

Date : 3/6/2011 2:13:09 PM

From : "Bown, Charles W."

To : "Bown, Charles W."

Subject : LCP Panel PResentation

Attachment : Lower Churchill Project Environmental Assessment Panel -cwb With Notes.ppt;



Lower Churchill Project Environmental Assessment Panel

Charles W. Bown

Associate Deputy Minister

Energy Policy Branch

Department of Natural Resources



Mandate and Responsibilities

- Responsible for Energy Policy
 - o Development and Implementation
- Mandate derived from *Executive Council Act*
 - o The powers, functions and duties of the minister include the supervision, control and direction of all matters relating to:
 - o electrical power;
 - o overall responsibility for provincial energy supply and demand;
 - o the identification, assessment and promotion of industrial benefits from major resource development projects

Mandate and Responsibilities



- The administration of the Acts set out in the Schedule and of all orders and regulations passed or made under those Acts, including those powers, functions or duties necessary or desirable for carrying out the purpose of those Acts
 - *The Churchill Falls (Labrador) Corporation Limited (Lease) Act, 1961*
 - *Electrical Power Control Act, 1994*
 - *Energy Corporation Act, 2007*
 - *Energy Corporation of Newfoundland and Labrador Water Rights Act, 2008*
 - *Hydro Corporation Act, 2007*
 - *Lower Churchill Development Act, 1990*
 - *Newfoundland and Labrador Power Commission (Water Power) Act*

EA Involvement

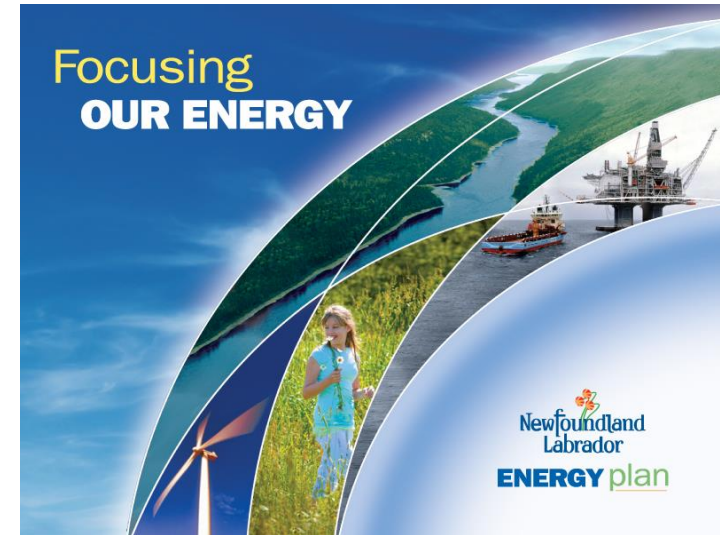


- Key focus has been the need, purpose and rationale for the project and alternatives to it
- In that context
 - o Participated in completion of responses to information requests to the Department
 - o Member of Provincial EA Committee
 - o Member of EIS Review Committee
 - o Reviewed Proponent's responses to Information Requests

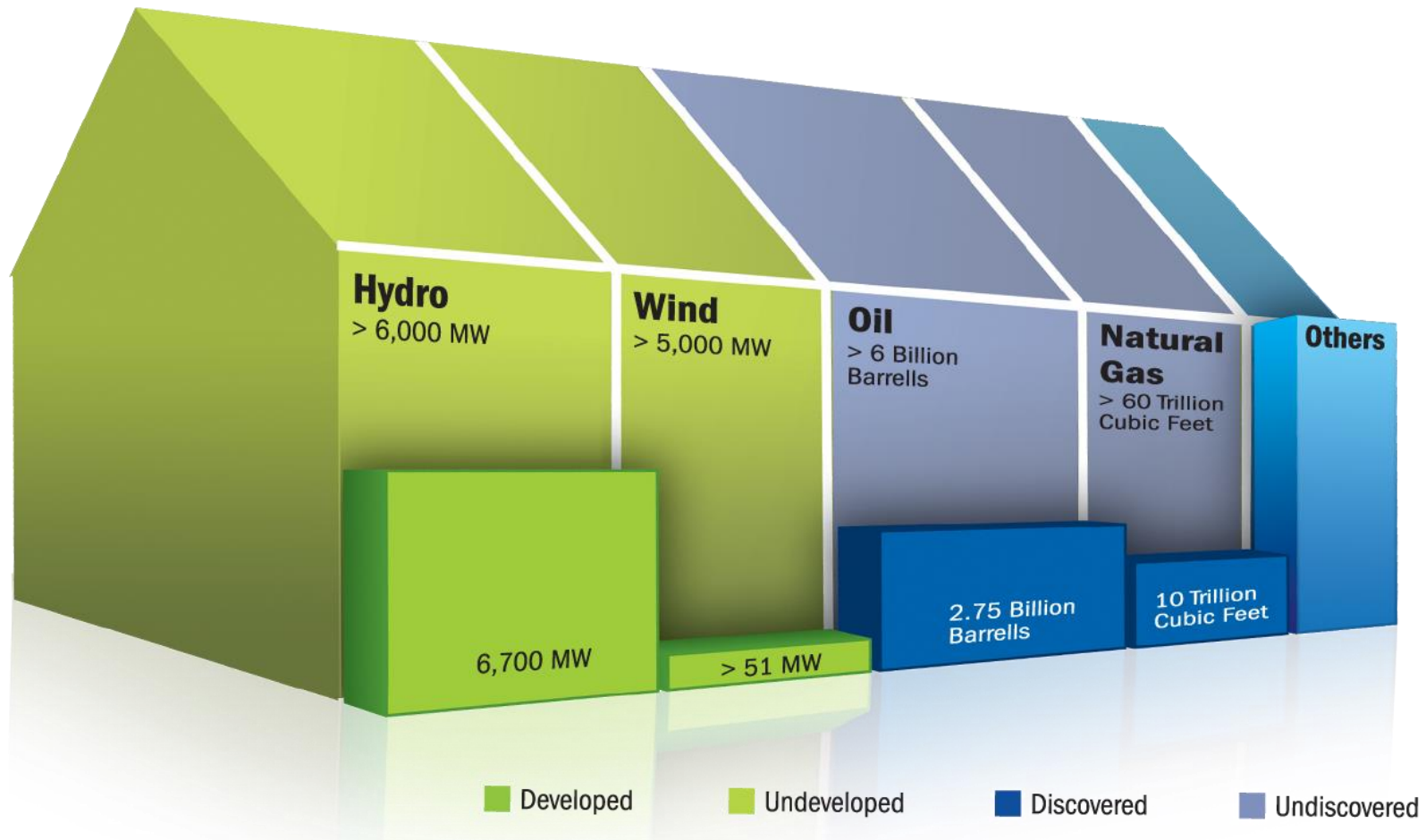
Provincial Energy Policy



- Released September, 2007
- Established a long-term vision for the responsible development of the Province's energy resources



Provincial Energy Plan



Provincial Energy Policy



- Contained Goals related to:
 - o *Effective Governance*
 - o *Energy Security*
 - o *Sustainable Economic Development*
 - o *Environmental Leadership*
 - o *Maximizing Electricity Export Value*
 - o *Maximizing Long-Term Value of Oil and Gas*

Provincial Energy Plan



- Many successes to date:
 - *Establishment of Nalcor Energy*
 - *Equity stake in Oil and Gas developments*
 - *Geoscience Acquisition*
 - *Regulatory Amendments*
 - *Workforce Diversity*
 - *Alternative Energy Development*
 - *Energy Efficiency and Conservation*

Provincial Energy Policy



- Committed to:

“Leverage our non-renewable oil and gas wealth into a renewable future by investing a significant portion of our non-renewable resource revenues in renewable energy infrastructure and development.”

Provincial Energy Policy



- Lower Churchill Project
 - most attractive, undeveloped hydroelectric project in North America
 - established Nalcor to lead development
 - Labrador residents will be primary beneficiary of the project (jobs and business spin-offs)
 - best long-term incremental supply for the province
 - Export revenue opportunities

Need, Purpose and Rationale



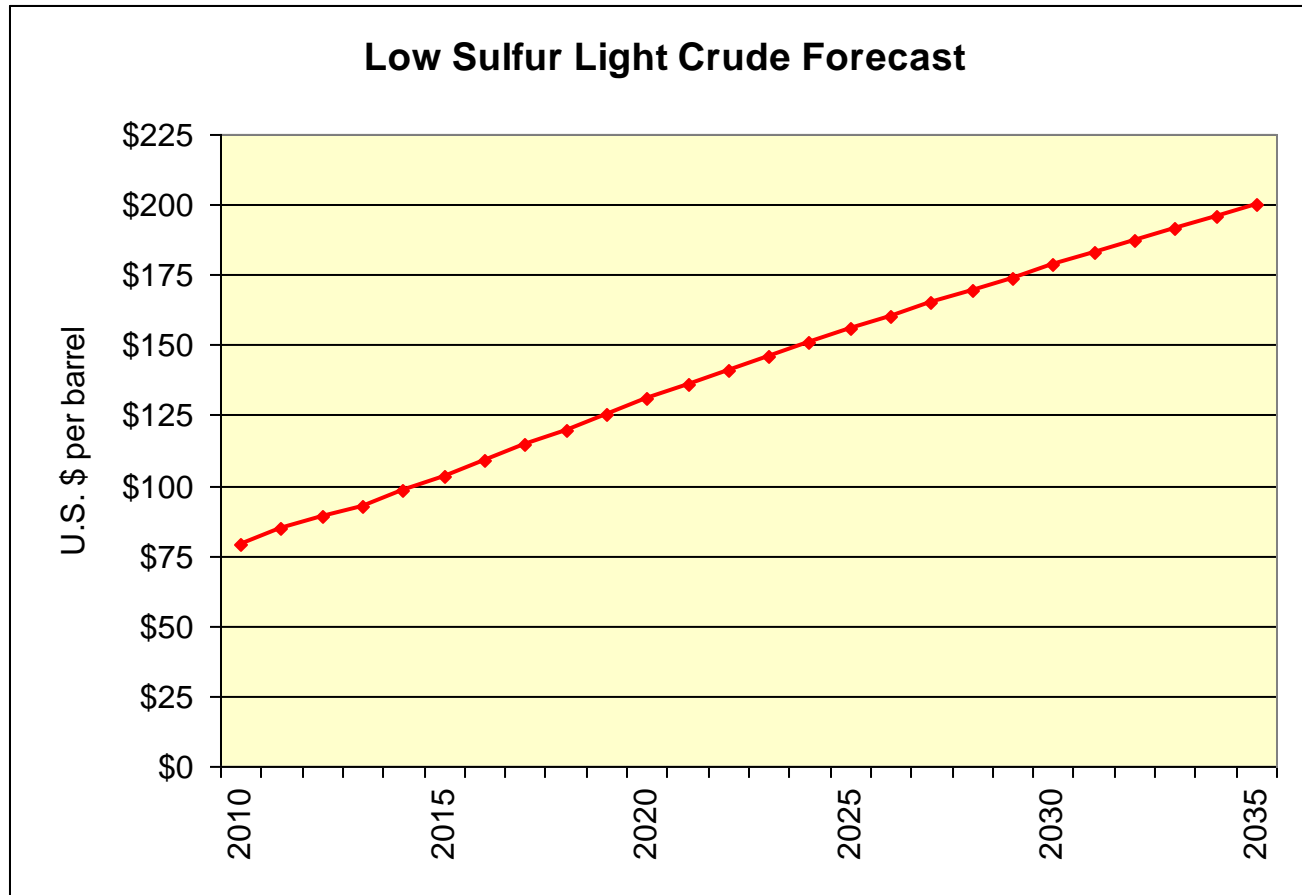
- Need
 - Provides additional renewable energy to Province
 - Meets identified future demand
 - Alternatives include keeping Holyrood plus more thermal
 - Provides long-term price stability
- Purpose
 - Meet energy needs in the Province by developing the hydroelectric potential of the lower Churchill River

Need, Purpose and Rationale



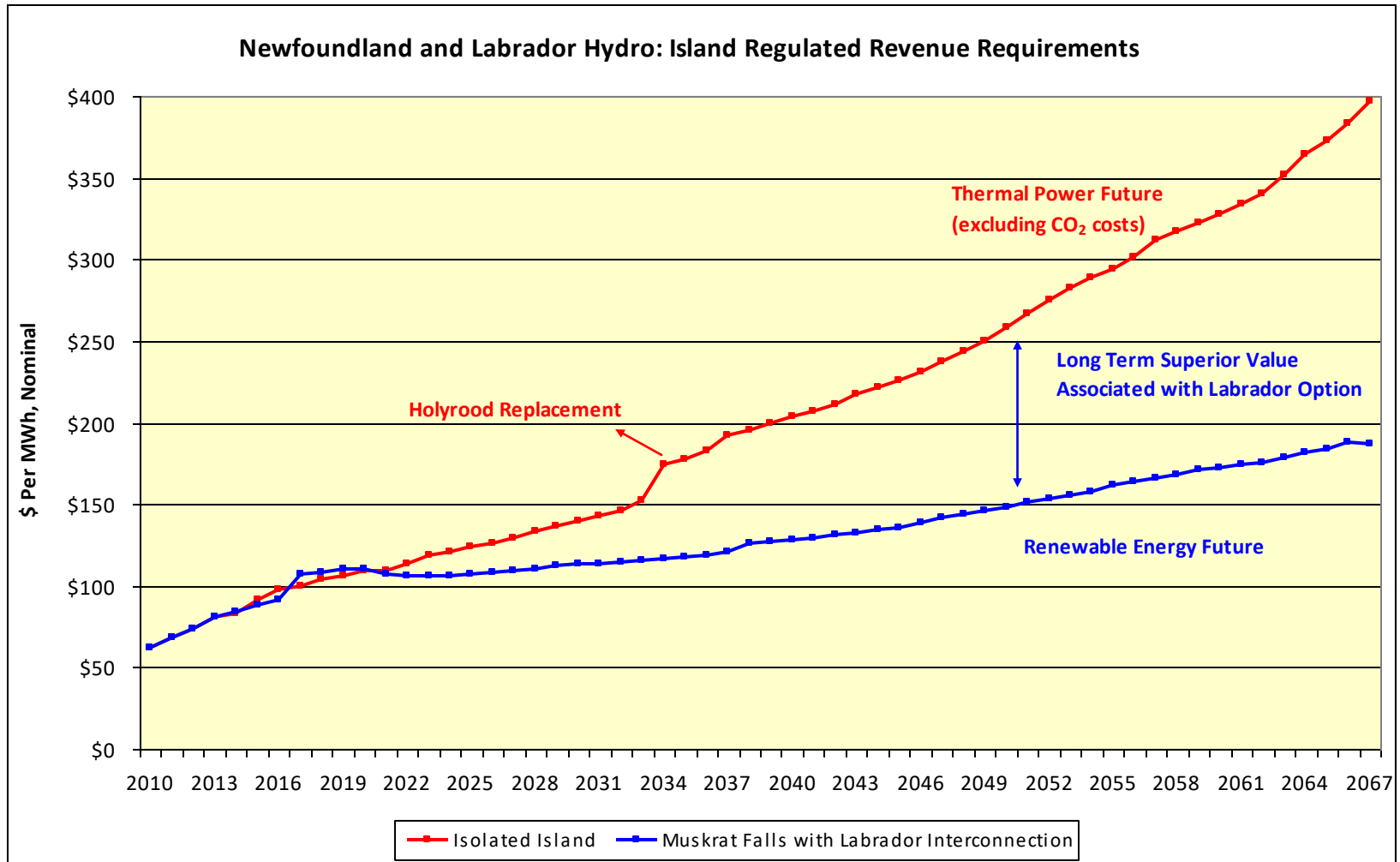
- Rationale
 - Meets the energy needs identified in the Province and elsewhere for cleaner, renewable energy;
 - Provides Province with a long-term, source of energy with stable electricity prices;
 - Competitively priced energy will attract new energy-intensive industrial development;
 - Allows Province to eliminate emissions from a significant GHG emitting source; and
 - Generates additional income for the Province from the sale of electricity to third parties.

Project Need



Source: U.S. Energy Information Administration

Long-Term Island Costs



Departmental Position



- The Energy Policy Branch concurs with the Proponent's identification of the Project's Need, Purpose and Rationale, and confirms that the Project is a major component of achieving a number of Energy Plan Goals

Alternate Forms of Energy



- Wind Development
 - o St. Lawrence
 - o Fermeuse
- Nalcor has been investigating large-scale wind power for Labrador
- Ramea Wind-Hydrogen-Diesel Project
- Province has additional small hydro resources
 - o environmental acceptability
 - o Non-dispatchable without significant reservoir development

Alternate Forms of Energy



- Oil is costly and environmentally unsustainable in the long term (GHGs)
- Natural gas resources are distant offshore
 - Economic and environmental barriers to development
 - Technology barriers for Labrador offshore gas
- Nuclear is prohibited by policy

Demand Management and Energy Efficiency



- Government programs for household energy efficiency
 - Partial audit and grants for all homeowners
 - Full audit support and grants for low-income homeowners
 - Additional programs under consideration
- Build Better Buildings Policy for publicly-funded buildings
 - LEED Silver or equivalent energy efficiency
- Utility programs for electricity
 - Residential, commercial lighting, large industrial
- Overall energy efficiency strategy being developed
 - Potential additional programs

Current Electricity Costs



All in ¢/kWh Excl HST	Domestic	Small General Service	Medium General Service	Large General Service	Bulk and Industrial
Wholesale					5.8
Island	11.1	12.5	11.3	11.9	2.0
Labrador	3.4	5.2	2.4	2.1	1.7
Island Diesel	11.3	19.0	15.9	N/A	N/A
Labrador Diesel	6.0	19	15.9	N/A	N/A

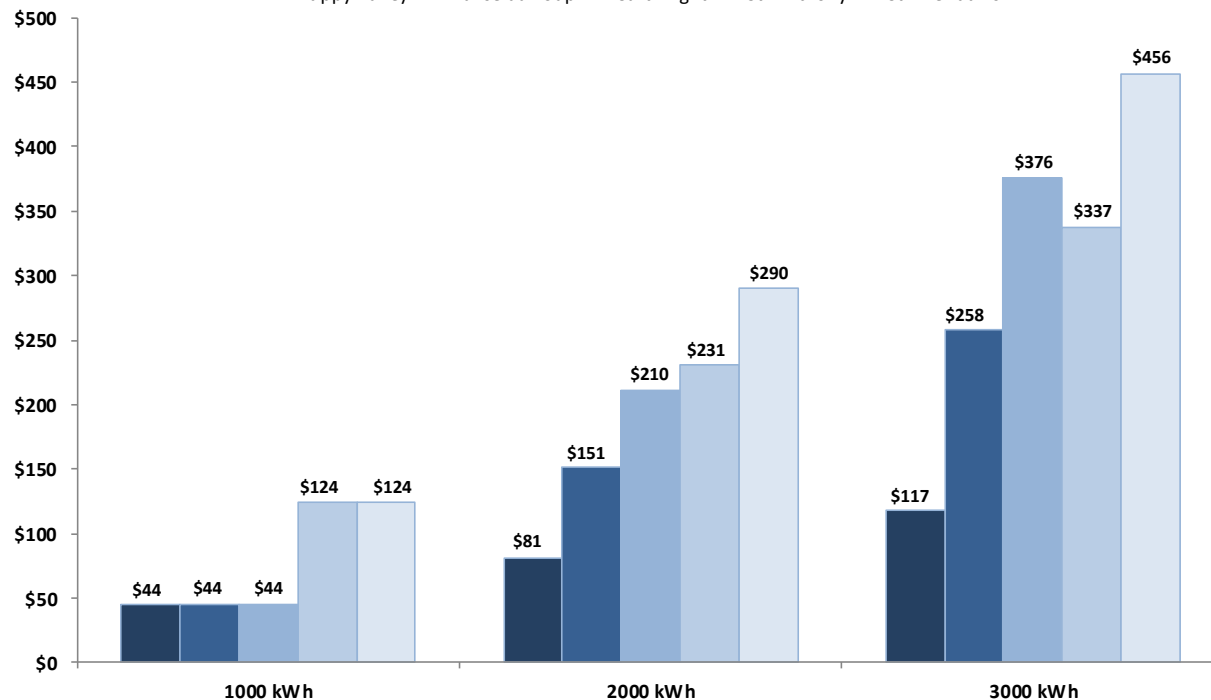
Current Residential Electricity Costs



Electricity Cost Comparison for NL Residential Consumers

Based on December Usage Including Tax and Discount

■ Happy Valley ■ L'anse au Loup ■ Cartwright ■ St. Anthony ■ St. Brendan's

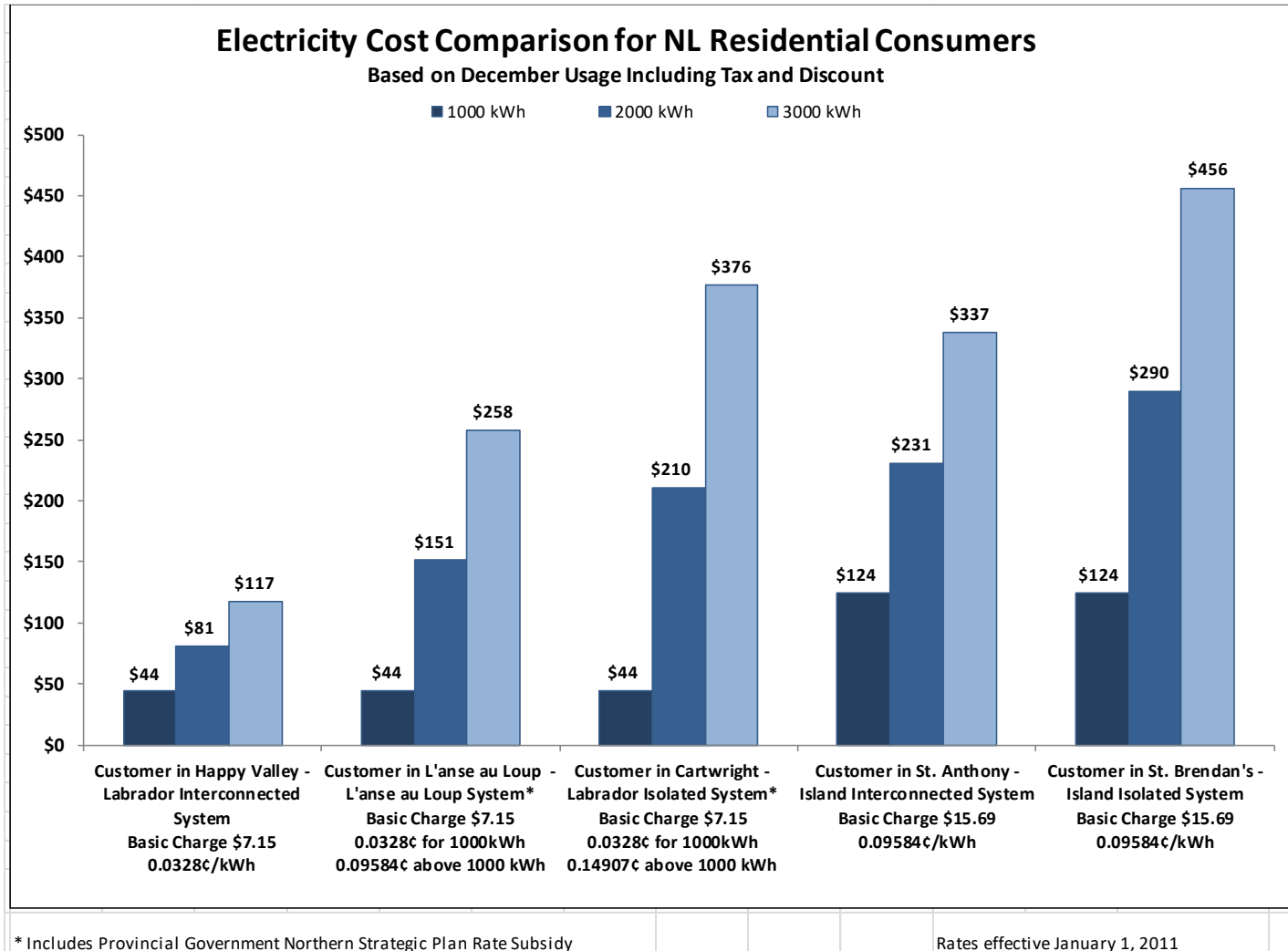


Customer in Happy Valley - Labrador Interconnected System:	Basic Charge: \$7.15; 0.0328¢/kWh
Customer in L'anse au Loup - L'anse au Loup System*:	Basic Charge: \$7.15; 0.0328¢/kWh for 1000kWh; 0.09584¢/kWh above 1000 kWh
Customer in Cartwright - Labrador Isolated System*:	Basic Charge: \$7.15; 0.0328¢/kWh for 1000kWh; 0.14907¢/kWh above 1000 kWh
Customer in St. Anthony - Island Interconnected System:	Basic Charge: \$15.69; 0.09584¢/kWh
Customer in St. Brendan's - Island Isolated System:	Basic Charge: \$15.69; 0.09584¢/kWh

* Includes Provincial Government Northern Strategic Plan Rate Subsidy

Rates effective January 1, 2011

Current Residential Electricity Costs



Energy Plans for Labrador



- **Isolated Communities**
 - Diesel generation is the most feasible and cost effective way to provide electrical service
 - Rates are currently subsidized by more than 75% by government and other residential ratepayers
- **New Initiatives**
 - Alternative Energy Study to identify new sources of renewable energy supply
 - Review current commercial rates with sanctioning of Lower Churchill Project

Energy Plans for Labrador



- **Interconnected Labrador Grid**
 - Proximity to project will improve economics of adding new transmission capacity in Lake Melville area
 - Energy will be available for new industrial development
- Industrial development in Labrador will improve the economics of connecting isolated communities

Economic Development Strategy



- Government and Nalcor have engaged in search for energy intensive industrial development, primarily for Labrador
 - o Nickel mining
 - o Aluminum smelting
 - o Silica smelting
 - o Iron ore mining
 - o Uranium mining
- Nickel and Iron Ore moving ahead
- Other prospects have not progressed to date

Public Utilities Act and Board



- NL currently established as regulated monopoly market
- PUB is an economic regulator with some reactive purview regarding reliability
- Regulates utilities on an integrated basis
- Recognition that interconnection to NA system will bring new requirements
- Definition of requirements and development of options under consideration

Role in Monitoring and Follow-up



- Overall monitoring of project progress
- Development of policy to facilitate integration of project into Provincial electricity supply
- Monitoring of effectiveness of Water Management Agreement for Churchill River

Conclusion



Thank You