Opportunities & Realities of Renewable Energy Co-op Development

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Community University Research Alliance (CURA)
Measuring the Co-operative Difference
Measuring the Co-op Difference Research Network

• SSHRC/CURA funded, multi-year study across many co-op sectors, many partners

• TREC-York partnership: examine RE co-op sector
  – Literature review, national scan, international best practice, regulatory & policy issues, measuring the difference, tools for capacity building
About Community Power (CP)

- Sustainable energy projects (solar, wind, hydro, biomass) are initiated, implemented and owned by members of a community.
- CP is located in and responsible to the local community resulting in a more distributed and egalitarian system of electricity generation and distribution.
- Delivers 'triple bottom line' returns, creating economic, social and environmental benefits.

Credit: SolarShare/Lianne Cote
The Value of Co-ops

• Provide service to members (people that want to support RE)
• Democratically controlled by members (one member/one vote)
• Surplus is distributed to members (for-profit) or social good (non-profit)
• Allows broad participation in RE development & investment
Community Potential - Germany

- FIT introduced to support farmers with small hydro early 90’s
- 50% of German renewables owned by local residents and communities (farmers, co-ops)
- Almost $5 billion community money invested
- 200,000 Germans own shares
- 2000-2010 RE increased from 5% to 17% electricity supply
- 35% expected by 2020
- 380,000 jobs created in RE

Schauinsland, Germany
Paul Gipe, wind-works.org
Community Potential - Germany

Community Ownership of Renewable Energy in Germany in 2010

Total Capacity: 53,000 MW

Private Individuals: 40%
Industry: 9%
Banks/Funds: 11%
Other Energy Providers: 7%
Large Energy Providers: 7%
Developers: 14%
Landowners: 11%
Other: 1%

Source: www.unendlich-viel-energie.de
## International Comparison

<table>
<thead>
<tr>
<th>Country</th>
<th>Farmer</th>
<th>Co-op</th>
<th>Corporate</th>
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<tbody>
<tr>
<td>The Netherlands</td>
<td>60%</td>
<td>5%</td>
<td>35%</td>
</tr>
<tr>
<td>Germany</td>
<td>10%</td>
<td>40%</td>
<td>50%</td>
</tr>
<tr>
<td>Denmark</td>
<td>64%</td>
<td>24%</td>
<td>12%</td>
</tr>
<tr>
<td>Great Britain</td>
<td>1%</td>
<td>1%</td>
<td>98%</td>
</tr>
<tr>
<td>Spain</td>
<td>0%</td>
<td>0%</td>
<td>100%</td>
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</tbody>
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Source: Dave Toke, University of Birmingham, 2005, 2008
CP in Canada

• TREC/WindShare first RE co-op in Canada, completed in 2003
• Raised $800,000 in equity from 427 members - oversubscribed by $250,000 (180 investors in-waiting)
• Catalyst for others, policy needed: first RESOP, now GEA/FIT – Ontario leading
• ComFIT in NS since Sep’11: 84 applications in first 5 weeks of program – 50 MW have been awarded for 20 projects
• Quebec RFP for CP in 2010 – only one co-op, Valeo, with PPA, 8 others in development
• Rest of Canada limited activity – just a handful of CP/co-op projects in each province
Ontario Policy

• Community ownership a key element in the Green Energy Act, 2009
  – Feed-In tariffs with price adder for community ownership
  – Community Energy Partnership Program (funding)
  – Changes to Co-op Corporations Act

• This policy introduced a framework to enable & encourage CP development
Eligible Participation (Ont)

Types of CP Groups

- First Nations
- Municipalities
- Educational Institutions
- Charities & Non-profits
- Co-operatives
- Private Ventures
CP activity in Ontario

- Over 80 community and at least 26 Aboriginal Energy projects under development
- Of the 17,000 MW in RE projects (with FIT & in the pipeline), 1500 fall under broad ‘community’ definition – 326 MW with FIT
- Less than 50 MW is being developed by co-op, non-profits or charities
- Approximately 20 RE co-ops active, only two have operational facilities, several have started raising community investment, only a few have a FIT contract
- Despite significant activity & effort, progress is slow
• Incorporated in 2010 as a non-profit co-op
• 18 sites / 600 kW installed & generating power since 2011
• $3.7 million total cost; financed through private loans
• Selling community bonds at 5%, 5-year terms
• Plans for expansion – seeking $3 million in community investment
• www.solarbonds.ca
Barriers to CP

• Grid constraints/restrictions in many provinces (monopoly/centralised electricity systems)

• Cumbersome and costly development process
  – Competitive environment
  – Agency delays and uncertainties
  – Changing rules/prices
  – FSCO apprehension (Ont)

• Steep learning curve for community groups – not enough shared learning and resources

• Financing challenges – development costs, raising sufficient community equity, finding commercial debt, operating costs (scale is important)
Opportunities and next steps

- **Commercial-community partnerships**: gain local support, great for public profile and raise community equity – need to watch for equitable partnership terms
- **Ease financing process** – gov’t loan guarantee or debt money (e.g. Infrastructure Ontario) for CP projects: excellent local impact investment opportunity (e.g. NS CEDIF program)
- **Reduce turn around times on applications and approvals**: need to bring projects to fruition quickly and cost-effectively (more certainty essential for sector expansion)
- **Clarity & assurances on grid access** needed (priority access in for CP projects, NS ComFIT)
- **Develop economies of scale** through shared experiences and administration services (reduce 20 year overheads)
Contact info

Measuring the Co-operative Difference Research Network

http://www.cooperativedifference.coop/

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