



# **Opportunities in Renewable Energy Development in Ontario**

AWMA Annual Conference  
October 6<sup>th</sup>, 2010

## Agenda

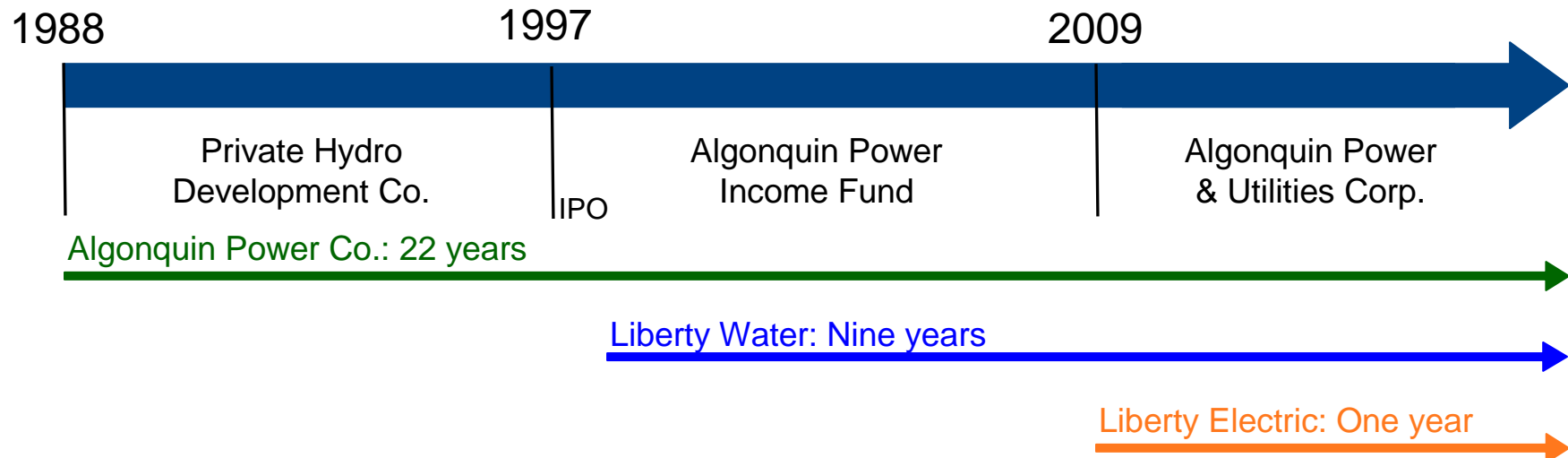
- Algonquin Power Overview and History
- Algonquin's Recent Activity
- Ontario Opportunities & Challenges
- Other Opportunities



 St. Leon Wind Energy, Manitoba

## Algonquin Power & Utilities Corporation

- One of the largest Canadian renewable power and utility companies with more than 480 MW of generation and 70,000+ utility customers
- EBITDA of \$80 million annually
- Enterprise value grown from \$100 million to \$800 million
- Traded on the Toronto Stock Exchange: AQN, AQN.DB, AQN.DB.A, AQN.DB.B

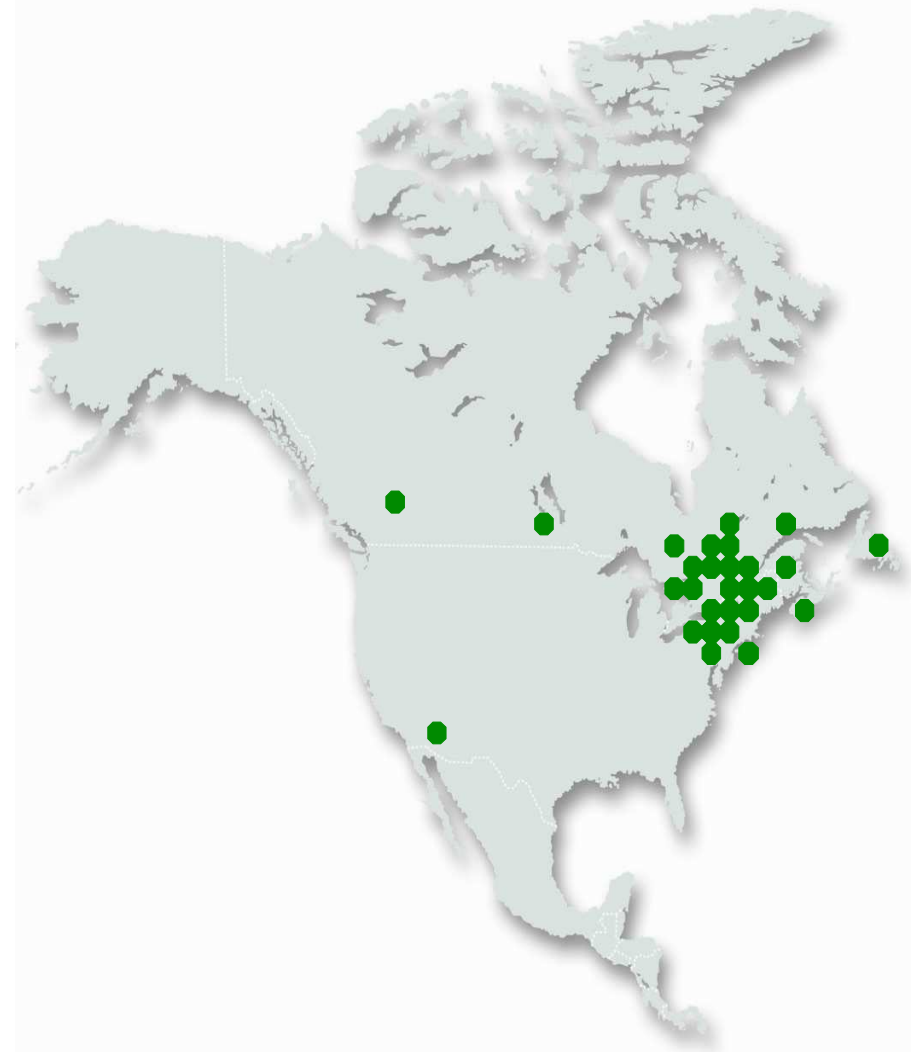




# Algonquin Power Corporation

## Renewable and Clean Energy

- 56 facilities 453 MW
  - Small Hydro, Cogeneration, Wind, Energy from Waste
  - 7 facilities in Ontario
- 75% of generation under long term contracts, average PPA of 12 yrs,
- ~80% of Total APUC EBITDA
- Active Development and Acquisition Group
- Power Marketing Group



## **Red Lily Wind Project – Phase 1**

- 26.4MW wind project currently under construction near Moosomin, Saskatchewan consisting of 16 Vestas V82 wind turbines—expected capacity factor of 38.1%
- Target COD early 2011. All electricity sold to SaskPower under a 25 yr PPA with annual escalation of 2%
- APCo providing \$17.5 million in debt and will provide development and construction oversight services, and operations and management oversight under 25 year agreement

## **Eastern Canada/US Hydroelectric Facilities**

- Transaction closed Q1 2010
- 37 MW hydroelectric generating capacity in Maine and New Brunswick
- New Brunswick Public Utilities Board regulated transmission lines
- Long operating life, experienced management, long-term employees

## Greenfield Growth

- Phase II Red Lily Wind Project: 106 MW, 3 additional wind sites in SK
- Ontario Green Energy Act: Three wind projects totaling approx. 120 MW

## Organic Growth

- St. Leon Wind Energy: 85 MW expansion capability
- Combined Cycle/CHP at Energy from Waste facility
- Repowering/Expansion at existing cogen facilities
- Algonquin Energy Services managing off contract generation



 Hollow Dam, New York

## **Ontario Power Industry Drivers**

- Deregulation/Break-up of Ontario Hydro
- Aging Electrical Infrastructure/Under Development
- Commitment to phase out coal
- Push to develop renewable power

## **Ontario Green Energy Act**

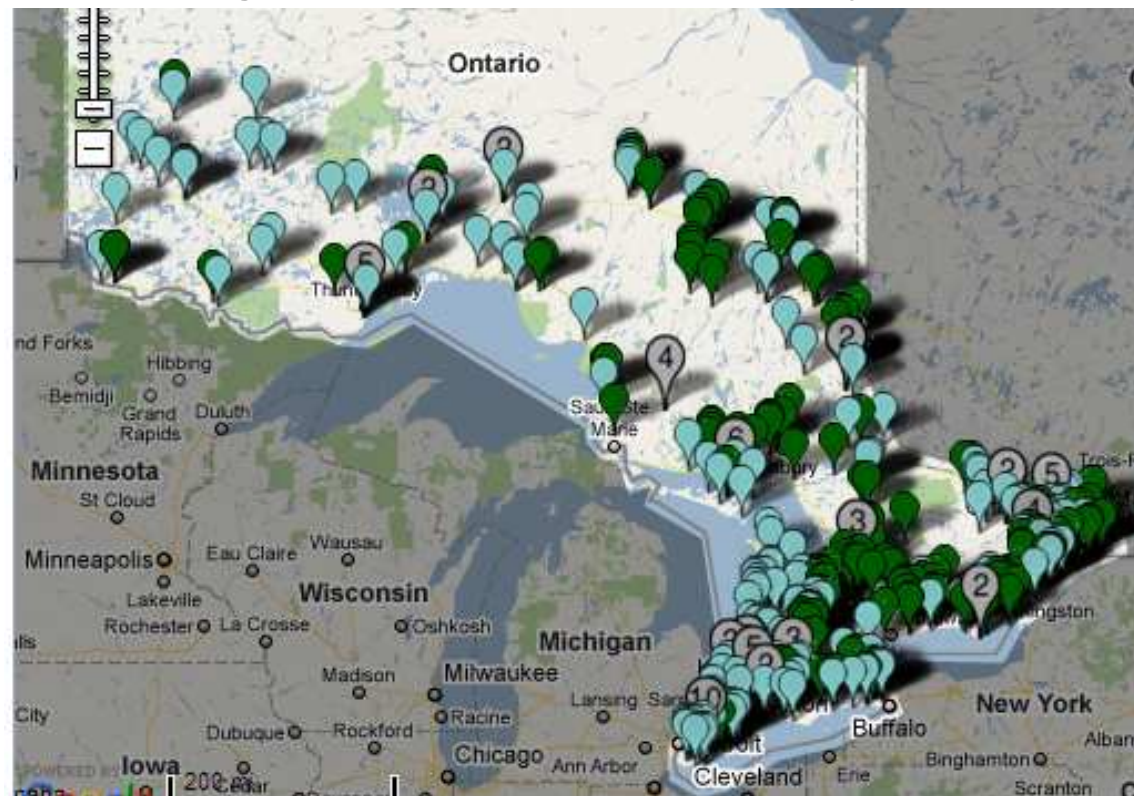
- 6,000 MW conservation
- 10,000 MW new renewable energy by 2015
- 1,500 MW new distributed energy by 2015

## **Ontario Power Authority**

- Bilateral Contracts
- Feed In Tariff Programs

## FIT Contracts

- Gold Standard – Long Term, Escalating, Government Backed
- Solar, Wind, Biogas, Biomass, Landfill Gas, Hydro





## Is the Field Full?

- First Mover Advantage
- Dominated by Wind

## Opportunities

- Still along way to go to meet GEA targets
- Pure Play Developers
  - Construction Capital & Execution
  - O&M

## Challenges

- NIMBY's
- Transmission
- Rewarding Developers for at risk capital



## **Wind Capacity Factors**

- 35-40% = Need reliable, dispatchable generation

## **New Technology**

- Old Wind Farms

## **Expansion/Repowering Older Plants**

- OEFC Contracts
- HCI Contracts

## **Not Just Ontario**

- Rest of Canada
- United States



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