



**Boulder's Energy Future Project and the
Municipalization Exploration Study:
The Road to the Electric Utility of the Future**

Boulder Green Streets - May 1, 2013

www.BoulderEnergyFuture.com

Agenda



- I. Boulder's Energy Future and the History of The Municipalization Exploration Project**
- II. The Electric Utility of the Future – An Opportunity for Innovation**
- III. Challenges: What's the Disconnect?**
- IV. Where we are today: Options for Moving Forward**
- V. What's next?**

History



Boulder's Energy Future and the History of The Municipalization Exploration Project

Why Boulder is on this path



- **Seeking new ways to achieve community greenhouse gas reduction and climate change mitigation goals**
- **To give the community access to:**
 - Reliable power that is increasingly clean and competitively priced
 - Local decision-making authority on where power comes from and new investments in emerging technology

Municipalization Exploration Study



Objective: To evaluate options for a city-owned electric utility that support community goals and guiding principles, determine whether those options can meet city charter test for municipalization, and to provide City Council with a preferred option(s) and recommendation on whether to proceed with municipalization, or not.

Boulder's Path to the Future



- **2005** - City started researching power supply options
- **2010** – Franchise with Xcel expires, city decides not to renew after extensive negotiations
- **Nov. 2011** – Voters pass municipalization measures that establish Charter requirements
- **Jan. 2012 - April 2013** – Analysis to determine whether municipalization can meet Charter requirements

Why is this innovative?



- This will be the first municipalization attempt of this size in decades
- Change is being driven by the values of the community
- Ability to create a resource plan from the bottom up and not constrained by existing generation investments
- Opportunity to create the utility of the future and bring innovation to the industry

Opportunity for Innovation



The Electric Utility of the Future – An Opportunity for Innovation





Vision for Utility of the Future

“The Utility of the Future is the unifying entity that connects the wants, needs, and desires of the user with the core values of the community in the most efficient and sustainable way possible.”

How can Boulder...

- *Be positioned for a low-carbon future?*
- *Focus on customer choice and treat energy as a “service,” rather than a “commodity?”*
- *Become a hub of innovation and technological advances?*
- *Leverage infrastructure and ensure reliability*
- *Change the business model to reflect values and economics of the 21st century?*



Innovation Opportunities



- Resource mix can include localized generation such as
 - Solar
 - Waste to heat
 - Flexibility in plan for future technologies
 - Demand side management/Energy Efficiency as a resource
- Distribution system can be enhanced as aging equipment is replaced
 - Undergrounding of distribution lines
 - Creation of micro grids -
 - Opportunity to provide energy technology test beds
 - Establishment of special “high reliability zones” to attract and retain specialized industries
 - Leverage existing and new assets for overall improved reliability

Challenges



Challenges: What's the Disconnect?

What's the Disconnect?



- Coal-based resource portfolio
- Limited renewable resources in current mix - 24 percent
- PUC regulation versus local control
 - One-size fits all
 - Difficult to meet community values and goals
 - Rate oversight
- Business model
 - Energy as a service vs. a commodity
 - Shareholders versus community
 - Consumption based revenue model

Options



Where we are today: Options for Moving Forward

Where we are now: Work Plan



Objectives:

- Roadmap for creating Utility of the Future
- Created potential service area map
- Developed and refined options for moving forward
- Gain community support and/or understanding of outcomes (address as many concerns as possible)
- Ensure integrity of the process
- Documentation for third-party evaluation

Local, regional and national experts enlisted to help with analysis of all work plan areas:

- 50+ community working group volunteers
- Expert consultants retained

Formulating Options



What do we mean by an “option?”

- How and where we get our energy resources
- What business structure meets financial targets
- What assets do we need to serve our community
- What investments do we need to make in electric infrastructure
- How we achieve excellent reliability
- Other components needed to support the community goals

Summary of Key Findings



- Four options exceed Kyoto in year 1; a fifth in year five
- Under some options, offer customers equal or lower rates over 20 years
- Maintain or exceed current reliability
- Reduce emissions by more than 50% with 54% of electricity from renewable resources
- All options meet the debt service coverage ratio – 1.25x
- Provide path for strong economic development

What else could a local utility do?



- Design and tailor energy efficiency programs and services that meet community needs and wants
- Tailor rate structures to help customers
- Utilize knowledge of local clean-tech sector and labs and integrate emerging innovations quickly and effectively
- Respond quickly to outages and emergency situations
- Keep money in the local community and offer incentives to bring more business and industry to Boulder

Next Steps



What's next?

Next Steps in Work Plan



- **April 16** – City Council moves study into Phase 2
- **Phase 2 – April 17 to August**
 - Answer the “should we” question – value add
 - Independent 3rd Party Evaluation
 - Proceed with legal steps
 - Initiate financing discussions with bond agencies
 - Initiate governance discussions
 - Additional analysis
 - Work with Xcel on partnership ideas

Next Steps in Work Plan



- **Phase 3 - August 2013 – 10 to 18 months**
 - Acquisition process
 - Regulatory
 - Financing
 - Form Utility
- **Phase 4 – 2015 to 2016 – Implement**
 - Pay for system and receive title to assets
 - Finalize power and service contracts
 - Finalize programs and services and Adopt rates
 - Implement operation of Boulder Electric Utility

Want to learn more?



- www.BoulderEnergyFuture.com
 - Background info and FAQs
 - Memos and consultant reports
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