



QUEST

The Voice of the Smart Energy Communities
Marketplace in Canada

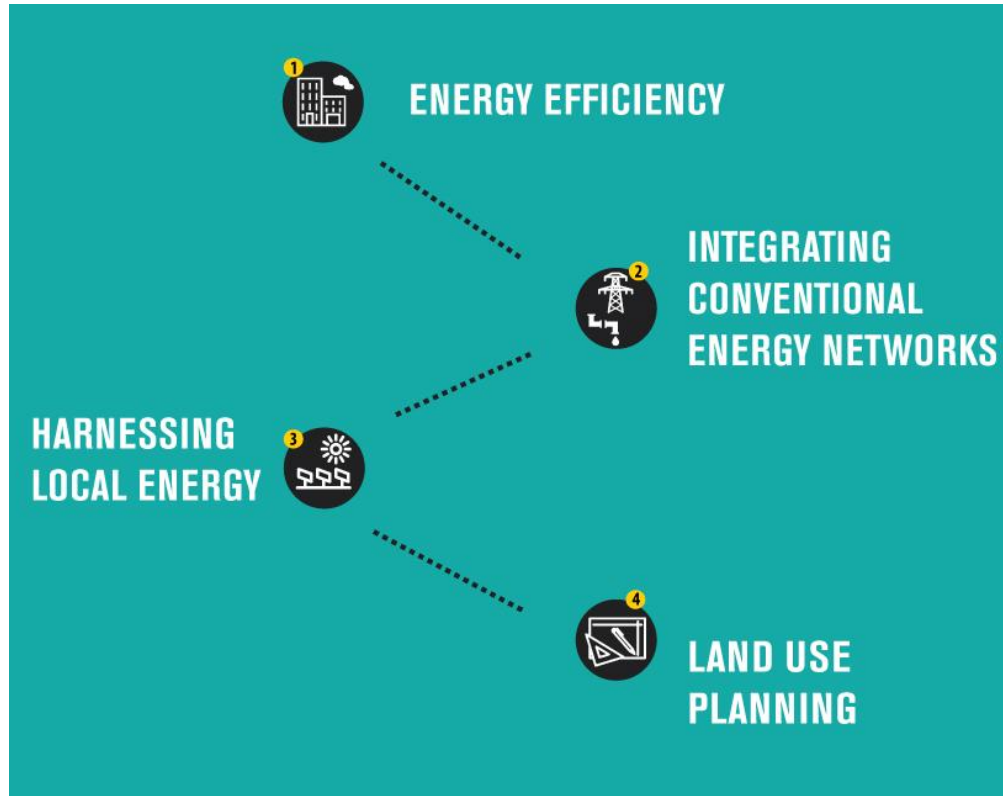
Smart Energy Communities

Arctic Development Expo | Wednesday June 12th, 2019

ABOUT QUEST

- QUEST is a national non-government organization that drives the development of resilient, affordable, healthy, and prosperous Canadian communities by building awareness of, and support for, efficient, integrated, and localized energy systems
- Our vision is for every community in Canada to become Smart Energy Community

SMART ENERGY COMMUNITIES



A Smart Energy Community seamlessly integrates local, renewable, and conventional energy sources to efficiently, cleanly, and affordably meet its energy needs. It is a coveted, highly livable place to live, work, learn, and play

SMART ENERGY COMMUNITIES PRINCIPLES

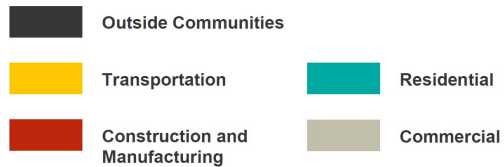
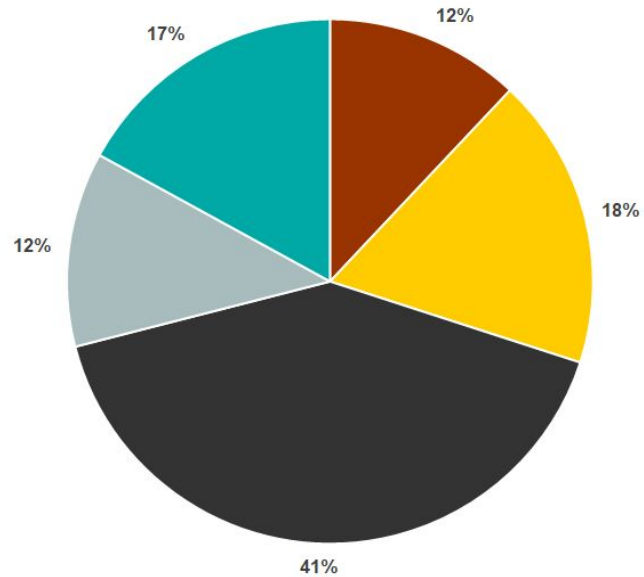
Technical Principles

- 1** Improve efficiency
- 2** Optimize energy
- 3** Manage heat
- 4** Reduce waste
- 5** Use renewable energy resources
- 6** Use energy delivery systems strategically

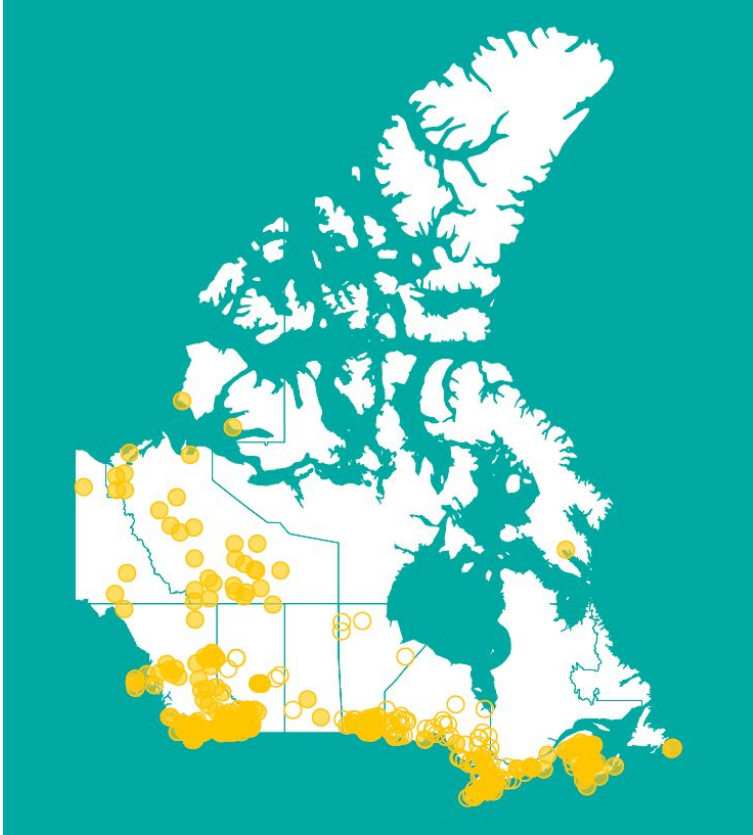
Policy Principles

- 7** Match land use needs and mobility options
- 8** Match energy options to local context
- 9** Send clear and accurate price signals
- 10** Manage risks and be flexible
- 11** Emphasize performance and outcomes in policy and regulations
- 12** Pursue policy and program stability

ENERGY USE IN CANADIAN COMMUNITIES



COMMUNITY ENERGY PLANNING IN CANADA



- A Community Energy Plan (CEP) defines a community's priorities, and identifies opportunities to manage how energy is produced, delivered, and used in order to meet them
- There are approximately 37 CEPs in YT, NWT and NU
 - All communities in NWT have community energy plans

SMART ENERGY COMMUNITIES SCORECARD

Goals:

- Define the attributes (indicators) of a Smart Energy Community
- Determine what to measure to show the existence, or presence of these attributes in a community
- Create a tool that communities can use to benchmark and track their progress

There are currently 9 communities across Canada - including Inuvik and Yellowknife - piloting the Scorecard

www.questcanada.org/scorecard



INDICATORS FOR SMART ENERGY COMMUNITIES

Community Capacity & Resources



Relationships



People



Data



Funding



Strategy

Community Energy Systems & Process



Land Use



Energy Systems



Water & Wastewater



Transportation



Buildings

PRELIMINARY RESULTS HIGHLIGHT - YELLOWKNIFE

Data: Information and Data is Available and Mapped to Support Decision-Making



Highlights:

- Open data portal (<http://opendata.yellowknife.ca/>), and extensive community and local government energy reporting
- Commitment to data sharing, and sustainability reporting by electric utility



PRELIMINARY RESULTS HIGHLIGHT - INUVIK

Buildings - Buildings are Efficient and Incorporate Local Energy Options



Highlights:

- Public education on building energy use (through AEA)
- Programs available for energy audits and retrofits in all building types (through AEA)
- Leadership in public sector organization and community buildings, such as the East Three School or Inuvik Hospital wood pellet boilers or Northern Sustainable House project





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