



**Ontario**

**Energy**

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# Lower Churchill Project

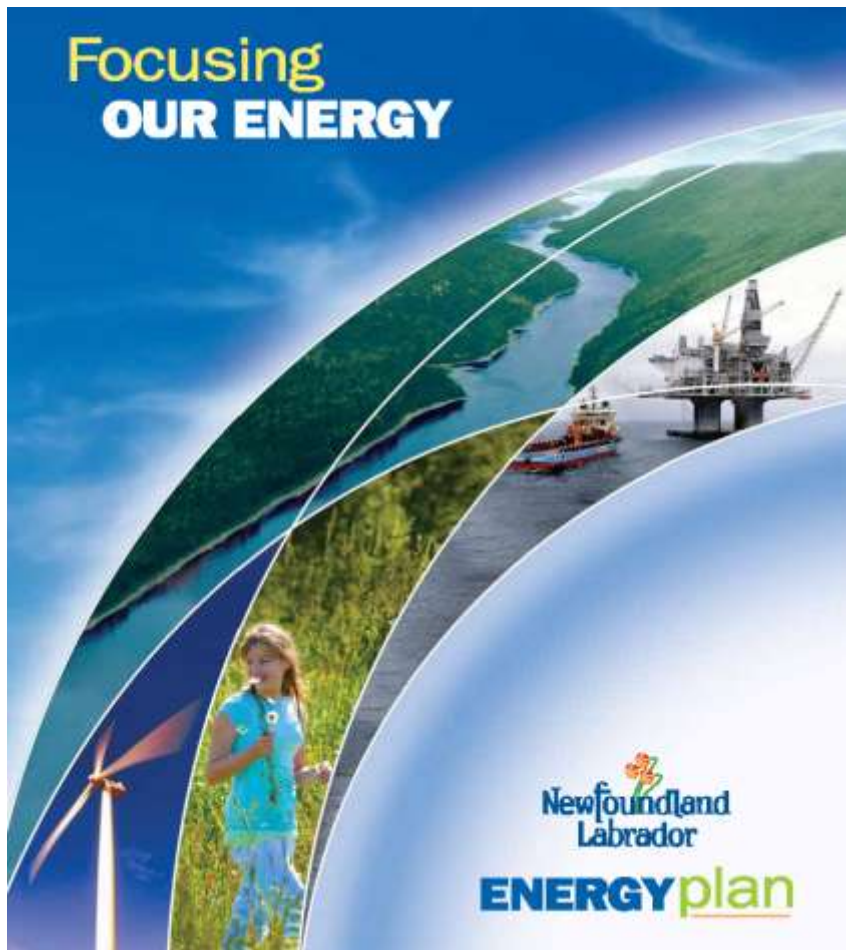
Ontario Energy Network

June 13, 2011

Boundless Energy

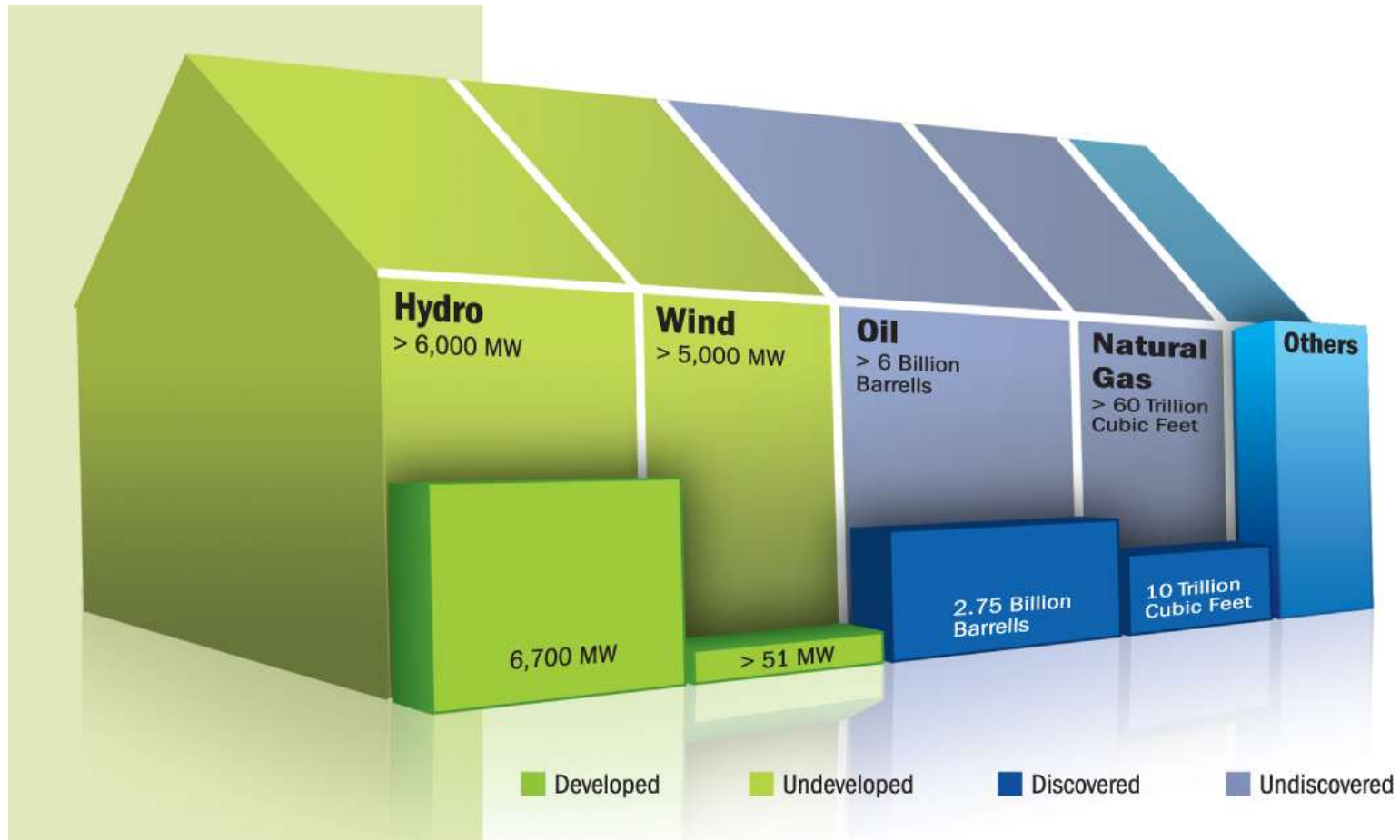


# Provincial Energy Plan



- Long term focus - 2041
- Energy Warehouse
- Non-renewables to renewables
- Creation of Nalcor
- Opportunity to get it right

# NL Energy Warehouse



# Corporate Overview



NL Hydro

Churchill  
Falls

Oil & Gas

Lower  
Churchill

Bull Arm  
Fabrication



# Lower Churchill Project

A dam and powerhouse at  
Gull Island



2250 MW/ 12 TW-h/yr  
Reservoir length – 232 km  
Flood area – 85 sq km

Two dams and powerhouse at  
Muskrat Falls



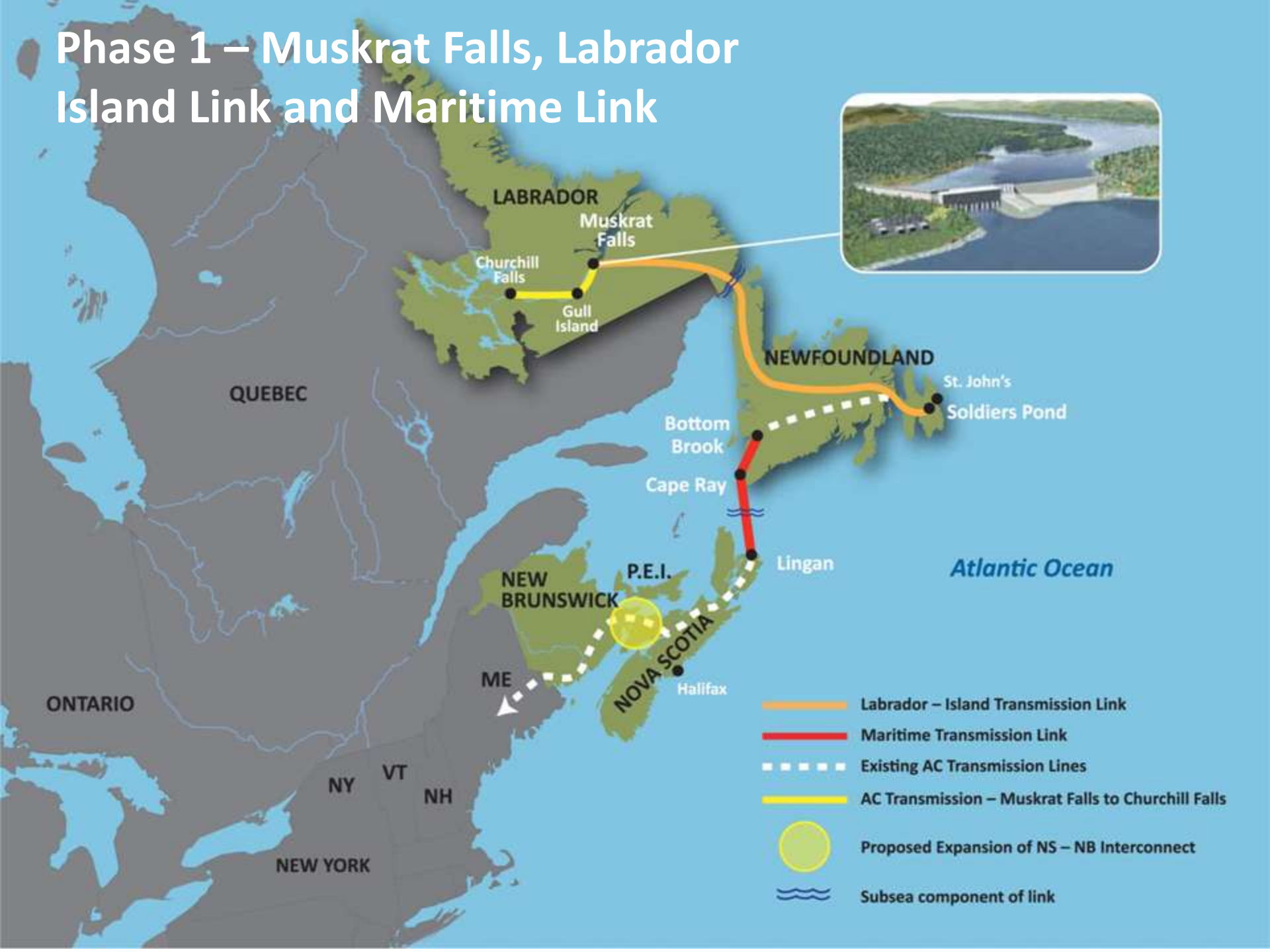
824 MW/ 5 TW-h/yr  
Reservoir length - 60 km  
Flood area – 41 sq km

# Submarine HVDC Cable

- Technically sound and used worldwide
- Proven implementations:
  - NorNed – Norway & Netherlands, 450kV, 700MW, 580km
  - Baltic Cable – Germany and Sweden, 450kV, 600MW, 250km
  - SwePol – Sweden and Poland, 450kV, 600MW, 245km
  - Basslink – Australia and Tasmania, 400kV, 500MW, 290km



# Phase 1 – Muskrat Falls, Labrador Island Link and Maritime Link



- Labrador – Island Transmission Link
- Maritime Transmission Link
- - - Existing AC Transmission Lines
- AC Transmission – Muskrat Falls to Churchill Falls
- Proposed Expansion of NS – NB Interconnect
- ~ Subsea component of link

# Phase 2 – Gull Island





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