Hydro One Remote Communities Inc.





Background



- Demerger of Ontario Hydro in 1998/99
 - OPG (generation) and Hydro One (wires)
- Creation of Independent Electricity System Operator (IESO)
 - including Ontario Power Authority (OPA)
- Hydro One subsidiaries created at same time
 - Networks, Remotes and Telecom



Ontario Energy Board





Approves:

which communities we serve
what rates we charge
Revenue requirement/investment plan
RRRP Subsidy

Sets standards and rules:

Reliability
Customer Service
Payment rules

Customer Advocacy

Independent Agency

Resolves complaints

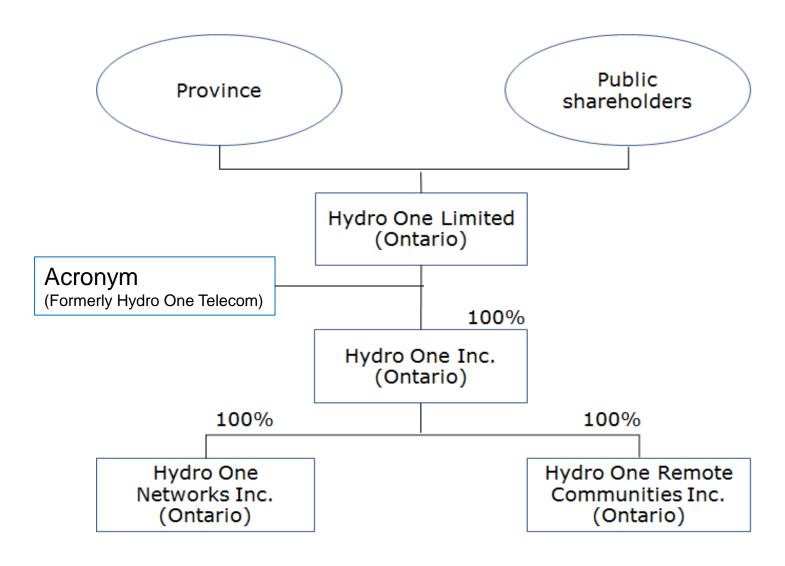
Creates programs:

Ontario Electricity Support Program (OESP) and Low Income Emergency Assistance Program (LEAP)



Hydro One Structure



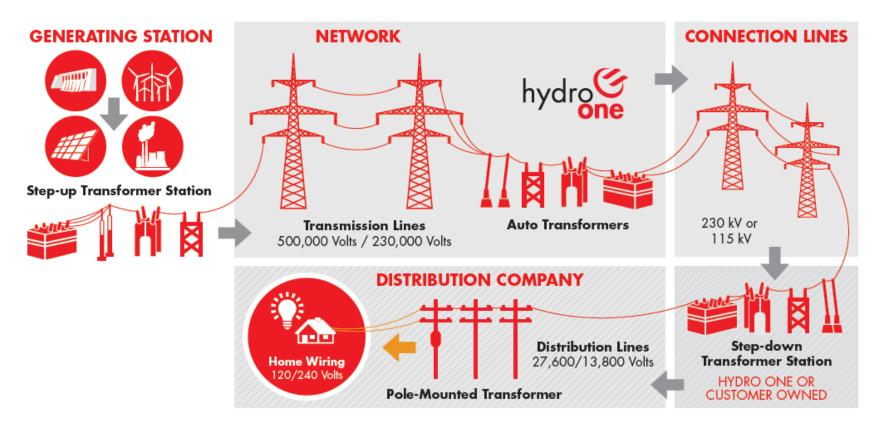




System Overview



ONTARIO'S ELECTRICITY SYSTEM





Background - Remotes

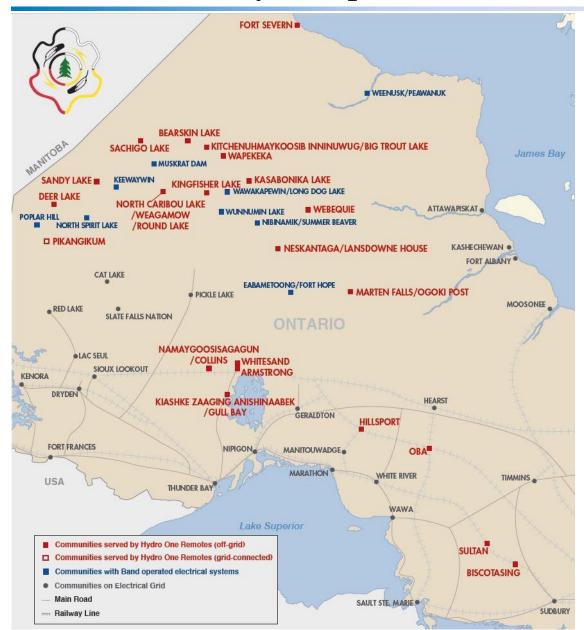


- Integrated Generation and Licensed Distribution Company formed to serve remote communities in northern Ontario
- The communities in our service territory are named in Provincial legislation
- Most have electrical systems which were constructed in the late 70's and early 80's
- The federal government is obligated to fund increases to generation capacity to meet community needs
 - ISC provides capital funding to First Nations
- Our business is managed to break-even with approx. 60% of our revenue requirement coming from Rural or Remote Rate Protection (RRRP)
 - Funded by all rate payers in the province



Service Territory & Operations





22 Remote Communities are served by Hydro One

17 First Nation Communities

14 are Air access only

Over 4,200 Customers

20 distribution systems

56 Prime Power Diesel Generators (31 MW)

2 Mini-Hydro Stations (2 - 250 and 1-150 kW)

Generate 72 GWh and distribute 82 GWh (sold)

Over 20 Million Litres Fuel purchased per year

Our Rates & Load Profile



- Rates for residential and business customers are set below the cost of service (increases tied basically to inflation)
 - Lowest rates in the province
- Standard A (government subsidized) customers pay rates slightly above cost
- Together, customer rates provide about one third of our revenues
- The shortfall is made up through the Rural or Remote Rate Protection Program (RRRP), administered by the Ontario Energy Board
- All communities experience a winter peak
- Mostly residential load, no time of use billing or smart meters
- Low electrical rates, higher fuel prices and other home heating challenges promoting use of electric heat



Bearskin Lake DGS





Generation - Fuel



- Over 20 million litres/year with several suppliers
- Annual effort made to maximize winter road deliveries
 - Over 7 million litres delivered over good winter road season
 - 36 inches of solid clear ice for a full load 82,000 lbs/25,000 L
- Supplemental supply flown at 4,000 8,000 L loads
- Winter peak in Sandy Lake (largest DGS) burns 12,000 L/Day
- Partnerships for storage and delivery with First Nations encouraged to create economic development opportunities and reduce costs

Environment, Safety & CSAT



- HSE: Integrated EHSMS ISO 14001 & 45001
 - ISO 14001 certification (environmental standard) since 2002
 - Integrated with OHSAS 18001 in 2006
 - Remotes has reduced its emission intensity (CO2e/kWh) by 23% from 1990 levels
 - Grid connection will further reduce emissions by 60%
- Customer Satisfaction:
 - 96% overall in 2021
 - 90% CSAT or higher since 2009



Renewable Energy - REINDEER



- Remotes is enabling the connection of renewable energy projects to reduce the impact of diesel fuel on the environment within its service territory.
- In late 2012, the Remotes' Renewable Energy INnovation DiEsel Emission Reduction (REINDEER) program was developed for projects of this nature.
- There are two (2) types of REINDEER projects:
 - "Standalone" projects get paid for production on avoided cost of fuel
 - "Net Metering" projects receive a reduced monthly bill and credits during times of overproduction.



Community & Customer

hydro

- We work closely with First Nations and Tribal Councils on:
 - mutually beneficial partnerships
 e.g., Fuel supply contracts;
 Shoulderblade Falls GS operating agreement





- Conservation & Demand Management
- Renewable Energy INovation DiEsel Emission Reduction (REINDEER) Program
- Customer Advisory Board
- Public Safety in schools
- Community Sponsorships
- Career fairs



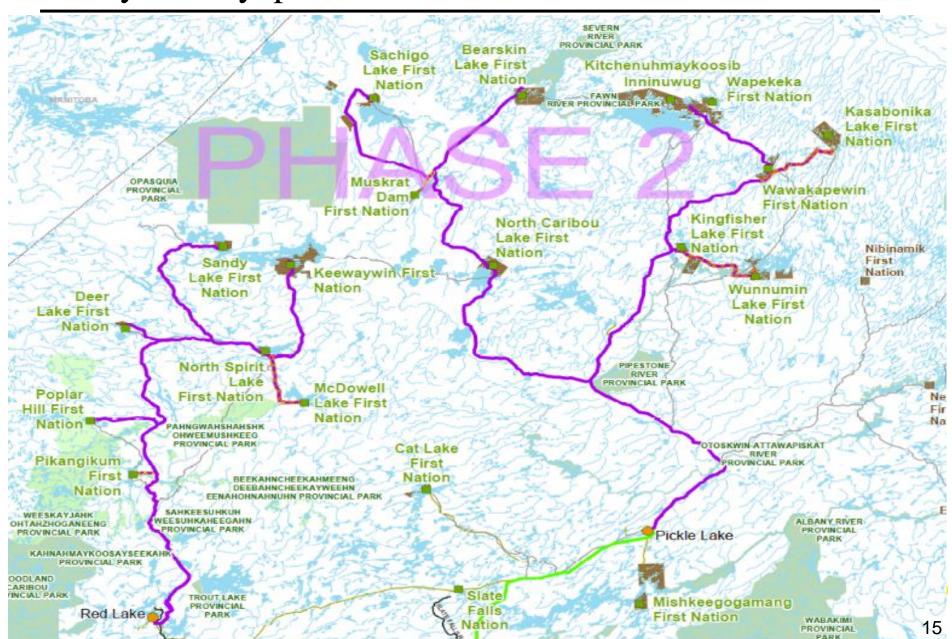
Preparing for Grid Connection



- Wataynikaneyap Power 24 First Nation Partnership
- There is a \$1.6B funding agreement in place with the federal and provincial government to reduce the impact on Ontario rate payers
- 1723 km of line in two phases (230-25kV)
- First phase: Reinforce Pickle Lake with 230kV
- Second phase: Connect 16 northern communities by 2024
 - 10 currently served by Remotes (including grid-connected Pikangikum)
 - 6 Independent Power Authorities (IPA) which have all requested Remotes to be their service provider overall 40% increase in customer base
 - 10 communities to be connected from Pickle Lake
 - 6 communities to be connected from Red Lake
 - 7 communities in the area will remain off-grid; 4 are served by Remotes

Wataynikaneyap: Grid Construction 2020-2024





Grid-connection – Reliability & Operational Impacts hydro



- Communities now served by Remotes will experience degraded reliability after grid connection according to IESO and Wataynikaneyap studies.
- Remotes has an agreement in place to provide backup power for most of the communities until 2030.
- The Watay project will increase Remotes' customer base by 40%
- After the grid connection of the 16 communities, Remotes will continue to serve 12 off-grid communities for the foreseeable future and the potential for 3 more off-grid communities to seek service.







Hydro One Remote Communities Inc.



Our VISION

We will be the leading electrical utility and a trusted partner to remote communities in Ontario's north.

Our MISSION

We supply safe, reliable and affordable electricity to remote communities by focusing on continuous improvement, operational excellence and outstanding customer service.

Revenue & Costs



- Fuel is our largest single cost
- Business is managed to break-even no profit
- Any differences between revenues and costs are recorded in a variance account
- Costs must be prudent to be recovered OEB public hearing process
- Residential and commercial rates are set below the cost of service
- Operations subsidized 3 ways: Cross subsidy from government funded customers (Std A); capital contributions from Indigenous Services Canada (ISC) and the RRRP
- Std A customers account for about 64% of energy revenues
- RRRP covers over 60% of total costs, cost of fuel is the biggest variable

Capital Funding



- ISC funding varies annually based on projects
- Federal funding process is complex and uncertain
- Electricity projects compete with other priorities: water, sewage, schools
- Funding must be requested by local First Nation and approved by ISC
- When funding is not available, community growth is constrained
- Remotes works with ISC to facilitate funding of capital projects that respond to community & customer needs



Our Bills



- Customers pay integrated rates for electricity and distribution
- Residential rates are the lowest in the province
- Rates for all customers have been stable compared to grid customers (change only once a year, close to the rate of inflation, no global adjustment).
- Government (Standard A) customers pay much higher rates
- Standard 'A' rates are applied to all accounts receiving Federal and/or Provincial funding.

Exceptions to these are:

Canada Post Corporation

Social Housing

Libraries

NAPS Residence

Recreational or sports facilities

Radio, Television and Cable facilities



Our Rates - 2022



^{*} Note that each customer in Ontario earns a 17.0% Ontario Electricity Rebate on their total electricity bill under the Ontario Rebate for Electricity Consumers (OREC). This reduction in price paid is not shown in the rates listed below.

Monthly Rates & Charges by Service Classification:	
 Year Round Residential RESIDENCE (R2) 	2. Seasonal Residential SEASONAL (R4)
Service Charge: \$21.64 * Note that First Nation Customers get the First Nation Delivery Credit of +\$21.64 that is equal to the Service Charge fee. Electricity Rate: First 1000 kWh: 10.18¢ Next 1500 kWh: 13.58¢ All Additional kWh: 20.47¢	Service Charge: \$36.57 Electricity Rate: First 1000 kWh: 10.18¢ Next 1500 kWh: 13.58¢ All Additional kWh: 20.47¢
3. General Service – GENERAL	4. Standard 'A'
SINGLE PHASE (G1) Service Charge: \$36.79	RESIDENTIAL: Electricity Rate: Air Access Road/Rail
Electricity Rate: First 6,000 kWh: 11.41¢ Next 7,000 kWh: 15.14¢ All Additional KWh: 20.47¢	First 250 kWh: 101.21¢ 67.04¢ All Additional kWh: 110.77¢ 76.60¢ GENERAL SERVICE:
THREE PHASE (G3) Service Charge: \$46.06	Electricity Rate: Air Access Road/Rail All kWh: 110.77¢ 76.60¢
Service Charge: \$46.06 Electricity Rate: First 25,000 kWh: 11.41¢	GRID CONNECTED: All kWh: 34.70¢
Next 15,000 kWh: 15.14¢	5. Street Lighting
All Additional kWh: 20.47¢	All kWh: 11.32¢



Generation



- Generally, 3 Engine/Generator Plants
- Sized appropriately to meet community power needs and to provide balance between fuel economy, emissions, reliability and available capital funding.
- Bulk fuel facilities located at each station
- Maintenance, engineering & construction planned and executed by staff located in Thunder Bay.
- Systems monitored at Operations Centre in Thunder Bay
- Communications systems are improving in the north but have been slow to modernize



Local Operators – Key to our Service



- Station Operators are contractors hired from local First Nations
- Operators perform;
 - day-to-day plant maintenance, fuel deliveries, emergency response, readings and reports, and
 - distribution first response public safety and power restoration
- Remotes provides direction, training and support
- Annual training program
 - focus on site-specific, hands-on training (Safety, EPRP, Spills, Waste, TDG, etc.)



Terry McKay
Big Trout Lake DGS



Renewable Energy: REINDEER in Action



- Deer Lake School 130 kW
- 300kW in Fort Severn
- 300kW planned for Gull Bay in collaboration with OPG



