

Boulder's Energy Future

CLEAN LOCAL ENERGY

low-cost. reliable. possible.

Energy Policy and Society The University of Colorado April 4 2014

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Agenda



I. Introduction

II. Regulation in Colorado

III. The Municipalization Exploration Project

IV. Boulder's Path to the Future

V. Next Steps

Regulation in Colorado



| Colorado Utility Regulation | Deregulated States |
|---|---|
| Supports vertically integrated utility structure | Unbundled generation and transmission to avoid preferential treatment of generators |
| Prices set by regulator based on historical cost model (little incentive to manage cost and efficiency) | Cost of power established by market/ transmission regulated |
| Services must be approved by PUC and offered to all customers | Services and pricing packages can be created to meet unique customer needs |

Municipalization Exploration Project



Objective: To evaluate options for a city-owned electric utility that support community goals and guiding principles, determine whether those options meet the City Charter test for municipalization, and to provide City Council with a preferred option(s) and recommendation on whether to proceed with municipalization.

Needed to answer these questions:

- *Can* we municipalize? – Meets Charter reqs
- *Should* we municipalize? – Adds value

Why Boulder is Looking at its Utility Future Differently



- **2005** – City began researching power supply options
- **2010** – Franchise with Xcel Energy expires, city decides not to renew after extensive negotiations
- **Nov. 2010** – Boulder voters approve utility occupation tax to replace franchise fee
- **2011 - to the Present** – Ongoing negotiation with Xcel Energy
- **Nov. 2011** – Boulder voters pass measures to establish Charter requirements for municipalization



Why Boulder is Looking at its Utility Future Differently

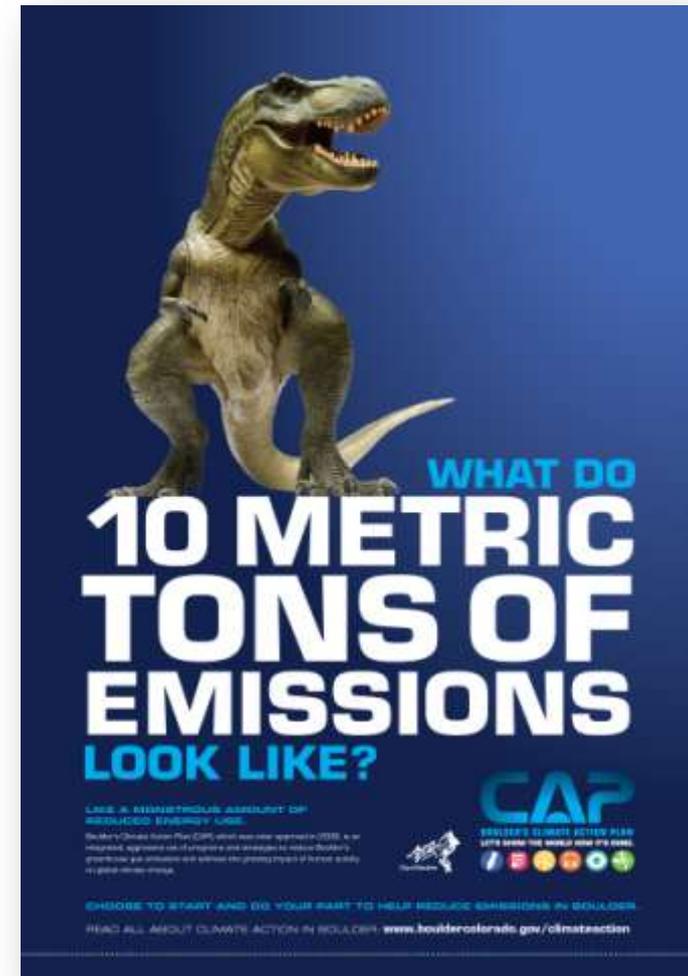


- **Jan. 2012 to August. 2013** – Analysis to determine if municipalization could meet Charter requirements and add community value:
 - Detailed analysis and modeling of scenarios, data collected and vetted
 - Working groups formed to advised staff
 - Models reviewed by independent 3rd party, and recommendation to City Council
- **Nov. 2013** – Second ballot measure defeated
- **Nov. 2013 to Jan. 2016** – Legal filings and transition plan developed and implemented with ongoing public engagement

Why a New Utility Model is Important to Boulder



- **Driven by the Boulder Community**
 - Climate Action Plan – Climate Commitment
- Achieve greenhouse gas reduction and climate change mitigation goals
- One of the most carbon-intensive fuel supplies in the nation
- **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
- **Drive economic vitality and foster community innovation & involvement**



What is the Problem – Financial Incentives



- Current model is inherently in conflict with reduced use and localized generation
- Returns are tied to investments in assets, incenting large capital programs
- Revenue growth relies on increased Kwh and Kw sales

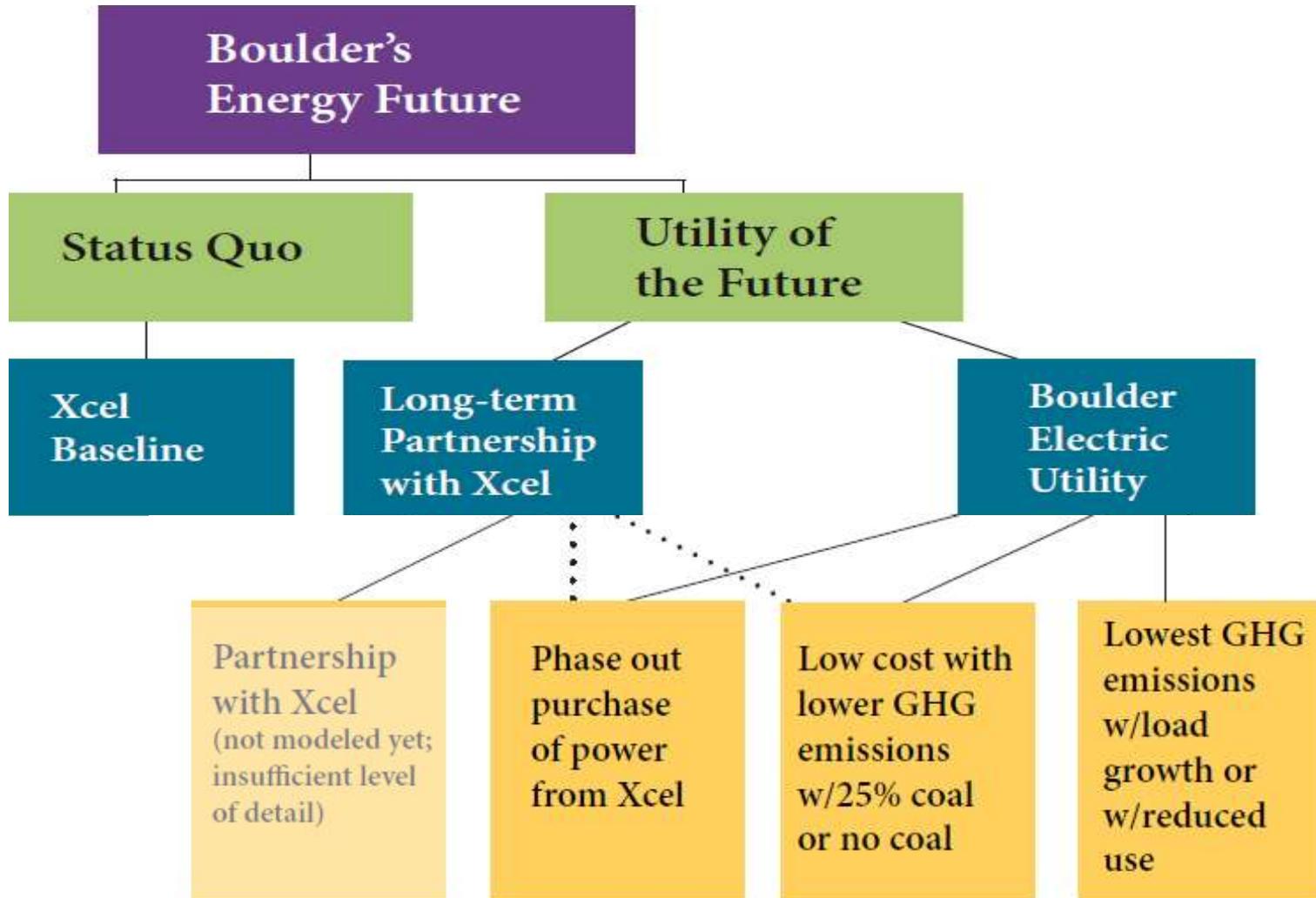
The Community is Engaged



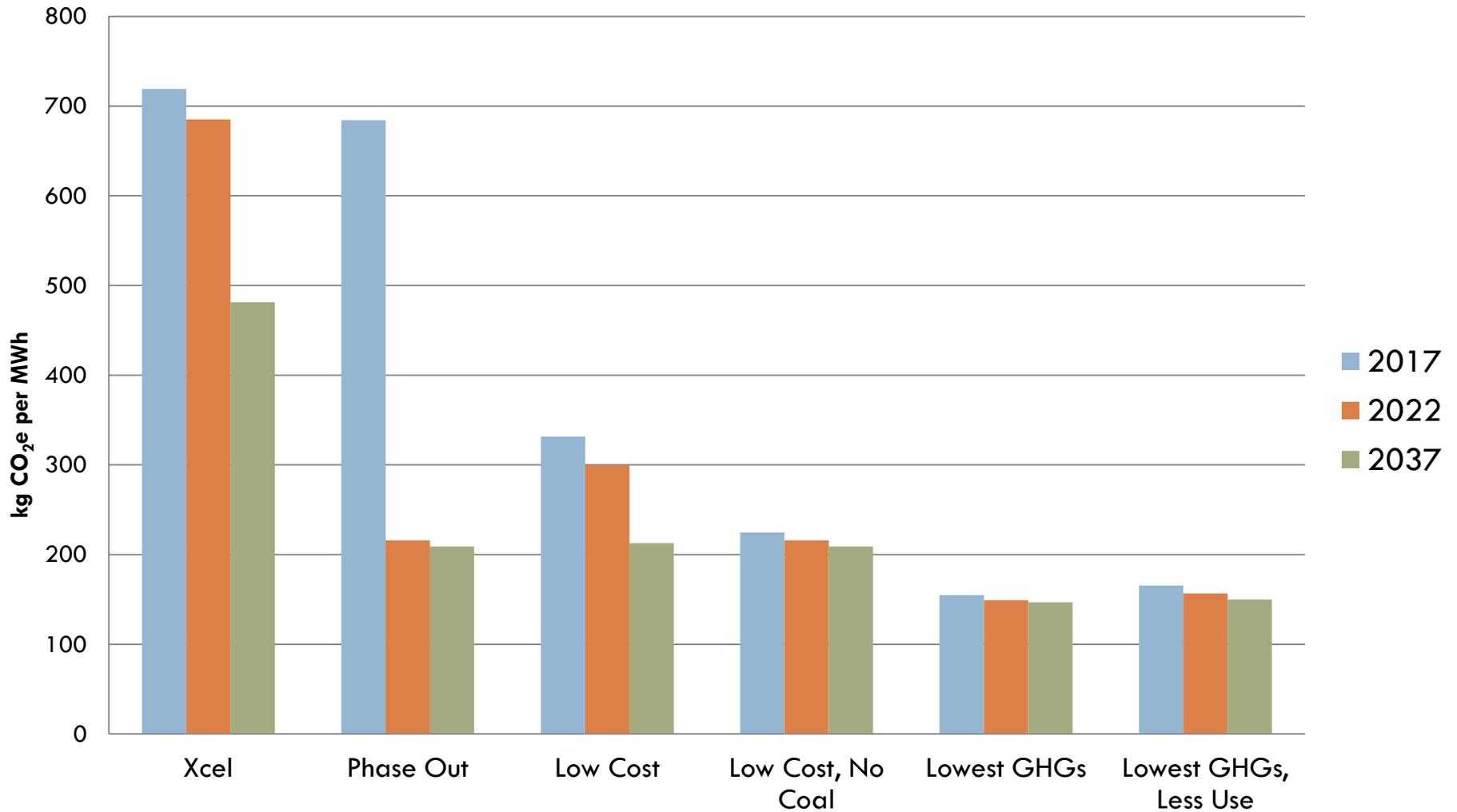
Local, regional and national experts enlisted to help with analysis of all work plan areas:

- 75+ community working group volunteers
 - Helped with financial, reliability, resource, decision analysis and communications & engagement
 - Many combined years of electric utility experience in all facets of industry
 - Local entrepreneurs and business owners
 - Federal laboratory scientists and professors
- Expert consultants retained
 - Technical engineers, modelers, financial planners, and legal
 - All highly skilled in electric utility analysis

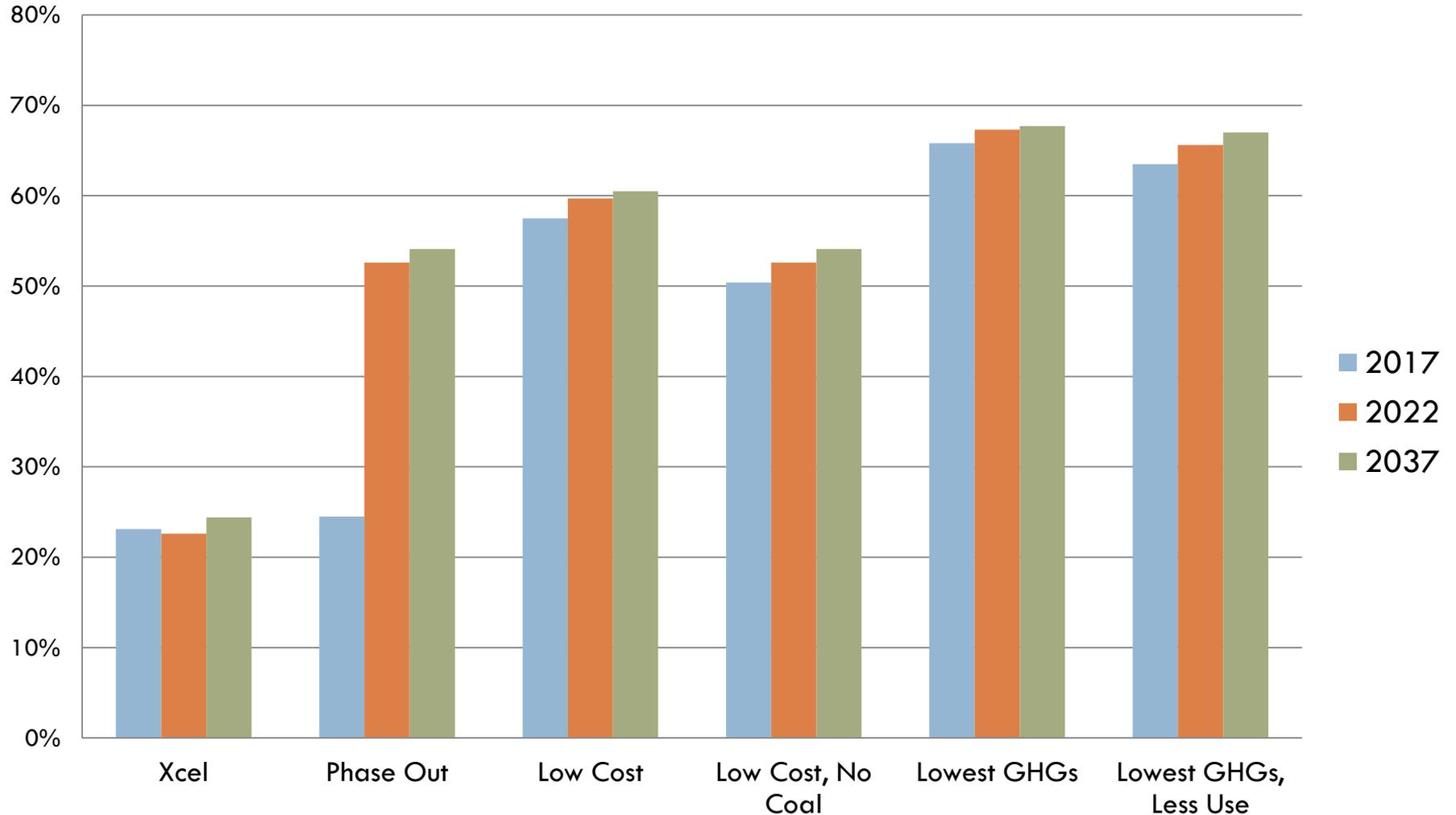
What Options Were Modeled?



Carbon Intensity by Option



Renewable Resource Mix by Option



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

Boulder's Energy Future: Why We're on this Path



What we want ↓



What we have ↓



Boulder's Path to 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...

- Pursue 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 21st century?



Boulder's Energy Future: Not Unlike a Previous Transformation



Times have changed . . .



For the better!



What Should Change



- Pricing shift to a service based model
- Continue to provide pricing signals to incent energy efficiency
- Flexible pricing and services
- Move away from returns based on large capital investments
- Insure fair recovery of utility T&D infrastructure

What the Utility of the Future Could Mean for Boulder

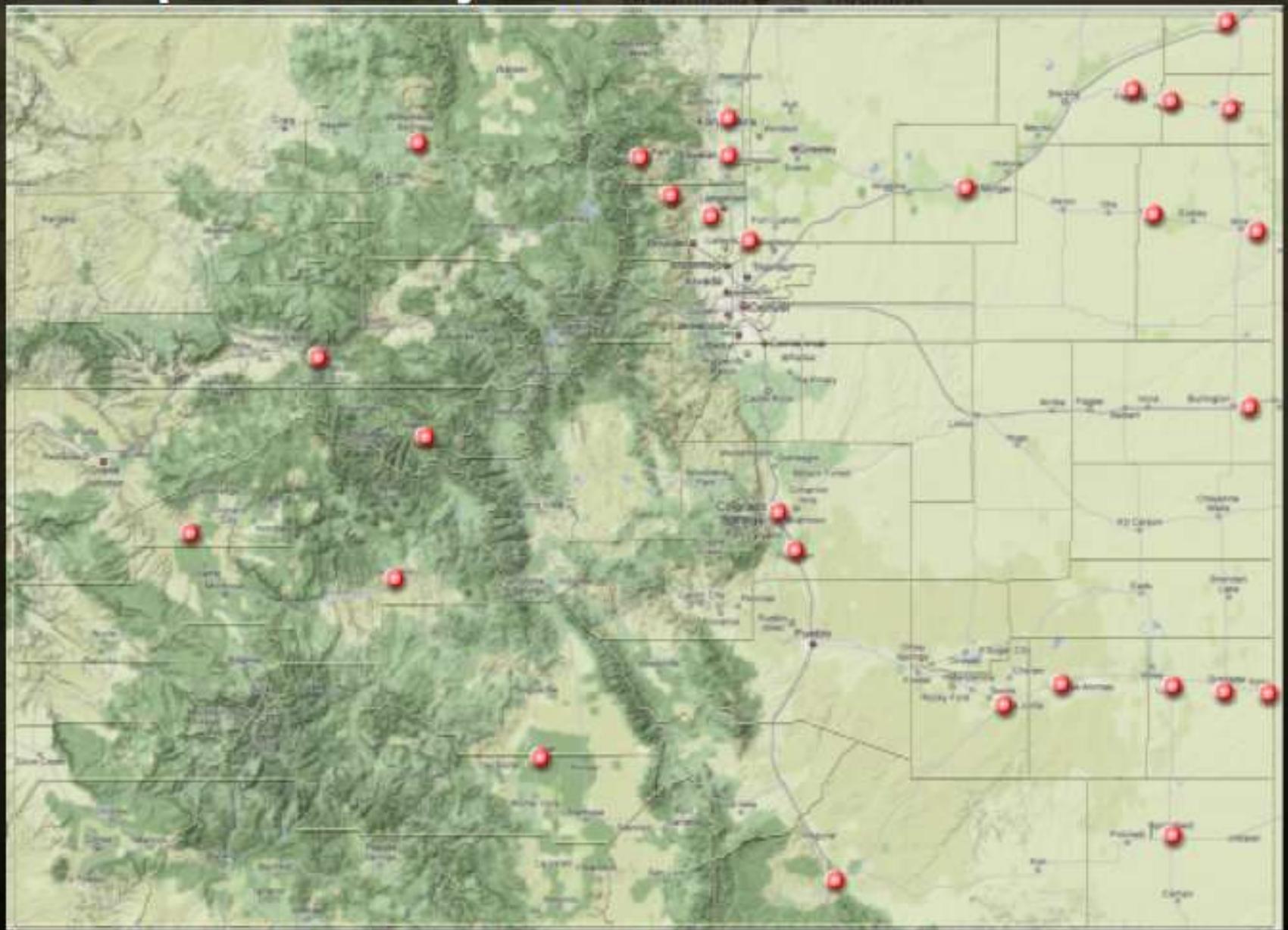


- **Adapt to Community Wants & Needs**
 - Undergrounding
 - MicroGrids
 - Technology Incubator
 - Custom services and programs
- **Distributed Generation Opportunities**
 - Maximize Solar/Solar Gardens
 - Small-scale wind
 - Maximize Hydro
- **Focus and Flexibility**
 - Supertanker vs. Speedboat
- **Community Involvement**



Municipal Electric Systems in Colorado

COLORADO MUNICIPAL ELECTRIC ASSOCIATION



Each dot on the map represents one of the 29 Municipal Electric Systems in Colorado. For information on any one of these systems please click on a dot!

Next Steps



- Proceeding with legal steps
- Developing Transition Plan (May 13 draft to council)
- Developing Energy Services (April 29 council mtg)
- Continuing public engagement & outreach around Utility of the Future vision and transition plan
- Open to working with Xcel on a potential partnership

Stay Informed



Follow along at www.BoulderEnergyFuture.com

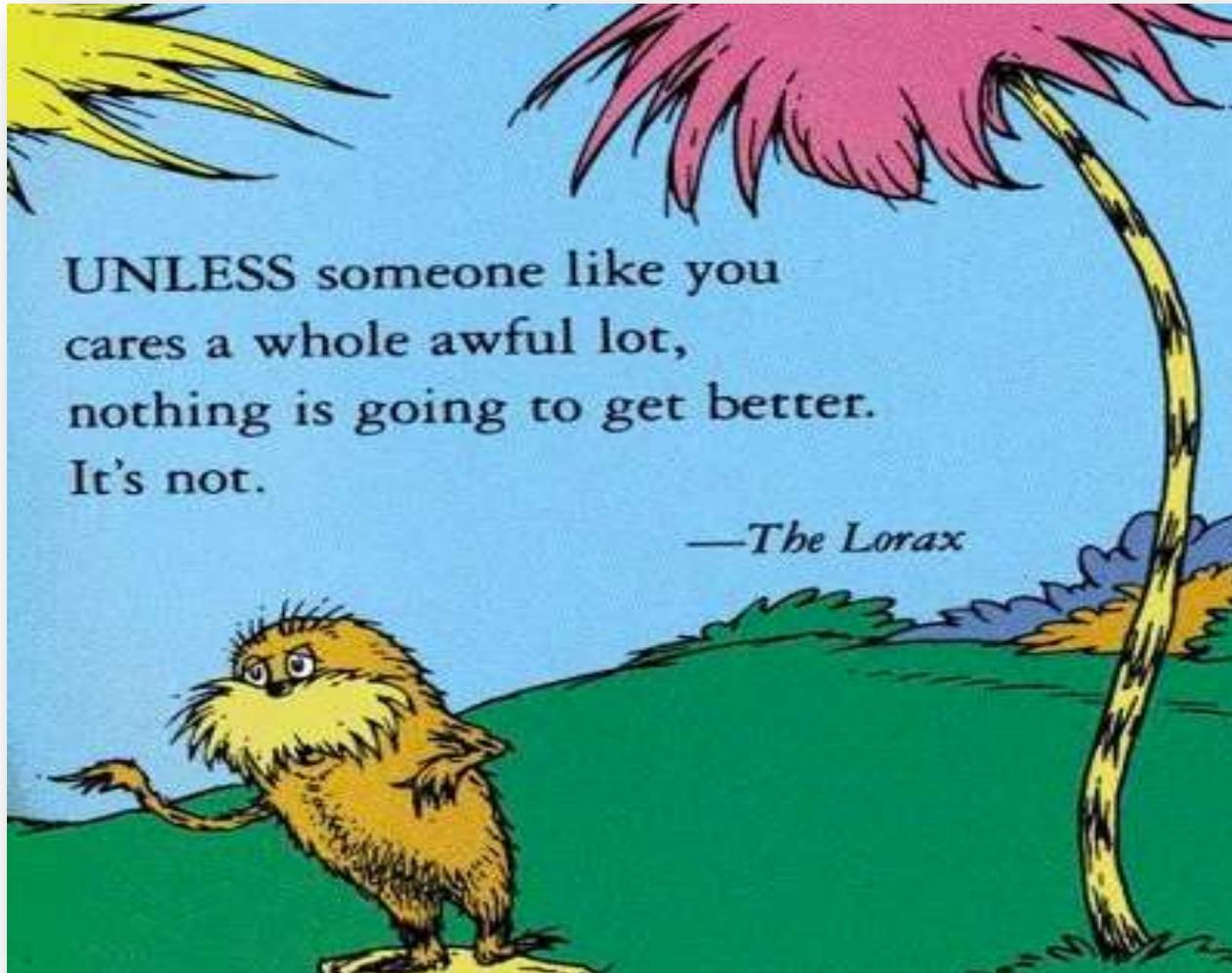
- Sign up for E-News reports and monthly newsletter
- Use online comment form for questions/feedback
- Send an email: energyfuture@bouldercolorado.gov

Provide feedback on specific questions/areas at www.InspireBoulder.com

Contact Heather Bailey with questions/comments

- BaileyH@BoulderColorado.gov or 303-441-1923

Get Involved



Dr. Suess, right as usual