

Renewable Energy Procurement Policies and Indigenous Communities in Canada

Joint Public Advisory Committee
of the
Commission for Environmental Cooperation

November 29, 2005



About us

- CIER is a First Nations directed national non-profit environmental non-government organization
 - Founded by a group of First Nations leaders in 1994
- Mission of building First Nations capacity to protect and preserve their environment
- We provide research, advisory, and education and training services to First Nations, other Indigenous groups, and government
- www.cier.ca

Overview

1. *Indigenous Communities in Canada*
2. *Federal Policies*
3. *Province of Manitoba Policies*
4. *Renewable Energy Projects in Manitoba First Nations*
5. *Conclusions and Next Steps*

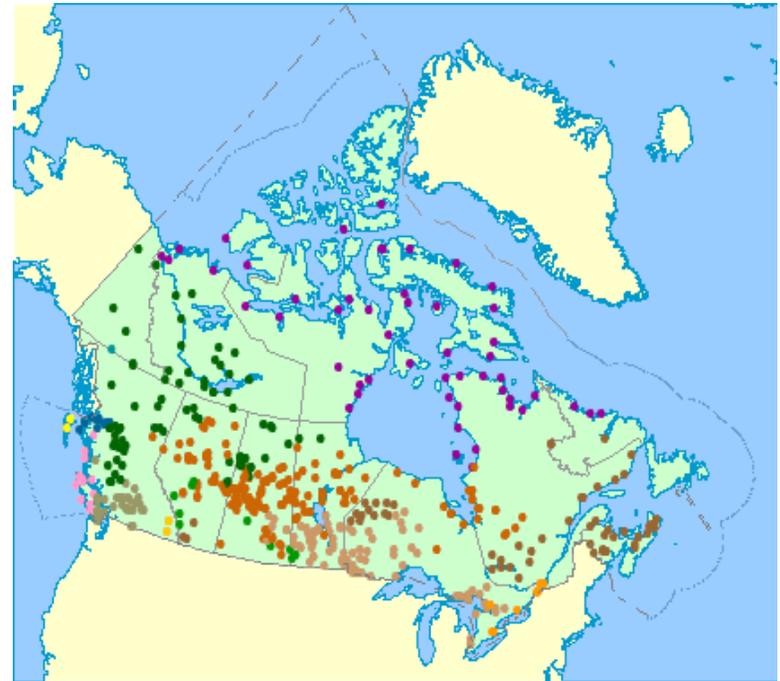
Clarification of terms:

Indigenous / Aboriginal

- ***First Nations***
- ***Inuit***
- ***Métis***

Indigenous Communities in Canada

- ~ 900 Indigenous communities in Canada
- Lower human development indicators in First Nations
 - Average per capita income 54% less
 - 5 –10 years shorter life expectancy
 - Infant mortality 2-3 times



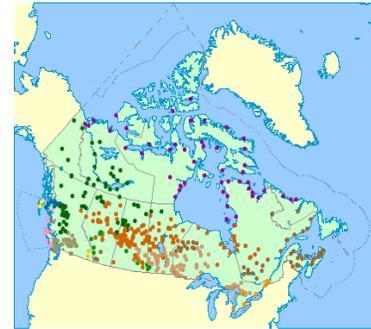
Source: The Atlas of Canada Natural Resources Canada



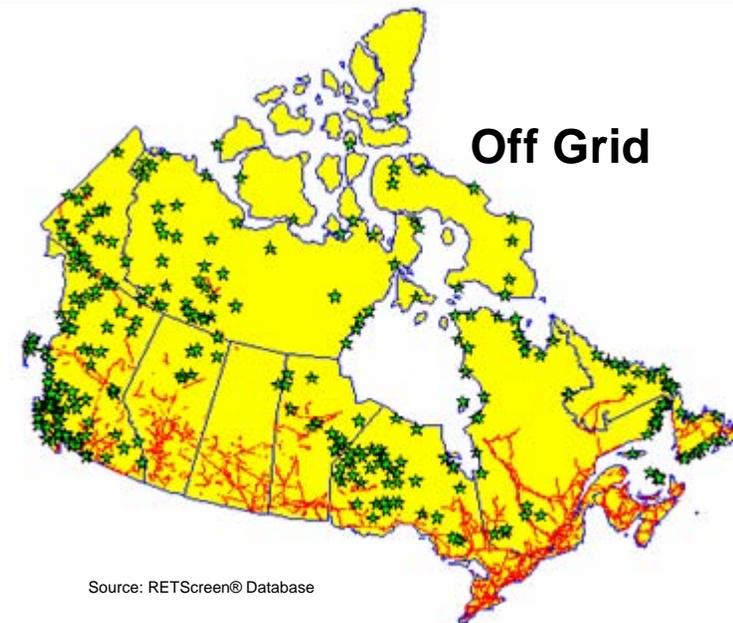
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Off Grid Indigenous Communities

- ~ 130 communities not connected to electricity grid
 - Diesel generators – costly financially and environmentally
 - Highest energy costs in Canada – \$1.05 kW.h vs \$0.07 kW.h
 - Substandard service – 60 amp service vs. 200 amp



Source: The Atlas of Canada Natural Resources Canada

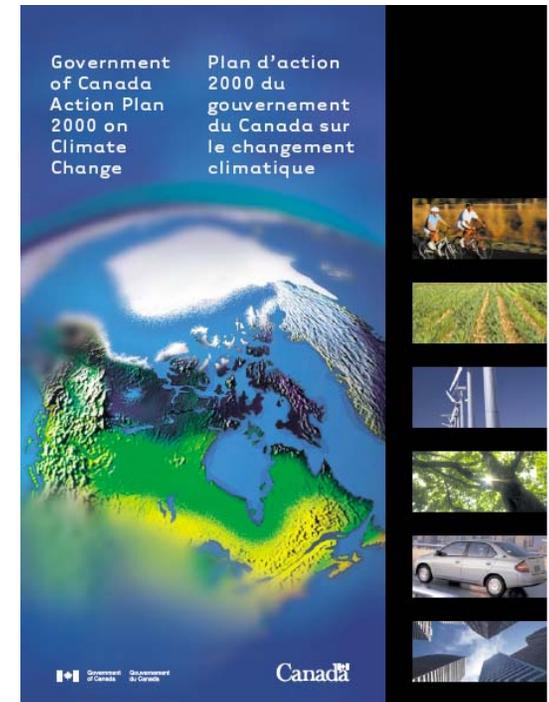


Source: RETScreen® Database

Action Plan 2000



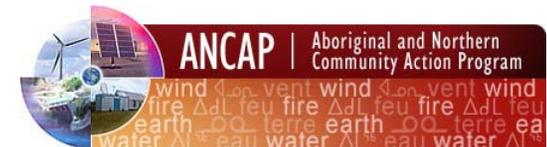
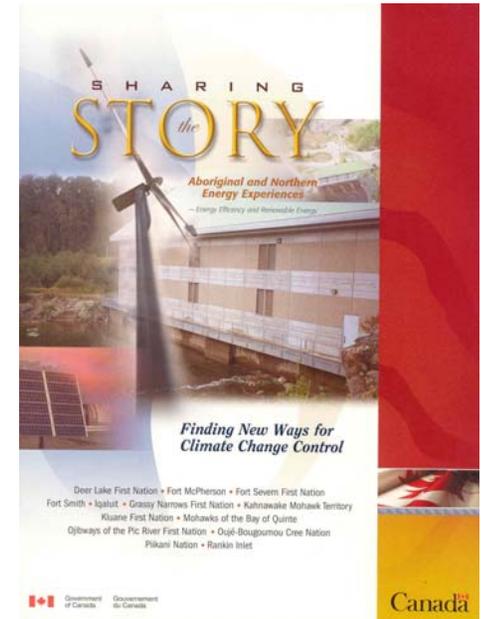
- Canada's **1st Kyoto plan** to spend \$500 million to reduce GHG emissions – includes renewable energy procurement
- Recognized remote **Indigenous communities face highest energy costs** in Canada
- Recognized that projects need to be implemented in **partnership with all levels of government**
- Committed to **installing renewable energy projects** in remote Indigenous communities
- Committed to developing **energy conservation and renewable energy economic development opportunities** with Indigenous communities



Implementing Action Plan 2000



- **Aboriginal and Northern Climate Change Program (ANCCP)**
 - **\$3 million over 2001 – 2003**
- **Aboriginal and Northern Community Action Program (ANCAP)**
 - **\$30 million over 2003 – 2007**
 - **Jointly managed by:**
 - **Indian and Northern Affairs Canada**
 - **Natural Resources Canada**



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ANCAP Energy Pathfinders

- **2 National and 10 Regional Energy Pathfinders**
 - **NGOs**
- **Raise awareness and build capacity**
 - **Climate change**
 - **Energy efficiency**
 - **Renewable energy**
- **Manitoba Pathfinder Steering committee – partnership**



Yellowknife, NWT – House boat not connected to the electrical grid, with wood stove heating, solar panel for power and wind monitoring equipment on roof. Photo S. Morgan



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Province of Manitoba

- Sustainable Development Act – June 1997
- Green Procurement Policies - June 2000
- Sustainable Development Procurement Guidelines – December 2000
 - “Conserving Energy” Guideline – includes “purchasing goods, materials and services where renewable forms of energy are substituted during production, transportation, usage and delivery for non-renewable forms of energy”
- Climate Change Co-operation Agreement
 - Signed by Manitoba and Canada in March 2004
 - Promotes partnerships between First Nations, Federal and Provincial governments

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What is ANCAP doing in Manitoba?



- **Building awareness and capacity towards implementing renewable energy projects. Indigenous communities are faced with many challenges:**
 - **High cost of living**
 - **High unemployment**
 - **Limited economic development**
 - **Reactive management**
 - **Renewable energy low priority**
- **Initial stages of renewable energy projects with Indigenous communities**
 - **Partnerships between Federal, Provincial and Indigenous governments**
 - **In some cases the renewable energy projects may provide economic development opportunities for the First Nations**

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Indigenous Renewable Energy Projects

In Manitoba since 2004

- **Wind monitoring projects**
 - **2 active projects**
 - **4 proposed projects**
- **Proposed small hydro project**
- **Proposed ground source heat pump**
- **11 community energy baselines**
- **Energy efficiency projects**



60 m wind monitoring tower in Rolling River First Nation.

Photo M. Robson

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Indigenous Renewable Energy Projects

Best Case Scenario

- Wind monitoring projects in Indigenous communities on electrical grid
- Required assistance in completing technical aspects of the ANCAP proposal and completing applications for towers
- Less than 10 km away from a 99.5 MW wind farm
- Potentially generating 1 -10 MW of renewable energy within 2 years



Photo M. Robson



Photo S. Parent



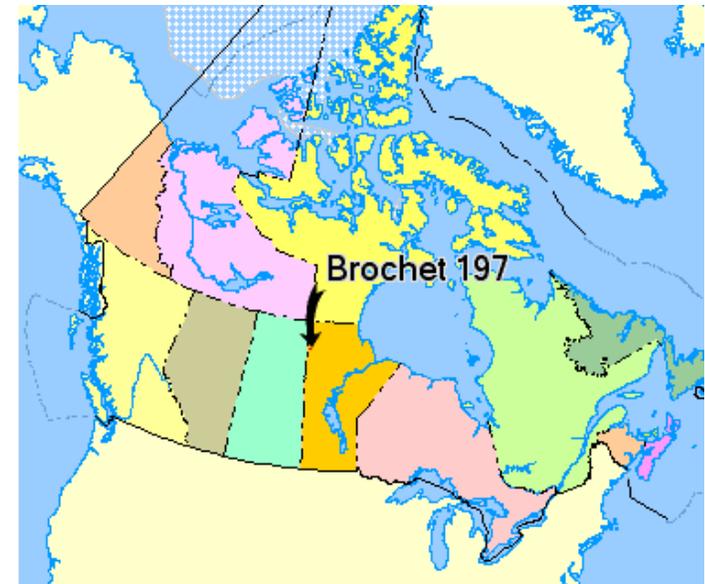
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Indigenous Renewable Energy Projects



Challenging Scenario

- Proposed small hydro development in remote Indigenous community not on electrical grid
- Pre-feasibility and feasibility studies done full participation of Indigenous community
- Working to raise awareness about renewable energy options and build partnerships



Source: The Atlas of Canada Natural Resources Canada

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Conclusion:

- **Renewable energy procurement policies provide support** for programs like ANCAP
 - Capacity building
 - Goal - to improve social, economic and environmental conditions in Aboriginal communities
 - Can increase renewable energy production but it takes time and commitment
- **Increased support to implement renewable energy projects in remote Indigenous communities** as it takes years and significant resources to implement these projects
- **Include Indigenous community members** when determining the type of renewable energy
 - Build vision and commitment for project implementation



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Conclusion:



- **Next steps**
 - **Increased research and development funds** to improve small and medium-sized **renewable energy technologies**
 - **Additional financial incentives** such as subsidies, grants, loans, etc. to small and medium-sized **renewable energy installation and service market**
 - Investments are important as will support with the **proper operations and maintenance** of renewable energy technologies, especially when installed in remote Indigenous communities
 - E.g. Fort Severn First Nation has wind turbine but it sits idle because they can not acquire the spare parts for repairs

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Thank You

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