Community Energy Planning: Getting to Implementation in Saskatchewan

June 26, 2015

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Project Partners and Supporters

- The J.W. McConnell Family Foundation
- Suncor Energy Foundation
- Alberta Real Estate Foundation
- Real Estate Foundation
- Conseil de la coopération de la Saskatchewan
- CDEA
- CDEM
- SDE Colombie-Britannique
- Community Energy Association
- QUEST
- Sustainable Prosperity
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** - Implementing Community Energy Plans and projects in Saskatchewan
Overview of the Getting to Implementation Initiative

Stages:
1. Commencement
2. Research
3. National Engagement & Framework
4. Pilot & Promotion

Deliverables:

2. National Report on CEP Implementation
   - National Report on Policies Supporting CEP Implementation

3. National workshop series
   - Community Energy Implementation Framework

4. Apply Framework to three test communities
   - Practical case studies developed for test communities
   - Training modules developed to aid with delivering the Framework
   - Framework made publicly available with training support
What is a Community Energy Plan?

- Researched Community Energy Plans
- Other Community Energy Plans
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 GHG emissions
- Energy and GHG reduction targets
- Energy models
- Actions to achieve targets
What is a Community Energy Plan?

Energy and Emissions Inventory

- Natural Gas: $234 million, 27% stays in London
- Propane: $35 million, 43% stays in London
- Diesel: $131 million, 5% stays in London
- Electricity: $492 million, 14% stays in London
- Gasoline: $530 million, 4% stays in London
- Fuel Oil: $38 million, 18% stays in London

Total: $1.5 billion
What is a Community Energy Plan?
Energy and Emissions Inventory

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

Energy and Emissions Inventory

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

Case Study: City of London, Ontario

<table>
<thead>
<tr>
<th>Ground-Sourced Heat Pumps</th>
<th>Retrofitting Institutional Buildings</th>
<th>Retrofitting Commercial Retail Buildings</th>
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<tbody>
<tr>
<td>Retrofitting Newer Homes (post-1980)</td>
<td>Solar Air Heating</td>
<td>Retrofitting Industrial Facilities</td>
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<td>Solar Hot Water Heating</td>
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<td>Retrofitting Older Homes (pre-1980)</td>
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<tr>
<td>New “LEED” Commercial Retail Buildings</td>
<td>Bioenergy</td>
<td>District Energy Systems</td>
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<td>Retrofitting Apartment/Condo Buildings</td>
<td>Retrofitting Commercial Office Buildings</td>
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<tr>
<td>New High Efficiency Homes</td>
<td>New High Efficiency Industrial Facilities</td>
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<td>Solar PV “behind-the-meter”</td>
<td>New “LEED” Institutional Buildings</td>
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<td>Solar PV with FIT Contract</td>
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<td>New “LEED” Apartment/Condo Buildings</td>
<td>Wind Turbines</td>
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<td>Small Scale Wind Turbines</td>
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<td>New “LEED” Commercial Office Buildings</td>
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Energy cost avoidance of around $250 Million per year by 2018
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

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

### Improving the Clarity of the CEP

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<td>Make the plan “SMART”&lt;br&gt;(specific, measurable, attainable, relevant and time-bound)</td>
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<td>Tie timelines and accountability to actions</td>
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<td>Integrate energy into existing plans and processes</td>
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<td>Use decision making tools (e.g. energy maps)</td>
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Focus on economic development and risk management

Start simple – “3 emails” energy inventory

Mapping provides robust starting point

Cost-benefit info helps set priorities

It can’t be just the City’s plan for the community
  – What are local stakeholders doing? Engage broadly!

Think about performance indicators early on
Stay engaged. Visit:
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