Community Energy Planning: Getting to Implementation in Alberta

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Agenda

- Welcome and introductions
- An overview of the project and community energy plan implementation in Canada
- **Part I** - Building buy-in for community energy planning
- **Part II** - A provincial approach to community energy planning
Overview of the Getting to Implementation Initiative

Stage 1: Commencement
- National Report on CEP Implementation
- National Report on Policies Supporting CEP Implementation

Stage 2: Research
- National workshop series
- Community Energy Implementation Framework

Stage 3: National Engagement & Framework
- Apply Framework to three test communities
- Practical case studies developed for test communities

Stage 4: Pilot & Promotion
- Training modules developed to aid with delivering the Framework
- Framework made publicly available with training support
What is a Community Energy Plan?
What is a Community Energy Plan?

A CEP is a tool that helps define community priorities around energy with a view to:

- Driving economic development
- Managing future risks and enhancing resilience
- Improving energy efficiency
- Cutting GHG emissions
What is a Community Energy Plan?

A CEP often contains:

- A baseline inventory of energy and emissions
- Energy and GHG reduction targets
- Energy models
- Actions to achieve targets
What is a Community Energy Plan?
Baseline inventory

Source: London, Ontario
What is a Community Energy Plan?
Baseline inventory

Fort Providence Energy Profile 2007/08

- Total Greenhouse Gas (GHG) Emissions: 7,800 Tonnes CO₂eq
- Diesel Generator Efficiency: 68% Waste Heat 32% Electricity

Population: 753
Total Cost: $3,600,000
Total Energy: 122,000,000 MJ

- Electricity - Diesel: 39% of Cost 29% of energy 32% of GHG
- Fuel Oil: 22% of Cost 26% of energy 25% of GHG
- Propane: 13% of Cost 15% of energy 14% of GHG
- Wood: 2% of Cost 5% of energy 5% of GHG
- Gasoline: 21% of Cost 19% of energy 12% of GHG
- Diesel: 5% of Cost 5% of energy 5% of GHG

GHG Emissions per Person
- The World: 12 Tonnes CO₂eq/Year
- Canada: 10 Tonnes CO₂eq/Year
- Northwest Territories: 1 Tonnes CO₂eq/Year
- Fort Providence: 0.17 Tonnes CO₂eq/Year

Alternative Energy Sources for Your Community
- Wood
- Waste Heat Recovery
- Solar Air Heating
- Solar Water Heating
- Solar Electricity
- Wind Turbine

5 Ways to use less Energy and save Money
- Change your habits
- Buy Energy Star
- Buy a smaller vehicle
- Fix up old buildings
- Demand best energy standards for new buildings

Source: Fort Providence, Northwest Territories (Arctic Energy Alliance, 2008)
What is a Community Energy Plan?

Models

Source: St John’s Climate Change Action Plan (2006)
What is a Community Energy Plan?

Actions in a CEP

New & Existing Residential & Commercial / Institutional Buildings

- 1. Reduce Demand
- 2. Re-use Waste Heat
- 3. Renewable Heat
- 4. Renew Electricity

Waste

- 1. Organics Diversion
- 2. Construction – demolition waste diversion
- 3. Landfill Gas Capture
- 4. WWTP Gas Capture

Passenger & Commercial Transportation

- 1. Trip Distance Reduction
- 2. Mode Shift
- 3. Vehicle Efficiency
- 4. Fuel
National Report on CEP Implementation

- Snapshot of CEP implementation in Canada
- Describes success factors and barriers for CEP implementation
- Provide key considerations for the development of the Community Energy Implementation Framework
Challenges and Success Factors for Implementation

- Local government limits of authority
- Estimated GHG impacts of actions
- Staff capacity
- Public support
- Financial capacity
- Stakeholders support and leadership
- Political support and leadership
- Co-benefits of actions
- Staff support and leadership
- Priorities from other planning documents
## Challenges and Success Factors for Implementation

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<th>Financial and humans resources capacity for Implementation</th>
<th>Working within the local government’s limits of authority</th>
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<tr>
<td>- Focus on partnerships</td>
<td>- Identify points of commonality between the CEP objectives and community stakeholders</td>
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<td><em>Early, sustained engagement is key – engage broadly!</em></td>
<td>- Focus on actions being supported by utilities, provincial government and other stakeholders</td>
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Challenges and Success Factors for Implementation

- Planning department
- Electric utility
- Provincial government
- Real estate developers
- Gas utility
- Engineering department
- Finance department
- Federal government
- Non-governmental organizations
- Private sector
- Higher education institutions
- Other local governments
- Real estate agents
- School boards
- Health department
# Challenges and Success Factors for Implementation

## Building Political and Staff Support

- Identify key messages for different audiences
- Tracking and monitoring progress using key performance indicators
- Use data to tell a story
Improving the Clarity of the CEP

- Make the plan “SMART” (specific, measurable, attainable, relevant and time-bound)
- Tie timelines and accountability to actions
- Integrate energy into existing plans and processes
- Use decision making tools (e.g. energy maps)
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