



**CITY OF BOULDER
CITY COUNCIL AGENDA ITEM**

MEETING DATE: April 2, 2013

AGENDA TITLE: Consideration of a motion to accept the summary of the Feb. 26, 2013, Study Session on Boulder's Energy Future: Next Steps in Exploring Municipalization.

PRESENTER/S

Jane S. Brautigam, City Manager
Tom Carr, City Attorney
David Gehr, Deputy City Attorney
Kathy Haddock, Senior Assistant City Attorney
Debra Kalish, Senior Assistant City Attorney
Bob Eichem, Chief Financial Officer
Heather Bailey, Executive Director of Energy Strategy and Electric Utility Development
David Driskell, Executive Director of Community Planning and Sustainability
Maureen Rait, Executive Director of Public Works
Jonathan Koehn, Regional Sustainability Coordinator
Yael Gichon, Residential Sustainability Coordinator
Kelly Crandall, Sustainability Specialist II
Bob Harberg, Utilities Planning and Project Management Coordinator
Kara Mertz, Environmental Action Project Manager
Sarah Huntley, Media Relations/Communications Manager
Andrew Barth, Communication Specialist II
Ruth McHeyser, Senior Planner

EXECUTIVE SUMMARY

This agenda item provides a summary of the Feb. 26, 2013, City Council study session on Boulder's Energy Future and the next steps in exploring municipalization. The purpose of the study session was to:

1. Provide preliminary results and receive council feedback on the municipalization exploration modeling and acquisition analysis to date with respect to the city's ability to meet Charter metrics developed last fall;

2. Update council on ongoing discussions with Xcel Energy (Xcel);
3. Present results of the analysis which was based on six options modeled, including maintaining the status quo relationship with Xcel;
4. Determine whether the analysis provides council with sufficient and necessary information to continue to pursue the exploration of creating a municipal utility at the April 16 City Council meeting; and
5. Receive feedback on the six Energy Future options modeled so that staff can begin to refine or narrow the scope of Phase II of the work plan.

Attachment A is a summary of council's discussion of the issues and the questions presented at the study session.

STAFF RECOMMENDATION

Suggested Motion Language:

Staff requests council consideration of this matter and action in the form of the following motion:

Motion to accept the summary of the Feb. 26, 2013, Study Session on Boulder's Energy Future: Next Steps in Exploring Municipalization.

NEXT STEPS

April 2 City Council Meeting

- First reading of an ordinance interpreting Section 178 of the Boulder home rule charter regarding verification by a third-party independent expert

April 16 City Council Meeting

- Second reading of an ordinance interpreting Section 178 of the Boulder home rule charter regarding verification by a third-party independent expert
- Consideration of a motion to direct staff to move forward with the next steps to explore the formation of a municipal electric utility including:
 1. Authorize the City Attorney's Office to continue the due diligence required before council could take formal action to acquire property for a municipal electric utility.
 2. Authorize the City Attorney's Office to initiate and pursue or intervene in any action before regulatory agencies to clarify rights and obligations of the city.
 3. Authorize the City Manager to pursue meetings with rating agencies and other actions to facilitate financing of a municipal electric utility.

4. Conduct the analysis necessary for evaluating the types and sufficiency of “added value” a municipal electric utility would provide.

July 23 City Council Study Session

- Provide an update on discussions with Xcel about a potential partnership
- Bring to council all items that need to be in place for an Aug. 6 decision to acquire electric facilities serving the city. These would include:
 - Resolution of items that would allow the city council to authorize acquisition (i.e. outcome of discussions with rating agencies, appraisal results)
 - Qualitative analysis – “should we” questions needed before deciding to pursue acquisition of the property
 - Additional research/analysis in Phase 2 work plan (local generation option, possible Xcel partnership or other options)
 - Results from the third-party independent evaluation

Aug. 6 City Council Meeting

- First reading of ordinance to acquire electrical system serving the city, including condemnation, if necessary

Aug. 20 City Council Meeting

- Second reading of ordinance to acquire electrical system serving the city, including condemnation, if necessary

ATTACHMENTS

Attachment A: Feb. 26, 2013, Study Session Summary

ATTACHMENT A

Feb. 26, 2013

City Council Study Session Summary Boulder's Energy Future

PRESENT:

City Council: Council Members Ageton, Appelbaum, Cowles, Jones, Karakehian, Morzel, Plass, and Wilson.

Staff Members: Jane S. Brautigam, City Manager; Tom Carr, City Attorney; David Gehr, Deputy City Attorney; Kathy Haddock, Senior Assistant City Attorney; Debra Kalish, Senior Assistant City Attorney; Bob Eichem, Chief Financial Officer; Heather Bailey, Executive Director of Energy Strategy and Electric Utility Development; David Driskell, Executive Director of Community Planning and Sustainability; Maureen Rait, Executive Director of Public Works; Jonathan Koehn, Regional Sustainability Coordinator; Yael Gichon, Residential Sustainability Coordinator; Kelly Crandall, Sustainability Specialist II; Bob Harberg, Utilities Planning and Project Management Coordinator; Kara Mertz, Environmental Action Project Manager; Sarah Huntley, Media Relations/Communications Manager; Andrew Barth, Communication Specialist II; Heidi Joyce, Administrative Supervisor; Ruth McHeysler, Senior Planner

PURPOSE:

The purpose of the study session was to discuss and seek council feedback on activities related to Boulder's Energy Future, including:

1. Providing preliminary results and receiving council feedback on the municipalization exploration modeling and acquisition analysis to date with respect to the city's ability to meet Charter metrics developed last fall;
2. Updating council on ongoing discussions with Xcel Energy (Xcel);
3. Presenting results of the analysis which was based on six options modeled, including maintaining the status quo relationship with Xcel;
4. Determining whether the analysis provides council with sufficient and necessary information to continue to pursue the exploration of creating a municipal utility at the April 16 City Council meeting; and
5. Receiving feedback on the six Energy Future options modeled so that staff can begin to refine or narrow the scope of Phase II of the work plan.

OVERVIEW OF THE PRESENTATIONS:

J. Brautigam recognized the outstanding work of Boulder's Energy Future working groups and thanked each member for their effort, time, expertise and dedication to the City of Boulder. She gave an update on recent discussions with Xcel on the possibility of forming a working group to discuss partnership opportunities. The city and Xcel have agreed to form and participate in a community advisory group to explore and seek to understand ways in which a partnership could move forward. The city manager also invited officials with Xcel Energy to present at this study session or provide any data or additional information it would like to share to help refine the modeling conducted so far.

H. Bailey reviewed the agenda and the purpose of the study session. She presented a roadmap for "The Utility of the Future," gave an overview of the Phase I process, and summarized key findings. She presented a list of consultants and working group members who dedicated their expertise and time to the project, and thanked them for their service. Ms. Bailey also highlighted key differences between the 2011 and 2013 feasibility model and presented key issues.

Modeling Options

J. Koehn described the six options that were modeled, including: 1) Xcel baseline, 2) phase out power purchase from Xcel, 3) lowest generation cost (includes some coal), 4) lowest generation cost (excludes coal), 5) lowest GHG reductions (only power supply purchases), and 6) lowest GHG reductions (also includes increased investment in local energy efficiency & generation).

Resource Modeling

J. Koehn reviewed the purpose, methodology and assumptions of the resource modeling and presented key findings.

Questions from City Council

Council requested a copy of the National Renewable Energy Laboratory (NREL) study and information on the Renewables-Grid-Initiative. Council further requested that this information be placed on the project website.

In order to model the correct carbon intensity numbers in the Xcel Baseline option, council suggested that staff obtain data from Xcel on the real amount of coal they plan to retire.

Council asked about local generation and power purchase agreements (PPAs) and asked why the PPA numbers were used in the model, noting that PPA numbers tend to be more conservative.

J. Koehn said the PPA numbers were used in the model because they are conservative numbers, and because the city has good data on PPAs and their associated structures and costs. Local generation potential will be considered in the next phase (between April and August).

Council asked what fuel mix and ranges of mixes could other power providers offer to Boulder.

J. Koehn said the city has the flexibility to consider a number of projects and providers to ensure Boulder has the supply it needs. Biomass, biogas, solar, etc. companies have informed the city that they are interested in being part of the supply. Concerns have been expressed that the city would take supply off the market and others wouldn't have access to it. The city is committed to looking at new or additive renewables that could build or use excess energy and will identify what's needed in next phase of the project.

J. Koehn said the standard length of PPAs the city modeled was 10-year periods.

Council asked if reductions of energy use associated with demand-side management (DSM) programs were factored into the model, where rates go up and usage goes down.

J. Koehn said all options modeled assumed at least the current level of investments in DSM and efficiency. One option looked at tripling the amount spent on those efficiency measures. The city will further explore the relationship between rates and usage.

Council asked how the load, over 20 years, was modeled with Xcel's projections and whether the model includes only the city's DSM programs, or also Xcel's.

J. Koehn said Boulder specific load growth was modeled and that it is less than the general service area of Xcel. The assumption was to continue with the same level of investment; therefore, Xcel's programs were included with the city's DSM investments for the purpose of modeling.

Council requested to see the specific assumptions related to DSM that were used in the modeling.

Reliability

B. Harberg reviewed the purpose, methodology and metrics assumptions of reliability and presented key findings.

Questions from City Council

Council asked if the city was able to access all the equipment and conduct its own evaluation on the condition of the assets.

B. Harberg said the city had to obtain information without the assistance of Xcel, but was able to determine the approximate age of equipment using development patterns of the city. He said it is clear there is equipment that is old and would need to be replaced.

Council asked if there are cost estimates for separation.

B. Harberg said acquisition, separation and stranded costs are combined.

Council asked if they will be able to see the actual costs.

K. Haddock said separation and acquisition costs are considered legal strategy and will not be detailed publicly until they are required to be as a part of the litigation.

Council asked if the substation and feeder connection components outlined in the memo were included in the acquisition costs.

B. Harberg replied yes; however, the figures outlined in the memo are combined costs.

Council had a question about substations and sharing facilities with Xcel.

K. Haddock said the city planned to acquire from the low side, as everything will have to be co-located.

Council asked what happens if there is equipment below that Xcel needs.

H. Bailey said more definitive information will be provided to council in August 2013.

K. Haddock added that the city will need to specifically describe what it plans to acquire before condemnation can begin. This information will be made public when it has to be provided to Xcel Energy as a part of the potential litigation, but not before then.

Council asked if costs have been calculated for Xcel to lease and manage substation transformers (i.e. IBM).

H. Bailey said the city has not calculated what it would cost for Xcel to manage substation transformers; however, operations and maintenance costs and other overhead costs have been factored into the financial report.

Given that IBM takes its power at a different voltage level (Transmission General) than other Boulder customers, council asked if the modeling accounts for the specific tariffs paid by IBM.

H. Bailey said this will be done in Phase II.

Council asked what if the court determines the city can't serve people outside city limits.

K. Haddock said the boundary issue is well-settled in courts, and this would not likely be an issue.

Financial Modeling

Y. Gichon reviewed the analysis of the financial feasibility model and presented key findings.

Questions from City Council

Council was curious that the city's bond rating would likely be A- and that would be tied to debt service coverage ratio (DSCR). Council requested staff to consider factors such as liquidity and days modeled, etc. combined with DSCR to reassure that the bond rating is solid.

Council asked how the model accounts for fuel costs over the next 20 years.

H. Bailey said staff modeled risk in the price of gas and its volatility, and did the same for wind.

Council asked staff to characterize the future of solar source power.

J. Koehn said the model did not include expiration of tax credits, but did include the declining cost of solar. This is consistent with what regional and national industry experts have predicted. The modeling did not include declining costs for wind, although it is expected that would be the case over time.

Council asked for clarification on the Xcel projections for coal costs. It was indicated that Xcel projects coal costs will increase at approximately two percent each year, however, while 2012 was relatively flat in terms of coal cost increases, the trend of coal cost increases in Colorado is actually closer to 10 percent. Because the intent of the modeling was to remain conservative, the two percent increase was used when looking at potential future cost increases related to coal.

J. Koehn said the model represents a conservative trajectory and that staff expects the actual costs could be higher. Modeling higher coal costs would be speculative, and whenever possible, the modeling team attempted to remain conservative. Therefore, the projected costs for coal were derived directly from Xcel projections.

Risk Modeling

K. Crandall reviewed the purpose, methodology and assumptions of risk modeling and presented key findings related to the Charter metrics.

Questions from City Council

Council requested further analysis on the Baseline option for the cost of coal – something that uses an industry range. Council also requested information on whether course changes could be incorporated.

Council asked if there would be constraints to switching options mid-course. Council also asked for clarification on carbon tax, specifically the price of carbon in the model.

K. Crandall directed council to pages 63 and 67 of the staff memorandum. The cost of carbon was based on a 2012 report from Synapse Energy Economics Inc. that looked at three likely trajectories for the price of carbon. The report's basic assumption is that there will be action at the federal or state level through legislative, executive or judicial levels that will put a price on carbon by 2017.

Utility of the Future

B. Lachenmayer gave a presentation on *Envisioning the Utility of the Future*.

Questions from City Council

Council asked Mr. Lachenmayer to predict what would be the quickest, easiest and best path to get to the Utility of the Future. Is it a partnership with Xcel or municipalization?

B. Lachenmayer said it is difficult to say. In order to optimize, there must be willing participants and a collaborative environment.

H. Bailey said today's model is outdated and is based on a different set of incentives that don't motivate change. She told council it's fundamental to change the business model to look at energy as a service rather than a commodity.

Council asked if the cost of water has been estimated, as well as the availability of water in relation to fracking for natural gas.

J. Koehn said water use will need to be modeled in order to understand full implications of our actions.

H. Bailey recognized that water is an important factor that will need to be modeled.

Next Steps

H. Bailey reviewed the next steps in the process.

Council Discussion

Council asked if businesses, like IBM, could opt out of Boulder's service area.

K. Haddock replied no. The current service area includes IBM, and once the system is formed, they cannot legally opt out. The city is open to discussions with our large users and other classes to understand their needs and current agreements with Xcel.

Council asked if Area II and III customers could file a suit.

K. Haddock said anyone can file a suit but that does not mean the court would allow them to proceed with their action or that they would prevail. The city has analyzed all courses that may be pursued as far as litigation, but hasn't found any cause of action in which individuals or organizations could do that.

Council asked how the city plans to outreach to the non-city residents.

H. Bailey said letters were sent to the out-of-city residents, informing them of the process and inviting them to get engaged in the process. She reminded council that we told these property owners that annexation won't be considered as part of this initiative.

Council asked if state and federal agencies can opt out.

K. Haddock said they could not.

Council said the separation plan (page 22 of the memo) refers to interfaces outside of substations, where interconnections are not feasible and new construction would be necessary. Council asked for information on the number and locations of the interfaces.

T. Ghiodossi said he believed there are less than 10 locations.

Council asked if the city factored in infrastructure costs.

H. Bailey said, yes, the modeling included anticipated capital costs.

Council asked if the model assumes the purchase of the SmartGrid.

K. Haddock said the model assumes some purchase of the SmartGrid.

Council asked how non-fracked natural gas is distributed.

H. Bailey said it is comingled in a pipeline. She said there is no way to ensure the city is getting non-fracked gas, but said language could be written into a contract requesting this when possible.

Council asked if there a market for this gas now. If there is, it would help to determine the pricing.

H. Bailey said most gas is fracked in some capacity, but what is being looked at is horizontal fracking. The city probably won't start examining the connections between our natural gas supply and fracking now, but rather later in the process when holding discussions with power providers.

Council said Boulder has committed to only purchasing non-fracked gas. Council questioned what would happen if Boulder was unable to make that commitment.

Council added that there are emissions issues with natural gas, too. It is best to go with best management practices and stick with quality companies.

J. Koehn said the range of gas prices were expanded to model for this uncertainty.

Council asked if we municipalize, will Xcel control balancing? Council also asked if the city has calculated the cost Boulder would incur from Xcel.

H. Bailey replied yes to both. She clarified that there is a tariff rate that addresses this issue.

Several council members said they would post additional questions to the Hotline. Council also said in order to make an informed decision it would be helpful to see a higher level of data, such as detailed model inputs, data on the SmartGrid, stranded costs and power purchase agreement figures.

H. Bailey asked for council to provide staff with the specific list of numbers and data that appear to be missing from the information already provided in the packet.

Council asked staff to address the basis for the statement, provided in Attachment D (Page 59 of the packet), that the city believes that Xcel's acquisition price drastically overestimates the value of the distribution system.

K. Haddock said that is part of the city's legal strategy. City Council will receive the appraisals by the Aug. 6 City Council meeting, before council makes a decision on condemnation.

A few council members indicated they believe there is enough information to move forward. A couple of others said they are waiting to hear more feedback from Xcel and the public between now and April 16 before taking a position.

Council thanked staff, the consultants, working group members and the public for their work.

Council requested more information about cyber security, stating that there is not a lot of confidence that our system protects our water distribution now. An electric utility cannot be isolated from larger system, and hacking is becoming a large issue for major companies. Council said it would be helpful to know what industry is doing.

H. Bailey recognized that it is a real problem across industries and across the world. She said everyone is exposed to same risks and deals with this issue constantly. Electric utilities have done well to this point, but need to continue to be vigilant.

Council asked what the portfolio of power purchase agreements under Low Cost, No Coal option would look like during a summer peak.

H. Bailey said Boulder has a relatively small load. The city could partner with other municipalities and enter into a pooling arrangement to share resources.

J. Koehn added that the HOMER Energy model optimizes for the best resources.

Council recognized that the analysis is impressive and sophisticated and that increasing costs of energy make it a necessity to become efficient as possible.

In Phase II, council would like to see additional information on the DSM programs.

Council said local job creation and more options for customers are difficult to model yet are community goals. Council asked how these goals factor into the conversation.

H. Bailey said the city plans to address such qualitative goals in Phase II.

Council asked how the conversations with Xcel could impact the schedule and the April 16 decision to proceed.

H. Bailey said, at this point, the city is moving forward with the project schedule as planned.

Council asked if the city is required to buy Xcel's old equipment or could the city buy new.

H. Bailey said for some of the equipment, there is not an option to buy new. However, the city will take the position that it does not have to pay for equipment that has deteriorated to zero.

Council encouraged staff to continue to look at cost of coal, because it could have a huge impact on the baseline option. Council also asked staff to continue to look at rates and make fair assumptions on both sides. Council recognized the value of the conservative analysis that has been done to date.

Council did not support a questionnaire.

Council supported a joint city-Xcel community advisory group, but cautioned the city not to set a deadline. Council also mentioned that many joint partnership agreements would need legislative approval.

Council asked if there is a council decision in August to condemn the system, at what point does the city tell Xcel it is leaving the system.

H. Bailey said it would be some time after August.

Council struggled with not having sufficient information on the condition of infrastructure and equipment. Council also questioned if there is a good handle on start up, O&M and ongoing costs.

S. Ageton said it appears that Boulder is headed towards municipalization, and not just exploring municipalization. She encouraged the city to continue to look for and remain open to other ways to meet the city's energy goals.

A few council members suggested that Boulder might want to give the community another chance to vote on the final decision to municipalize.

Council asked for an estimate on the number of jobs that could be created, as well as the multiplier effect on jobs.

H. Bailey said staff has not done that specific analysis yet. This is part of the value-add discussion.