

## Attachment A

### Boulder's Energy Future

#### DRAFT Purpose, Framework, Goals and Objectives

##### Purpose of the Energy Future Project

In 2011, the city will collect, analyze and present data related to its energy options to inform a potential decision by Council and the community regarding alternative paths for the city's energy future. The ultimate purpose of this effort is *to ensure that residents, businesses and institutions have access to reliable energy that is increasingly clean and remains competitively priced.*

##### Strategic Framework: Energy Localization

To guide this planning effort, and in response to initial input from residents and businesses regarding Boulder's energy future, the city is adopting an **"energy localization"** framework that is defined by three primary goals:

- **Democratize Energy Decision Making:** customers should have more direct control and involvement in decisions about their energy, including opportunities to invest in their long-term energy needs and to have a say in energy investments made on their behalf.
- **Decentralize Energy Generation and Management:** energy should be generated locally or within the region to the maximum extent feasible, reducing reliance on external fuel sources; customers should be able to manage and reduce their energy use as directly and effectively as possible; and energy service companies should be empowered to compete and innovate within a diverse and robust local energy economy.
- **Decarbonize the Energy Supply:** renewable and clean fuel sources should be maximized as much as possible, as quickly as possible, minimizing both short- and long-term environmental impacts and maximizing energy independence over time.

##### Goals and Objectives

The purpose statement and strategic framework provide the basis for defining and evaluating energy options based on the community's vision and values. The options that Boulder will consider include a new agreement with Xcel Energy (in the form of a new franchise or a new form of partnership) or formation of a municipal utility. There may also be hybrid options that emerge over the course of the planning process.

The following goals and objectives serve to "unpack" the purpose statement and localization strategy into discrete, tangible outcomes important to Boulder. These will help inform the development of alternative proposals and the evaluation of options. They will be refined as additional analysis is completed and discussions with Council and the community progress.

##### **Goal Area 1    Ensure a stable, safe and reliable energy supply**

###### *Objective 1a: System Management, Maintenance and Customer Care*

Provide experienced and professional management of the local utility grid, including ongoing investment in maintenance and system improvement, and a strong customer service ethic in responding to emergencies, daily maintenance and long-term grid investment.

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### *Objective 1b: System Redundancy, Supply Quality and Load Management*

Achieve high resilience in the energy system through redundancy management<sup>1</sup>; create and maintain generation resources that provide a high quality electrical supply; and manage the peak load through effective demand-side programs to minimize necessary investment in new generation resources.

### *Objective 1c: Fuel Source Stability*

Reduce reliance on external and/or unreliable fuel sources that may be subject to supply shortages, price volatility and/or unmanageable levels of intermittency; take into account potential fuel supply risks and disruptions; and provide suitable mechanisms to manage such risks.

### *Objective 1d: System Reliability*

Model and ensure system reliability using industry standard criteria: Customer Average Interruption Duration Index (CADI), Customer Average Interruption Frequency Index (CAIFI), System Average Interruption Duration Index (SAIDI) and System Average Interruption Frequency Index (SAIFI).

## **Goal Area 2    Ensure competitive rates, balancing short-term and long-term interests**

### *Objective 2a: Rate Competitiveness*

Offer Boulder customers competitive pricing or customized pricing and service options; position Boulder ratepayers to benefit from competitive energy rates and greater choice of service options and suppliers.

### *Objective 2b: Rate Transparency and Predictability*

Position Boulder residents and businesses to receive predictable energy prices; and provide a structure and process for continuous rate management to meet the changing needs of the community; ensure transparency and fairness in the charges that are included in energy rates and in the evaluation of fuel cost price risks.

### *Objective 2c: Technology Investment and Managing Price Volatility*

Create renewable energy investment opportunities for Boulder residents and businesses, ensuring access to the associated benefits; reduce, to the extent possible, exposure to market-based price fluctuations and the potential impact of changes to current regulations and subsidies; and minimize the risk from potential future carbon costs and other environmental regulations on pollutants such as mercury, particulates, NOX, SOX, etc.

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<sup>1</sup> Redundancy focuses on important system design issues, such as identifying and eliminating single points of failure and establishing good maintenance procedures to maintain high availability.

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### Goal Area 3 **Significantly reduce carbon emissions and pollutants**

#### *Objective 3a: Reduction of Greenhouse Gas Emissions*

Consider all environmental and health costs of the associated fuel mix; maximize utilization of the least carbon intensive fuel sources; support local development of new, innovative “carbon-free” and pollution-reducing technologies; and provide the ability to accurately predict and set specific future targets for emission reductions based on demand-side efforts and fuel source mix along with the flexibility to continually decarbonize Boulder’s fuel mix over time.

#### *Objective 3b: Reduction of Toxic Pollutants*

Reduce other pollutants such as mercury, particulates and various nitrous and sulfurous emissions; and consider the full range of environmental and health risks and costs associated with the fuel mix.

### Goal Area 4 **Provide energy customers with a greater say about their energy supply**

#### *Objective 4a: Democratizing Local Decision Making*

Allow Boulder residents and businesses to have greater control over their energy resources by influencing which power and heat generation facilities are built in the Boulder region as well as resource planning and procurement; involve local workers and businesses in local energy decision-making; and create opportunities for local input and decision making about rates, generation mix, efficiency and demand management efforts, distributed generation, and implementation of innovative technologies.

#### *Objective 4b: Democratizing Local Ownership*

Create new opportunities for local ownership in distributed energy generation through innovative program designs (clean energy clusters, zero energy districts, solar gardens, etc) and new forms of financing vehicles (general improvement districts, PPAs, third party models, innovative rate design, revenue bond financing, on-bill and PACE financing, etc).

### Goal Area 5 **Promote local economic vitality**

#### *Objective 5a: Support for Local Business Innovation*

Maximize opportunities to partner with local companies to implement innovative energy saving and pollution-reduction technologies; reduce financial out-flows to purchase fuel and technology from external sources; and allow local businesses to become part of the local energy supply infrastructure.

#### *Objective 5b: Economic Competitiveness*

Stimulate Boulder’s economic competitiveness by ensuring stable and predictable energy rates; make Boulder an attractive location for clean energy businesses and start-ups; capitalize on the proximity of Boulder’s university and Federal research laboratories and other private sector and institutional partners; and provide incentives and benefits for clean energy clusters and innovative energy start-up companies.

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### Goal Area 6 Promote social and environmental justice

#### *Objective 6a: Energy Equity*

Provide programs and incentives for all populations to participate in efficiency programs and distributed generation through efforts such as Community Solar Gardens, on-bill financing and greater customer choice among energy products within the rate structure.

#### *Objective 6b: Impacts to Vulnerable Populations*

Shelter Boulder citizens from projected short and long-term rate increases through fuel supply choices and demand-side programs; provide additional resources for affordable housing and multi-family units; optimize local energy-related employment opportunities; and consider the full range of social impacts of energy generation, transmission and distribution, including jobs created or lost and health risks to energy workers.

#### *Objective 6c: Energy Literacy*

Help communicate the links between personal choices, community choices and environmental and economic impacts; provide assistance to understand energy conservation and efficiency measures and their impact on economic concerns; support neighborhood energy planning; and advance the community's "energy literacy," including an overall understanding of energy efficiency, renewable generation and workforce development.