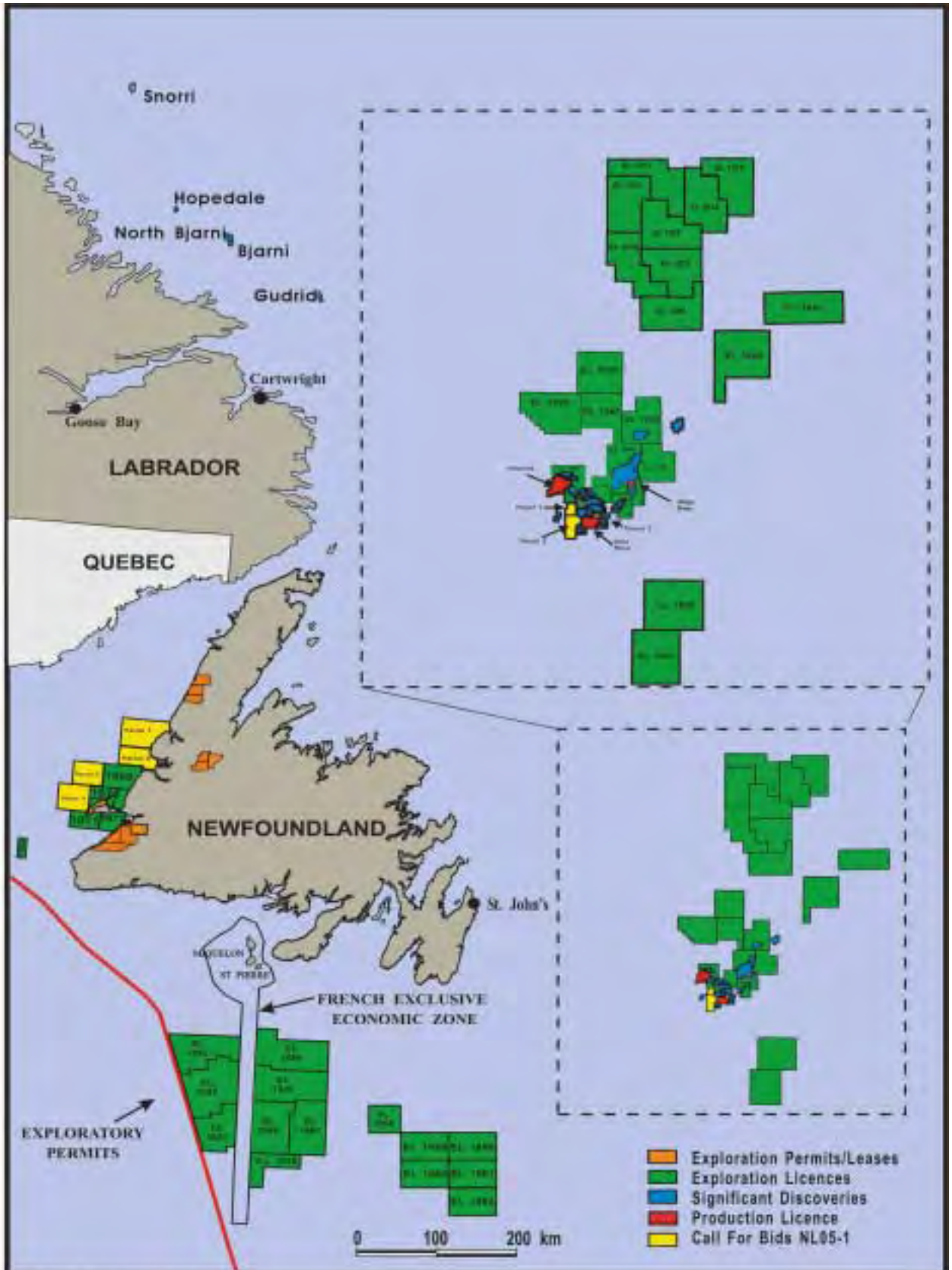
Newfoundland and Labrador and Other Canadian Jurisdictions





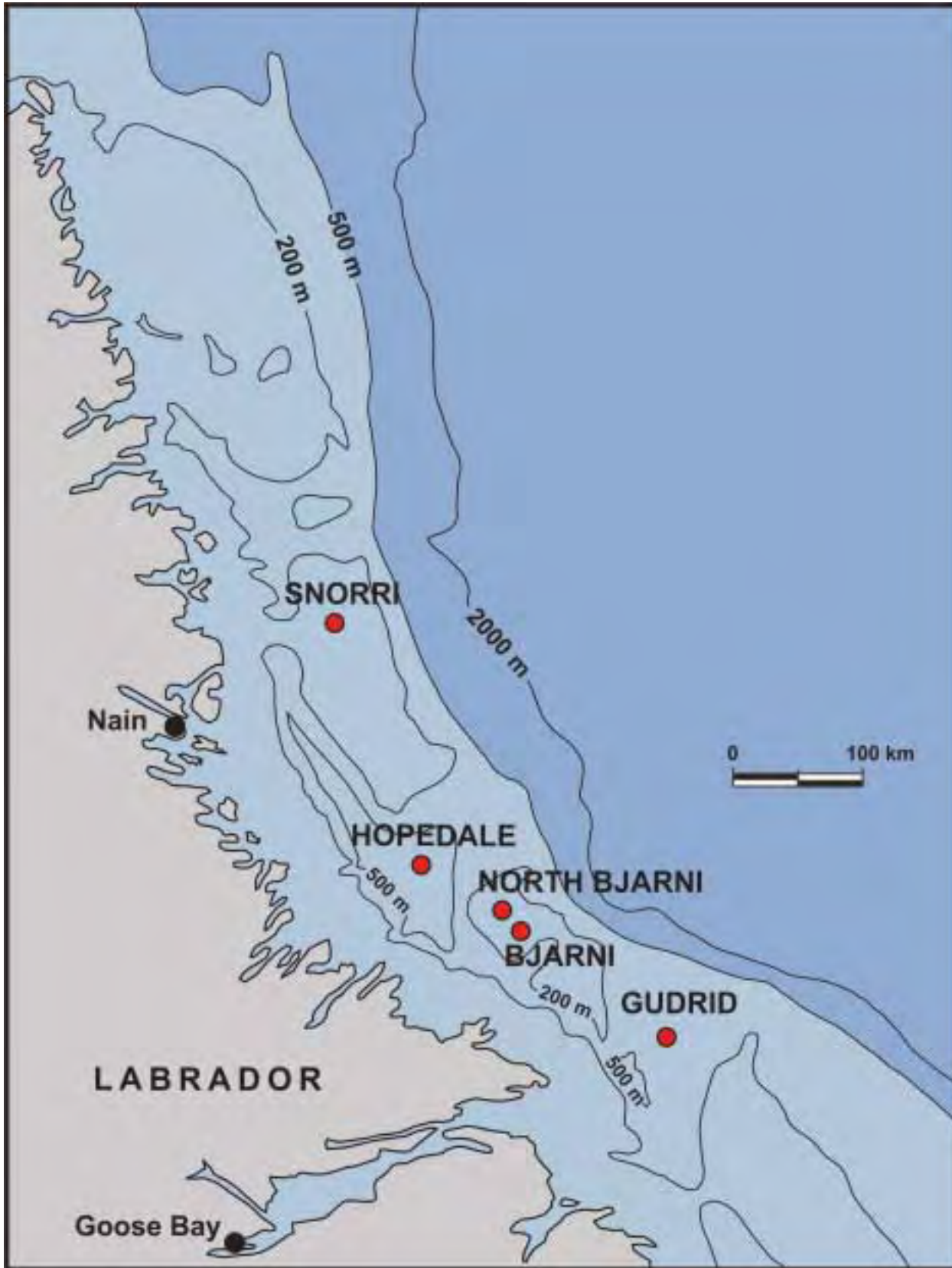
Appendix D - Maps

Petroleum Rights - Newfoundland and Labrador August 2005



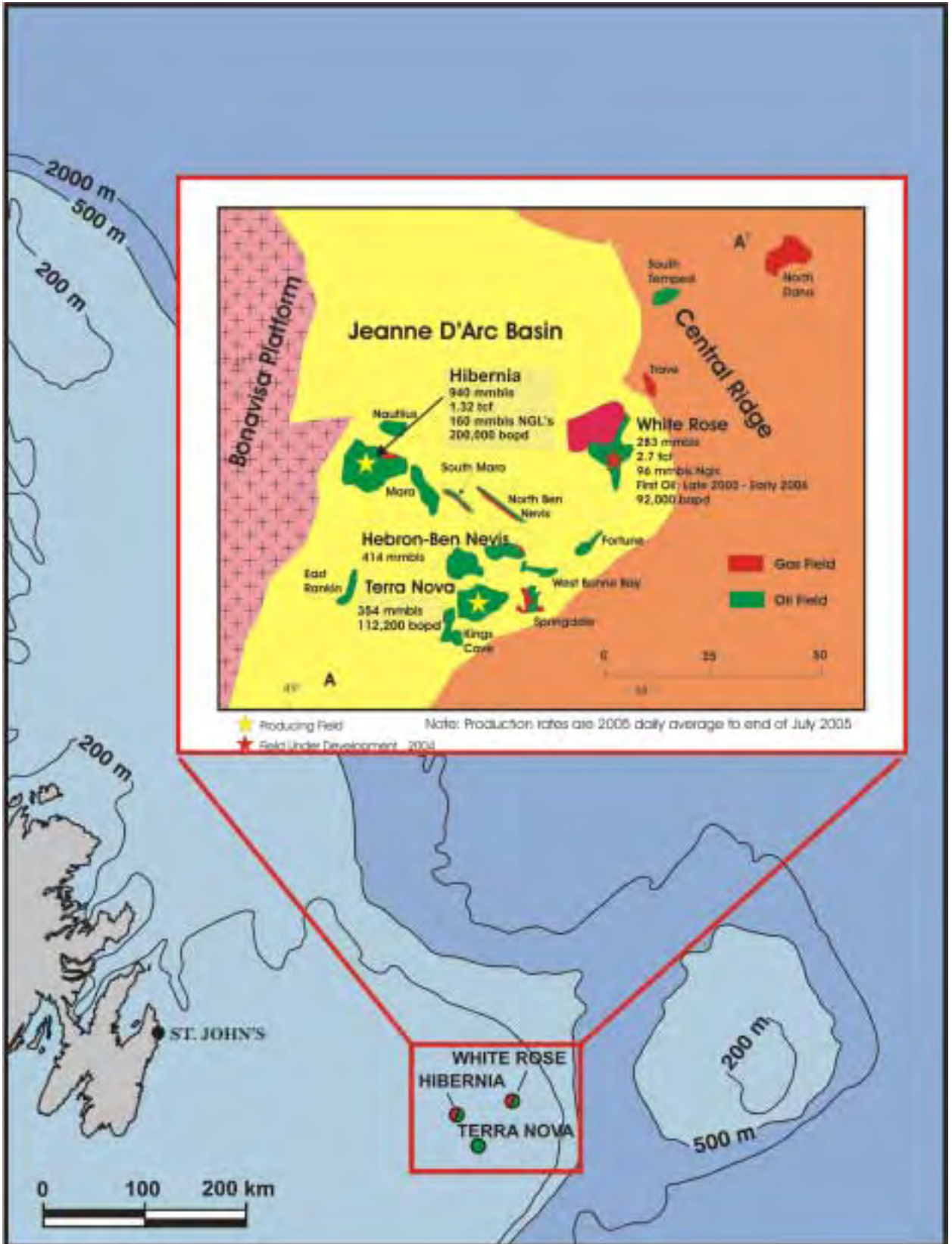
NOTE: For illustrative purposes only

Significant Discoveries - Offshore Labrador
August 2005



NOTE: For illustrative purposes only

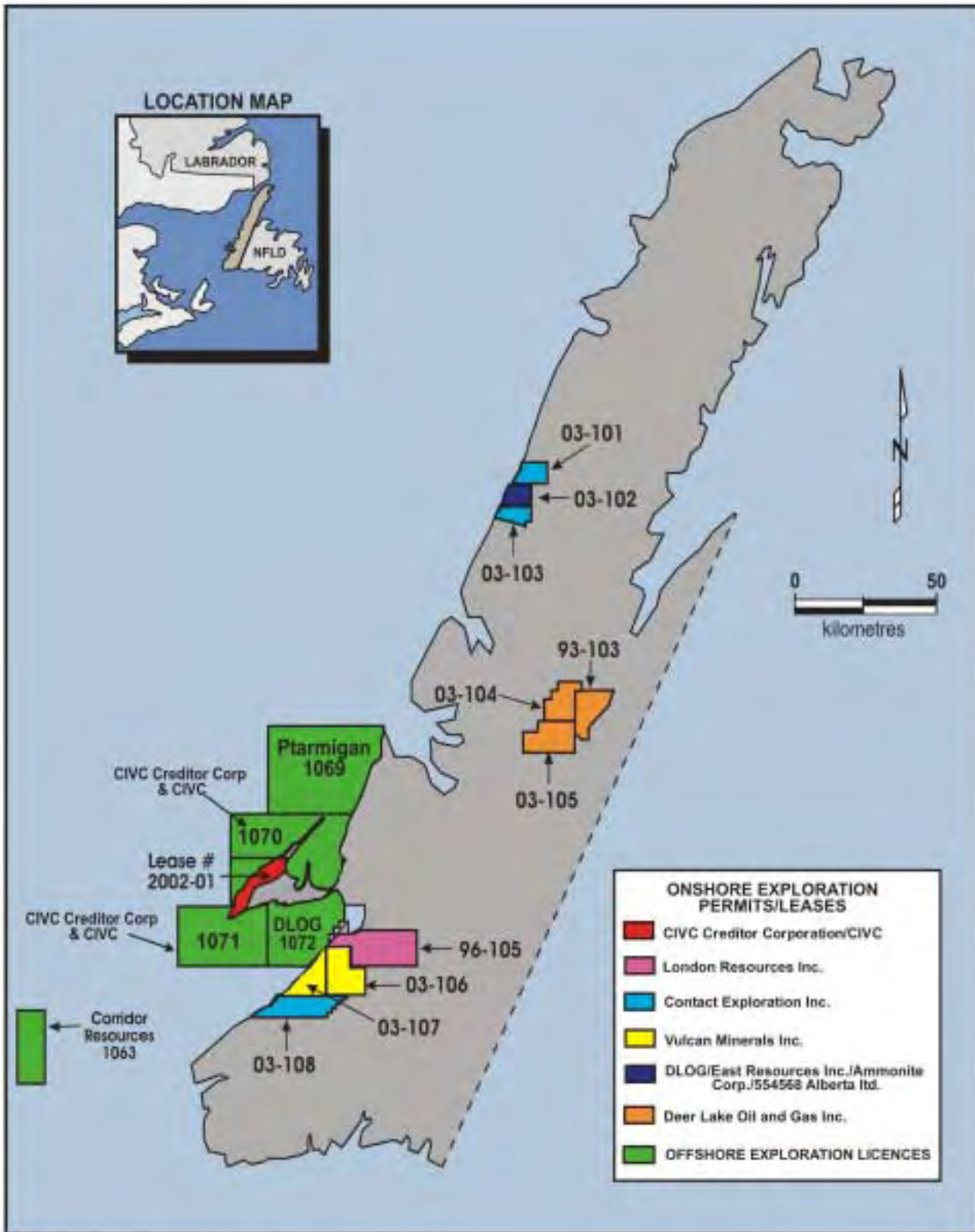
Significant Discoveries - Offshore Grand Banks August 2005



NOTE: For illustrative purposes only
After: C-NLOPB

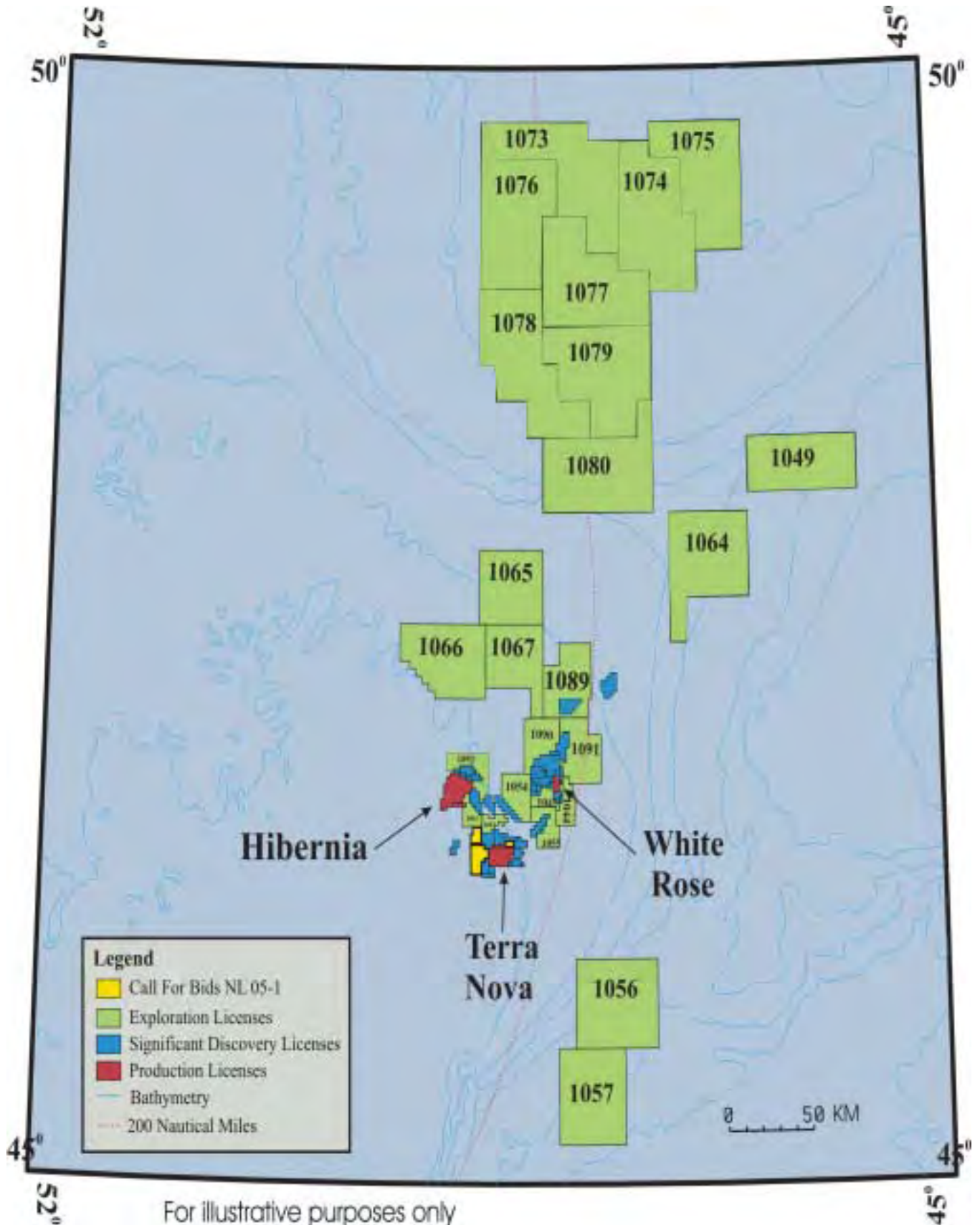
Western Newfoundland Petroleum Rights

August 2005



NOTE: For illustrative purposes only

Petroleum Rights - Grand Banks August 2005



Provincial Generation and Transmission Grid - Island and Labrador Straits



Provincial Generation and Transmission Grid - Labrador



Note: Grid legend on previous page

Appendix E - Glossary

BCF (Billion Cubic Feet) – Unit of measure for volume of natural gas.

Biomass – Energy resources derived from organic matter. These include wood, agricultural waste and other living cell material that can be burned to produce heat.

Capability – The maximum load that a generating unit, generating station or other electrical apparatus can carry under specified conditions for a given period of time without exceeding approved limits of temperature and stress. Common units include kilowatthours (kWh) and megawatthours (MWh).

Capacity – The maximum power that a generating unit, generation station or other electrical apparatus can supply, usually in megawatts. The maximum power output or the load for which a generating unit, generating station or other electrical apparatus is rated. Common units include kilowatt (KW) and megawatt (MW).

Cogeneration – The combined production of electricity and useful heat. Cogeneration is often employed at industrial plants where the heat produced can be utilized in the manufacturing process for general space heating. Cogeneration facilities use significantly less fuel to produce electricity and thermal energy than would be needed to produce them separately.

Demand-Side Management – The planning, implementation and monitoring of utility activities designed to encourage consumers to modify patterns of electricity use, including the timing and level of electricity demands. It refers only to energy and load-shape modifying activities that are undertaken in response to utility-administered programs. It does not refer to energy and load-shape changes arising from the normal operation of the marketplace or from government-mandated energy efficiency standards.

Development Well – A well drilled for crude oil or natural gas within a proven field or area for the purposes of production.

Dispatchability - The ability of a generating unit to increase or decrease generation, or to be brought on line or shut down at the request of a utility's system operator.

Discovery Well – An exploratory well that encounters a previously untapped oil or natural gas deposit.

Dry Hole – A well that does not yield enough gas and / or oil to support commercial production.

Electricity – A manufactured form of energy, as opposed to naturally occurring energy resources such as coal, oil or natural gas. On a large scale, electricity is produced by rotating machines (generators) which operate on the principle that an electric current is generated whenever a conductor moves through a magnetic field.

End User – A person or company who consumes oil or natural gas (as opposed to one who sells or resells it).

Environmental Impact – Any human alteration to the environment affecting human, animal, fish and / or plant life. Pollution results in an adverse environmental impact because it is detrimental to human, animal and plant life.

Exploratory Well – A well in an area where petroleum has not been found or one targeted for formations above or below known reservoirs.

GHG – Greenhouse gas / gasses. The principal GHG are carbon dioxide, methane, nitrous oxide, chlorofluorocarbons and halocarbons and water vapor.

Greenhouse Effect – The increasing mean global surface temperature of the earth caused by gases in the atmosphere (including carbon dioxide, methane, nitrous oxide, ozone and chlorofluorocarbon). The greenhouse effect allows solar radiation to penetrate but absorbs the infrared radiation returning to space.

Gigawatt (GW) – Unit of electrical power, used to measure the generating capacity on an electrical system, or the maximum demand of electricity consumers. Equivalence: 1GW = 1,000 MW or 1,000,000 kW.

Gigawatt Hours (GWh) – A standard unit for measuring bulk electricity transfer. Equivalence: 1 GWh = 1,000 MWh or 1,000,000 kWh.

Hydrocarbon – An organic compound containing only hydrogen and carbon. There are hundreds of these compounds and they may occur as gases, liquids or solids.

Interconnected System – Two or more individual transmission systems that have one or more interconnecting tie lines.

Joule - A standard international unit that can be employed to measure and compare energy across various energy sources (like crude oil, electricity and coal). For example, a 30 litre tank of motor gasoline equals approximately one gigajoule (1 billion joules) of energy and one million gigajoules equals one petajoule of energy.

Kilowatt (kW) – Unit of electrical power, used to measure the generating capacity of a generating station or the maximum demand of an electricity consumer.

Kilowatt Hours (kWh) – A standard unit for measuring electricity. Residential customer rates are usually expressed in cents per kilowatt hour.

Load – The amount of electric power delivered or required at any specific point or points on a system. The requirement originates at the energy-consuming equipment of the consumer.

Load Following - A utility's practice of adding additional generation to available energy supplies to meet moment-to-moment demand in the distribution system served by the utility, and/or keeping generating facilities informed of load requirements to insure that generators are producing neither too little nor too much energy to supply the utility's customers.

Megawatt (MW) – Unit of electrical power, used to measure the generating capacity of a generating station or the maximum demand of a large commercial or industrial electricity consumer. Equivalence: 1 MW = 1,000 kW

Megawatt Hours (MWh) – A measure of the energy produced by a generating station over time. Equivalence: 1 MWh = 1,000 kWh

MMcf (Million Cubic Feet) – Unit of measure for volume of natural gas.

Natural Gas Liquids (NGLs) – Liquids obtained during petroleum production, including ethane, propane, butanes and condensate.

Petajoule – One million gigajoules

Petroleum – A naturally occurring mixture of hydrocarbons in gaseous, liquid or solid form.

Petroleum Products – Products obtained from the processing of crude oil, and unfinished oils, NGLs and other hydrocarbon compounds. These include gasoline, kerosene, jet fuel, distillate fuel oil, residual fuel oil, liquefied petroleum gas, lubricants, paraffin wax asphalt and other products.

Potential Resources – The volume of crude oil or natural gas, based on geological knowledge proven to exist.

Refinery Capacity – the maximum amount of input to crude oil distillation units that can be processed in an average 24-hour period.

Regulator – An entity that, through power of law or some other legitimate means, has the authority to impose regulation.

Renewable Resources – Sources of energy which are inherently self-renewing, such as water power, solar energy, wind energy, tidal energy and geothermal energy. Wood, garbage and waste burned as fuel are also considered renewable.

Reserves – Volumes of hydrocarbons, measured in Bcf, Tcf or billions of barrels that are considered to be economically recoverable using current technology.

Resources – Volumes of hydrocarbons that are deemed to be technically recoverable, but may not have been delineated or may not presently be economically produced.

Retailer – An entity that purchases a product at the wholesale level for the purpose of reselling to a consumer or acting as agent or broker for a consumer or another retailer.

Royalty – The amount paid to the owner of petroleum resources or mineral rights as payment for the resource removed.

Tcf (Trillion Cubic Feet) – Unit of measure for volume of natural gas.

Transmission – The movement or transfer of electric energy or natural gas over an interconnected group of lines and associated equipment between points of supply and points at which it is transformed for delivery to consumers, or is delivered to other electric systems. Transmission is considered to end when the energy is transformed for distribution to the consumer.

Transmission System – Wires or pipelines that transport energy over long distances, usually from supply to market regions or to other transmission systems.

Terawatt (TW) – Unit of electrical power, used to measure the generating capacity on an electrical system, or the maximum demand of electricity consumers. Equivalence: 1 TW = 1,000 GW or 1,000,000 MW or 1,000,000,000 kW.

Terawatt Hours (TWh) – A standard unit for measuring bulk electricity transfer. Equivalence: 1 TWh = 1,000 GWh or 1,000,000 MWh or 1,000,000,000 kWh.



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