REPORT OF THE CITY OF BOULDER & XCEL ENERGY COMMUNITY TASKFORCE
July 16, 2013

EXECUTIVE SUMMARY

The Taskforce explored a variety of potential opportunities for the City of Boulder (City) and Public Service Company of Colorado (Xcel Energy) to collaborate. Some of the approaches discussed were deemed unworkable by Xcel Energy. Ultimately, a number of options were acceptable to Xcel Energy and supported by the Task Force as worthy of further exploration.

Xcel Energy presented the potential for system wide carbon dioxide emissions reductions through 2043 under a range of assumptions, which could reduce Xcel Energy CO2 emissions in Colorado by 70 percent by 2043 compared against 2005 levels; and Xcel Energy argued that the high rate of past and current participation by Boulder customers in Xcel Energy's current voluntary programs for energy efficiency and renewable energy likely results in a further reduction in Boulder's actual carbon footprint.

Xcel Energy is willing to explore with Boulder an initial set of 8 possible products to reduce energy demand, increase use of renewable energy and distributed generation, reduce use of coal for generation electricity, modify retail rates, and reduce carbon emissions. With the exception of programs tied to the SmartGrid, these would be developed to be available to other municipalities and, where applicable, individual customers. Many of the Xcel Energy programs would be subject to approval by the Colorado Public Utilities Commission. Several of these concepts listed below were first raised by the City in its December 2012 white paper.

The following products are discussed in detail in Appendix D, including initial cost estimates.

1. Conducting research using the SmartGrid installed in Boulder to test the impacts of distributed generation on local distribution systems (and other related research and development using the SmartGridCity infrastructure.)
2. Expanding energy efficiency and demand response programs, with the City contributing funds to augment Xcel Energy funds to create additional energy efficiency (EE) and demand response (DR) opportunities.
3. Expanding local distributed generation in Boulder by having the City offer incentives in addition to the incentives offered by Xcel Energy to attract more participation.
4. Forming with the City an energy efficiency/distributed generation incubator to encourage local Boulder businesses and investments in new technologies.
5. Unbundling Xcel Energy electric rates to provide better price signals to encourage further adoption of energy efficiency, demand response and distributed generation.
6. Offering a "Green City Rate" that would allow participating communities to help design rates that encourage energy efficiency.
7. Providing an environmental re-dispatch option where customers and/or communities could pay the incremental cost of Xcel Energy burning gas instead of coal to generate electricity, cutting in half the carbon emissions for the megawatt hours produced.
8. Providing a mechanism for communities to cause more wind and/or solar resources to be added to the Xcel Energy system and dedicated to the participating community.

Xcel Energy is committed to exploring and developing these alternatives and product offerings not only on an individual customer basis, but also for the first time on a community-wide basis to meet local needs.

The Taskforce also discussed a number of comprehensive business partnership models, which were not acceptable to Xcel Energy, with the possible exception of #3. The following models are described in detail in Appendix C:

1. "Xcel Boulder Muni Version" – the City would form a municipal utility but then contract with Xcel Energy to provide generation, transmission and distribution services under City direction.
2. "Xcel Boulder Investor Owned Utility" – Xcel Energy would form a separate subsidiary to provide electric utility services to Boulder, under PUC jurisdiction.
3. City of Boulder Supplemental Utility – the City would form a municipal utility to develop energy efficiency, demand reduction programs, and renewable energy, but not to supply electricity.
4. Community Choice Aggregation – the City would have the opportunity to aggregate all City load and acquire power supply for the aggregated load. Xcel Energy would deliver the power.
5. Phased Community Choice Aggregation – the City would aggregate load and provide additional products and services.
6. Aggregated Community Coal Plant Retirement – communities would agree to pay the cost of retiring a coal plant and replacing coal generation with clean energy. The retirement cost would be securitized with state issued revenue bonds, with the debt being paid by participating communities.

The Task force recommends that the City of Boulder and Xcel Energy engage in direct discussion and negotiation to further develop the Xcel Energy proposals. However, the task force is taking no position on whether the parties should continue with or avoid other actions outside of ongoing discussions, but encourages Xcel Energy and the City to pursue talks in parallel to those actions.

INTRODUCTION

Early this year, the City and Xcel Energy agreed to convene a Taskforce of knowledgeable community members to consider possible partnership options for achieving the City's energy goals, and develop new initiatives that Xcel Energy might offer to the City and elsewhere on its utility system.

In April, 2013, twelve community members were invited to explore, develop and review possibilities that may contribute to the formation of just such a partnership between the City and Xcel Energy. [See Appendix A for a listing of the Taskforce members.] The Taskforce was facilitated and held its first meeting on April 9, 2013. The weekly meetings were well attended and discussions were free-flowing and candid, with strong engagement by all participants.

The Taskforce was given three months to accomplish its task. While we believe additional time would have enabled us to further develop the ideas and provide more details, the essential components representing our work are contained in our report.

The Taskforce expressed on a number of occasions the importance and value of the City and Xcel Energy maintaining ongoing conversation for the exploration of opportunities and capitalizing on community based expertise through the use of a formalized process encouraging ongoing communication and collaboration.

CONTEXT

As a beginning point, the Taskforce referenced the City's white paper, entitled *Exploring Opportunities for Reaching Boulder's Energy Future Goals.* The white paper set forth ideas that had been developed by City staff as to possible ways the City might be able to partner with Xcel Energy to achieve the community's energy goals. The white paper set forth the following "core principles" for a new partnership with Xcel Energy, summarized as:

1. The partnership must recognize the importance of both energy demand and supply.
2. The partnership model must fit within the framework of state statutes and regulations.
3. Customers must have opportunities to make choices about their energy consumption.
4. A partnership should provide real choice in energy services and allow customers to control how much and the type of electricity they purchase, helping Boulder achieve goals through a partnership of incentives, rates, and data sharing.
5. The partnership should represent a creative, new business arrangement.

Additionally, the Taskforce referenced Xcel Energy's Guiding Principles, which were explained as:

1. All Xcel Energy customers should be afforded choices about their energy service, including choices that provide incentives for demand reduction and energy efficiency and choices that differentiate the sources of generation providing their electricity.
2. The prices for each of these products and services should be based upon the costs of providing the product or service including a reasonable margin to the provider of the product or service, and not result in cross subsidization between participants and non-participants. Many pricing options may require some certainty of a long-term relationship between the City and Xcel Energy.
3. New products and services should be designed so that they can be easily understood by the consuming public, and so that they can be easily administered by Xcel Energy.
4. All Xcel Energy service offerings in Colorado require approval by the Colorado Public Utilities Commission, so they must be designed in a manner that complies with Colorado statutes and regulations.
5. Product and service offerings should be designed in such a way so they can be replicated for other customers and communities. Offering services differentiation would constitute a new utility service model, one that is likely to provide more efficiency, better reliability, and more real environmental improvement than the formation of one or more municipal utilities.

One of the major issues challenging the Taskforce was finding ideas and solutions, which met both the City's and Xcel Energy's different emphases and goals. The City wanted to focus first on how to structure a partnership with Xcel Energy. In the City's view, the partnership agreement would then determine how the City would meet its renewable energy, carbon reduction, and localization goals with its partner Xcel Energy. Xcel Energy, on the other hand, wanted to focus, with the help of Boulder, on the development of new products and services that would provide more customer and community options to increase renewables and reduce carbon throughout all its service area. Xcel Energy maintained that negotiating comprehensive individual partnership agreements with each municipality where it provides service is not an effective, efficient, or possibly legal way to proceed. Xcel stated it would like to develop products and services that would provide not only individual customer choice, but would provide opportunities for entire communities to opt in.

The Taskforce felt a "working" or "collaborative" partnership between the City and Xcel Energy could be integral to what needs to be achieved depending on content, and the Taskforce agreed to move on to Xcel Energy's proposal.

The differences between the City and Xcel Energy's focus is primarily on the potential value of localization and the democratization of the governance structure of the electricity supply. Xcel Energy does not believe that the Taskforce is the appropriate forum to discuss the democratization of the governance structure of the utility industry.

However, it is apparent to the Taskforce that the City and Xcel Energy would each like to continue to benefit from the creative ideas of Boulder residents, businesses, and similar stakeholders, and to incorporate these ideas into resource planning and the development of new products and services. The City of Boulder would like to continue working with the Taskforce community members, as well as other community members, to develop and vet potential ideas. Xcel Energy indicated that it plans to work with community members representing all of its service area.

In general, Taskforce members believe that there is opportunity for the City and Xcel Energy to work together to introduce new creative concepts and to achieve the City's goals. The Taskforce recommends that the City and Xcel Energy continue to meet to discuss these matters.

TASKFORCE WORK PROCESS

Shortly after convening for the first meeting of the Taskforce, the group began delineating subjects for discussion. Broadly speaking, the subject areas fit into two major categories: (1) partnership structures between the City and Xcel Energy, and (2) products and services that could be provided by Xcel Energy, both for Boulder and others within Xcel Energy's service area, thus increasing the geographical scale of both greenhouse gas reductions and renewable energy integration. The specific areas for discussion that were initially identified were:
1. Energy Mix and Energy Resources (products and services)
2. Additional Renewable Energy (products and services)
3. End Use Programs (products and services)
4. Distribution Solutions (products and services)
5. Business model (partnership structure)
6. Partnership (partnership structure)
7. Pricing and Cost (partnership structure, as well as product and services)

Opening presentations by Xcel Energy focused on the first four subject areas, and several members of the Taskforce proposed ideas, which addressed either primarily the partnership structures, or a combination of the partnership structures and the products and services. While Xcel Energy representatives expressed a strong preference to focus on products and services, the Taskforce did detail and discuss several alternative partnership structures. However, Xcel Energy representatives expressed the company's wish to keep the current statewide PUC regulatory structure of the relationship and to offer enhanced products and services to the Boulder community.

At one point, differences in approaches led to a letter being delivered by Xcel Energy to the Taskforce, suggesting that there was not enough common ground to continue if the Taskforce continued to focus on developing a business partnership structure. In response, the Taskforce provided strong feedback encouraging Xcel Energy to further develop its product and service concepts and return to the group for

more feedback. (For a copy of the letter, see Appendix E.) After delivering a draft update on June 17 for discussion, a final version of an Xcel Energy proposal framework outlining the best options from the company's perspective was delivered to the Taskforce and is included in Appendix D. This framework document stands on its own and proposes options for ongoing relationships between Xcel Energy and the City focused on individual program areas such as Demand Side Management, Distributed Generation, decreased dispatch of electricity generated from coal fired power plants, additional renewables, and retail pricing; but does not specifically discuss formal comprehensive business partnership structures which could themselves allow local initiatives that achieve many of the same goals.

CONCEPTS DISCUSSED

Partnership Principles

While Xcel Energy clearly stated that it does not support the formation of individual "business partnerships" that share risk and reward with each municipality in which it provides electric service, Xcel Energy is proposing a relationship with the City where the City is advisory in nature, with the purpose of helping develop a programmatic oriented, or service/delivery oriented approach that may meet the City's goals and allows for the scalability of these programs to Xcel Energy's broader service area.

The Taskforce did discuss principles upon which such a new collaborative working partnership between Xcel Energy and the City could be achieved. Consequently, early in the Taskforce discussions, the group developed a set of goals that might ideally describe a collaborative working partnership between the City and Xcel Energy. These objectives addressed five major focus areas: (1) partnership process; (2) customers and choice; (3) innovation and growth; (4) climate and flexibility, and (5) regulatory compliance and time frame. [See Appendix B for a full listing.]

1. The Taskforce agreed that a major focus of any partnership process is collaboration, transparency, and access -- through a model that could potentially be replicated by other communities. Xcel Energy suggested this could be achieved through regular City-Xcel Energy meetings with the expressed objective of jointly developing a plan to achieve the City's energy goals and collaborating on new ideas or modifying existing programs.
2. The second set of goals identified by the Taskforce surrounds customers and choice. This would focus on the provision of electricity "services" that allows for equity and flexibility in service offerings and promotes customer choice. The central components of customer choice include: (1) demand response and efficiency; (2) designating sources of generation or the customer as a generation provider; and (3) pricing.
3. The third goal involves innovation and growth and the development of utility infrastructure that supports community participation in ideas and shared technology.
4. The fourth area of focus is climate and flexibility, whereby a plan to decarbonize and make sustainable the City's energy supply achieving eventual carbon "neutrality." Product and service offerings that change with needs over time are an important part of this objective, as are nimble responses to changes in market conditions such as fuel and financing costs. Partnership structures that are localized and different from the status quo could also enable the local flexibility to adapt to changing community needs and goals.
5. Finally, the Taskforce also identified regulatory compliance and time frames as an important aspect of any partnership. This objective focuses primarily on service pricing, terms, and conditions that ensure reasonable returns and comply with current statutes and regulations.

Such service options would best be framed through flexible time frames, but may also require some certainty that Xcel Energy and the City will have a longer-term relationship.

Partnership Structures

The Taskforce members discussed several forms of partnership structures that could potentially be explored by the City and Xcel Energy. As discussed earlier, Xcel Energy informed the Taskforce on June 10th that the company was not willing to enter into any of these discussed structures with the possible exception of #3. The details of the structures discussed are set forth in Appendix C. Specific partnership structures discussed included the following:

1. "Xcel Boulder Muni Version" – the City would form a municipal utility but then contract with Xcel Energy to provide generation, transmission and distribution services under City direction.
2. "Xcel Boulder Investor Owned Utility" – Xcel Energy would form a separate subsidiary to provide electric utility services to Boulder, under PUC jurisdiction.
3. City of Boulder Supplemental Utility – the City would form a municipal utility to develop energy efficiency, demand reduction programs, and renewable energy, but not to supply electricity.
4. Community Choice Aggregation – the City would have the opportunity to aggregate all City load and acquire power supply for the aggregated load. Xcel Energy would deliver the power.
5. Phased Community Choice Aggregation – the City could aggregate load and provide additional products and services.
6. Aggregated Community Coal Plant Retirement – communities would agree to pay the cost of retiring a coal plant and replacing coal generation with clean energy. The retirement cost would be securitized with state issued revenue bonds, with the extra cost to the system being paid by participating communities.
7. Boulder-Xcel Energy Service Agreement – the City and Xcel Energy would enter into a service agreement to meet Boulder objectives of more DSM, expanded distributed generation, more renewable energy, and other City program objectives.

Several concepts proposed by Taskforce members would have required a fundamental change in the laws governing utilities in the State of Colorado and/or a fundamental change in the financial underpinnings of utility investment; these ideas were reviewed and ultimately rejected by Xcel Energy. Of the range of options discussed, #1 above which represents an innovative buyer-seller arrangement for the procurement and provision of energy services, progressed the furthest in the Taskforce discussions. The electricity industry will continue to be required to transform in response to energy efficiency legislative mandates pressure to change based on community-centric "greening" objectives such as those proposed by the City. This transformation will likely affect traditional buyer-seller relationships involving electricity. Indeed, the Taskforce discussions reveal that this trend is likely to promote more innovative and flexible approaches to meeting the differentiated demand for energy, while achieving the objectives of regulated utilities.

Carefully crafted buyer-seller relationships are common in other industries where consumers have varying preferences and characteristics. In such situations, the ability of a seller and buyer to strike a contract that is specifically tailored to meet those demands is integral to the success of both parties in a transaction. Thus, while the Xcel Energy proposal discussed in the next section is the more traditional of the City-Xcel Energy relationship possibilities, the group did identify specific avenues – such as special products and services -- through which a buyer-seller relationship could be tailored to meet the needs of the City.

XCEL ENERGY PROPOSAL

Xcel Energy presented the Task Force with a proposal that is set forth in Appendix D. This proposal outlines:

1. The potential that Xcel Energy's current efforts may reduce carbon dioxide emissions through 2043 under a range of reasonable assumptions, which could further reduce Xcel Energy's average CO_2 emissions in Colorado associated with the average system electric supply by 70 percent by 2043 compared against 2005 levels;
2. The high rate of past and current participation by Boulder customers in Xcel Energy's current voluntary programs for energy efficiency and renewable energy, resulting in a further reduction in Boulder's actual carbon footprint; and
3. The specific product and service concepts that Xcel Energy is willing to further explore with Boulder, with the expectation that if these concepts are attractive to Boulder and can achieve regulatory approval, these concepts can be used by other municipalities and customers at some additional cost. Several of these concepts were first raised by the City in its December 2012 white paper for consideration. Specific concepts include:
   a. Conducting research using the SmartGrid installed in Boulder to test the impacts of distributed generation on local distribution systems (and other related research and development using the SmartGridCity infrastructure.)
   b. Expanding energy efficiency and demand response programs, with the City contributing funds to augment Xcel Energy funds to create additional EE and DR opportunities.
   c. Expanding local distributed generation in Boulder by having the City offer incentives in addition to the incentives offered by Xcel Energy to attract more participation.
   d. Forming with the City an energy efficiency/distributed generation incubator to encourage local Boulder businesses and investments in new technologies.
   e. Unbundling Xcel Energy electric rates to provide better price signals to encourage further adoption of energy efficiency, demand response and distributed generation.
   f. Offering a "Green City Rate" that would allow participating communities to help design rates that encourage energy efficiency.
   g. Providing an environmental re-dispatch option where customers and/or communities could pay the incremental cost of Xcel Energy burning gas instead of coal to generate electricity, cutting in half the carbon emissions for the megawatt hours produced.
   h. Providing a mechanism for communities to cause more renewable energy resources to be added to the Xcel Energy system and dedicated to the participating community.

Consistent with the continuing evolution of customer choice issues and the desire of entire communities to participate in possible new programs and services regarding their electric energy usage and supply, Xcel Energy indicated it is committed to exploring and developing these alternatives and product offerings not only on an individual customer basis, but also on a community-wide basis, assuming appropriate community approvals can be obtained. Xcel Energy states that it is in the position to work with Boulder to develop these enhanced products and services not only for the City of Boulder, but also for communities throughout Xcel Energy's service area. Xcel Energy believes this approach has the potential to achieve larger amounts of carbon emission reductions and greater levels of renewable energy than if Xcel Energy focused only on the Boulder market. For Boulder-specific initiatives, Xcel Energy suggests additional ideas with respect to using the SmartGrid as a testing laboratory to facilitate distributed generation development.

The Taskforce proposed performing quantitative modeling to determine the emission reductions and associated costs of the Xcel Energy partnership proposal relative to the City's Municipalization study.

Unfortunately, there was not ample time for Xcel Energy or the City to perform a rigorous economic comparison as requested. In an effort to provide some level of cost comparison for the Taskforce, the Company attempted to use similar assumptions included in the City's study to identify the potential benefits of its proposal. While the attached Xcel Energy proposal illustrates a high-level analysis of the potential emissions reductions, costs and overall impacts and benefits of a package of services and programs, it will take additional time for Xcel Energy and Boulder to review and agree to all of the modeling assumptions necessary for a rigorous comparison of the cumulative savings from the proposed Xcel Energy programs as compared to the municipalization options. If City Council chooses to consider Xcel Energy's proposal, actual forecast modeling should be performed.

For a complete description of Xcel Energy's proposal, please see Appendix D.

WHERE DO WE GO FROM HERE?

1. Continue Discussions with Xcel Energy

Over the past three months, the Taskforce has dedicated substantial time in analyzing potential partnership opportunities between Boulder and Xcel Energy. However, Xcel Energy's proposal includes a number of concepts that require additional development. The Taskforce encourages the Boulder City Council to engage in continued discussions with Xcel Energy, regardless of what path it decides to take.

Xcel Energy has laid out eight concepts for new products and services, discussed above, which it would like to explore further with Boulder. These eight concepts, if implemented in Xcel Energy's full service territory, might have a significant impact on carbon emissions in the state. Xcel Energy has also advised the Taskforce that it intends to continue discussions regarding these and other products and services that it can offer to all communities within its service territory. These discussions would include representatives of these communities, including Boulder.

2. Explore Forming the Boulder Local Energy Utility

The City's December 6, 2012 white paper similarly laid out many ideas worth exploring. Among them was the idea of forming a Boulder Local Energy Utility (BLEU), in which the City's demand side management and distributed generation efforts would be concentrated. The Taskforce discussed the creation of this "non-retail" utility and the advantages it could bring to the community, regardless of whether City Council decides to form a retail electric utility in the future. In addition to the advantages discussed in the white paper, Taskforce members suggested that with a dedicated revenue stream, such as the Climate Action Plan tax, or a fee added to utility bills, bonding for distributed generation and demand side management programs could be possible.

3. Continue the Taskforce as an Advisory Working Group to the City

Because the Taskforce has issued its final report and Xcel Energy will be expanding its future outreach to the other communities it serves, Xcel Energy no longer plans to meet with this Taskforce. Xcel Energy is open to including Taskforce members in a broader stakeholder group that would work on developing these concepts for their entire service territory. Xcel Energy has also expressed a desire that any future discussions regarding the ongoing relationship with the City be held directly between Boulder and Xcel Energy.

During the final meeting of the Taskforce, Boulder city staff suggested the possibility of asking the non-Xcel Energy members of the Taskforce to act as a working advisory group to the City. The reconstituted working group, which could include members of this Taskforce and other interested community members, could use its knowledge and experience to provide feedback to the City as the City further explores collaborative opportunities with Xcel Energy.

APPENDIX A – Taskforce Members

Sanders (Skip) Arnold has been the Executive Director of Energy Outreach Colorado, one of the largest organizations of its kind in the country and the only non-profit in Colorado that raises funds for energy assistance since 2003. Prior to joining Energy Outreach, Skip enjoyed a 25-year career at Xcel Energy (and its predecessor companies New Century Energies and Public Service of Colorado). His positions included vice president of Customer Care, and vice president and controller for the Retail Business Unit. Skip serves on the board of directors of the National Fuel Funds Network, and the National Low-Income Energy Consortium, both based in Washington D.C.; he also is a board member of Colorado Energy Forum and is a member of the governor-appointed Colorado Commission on Low-income Energy Assistance. A native Coloradan, Skip is a graduate of the University of Colorado, where he received a bachelor's degree in business and an MBA.

Tom Asprey is a retired electrical engineer, with 27 years of experience at Hewlett Packard and Intel designing hardware and software computer systems, including electronic instrument systems and integrated circuits, as well as developing and extensively using modeling software tools. Tom is currently an independent researcher and has spent considerable time investigating clean, sustainable energy. Tom holds a B.S. in Electrical Engineering from New Mexico State University.

Eric Blank is a co-founder and co-owner of Community Energy, a renewable energy development company focused primarily on projects in the eastern United States. Prior to that, Eric was an Executive Vice President leading US wind development for Iberdrola Renewables, the largest owner / operator of wind facilities in the world. Over the past ten years, Eric has led the development to construction of over 500 MW of operating wind and solar facilities, representing a total capital investment of over $1 billion. From 1991-2001, Eric was the director of the Energy Project of the Land and Water Fund of the Rockies (now Western Resource Advocates), a regional non-profit clean energy advocacy group that has helped shape energy policy in the Intermountain West. Eric has been involved with energy policy since 1982, and has published and presented widely on energy issues. He has a J.D. from Yale Law School and a M.Sc. in Economics from the London School of Economics.

Ann Livingston is the Principal of LivingstonSEAS, a consulting firm focused on sustainability and energy advising services. She also recently served as the Director of Market Development for Snugg Home, where she was responsible for working closely with municipal and government energy efficiency offices and utility Demand Side Management programs to explore business relationships for Snugg Home as a software provider. Before joining Snugg Home, Ann was the Sustainability Coordinator for Boulder County, where she led efforts to develop and implement the ClimateSmart Loan Program. She also played a key role in developing the Sustainable Energy Plan, the county's Zero Waste Plan, Commercial Green Building Energy Codes, enhanced Residential Energy Action Program, the BetterBuildings grant programs, and the comprehensive ClimateSmart Education and Outreach program. Ann has a BA in English from the University of Florida, as well as a J.D. and interdisciplinary Graduate certificate in Environmental Policy from the University of Colorado.

Pete Lorenzen, IBM Vice President, Global SO Transition/Transformation & Quality Assurance, IBM Colorado Senior State Executive & IBM Boulder Senior Location Executive. Pete began his career with IBM in 1982. As part of IBM's outsourcing organization from 2007 through June 2008, Pete managed a 6,000-person organization based in Bangalore, India, providing remote IT services to approximately 175 customers across Asia Pacific (AP); Europe, the Middle East and Africa (EMEA); and the Americas. In 2012, Pete began serving as an active member of the University of Colorado Leeds School of Business advisory board.

Sean Maher is the Executive Director of Downtown Boulder. Sean has been active in Boulder's business community since 1989. Most recently, he served as Director of the Boulder Economic Council where he co-founded the Boulder Innovation Center and launched Boulder's first business incentive program. Prior to the BEC, Sean headed the Small Business Development Center at the Chamber of Commerce. Before joining the Chamber, Sean brought the first Ben & Jerry's franchise stores to Colorado and founded a multi-unit retail business featuring gourmet foods made in the Rocky Mountains. He was also a partner in Terra Communications, a marketing

communications firm serving national clients. Prior to his entrepreneurial ventures, Sean worked as a marketing consultant with Sterling-Rice Group. He holds a Master of Business Administration degree from the University of Colorado and a marketing degree from the University of Montana.

Matt McMullen is Director of Facilities Management & Sustainability at the University Corporation for Atmospheric Research (UCAR). Matt has over twenty-five years of experience in the design and construction fields. Prior to joining UCAR, Matt owned and operated an architectural design/build firm of 15 employees specializing in sustainable residential, retail and commercial architecture in the western region of the United States and Hawaii. Matt received a B.ENVDA in Environmental Design and an M.ARCHA in Architecture from the University of Colorado and an M.S. – Real Estate & Construction Management from the University of Denver. Matt is a licensed architect in Colorado, California and Texas and holds AIA, LEED-AP, BD+C and NCARB professional designations. He is also a licensed real estate broker associate in the state of Colorado. On a community level, Matt has served and is currently serving on several City Council-appointed boards, commissions and task forces, including his current appointments as the Civic Use Pad Task Force IV.

Diana Moss is Vice President and Director of the American Antitrust Institute (AAI). An economist, Dr. Moss has managed projects for AAI involving antitrust and regulation. Her industry expertise includes electricity, petroleum, agriculture, airlines, telecommunications, healthcare, and sports. Before joining AAI in 2001, Dr. Moss was a senior staff economist at the FERC where she coordinated competition analysis for electricity merger cases. From 1989 to 1994, she consulted in private practice in the areas of regulation and antitrust at the National Economic Research Associates and Putnam Hayes and Bartlett. Dr. Moss has spoken widely on various topics on antitrust and regulation, testified before Congress, and appeared before state and federal regulatory commissions. She has published articles in a number of economic and legal academic journals, including: American Economic Review, Journal of Industrial Organization, the Energy Law Journal, and the Antitrust Bulletin. She is editor of Network Access, Regulation and Antitrust (2005). Dr. Moss is Adjunct Faculty in the Department of Economics and Interdisciplinary Telecommunications Program at the University of Colorado at Boulder. She holds a M.A. degree from the University of Denver and a Ph.D. from the Colorado School of Mines.

John Nielsen is Energy Program Director for Western Resource Advocates, a non-profit environmental law and policy organization with offices in the West. WRA has developed strategic programs focusing in three areas, water, energy and lands, each of which addresses curtailing climate change. John has worked at WRA as an economist and policy advisor since 1995, and has been the Energy Program Director since 2000. He is a leader in the western environmental community on the relationship between energy policy and air quality, and has served as an expert witness in regulatory proceedings around the region involving utility resource planning, electric industry restructuring, renewable energy, energy conservation, and green marketing. John holds a B.A. in mathematics and economics from the University of Colorado at Boulder and M.A. and M. Philosophy degrees in economics from Yale University.

John Tayer is the President and CEO of the Boulder Chamber of Commerce. John served over a decade at Corden Pharma Colorado (formerly Roche Colorado Corporation) in various executive public affairs and community relations positions and is a former member of the Chamber's Board of Directors, as well as a former Board Chair. Prior to Corden, John worked directly for the city manager of Boulder as its Director of Policy Development and Intergovernmental Affair Coordinator. John began his career in Washington as a Congressional Aide to U.S. Senator Brock Adams. John holds a Bachelor of Arts in Political Science from the University of Michigan and a J.D. from the University of Colorado School of Law. John recently resigned his position as a Director of the Regional Transportation District, representing the Boulder area.

Will Toor is the director of the transportation program for the Southwest Energy Efficiency Project (SWEEP). Prior to joining SWEEP, Will served as a Boulder County Commissioner from 2004 to 2012, where he spearheaded the effort to create and adopt a countywide Sustainable Energy Plan, the BuildSmart green building code, the EnergySmart program, and the ClimateSmart Loan Program. Before being elected County Commissioner, Will served as Mayor of Boulder from 1998-2004. He played a strong role in the development of the Boulder's community transit network, EcoPass unlimited access transit pass programs, and policies for denser, mixed-use urban infill development as an alternative to sprawl. Will represented both the City of Boulder and Boulder County

on the Denver Regional Council of Governments (DRCOG) from 1998-2012, and served as chair in 2005. In his role at DRCOG, he successfully advocated for significant shifts in funding towards transit and bicycle/pedestrian infrastructure and led DRCOG in adopting sustainability principles including goals for reducing greenhouse gas emissions and vehicle miles travelled in the long range regional land use and transportation plans. He received his Ph.D. in physics from the University of Chicago in 1992, where he studied theoretical condensed matter physics.

Sam Weaver is President, CEO and a co-founder of Cool Energy, Inc., a power conversion equipment company located in Boulder, CO. Cool Energy is committed to sustainable practices, and is a certified B corporation. The main applications of Cool Energy's products are waste heat recovery and biomass power, and the scale of the equipment is intended for on-site and remote power generation. Sam also sits on the Board of Directors of Proton Power, Inc, a biomass power and fuels company. He is a member of the City of Boulder Planning Board and serves on the Board of Clean Energy Action. Sam is actively involved in the Colorado technology and business communities, having previously co-founded one other Colorado-based company. Prior to his time as an entrepreneur and involvement in start-up businesses, Sam was employed for ten years as a professional researcher in the electrical engineering department at CU-Boulder. Sam has previously served his community as a volunteer fire chief, holds a B.S. from the California Institute of Technology, and is an inventor named on seventeen issued U.S. patents.

Xcel Energy was represented on the Task Force by: Kurt Haeger, Managing Director of Resource Planning for Xcel Energy; Lee Gabler, Director of DSM and Renewable Operations for Xcel Energy; and Paula Connelly, Managing Attorney for Colorado Regulation for Xcel Energy.

City of Boulder Representatives on the Task Force were: Heather Bailey, Executive Director of Energy Strategy and Electric Utility Development; Jonathan Koehn, Regional Sustainability Coordinator; and Debra Kalish, Senior Assistant City Attorney.

Steve Charbonneau and **Julie Strubel** from Find Solutions facilitated the Taskforce.

APPENDIX B – Boulder – Xcel Energy Partnership Key Points

A long-term partnership between the City of Boulder and Xcel Energy that permits the city to meet its clean energy goals and Xcel Energy to cover its costs and achieve a reasonable rate of return, should include the following key points:

1. A change in the fuel mix that greens Boulder's energy supply, with a plan to achieve climate neutrality.
2. Providing electricity as a service.
   a. Develop and provide customers choices relating to their energy consumption, including:
      i. Choices that provide incentives for demand reduction and energy efficiency;
      ii. Choice that differentiate the sources of generation providing their electricity;
      iii. Choices offered on either an individual customer basis, community-wide basis, or both.
   b. Continue to evolve product and service offerings over time as energy options and needs change over time.
   c. Work with our communities to develop new product and service offerings.
   d. Design services that include encouragement and methods to achieve reductions in electricity usage.
3. Joint decision making regarding; fuel, DSM, rate structure; and infrastructure planning.
4. The building of a utility infrastructure that supports innovation and economic growth, yet leverages new configurations and tolls to insure the highest level of reliability to meet customer needs.
5. Access to information in order to continually assess/improve DSM programs/facilitate collaboration with Xcel Energy.
6. Encouragement for innovation through forums and community participation in ideas and shared technology. Xcel Energy strives to maintain a long-term relationship with our customers and we expect to receive continuing input from our customers on what products and services they would like to obtain from Xcel Energy.
7. Flexibility/nimbleness in responding to market conditions.
8. An ongoing, collaborative process, with regular meetings between the City and Xcel Energy, to:
   a. Plan for achieving Boulder's energy future goals
   b. Review and critique how the partnership is working and ways to improve the partnership;
   c. Collaborate on new ideas or modify existing programs; and
   d. Develop long term resource and service plans.
9. A plan for enforcement and conflict resolution.
10. Replicability of some or all of the partnership points by other communities.
11. Develop services and products that can be offered to all customers under similar terms and conditions.
12. If Xcel Energy service offerings require approval by the Colorado Public Utilities Commission, they must be designed in a manner that complies with Colorado statutes and regulations. Partnership structures that would not require approval by the PUC are possible.
13. Prices, terms and conditions for each of these services should be based upon the cost of providing the service, including a reasonable margin to the provider of the service. The bases of many pricing options may require some certainty of a long-term relationship between Xcel Energy and its customers.
14. Plan for un-winding. (If the partnership fails, the default would be the city's acquisition of the Xcel Energy infrastructure with predetermined values for acquisition and stranded costs.)

- Xcel Energy-Boulder (muni version): This option is essentially what is spelled out in the "Options" memo from City Staff to Council from December 6, 2012. It is fundamentally a cooperative agreement between the City and Xcel Energy in which a Buyer/Seller relationship is formed between a Boulder municipal utility and Xcel Energy. The City municipal utility would enter into a long-term service agreement with Xcel Energy to provide wholesale power, transmission services, and distribution services. Because this would involve a municipal utility, no PUC involvement would be necessary. This is a buyer/seller relationship after municipalization.

- Xcel Energy-Boulder (investor-owned-utility version): Under this concept, Xcel Energy would create a wholly-owned subsidiary company which would be used to serve the City of Boulder, defined geographically in the way that makes the most operational sense. This separately-regulated investor-owned-utility would serve Boulder with an electricity mix that could be sourced entirely or partially from Xcel Energy generation and transmission resources. The operation of the subsidiary would be regulated by the PUC separately from Xcel Energy Colorado system. The primary advantage of this approach is to enable Xcel Energy and Boulder to serve the specific values and generation requirements of City of Boulder residents and businesses without a municipalization process. This is basically a buyer-seller relationship.

- City of Boulder Supplemental Utility: This concept is also described in the City of Boulder "Options" memo of December 6, 2012. It describes a municipal utility that does not own or operate any of the electric system, but functions as an enabler of demand side reduction programs and as a promoter of renewable energy sources. More detail can be found in the memo, as well as discussions of challenges to this approach.

- Community Choice Aggregation: Some members suggested a focus on a Colorado Community Choice Aggregation approach. This concept is modeled after several laws that have been passed at the state level (e.g., California, Ohio) that empower aggregation of electric customers to make wholesale power purchase agreements. The discussions on this subject seemed to have consensus that it is a very interesting concept, but that the details of implementation would be critical, and that changes in state law would certainly be required.

- Phased Community Choice Aggregation (PCCA): Under this approach Xcel Energy would continue to own and operate the distribution system and would remain Boulder's retail electricity provider, but the City would have the ability to contract directly with any resource supplier of its choosing to acquire new generating resources at wholesale. Xcel Energy would agree to integrate these new resources into its system at cost and would ensure that there are no cross-subsidies in either direction between the City and other Xcel Energy customers. To avoid stranded cost issues Boulder's new resource acquisition would be staged to occur at the same time the Xcel Energy system needs new resources. Xcel Energy and the City would use an unbundled wholesale pricing structure that relies on separate generation, transmission and distribution prices to determine the value of the new City resources to the Xcel Energy system. This pricing structure would be based on the Federal Energy Regulatory jurisdiction cost-based rates that Xcel Energy offers its wholesale customers.

  Xcel Energy and the City would also agree to work together to move the retail rate-setting process for commercial and residential customers out from underneath the current state-wide

Colorado Public Utilities Commission process. In consultation with Xcel Energy, the City would have the ability to set retail rates and design local clean energy programs based on its own objectives. To support Boulder's efforts to promote clean energy, energy efficiency and low-income programs, the City would have rights to a customer revenue stream, perhaps through a line item on the Xcel Energy bill. Finally, Boulder would commit to an annual greenhouse gas reduction requirement to achieve carbon neutrality in a manner consistent with the City's objectives and timelines, and Boulder and Xcel Energy would partner to develop a system of greenhouse gas reduction credits that would allow Boulder to accurately track and account for the greenhouse gas emissions associated with Boulder's electricity use. This option would require PUC approval.

- Aggregated Community Coal Plant Retirement: This concept would allow communities to pool their power needs into the equivalent of an existing coal plant to voluntarily pay the cost of the un-depreciated value remaining for early retirement of the plant. Financing this would use tax-free, state-issued, revenue bonds to return Xcel Energy's equity in the plant and pay off any debt at low cost. The communities would make the payments on the state bonds and also pay the cost of clean energy replacements that supply their replacement power, if they approve the incremental cost of the retirement and replacement. This concept could be workable either within an investor-owned-utility business partnership, or potentially within a municipal utility framework in which Boulder is sourcing power from Xcel Energy.

- Boulder – Xcel Energy Service Agreement: This concept encompasses an agreement between Boulder and Xcel Energy for 5 years (or other reasonable duration). Key points to the agreement would include specific, negotiated commitments by both community and Xcel Energy that expand the traditional customer/vendor relationship to reflect a partnership dynamic. These commitments could include items like:
  o Co-funding and/or co-marketing of DSM or renewables programs—some of these programs may be put in place so that additional technologies can be supported by rebates (e.g., where they do not meet the TRC requirements when only Xcel Energy funds are used)
  o Expanded distributed generation agreements
  o Renewable energy requirements
  o Community choice on supply (e.g., similar to community-wide Windsource option)
  o Pilot programs to advance community and/or utility goals
  o Finance programs (e.g., on-bill repayment for loans sourced form community or other funds)
  o Sharing of data
  o Coalition based efforts to pursue regulatory, legislative, or other policy changes
  o Stakeholder and community engagement to create an ongoing dialogue between the utility and stakeholders (e.g., the DSM roundtables)

  The negotiated agreement would have to include consequences for not meeting commitments as well as an exit strategy (prior to agreement termination) based on agreed upon events/actions. This model would be part of a larger "Green Communities" or "Partner Communities" program that all Xcel Energy communities can opt into.

BOULDER OPTIONS TASK FORCE
XCEL ENERGY REPORT

Xcel Energy greatly values the relationship we have had with Boulder and our customers who live in the City. Over the past ten to twenty years, Boulder has become a model city, striving to reduce its overall energy usage, increase the use of renewable energy, and reduce its carbon footprint. Boulder has demonstrated how effective a community can be when it joins together to achieve a desired outcome. Similar to Boulder, Xcel Energy is committed to being an environmental leader, striving to make meaningful carbon emission reductions for the entire state of Colorado. Xcel Energy also understands that certain communities or customers may want to move at a faster pace than the rest of the state or the rest of our customers. As a result, Xcel Energy plans to explore and develop alternatives and product offerings that can provide a greater level of customer input and choice regarding their electric energy usage and supply in an effort to promote a more environmentally friendly electric service for all of Colorado. Over the past ten years we have demonstrated our environmental leadership by building one of the most extensive and cost effective renewable energy portfolios including approximately 2,200 MW of wind and 215 MW of solar, by developing plans to retire or convert over 1,000 MW of coal generation, and by developing leading DG solar and DSM programs. We have achieved a 20% reduction in carbon dioxide emissions (relative to a 2005 baseline) and are on track to achieve a 30% carbon emission reduction by 2020.

1.   CARBON REDUCTIONS ON THE XCEL ENERGY SYSTEM IN COLORADO

1.A.   System/Portfolio Changes

The vast majority of environmental achievements have come through system-wide or portfolio changes, the impacts of which benefit and are allocated across all of our customers. Examples include the retirement of Arapahoe 3&4 and Cameo 1&2, Clean Air Clean Jobs Act project retirements and conversions (at Cherokee and Valmont Stations) and emission controls, utility scale solar acquisitions (Section 123 and 124), 2,178 MW of wind generation, wind forecasting improvements, etc. These environmental achievements have not occurred by accident. Working with our customers, Xcel Energy has been able to help reshape the state's energy demand curve and the state's energy portfolio mix. Boulder has been a key player in working to make our DSM programs one of the most successful in the nation, in helping achieve legislation that allowed us to retire over 900 MW of coal generation, and in developing one of the nation's largest renewable energy portfolios in a very cost conscious manner.

A very important part of Boulder's future environmental impact from electricity consumption is the change that will occur in Xcel Energy's emissions and use of renewable energy in its system. Xcel Energy cannot, today, guarantee the amount of wind and solar energy that will be added to its system from the current (2011) ERP, let alone, the 2015 and 2019 ERPs and others beyond that. We also cannot predict with any certainty future environmental regulations, federal and state policy on carbon and renewable energy resources in order to give Boulder a more certain prediction of the long-term future. However, Boulder can look to Xcel Energy's track record of embracing new energy technologies, balancing the energy portfolio and demonstrating environmental leadership while keeping rates consistently below the national average. As a result, while the 2011 ERP did not specifically lay out a plan for acquiring more renewable energy, Boulder should understand that Xcel Energy is committed to growing its renewable energy portfolio in a cost effective manner.

Page 16

To address Boulder's desire for even greater carbon emission reductions and for greater customer choice, Xcel Energy, along with the City, assembled a Task Force of various environmental and business citizens/leaders from the City to discuss and provide feedback to the Company on issues and options regarding the City's goals. The Boulder Options Task Force was comprised of twelve citizens from various backgrounds, and three members each from the City and the Company. This group was tasked with reviewing Boulder's energy and carbon emission reduction goals and objectives, and synthesizing those desires into a discussion regarding the development of various options and concepts that Xcel Energy could possibly offer to the City. The Task Force met for approximately 3 months, demonstrating a great deal of knowledge about the electric energy industry.

At the request of the Task Force, Xcel Energy reviewed its CO_2 emission projections presented in the 2011 Electric Resource Plan (2011 ERP), with a particular focus on total emissions over the next 30 years. While there are a number of uncertainties over such an extended planning horizon, Xcel Energy agreed to present a range of possible modeled outcomes for system CO_2 emission levels based on a range of reasonable assumptions for the period 2017 through 2043. The results are presented in Chart 1A. The results are based on the latest resource plan and assume the retirement of the Company's coal-fueled plants on their book retirement dates. The following alternative cases are presented to identify plausible carbon reduction scenarios, with the understanding that assumptions used in these cases may change over time and that the ultimate decisions on key resource planning issues will be made through the state regulatory process:

- Base case of the 2011 ERP (Base ERP) (black line)
- An updated ERP forecast, inclusion of the proposed acquisition of 548 MW of wind for 2015 (it is noted that the Colorado PUC has only approved so far the inclusion of 200 MW of wind in the current acquisition process and that the remaining 348 MW of wind is still under consideration and dependent on PPA negotiations, project development and due diligence and further evaluation in comparison to other resources bid to the Xcel Energy), and a revised assumption for continuing benefits of DSM programs forecasted to be implemented before 2027 (Base ERP plus wind) (red line)
- A plausible scenario where Xcel Energy continues to add renewable resources to the "Base ERP plus wind" scenario, albeit at a much slower pace than what we have accomplished over the last ten years (Base ERP plus additional renewable energy) (green line)

A common reference point or baseline for measuring possible or expected CO_2 emission reductions (or increases) is the actual emissions level for calendar year 2005. Xcel Energy's actual CO_2 emissions for 2005 were approximately 34 million tons (short tons). Boulder has stated that a meaningful target for overall CO_2 emission reduction is 80 percent by 2050, measured from 2005 (blue line). For Xcel Energy meeting the City's goal from the entire system would equate to a target emission level of approximately 7 million tons of CO_2 emissions and a total reduction of nearly 27 million tons.

The information presented in Chart 1A demonstrates that Xcel Energy is forecasting a reduction of CO_2 emissions of 35 percent from 2005 levels by 2020. Also, based on the modeling data presented in Chart 1A, one potential scenario (Base ERP plus wind) would result in Xcel Energy achieving an overall emission reduction of nearly 19 million tons by 2043, a reduction of 55 percent, or equivalent to an emission level of approximately 15 million tons.

The decisions to achieve these resources would not be based solely on attempting to meet a carbon objective but rather the relative economics of the various resources available to the Company. Factors

such as whether there is EPA action with respect to carbon and traditional pollutants would factor into these decisions.

Chart 1A: Projected CO_2 emission reductions under alternative scenarios
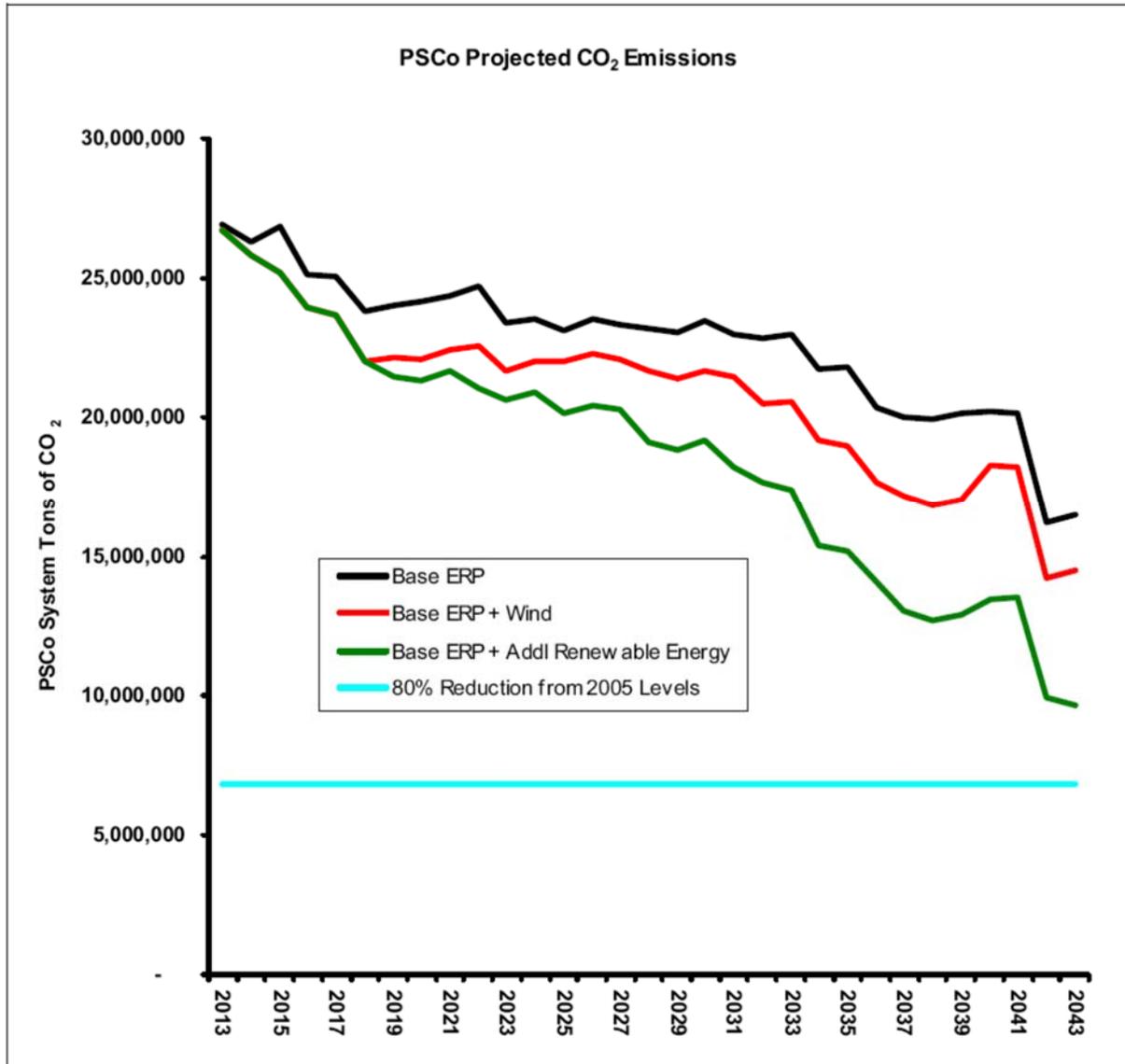
Additional review of the assumptions we used in the 2011 ERP highlighted the fact that we assumed new renewable resources were added only to meet minimum compliance with Colorado's Renewable Energy Standard (RES). As a result, the 2011 ERP may have presented an extremely conservative case regarding new renewable energy resources for Xcel Energy. We explained in the ERP plan that our strategy was to add more renewable energy when it was cost effective for the system. While we were not in a position to predict exactly when more renewable energy could be added as a cost-effective resource, we certainly believed that we would have the opportunity to continue to expand our renewable portfolio over time. As a result, the data presented in the ERP described a scenario where the Company's renewable energy portfolio remained constant for the next 30 years.

Given the changes in the cost of wind and solar that may continue, we believe that is reasonable for Boulder to consider that system carbon emissions for Xcel Energy would continue to decline as the Company acquires additional cost-effective renewable resources, above and beyond those required for minimum RES compliance over time.   If the Task Force assumes that Xcel Energy adds additional renewable resources at a pace that is three times slower than what has been added over the last ten years, by just acquiring approximately 100 MW of additional wind and 100 MW of solar resources every other year over the period from 2019 to 2043, Xcel Energy would be able to reduce CO_2 emissions by another five million tons by 2043. With only moderate increases in renewable energy, Xcel Energy could potentially be on a course to reduce CO_2 emissions by nearly 70 percent by 2043.

When analyzing the cost impacts of these scenarios, the primary drivers of these rates include the cost of the wind and/or solar, the cost of carbon, and the cost of natural gas. For comparison purposes the Task Force requested that Xcel Energy compare the three alternatives using the assumptions included in Boulder's median case. Using Boulder's information and assumptions for carbon costs and wind energy costs, we find that the most aggressive carbon reduction scenario (ERP plus Additional Renewable Energy) results in a slight reduction in cost in comparison to the Company's 2011 ERP scenario. The difference in cost appears to be a savings of approximately 1 to 2 percent of rates (lower rates) when compared against the 2011 ERP scenario. This very simplified comparison approach is only intended to show directionally how the rates compare under the various scenarios present to the Task Force and the information used by Boulder in their study.

The Task Force is not charged with evaluating the City's Municipalization Study; however, in order to understand how the Xcel Energy proposals compare with the City's assumed benefits of forming a municipal utility, the Task Force agreed that Xcel Energy should use the same carbon and resource cost assumptions assumed in the City's median case when analyzing the cost projections of these two additional renewable energy scenarios. In addition, while Xcel Energy made it clear to the Task Force that Xcel Energy did *not* agree with the carbon and resource cost assumptions that the City used in its Municipalization Study and that a more rigorous economic analysis should be completed, the Company agreed with the Task Force's request. The City assumes in its median case in the City's Municipalization Study that carbon regulation will result in a cost (either carbon tax or cap-and-trade cost) for all kWh beginning in 2017 and that wind resources will still have available the benefits of the current federal Production Tax Credit.   Using these City assumptions, Xcel Energy's analyses show that by adding renewables (both the 548 MW wind case and the additional renewables case) electric rates would be reduced when compared with the information in the City's Municipalization Study.

Although Xcel Energy has not focused a great deal of time attempting to predict its actions over the latter half of the planning horizon, acquiring additional renewable resources to replace approximately 1,400 MW of possible coal-fueled plant retirements, and at a pace that is nearly three times slower than our current pace of renewable acquisitions, suggests that this future scenario is plausible. This additional renewable scenario could result in Xcel Energy achieving even greater CO_2 emission reductions than reductions achieved under Boulder's municipalization scenarios.

1.B.   Customer and Community Choice Driven Alternatives

We also understand that some customers, and even some communities like Boulder, want even greater overall carbon emission reductions and want to help shape the next steps that we take in this long-term journey of maintaining an industry leading energy system. We have some history of providing voluntary or opt-in services and offerings, including our DSM programs, our Windsource program, and our

Solar*Rewards and new Solar*Rewards Community program (Solar Gardens). These programs depend on voluntary customer participation and the costs for the programs are attributed to and paid for by varying degrees by a combination of the participants and the customers on our system.

Looking forward, we plan to work toward the creation of more optional programs and services. We also envision efforts to create a new level of voluntary participation at the community level, provided that our customers (the voters of the community) elect for their community to participate in our voluntary programs. Xcel Energy provides the following descriptions of the concepts and issues that we believe will lead to fruitful discussions and ultimately to product and service offerings that can be proposed to the Colorado PUC to allow participating customers and communities to achieve even greater reductions of carbon emissions and greater amounts of renewable energy. Xcel Energy is focused on meeting the energy needs of customers and the communities we serve in the least expensive, most reliable, safest and cleanest way possible. It is our belief that we offer the City of Boulder the best opportunity to meet its energy and environmental goals without the risks and costs associated with forming a municipal utility.

We encouraged the Task Force to consider the opportunities and likelihood of achieving further carbon dioxide (CO_2) emissions reductions and increased renewable energy through the following areas of opportunity with Xcel Energy:

1. Leveraging projected, long-term CO_2 emission reductions on the PSCo system
2. Continuing participation in Xcel Energy voluntary renewable and DSM programs
3. Boulder can augment and leverage Xcel Energy programs, service options and projects utilizing City of Boulder resources and expertise
4. Developing potential new voluntary programs and services

In developing optional programs and services, Xcel Energy believes the participant needs to be ultimately responsible for any additional costs (or benefits that may arise) that is associated with the programs or service. As a result, the following are guiding principles that we believe are critical to making the proposed services and options successful.

Guiding Principles:
1. No new cross subsidization
2. Available to all
3. Ability to administratively manage program/service/offering
4. Customer friendly
5. Customer relationship term consistent with program term
6. Regulatory approval

2. CONTINUING PARTICIPATION IN XCEL ENERGY VOLUNTARY RENEWABLE AND DSM PROGRAMS

Xcel Energy currently offers a number of voluntary or optional renewable and DSM programs and services to our electric customers across Colorado. These programs can be viewed in two broad categories based on cost responsibility:

1. Programs and services that are paid for by participant customers

2. Programs and services that are partially or totally paid for by all PSCo electric customers because of overall system benefits

Windsource® is an example of a voluntary program where participating customers pay a small incremental price to drive the Company's use of wind energy above and beyond its RES compliance and ERP driven resources.

Solar*Rewards® and Xcel Energy's business and residential DSM programs offered in Colorado are examples of programs and services paid for by all PSCo customers because of either the system benefits provided by the reduced load that we have to serve, or the need for compliance with state goals on solar.

The Solar*Rewards and new Solar*Rewards Community (solar gardens) programs were developed specifically to enable Xcel Energy to meet the retail distributed generation portion of Colorado's Renewable Energy Standard (RES). The recovery of rebate and Renewable Energy Credit (REC) payments made to participating customers is facilitated through the Company's Renewable Energy Standard Adjustment (RESA) clause, which is capped at 2 percent of each customer's bill.

Similarly, DSM programs create future system benefits by avoiding the need to build new power plants and other facilities and avoiding marginal energy generation. As of year-end 2012, our Colorado DSM programs had deferred the need for three-250 MW power plants. The DSM rebates and incentives paid to participating customers are recovered from all PSCo customers based on the overall system benefits derived, as well as the opportunity for all customers to participate and realize program participant benefits. Notably, if Boulder's load is no longer on our system there is no benefit to our other customers from investing in DSM initiatives in Boulder.

Boulder customers have been engaged and participating at high rates in our existing programs. While Boulder's load accounts for roughly 3.5 percent of our system, Boulder customers are 14 percent of the total Solar*Rewards program and 5.2 percent of total DSM dollars spent on rebates and incentives. Boulder customers also comprise 18 percent of our Windsource program sales in Colorado. These participation levels demonstrate how effective the programs can be and how community participation leads to success. Xcel Energy would like to continue to work with Boulder to leverage and expand the Company's existing programs and to develop new programs. There would be no benefit to our non-Boulder customers to permit Boulder customers access these programs going forward if we do not serve Boulder, as they would not address compliance concerns or create system benefits.

The actual electric-associated emissions and renewable energy profile of the community should incorporate consideration of Xcel Energy's system portfolio profile, but also layer in the incremental impact of high participation in these programs, whether participant funded or system benefit funded.

3. **THE CITY OF BOULDER CAN AUGMENT AND LEVERAGE CURRENT AND PLANNED XCEL ENERGY VOLUNTARY PROGRAMS, SERVICE OFFERINGS AND PROJECTS.**

Xcel Energy believes that Boulder can achieve its objectives and significantly benefit by working with Xcel Energy on expanding and enhancing existing energy efficiency, distributed generation and SmartGridCity programs and applications, along with possibly developing additional clean-energy resources. By leveraging resources available through Xcel Energy's existing programs, Boulder can use internally generated funds to expand and enhance existing programs by targeting greater penetration and expanding program scope. Boulder customers have already demonstrated interest in using existing incentives at an increased rate of participation. The City could utilize Climate Action Plan tax revenues,

general funds, or other voter approved revenues to provide additional funding to further improve adoption and participation rates and potentially to drive programs that, absent city funding, would not otherwise be cost effective for Xcel Energy. Through the use of city funding, in combination with Xcel Energy's existing programs, we believe that together we can work to make many of the ideas and concepts for new and expanded programs and services (identified in Section 4) a reality.

4. DEVELOPING POTENTIAL NEW VOLUNTARY RENEWABLE AND DSM PROGRAMS AND SERVICES

Xcel Energy is also interested in working with the City and Boulder community stakeholders, in parallel with other interested stakeholders, to investigate and develop new service offerings that would meet customer and community needs. Our customers are increasingly looking for more diverse energy solutions, and we want to offer alternative programs and services, including options that give communities and individual customers choices that result in real and tangible environmental improvement and the development of renewable energy while assuring a fair and reasonable assignment of costs.

Listed below are options and potential new programs and services, categorized into three groups:
   A. Near-Term concepts and options that are either unique to the Boulder Community or more general, but likely to be achievable within 3-9 months from an agreement to pursue them.
   B. Mid-Term concepts and options that Xcel Energy would be willing to investigate and consider. We envision it would take 6-18 months to work though each of these ideas, not including any necessary regulatory approvals or legislation.
   C. Long-Term concepts and options that we envision would take two years or longer to develop before seeking authority to implement them.

4A. Near-Term Concepts and Options (3-9 months)

4A.1. Enhancing SmartGridCity

Xcel Energy is willing to engage the SmartGridCity (SGC) Advisory Council to perform industry research and make future suggestions that include a number of ideas and concerns that Boulder has raised. We would invite the City of Boulder to actively participate on this Advisory Council.

We would engage the Advisory Council to help us select new pilot programs. Once selected, we would develop additional pilot details, including cost projections, and present the pilot details to the Advisory Council within six months. The following list has been prioritized to highlight the programs that Xcel Energy believes have the greatest potential and most benefit. Since a number of options revolve around common themes and are also similar to options listed on the mid-term list, it appears that options associated with distributed generation may provide the greatest benefit.

While the Task Force had asked Xcel Energy to quantify the cost and benefits of the various options, most of these options or alternatives are in the nature of research and development projects and should be viewed as enablers for future actions. As a result, meaningful quantification of specific alternatives is not available.

1. Use smart grid technology to analyze the impact of high penetrations of distributed renewable energy on the distribution system and use the information to structure appropriate transmission and distribution system modifications for the Solar*Rewards and Solar*Rewards Community programs. This study is very feasible and will help the

industry to understand the operational and reliability impacts of distributed generation. We estimate that we will need at least six months of solar panel data collection at a one-second resolution. During this time, an appropriate modeling software platform could be chosen, acquired and mastered. An additional six months will be required for the distribution and transmission impacts study. The study will be scalable to an extent; however, distribution feeder features vary and feeder specific studies will still be required for PV integration at feeder penetrations greater than 15 to 20 percent. We expect this study could be complete in 12 to 24 months. The cost to perform this task is estimated to be $1 million.

2. Working together, the City and Xcel Energy could test the structural limits of SmartGridCity by installing solar panels on homes served by a particular substation to determine how much distributed generation can be added without causing a disruption on the distribution system. This option is feasible and links into option 1 above.

3. Test the ability for appliances to be turned on or off in response to price or grid stability signals.

4. Develop a plan to streamline customers' ability to obtain near real-time, "raw" information. This option can be accomplished in the short term. Xcel Energy is implementing several upgrades to MyAccount that will not only allow customers to download raw data, but will also help customers who wish to better understand their usage and data. On the residential and small business side (<250kW), we will be creating a "MyEnergy" tab within MyAccount. Possible features for customers will include looking at their usage based on comparisons and audits. We are researching a program that would include a "download my data" button, and we would provide interval data if meters will support this level of granularity.

5. Develop a plan for rolling out smart-meters to the half of Boulder residential premises that don't have access to even day-delayed interval data, as well as a plan to provide smart meters to more commercial premises in Boulder. The cost of installing additional smart-meters in Boulder is estimated to be in the range of $125 to $175 per device.

6. Study the condition of transformers associated with the premises participating in the Electric Vehicle Charging Station Pilot, as transformers have anecdotally been reported to be easily overloaded by EV charging.

7. Smart-meter retrofits could support plug-in electric vehicle technologies, such as vehicle-to-building (V2B) strategies, in which the vehicle battery also serves as a storage/back-up system for the building, and managed charging, in which the charging schedules of electric vehicles are aggregated and controlled in response to grid stability and power-price signals for both customer and utility benefit.

The cost responsibilities for these SmartGridCity concepts would be subject to negotiation between Xcel Energy and the City. Any costs borne by Xcel Energy would be subject to approval by the Colorado Public Utilities Commission.

4A.2.   Expanded Energy efficiency and demand-side management

This option would expand the energy efficiency and demand response options for Boulder. Currently Xcel Energy offers a large portfolio of energy efficiency and demand response options for customers. Through quarterly roundtable meetings, interested parties can submit additional program or technology ideas for inclusion into our program portfolio. The City has been an active participant at our quarterly roundtable meetings.

A program that can be expanded is the Energy Smart Program. Through Energy Smart, the City can fund incremental rebates to drive higher levels of energy efficiency. Xcel Energy is open to working in partnership with the City to more effectively market Energy Smart to customers and trade allies and to find solutions for easing participation by Boulder customers (i.e. one rebate form).

Xcel Energy is also open to expanding cost-effective options as part of our existing regulatory process and we support efforts by the City to enhance the cost effectiveness of technologies not currently offered to customers. Xcel Energy would be open to providing expertise in the evaluation of these technologies.

a.   **Scope:** 4 -5 percent of additional demand reduction over 20 years
b.   **Cost:** $750,000 to $1,000,000 per year
c.   **Emission reduction benefit:** 40,000 tons by 20th year

4A.3.   Local Distributed Generation Opportunities

Boulder has indicated an interest in exploring ways to increase the utilization of distributed generation and provide more input into possible programs and concepts that could be implemented in the City. Xcel Energy believes that Boulder could expand the adoption rate of the Company's existing solar programs by offering additional incentives in combination with the Company's existing programs. Xcel Energy would also be open to creating a working group that could focus on identifying other DG opportunities and exploring issues that may be related to the potential implementation of these new ideas.

a.   **Scope:** 4 percent demand reduction over 20 years
b.   Cost: $200,000 per year cumulative to $4,000,000 in year 20
c.   **Emission reduction benefit:** 33,000 tons by year 20

4A.4.   Formation of an Energy-Efficiency/Distributed Generation Incubator

Xcel Energy would expect to have a continuing collaborative process with Boulder to establish additional energy efficiency programs and concepts. Historically Boulder has been an active participant in similar efforts. Additional DSM programs and concepts enabled by the Advanced Metering Infrastructure (AMI) environment in Boulder could be developed and explored through this incubator concept. The magnitude and potential impact of these possible programs take the form of research and development, and therefore, are difficult to quantify at this time.   It is also anticipated that potential programs and opportunities would be tailored in such a way as to allow local Boulder companies to participate. Since Boulder and Xcel Energy would be looking to use the incubator concept to gauge customer acceptance of new services or concepts, Boulder would have the opportunity to propose project concepts of their own and have these concepts evaluated through this process. As such Boulder would be in the position of controlling and possibly funding certain programs of interest to the City.

4B.   Mid-Term Options and Concepts (6-18 months)

4B.1. Unbundling of Charges – Generation/Transmission/Distribution

Retail electric utility service today is offered under tariffs that typically include a simplified rate that groups together (bundles) the services provided by investor-owned utilities —generation, transmission and distribution — and ancillary services. To facilitate a better understanding of the cost components and services that make up today's bundled rate, we would investigate our ability to unbundle the current rate structures and to discuss with Boulder the benefits of making this change available to customers on their bills.   Unbundling the current service components on a customer's bill would lead to a greater understanding of the costs of each of these utility services and could ultimately lead to a different paradigm for new services and redefining existing services. This option falls in the realm of customer education and enabling of future program development. One possible future benefit of this option is to allow rates to be differentiated based on the type of energy supply received by a specific customer and the customer's possible participation in various voluntary programs.

4B.2. "Green City Rate"

One way to achieve energy savings is through pricing signals. Customers are likely to respond to a higher marginal price signal by reducing usage and adopting higher cost DSM alternatives, which become more cost effective. Currently, Xcel Energy's rates are based upon average costs, not marginal costs. We would agree to explore the possibility of developing and implementing customized rate structures for Boulder and other communities that would want this option. Together with Boulder, we would investigate the rate structures Boulder may desire, how these structures would vary between customer classes, how such a program would be implemented and developed, and explore any type of true-up mechanisms that could be necessary. The cost and benefit of this program is largely dependent on the specific rate design that would be proposed.

4C.   Long-Term Options and Concepts (2 years plus)

4C.1.   Environmental Re-Dispatch Option

Xcel Energy understands that some customers may be willing to pay an additional fee to reduce the operation of the Company's coal-fueled generation to reduce overall emissions. Although a permanent change to the Company's coal fleet would be significantly more complicated, we could possibly develop a program where customers voluntarily agree to fund the reduction in overall CO_2 emissions that would result from dispatching our system differently to reduce carbon dioxide emissions. Currently our generation system is dispatched on the basis of cost. By reducing coal generation, in an uneconomical manner, and replacing that reduced coal generation with natural gas-fueled generation, the Company would incur an additional fuel cost. Under this proposal, customers could voluntarily commit to pay these additional fuel costs for the purpose of reducing their carbon footprints. In general, a MWh of coal generation produces approximately one ton of carbon dioxide emissions and natural gas fired generation produces approximately half the carbon emissions or about one-half a ton of carbon dioxide emissions. By paying an additional fee to reduce the amount of coal generation and increase the amount natural gas generation, Boulder could reduce its overall carbon emissions by an amount (in tons) equal to 0.5 times the number of MWh of reduced coal operations.

To develop program details, we would identify in advance the amount of energy that could be re-dispatched and the cost of that re-dispatched energy. The specific program details would identify the carbon reduction benefits and the voluntary costs associated with re-dispatching the system over a stated period of time.

a. **Scope:** The re-dispatch of the existing coal fleet could result in 10 to 20 percent of Boulder's energy being switched from coal to natural gas.
b. **Cost:** Preliminary estimates suggest the cost of economic re-dispatch could be in the range of $3 to $6/MWh for the period of 2013 through 2017. Xcel Energy will need to perform additional modeling to look at the costs for 2018 and beyond.
c. **CO_2 reduction benefit:** The expected CO_2 benefit from an environmental re-dispatch program would be up to 5 to 10 percent in overall reduction of CO_2 emissions annually.

4C.2. Add incremental wind or solar resources through a wind garden/solar garden concept or an enhanced Wind-Solar Source Program

We would agree to explore opportunities for developing new or expanding current products and services that would enable additional sources of renewable energy to be developed and possibly dedicated to specific cities or customers. It is likely that additional wind or solar resources would be the most cost-effective options.

a. **Scope:** 200 MW of wind or 100 MW of solar
b. **Cost:** See chart
c. **CO_2 reduction benefit: See Chart (**Annual reduction)
   Cost:

	Cost ($/MWh)	Carbon Reduction (tons)
200 MW wind with PTC-Colorado (prior to 1/1/2014)	$35	500,000
200 MW wind with PTC-Kansas (prior to 1/1/2014)	$25	500,000
200 MW wind without PTC-Colorado (after 1/1/2014)	$60	500,000
200 MW wind without PTC-Kansas (after 1/1/2014)	$50	500,000
100 MW large solar with ITC (prior to 1/1/2017)	$80-$100	150,000

4C.3. Partnership with NREL National Wind Technology Center

This opportunity is viewed as a sub-set of 4C.2 above.

5. BENEFITS OF BOULDER CONTINUING WITH XCEL ENERGY

Over the past ten years, Boulder and Xcel Energy have made significant progress reducing overall CO_2 emissions and increasing production of clean energy. Xcel Energy believes that Boulder can meet and surpass its goal of 80 percent CO_2 reduction for the City by continuing to work with Xcel Energy and leverage the Company's existing and possible future energy programs. We firmly believe that a continuing relationship with Boulder can help the entire state of Colorado, not just the City, attempt to meet the 80

percent emission-reduction goal by 2050. Through the development of incremental voluntary programs, in concert with the strong base of renewable resources already assembled by Xcel Energy, Colorado can become a showcase for the country on how to transition the electricity energy business into a clean energy business. Based on the system-wide average carbon emission scenarios identified in Chart 1A and the voluntary program and services we have identified, we believe Boulder can achieve its stated goal of an 80 percent reduction in carbon emission by 2050 and may have the opportunity to approach or surpass carbon neutrality from the power sector.

Chart 5A demonstrates how Boulder can achieve its carbon reduction and renewable energy goals by remaining part of the Xcel Energy Colorado system. If Xcel Energy did not acquire any additional renewable resources (an unlikely scenario), Xcel Energy's projected carbon dioxide emissions associated with Boulder's electric usage in 2017 would be approximately 1,100,000 tons annually. However, using more realistic assumptions, Boulder can expect to see reductions in the carbon dioxide emissions associated with its electricity usage because Xcel Energy is likely to continue to reduce its carbon dioxide emissions. Under the concepts outlined in this Report, Boulder could create additional reductions by participating in voluntary product and service offerings.

Chart 5A: Boulder's Projected Carbon Profile as a Continuing Customer of Xcel Energy

Boulder's Carbon Profile as a Continuing PSCo Customer
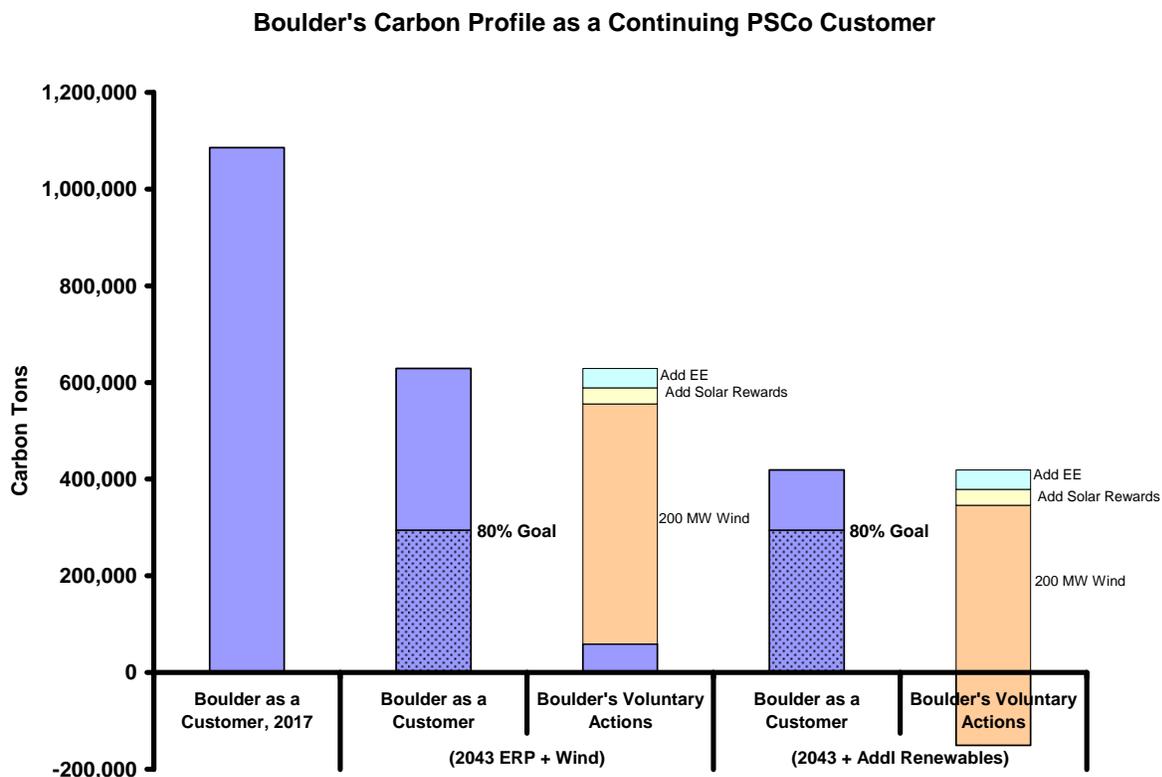
The first column shows the annual Boulder "carbon footprint" in 2017 from using Xcel Energy's electricity. The second column shows the significant reduction in that annual carbon footprint that will result from Xcel Energy's pending proposal before the PUC to add 548 MW of wind by the end of 2013. Using the "ERP plus wind" case, Boulder's carbon emissions as a system customer are estimated to be approximately 630,000 tons. The third column shows that Boulder could achieve even further carbon emission reductions by providing additional incentives for participation in energy efficiency and solar rewards

programs and by working with Xcel Energy to fund the incremental cost of adding an additional 200 MW of wind that would be dedicated to Boulder. By participating in additional EE, DG and a 200 MW voluntary wind purchase, Boulder's carbon emissions could possibly be reduced to approximately 60,000 tons.

The fourth and fifth columns show the carbon emissions reductions that would be achieved by Boulder by staying with Xcel Energy under the "ERP plus additional renewables" scenario, a scenario that assumes that Xcel Energy will continue to add renewables to our system at a rate that is about one-third the rate that Xcel Energy has added renewables over the last ten years. Boulder's carbon emissions under this scenario are projected to be approximately 420,000 tons. Again, by participating in additional EE, DG and a 200 MW wind purchase, Boulder's carbon emissions could possibly be reduced to a negative carbon emission (or net offset) of (150,000) tons. Any net offset in carbon emissions could be used by Boulder to offset other carbon emitting activity within the City, e.g., carbon dioxide emitted from vehicles.

As shown in Chart 5A, Boulder's projected carbon emissions profile as a continuing Xcel Energy customer, with participation in incremental voluntary services, ranges from a positive 60,000 tons of carbon to a net negative emission level of (150,000) tons of carbon. These scenario results compare very favorably to the projected net carbon emission level included in Boulder's Municipalization study of 400,000 tons by 2037.

The Task Force requested that Xcel Energy provide a comparison of the cost to achieve the carbon profile detailed in Chart 5A. While it would take a great deal of time for Xcel Energy and Boulder to review and agree to all of the modeling assumptions necessary for a rigorous cost comparison, in an effort to provide some level of cost comparison for the Task Force the Company attempted to use the assumptions included in the City's study. Based on using Boulder's cost assumptions from its median scenario, a carbon cost or tax beginning in 2017 and the availability of wind resources priced to include the cost benefits of the current federal Production Tax Credits, it is expected that implementing the three voluntary programs shown in columns 3 and 5 of Chart 5A would result in an average *reduction* in cost of approximately $2 million per year for the period of 2017 to 2037. These voluntary savings, coupled with the reduced cost of the higher renewable energy portfolio identified in Chart 1A using these same assumptions from the City's study, would suggest that based on Boulder's assumptions in its median scenario, Xcel Energy rates would average 2 to 3 percent lower than in the base case.

The cost savings result primarily from using the carbon regulation assumptions that the City has used in its municipalization feasibility study. Carbon regulation will make adding renewable resources and increasing energy efficiency more cost effective and create rate savings. Charts 1A and 5A show two reasonable responses by Xcel Energy to the carbon regulation future assumed by the City in its municipalization study.

To: Task Force Members

From: Xcel Energy

Dated: June 10, 2013

Re: Xcel Energy's Position on Task Force Alternatives

Xcel Energy appreciates the opportunity to work with representatives from the City of Boulder and with the Boulder citizens who have volunteered their time on this Task Force. The Task Force members have demonstrated substantial knowledge of the electric industry and have been working very hard and very creatively to find a solution that would be attractive to both the City and Xcel Energy. We also appreciate the efforts of our facilitators to coordinate the discussions we have had over the past six weeks. We at Xcel Energy have listened with great interest to all of the Task Force discussion and suggestions and have concluded the focus of this work has been channeled into developing a Boulder only solution and not one that could be reproducible for other customers.

When Xcel Energy approached the City to request the establishment of this Task Force, we had anticipated the Task Force discussion would focus on specific programs and product offerings that we could develop and offer to Boulder to achieve the City's overall carbon emission reduction goals. Xcel Energy also believed that these new products and services could also be offered to other Colorado customers and cities that have similar environmental goals. Over the past month it has become apparent to us that Boulder's primary focus in this process has been to attempt to transform the utility industry, rather than work with us on specific projects or programs that could be used to reduce carbon emissions for the City and that could be offered to our other customers. While we have been exploring specific carbon reduction plans, it seems that it is more important to the City that it obtain control over utility decision-making and that it change the legal and regulatory structure of the utility business in Colorado.

As a result of the group's focus on potential partnership structures, Xcel Energy began researching many of these issues to determine if we could develop an action plan or partnership concept that could be successfully implemented in a reasonable amount of time and that could be reproduced for other customers. This research raised a number of very complex issues and the fundamental question of how could Xcel Energy reasonably expect to develop a city specific legal and regulatory structure for each community that had a desire to have a different energy mix or utility program. At the same time Xcel Energy began investigating how we could acquire and offer additional renewable energy projects or services based on resources that were offered in our current All-Source RFP process or by modifying the operation of our existing generation. Xcel Energy anticipated that bids that were marginally cost effective could possibly be offered to specific customers, such as Boulder, on a voluntary basis, so that these customers could obtain even more renewable energy than what is already included in our industry leading renewable portfolio that is provided to all customers. After analyzing the wind bids that we received on April 30, we determined that streaming the energy from a renewable project to a specific customer was not going to be feasible. Instead, we determined that aggressively acquiring as much wind as we think our system can handle today, on behalf of all of our customers, was the most appropriate way to achieve the greatest quantity of verifiable carbon emission reduction for Boulder and for Colorado. On Thursday May 30 Xcel Energy announced that we proposed to increase our overall wind portfolio by nearly 25% and to increase our overall level of renewable energy to 30% for all of our customers. The addition of 548 MW

of new wind will bring the level of wind on the PSCo system to over 2,700 MW for a system that is designed to serve a 6,500 MW load. In regards to options that could possibly alter the operations of our existing generation, the Task Force expressed an interest in a more permanent option that would result in a permanent closure of another coal plant. Obviously a more permanent option of this nature is much more complex and would need the involvement of a much broader group of stakeholders.

After a great deal of internal discussion and review about various partnership concepts offered by the Task Force, Xcel Energy has come to the conclusion that we do not believe that additional Task Force discussion regarding transforming the utility industry in Colorado, or about reorganizing Xcel Energy's business structure to satisfy the City's ultimate goal of control, is a cost-effective way of achieving real carbon emission reductions for Boulder or for the State. We also believe the very complex legal and regulatory issues related to the forms of change of control and ownership of the utility assets or services under discussion by the Task Force will likely take a long time to investigate and resolve, and would not result in a concept that could easily be reproduced for other cities or customers in Colorado. Developing a legal and regulatory structure that would require a very complex and exhaustive customer specific solution is not practical.

Xcel Energy believes that the carbon issue is bigger than Boulder. Concentrating our efforts on addressing a complex new contractual and regulatory model with Boulder is not the best way to tackle this important environmental issue. As a result we continue to believe that focusing our efforts on the development of an increasingly greener generation portfolio, enhanced energy efficiency programs, and other voluntary customer programs for all customers will provide the opportunity to reduce more carbon and at a faster rate than tackling the extremely complex legal and regulatory issues that are inherent in many of the structural proposals raised by the City and by Task Force members.

Our recent announcement of the addition of another 548 MW of wind is just another step in the process of demonstrating Xcel Energy's overall commitment to the environment. We also believe that with a comprehensive approach with all of our customers that we can achieve additional carbon emission reductions in the next ten years, mirroring the significant reductions we have already achieved over the past ten years. Focusing on more of a statewide comprehensive planning approach will result in greater overall greenhouse gas emission reductions for Boulder and the State, versus what could likely be achieved by debating the control issues raised by the City. Looking back over the last ten years, Xcel Energy has made remarkable strides to reduce our carbon footprint. During this period, Xcel Energy has added or proposed to add nearly 2,700 MW of wind, agreed to close over 1000 MW of our coal plants including the Cameo, Arapahoe 3 and 4, Valmont, and Cherokee 1, 2 ,3 and 4. We have developed a U.S. top ten distributed solar program, a top DSM program, avoiding the need for two power plants the size of Boulder's power requirements, and just completed the installation of 60 MW of large solar resources. During this same ten year period, Xcel Energy has reduced carbon emission by 6,800,000 tons in Colorado, nearly 6 times greater than Boulder's entire carbon footprint from electric generation needs.

In contrast to the focus on control issues and legal structures that has occupied so much of the Task Group's time over the past month, Xcel Energy believes that the Task Force, or a subset of this group, still has an opportunity to help identify and develop new product and services that can be offered to all customers on a voluntary basis. Xcel Energy has developed a very aggressive renewable base for all of its customers but understands that some customer may want to go even further. While the issues surrounding these voluntary service offerings can also be complex, the time necessary to develop these concepts is expected to be significantly less than the time that would be required to restructure the utility industry. As identified by Boulder, product and service offerings that are based on new wind resources are likely to be the most cost effective. To help facilitate the opportunity to add more wind resources and

to develop voluntary services around this new wind, we need more transmission in Colorado to bring the wind energy from the Colorado Eastern plains to the load centers along the Front Range. We are continuing to plan for constructing this new transmission capacity and will be making the necessary regulatory filings later this year. It is anticipated this additional transmission will be constructed by 2019.

In conclusion, Xcel Energy believes the complexity and the time involved to sort through all of the legal and regulatory hurdles associated with the changes suggested by the City will not result in meaningful carbon emission reductions for many years to come and will not be transferable to other customers and communities. We also strongly believe that by working together on overall system changes, larger and less costly carbon emission reductions can be achieved on a more timely basis and to a much broader set of customers.   Xcel Energy has an extremely strong track record of changing our resource mix to reduce overall carbon emissions; we look forward to continuing the progress we have made so far. In keeping with the expectations of our company when we entered into this Task Force process, Xcel Energy would like to continue to extend an invitation Task Force members to assist us in discussing and developing product services and offerings that can be offered to all customers.