

ENERGY FUTURE PROJECT: BACKGROUND & UPDATES

Rates and Reliability & Safety Working Groups

March 12, 2015



AGENDA

- ▶ Introductions 11:00-11:15
- ▶ Working group goals & protocols 11:15-11:30
- ▶ Background 11:30-11:40
- ▶ Where we are now / next steps 11:40-11:50
- ▶ Questions 11:50-12:05
- ▶ Working Groups separate 12:05-1:00

ROLE OF THE WORKING GROUPS

- ▶ Working groups provide critical support to city projects. Activities may include:
 - ▶ Analysis
 - ▶ Discussion
 - ▶ Independent research
 - ▶ Reviewing reports
 - ▶ Providing feedback
 - ▶ Making recommendations

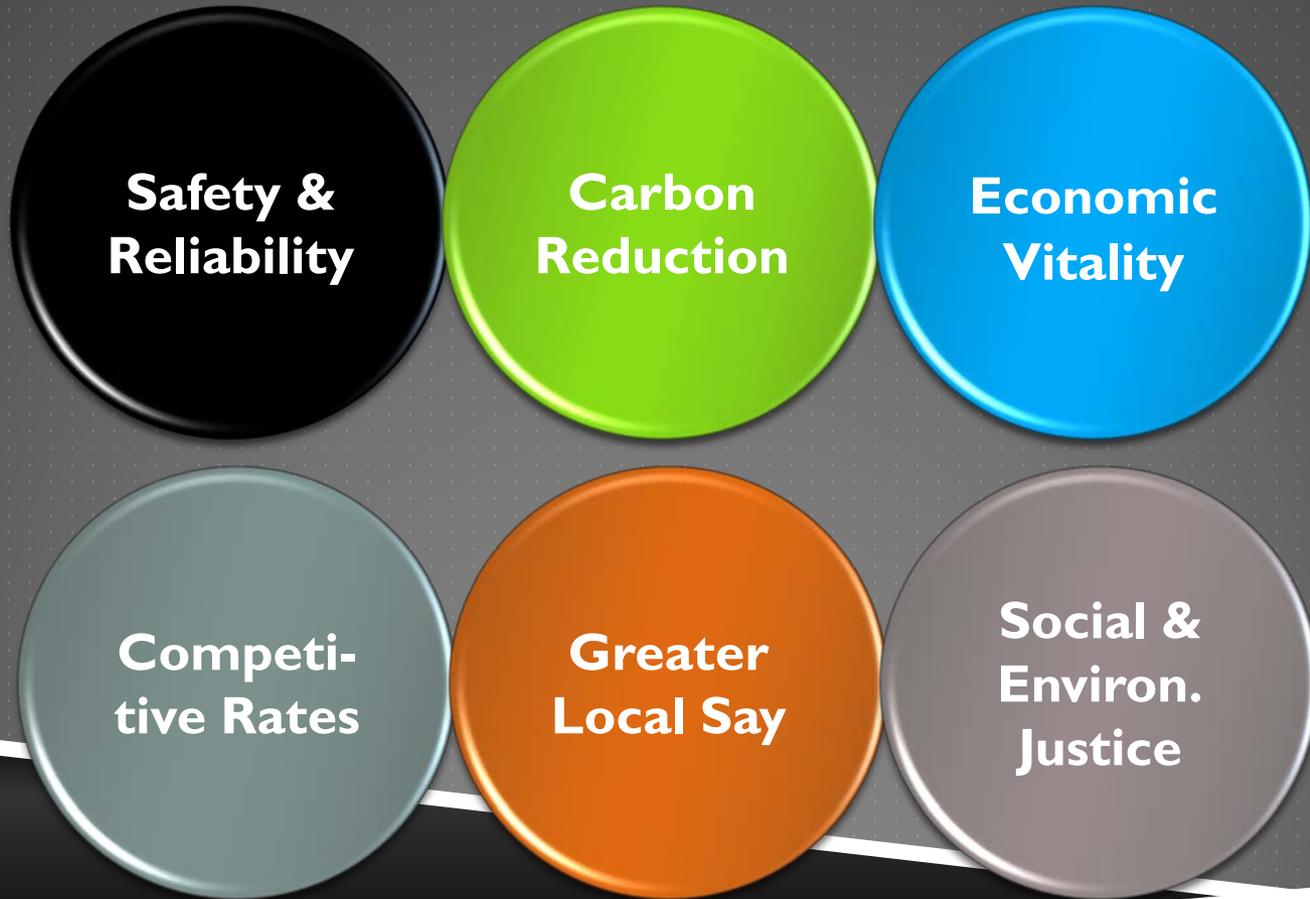
GOALS FOR THE WORKING GROUPS

- ▶ Obtain valuable feedback from community stakeholders and experts
- ▶ Help define success if the city creates a local electric utility
- ▶ Collaborate with other working groups to ensure common understanding of project

THE WORKING GROUP MEETINGS :

- ▶ Are a safe venue for the free flow of ideas
- ▶ Are not open to the public, but participant bios, materials, and notes will be on the city's website
 - ▶ Will provide participants the opportunity to review and edit meeting notes
 - ▶ Documents marked as “draft” are not to be shared outside the working group until marked “final”

WHY MUNICIPALIZE? THE ENERGY FUTURE GOALS



THE VISION: A UTILITY OF THE FUTURE FOR BOULDER

Current Business Model



...not very flexible.

The Utility of the Future



...highly flexible!

WHAT EXPERTS ARE SAYING



Audrey Zibelman
Founder,
Viridity Energy

"For the first one hundred plus years of the power industry's existence, we presumed that one half of the system, the consuming side, was inalterably dumb... We are now getting a bit smarter."



Steve Malnight
Vice President, Customer Energy
Solutions, Pacific Gas & Electric

"We believe there is a need for next-generation policies, "decoupling 2.0" if you will, to more fully harmonize utility ratemaking and rate design with distribution edge resources at scale."



Ron Binz
Principal,
Public Policy Consulting

"Regulation needs to shift from its backward-looking focus on costs, to a forward-looking emphasis on value and desired societal outcomes."

HISTORY OF MUNICIPALIZATION

- ▶ 2005: City started researching power supply options.
- ▶ 2006: Boulder voters pass nation's first carbon tax.
- ▶ 2010: Xcel franchise expires; not renewed after extensive negotiations. Boulder voters approve utility occupation tax in lieu of franchise.

HISTORY OF MUNICIPALIZATION

- ▶ 2011: Continued negotiations produce “wind deal” that does not meet community goals. Boulder voters establish funding and Charter requirements for formation of a city electric utility.
- ▶ 2012-13: City conducts analysis to determine if a local electric utility could meet Charter requirements and community Energy Future Goals.

WHAT DID WE DO?

- ▶ We translated the City Charter requirements into metrics that we could model.
- ▶ We brought in over 50 volunteers with deep expertise.
- ▶ We analyzed the quantitative and qualitative aspects of forming a local electric utility.



OUR COMMUNITY IS INVOLVED:

Past Groups	Current/Anticipated Groups
Municipalization Metrics	Energy Services
Clean Energy Tech Team	Natural Gas
Communications	Resource Acquisition
Decision Analysis	Rates
Financial	Reliability & Safety
Governance	Governance (future)
Natural Gas	Customer Experience (future)
Reliability	
Resource Modeling	
Solar	

CITY CHARTER REQUIREMENTS

- ▶ Rates equal to, or less than, Xcel's at acquisition
- ▶ Revenue sufficient to cover operating costs plus earn a debt service coverage margin of 25%
- ▶ Reliability comparable to that offered by Xcel
- ▶ Increase renewable energy and decrease emissions
- ▶ Independent third party review
- ▶ \$214 million cap on debt for acquisition
- ▶ Representation of non-city customers on governance board

KEY COMPONENTS OF THE MODELING

- ▶ Designed to show whether there were scenarios where Boulder could meet all Charter requirements
- ▶ Applied “probabilistic” assumptions—range of high, median, & low values, e.g. for wind & natural gas prices
- ▶ Several scenarios for power supply (40-60% renewable)
- ▶ Several scenarios for acquisition and stranded costs (\$150-405M)

WHAT WE FOUND

- ▶ There are reasonable scenarios under which we could significantly change our power supply while maintaining comparable costs and rates over 20 years.
- ▶ A city electric utility has the ability to reinvest locally and create opportunities for innovation—like increasing distributed generation and facilitating peer-to-peer sharing through microgrids.
- ▶ System upgrades and local distributed generation can increase both reliability and resilience.

WHERE WE ARE TODAY

- ▶ 2013: Council authorized filing condemnation to acquire Xcel assets if negotiations fail; Boulder voters adopt limitations on acquisition price and oppose restrictions
- ▶ 2014: City files condemnation case and begins implementing transition plan
- ▶ 2015: Council directs staff to file application with Colorado Public Utilities Commission

GOALS FOR THE TRANSITION:

1. Prepare to safely, reliably, and effectively operate electrical system
2. Manage costs, mindful of uncertainties
3. Minimize customer impacts and maximize customer value
4. Proactively identify and mitigate risks
5. Integrate utility within city organization
6. Meet community's Energy Future goals

FUNCTIONAL AREAS:

OUR ROADMAP TO IMPLEMENTING RETAIL ELECTRIC SERVICE

- ▶ Construction, Operations & Maintenance (Reliability & Safety W.G.)
- ▶ Customer Service (Customer Experience W.G. (future))
- ▶ Energy Services (Energy Services W.G.)
- ▶ Finance, Accounting, & Rates (Rates W.G.)
- ▶ Planning & Engineering (Reliability & Safety W.G.)
- ▶ Power Supply & Delivery (Resource Acquisition W.G.)
- ▶ Legal/Regulatory
- ▶ Support Services : HR, Risk Management, IT

TRANSITION MILESTONES

- ▶ **“Day 1”** – city funds local electric system and takes ownership of assets
 - May occur anywhere from early 2017 to early 2018
- ▶ **“Day 2”** – city completes separation from Xcel Energy and assumes full operation
 - Would occur 18-24 months after “Day 1”
- ▶ **“Post-Day 2”** – transition to utility of the future

QUESTIONS OR COMMENTS?

We thank **YOU** for your participation in these groups!