

**ENERGY FUTURE COLLABORATION - MEMORANDUM OF UNDERSTANDING BETWEEN
THE CITY AND COUNTY OF DENVER, COLORADO AND XCEL ENERGY**

This Memorandum of Understanding (“**Memorandum**”), dated February 28, 2018, outlines various overarching values, goals and shared principles between the City and County of Denver (“**Denver**”) and Public Service Company of Colorado, a Colorado corporation and an Xcel Energy company (“**Xcel Energy**”). The Memorandum provides a strategy for cooperation and achievement of a shared vision through broad collaboration, focusing on innovation, clean energy, economic development opportunities, customer choice programs and technology (“**Energy Future Collaboration**” or “**EFC Partnership**”). Denver and Xcel Energy are each a “**Party**” and collectively the “**Parties**” to this Memorandum.

BACKGROUND

- A. Denver is a Colorado home rule municipality and the State of Colorado’s capital. It is responsible for protecting the public health and safety of its residents.
- B. Denver has various clean energy, economic development, public works and innovation goals and desires, including 100% renewable energy and 80% reduction in greenhouse gas emissions, which have been developed in collaboration with the community.
- C. Xcel Energy is a statewide, integrated public utility energy provider, which is regulated by the Colorado Public Utilities Commission (“**PUC**”). Xcel Energy provides electric, natural gas, steam and chilled water (unregulated) service to Denver and its residents.
- D. For over 100 years, a strong tradition of working together has progressed between Denver and Xcel Energy, resulting in an interwoven history linked to Denver’s growth, development, planning and energy needs and objectives.
- E. Over the past decade, Denver has reduced its greenhouse gas emissions while growing its economy and leading in energy innovation.
- F. Denver and Xcel Energy have many aligned interests at a local, state and federal level and desire to advance those interests in a new way, capitalizing on each entity’s strengths and expertise via partnership.
- G. To do this, Denver and Xcel Energy are creating a holistic, collaborative and mutually beneficial relationship that supports the community.
- H. Denver and Xcel Energy desire to memorialize, in this Memorandum, their shared vision, guiding principles, values and goals regarding the EFC Partnership.

MUTUAL COLLABORATION

VISION

Aspirations and goals, which drive a desired future, represent a person or organization's vision. Denver and Xcel Energy have their own visions and, as part of the EFC Partnership, we also have identified a shared vision.

- 1.1 *Denver's Vision:* Denver will be a global leader in clean and local energy that comes from the sun, wind, or other innovative renewable technologies. Denver residents and businesses will have access to reliable and affordable energy that is produced, distributed and consumed in a manner that progresses consistently toward Denver's goals and desires described above. Denver will consider all applicable costs and benefits when investing taxpayer dollars in any EFC Partnership projects.
- 1.2 *Xcel Energy's Vision:* Xcel Energy will be the preferred and trusted provider of the energy its customers need. As such, Xcel Energy wants to partner with Denver to support Denver's energy vision, goals and objectives and also advance its plans that align with those of Denver and Xcel Energy's customers.
- 1.3 *Shared Vision:* Through the EFC Partnership, Denver and Xcel Energy will work to support and achieve each other's vision and objectives in areas of mutual alignment, for the benefit of residents, businesses and the broader community. Denver and Xcel Energy will separately and also collaboratively pursue innovations in technology and consumer communications that accelerate achievement of the visions described above. Both parties acknowledge that Xcel Energy's ability to implement innovations rapidly may be constrained by regulatory requirements. We will work toward minimizing both external and internal barriers to the rapid implementation of proven innovations.

VALUES

We seek to lead with our values. The standards that define what the community, Denver and Xcel Energy determine are important and desirable are the values. In essence, values help shape the "why" of what we do on a daily basis. Overall, the community has a large impact on determining both Denver's and Xcel Energy's values. Below are Denver and Xcel Energy values related to the EFC Partnership.

- 2.1 *City Environment:* Denver must foster and protect a healthy environment for all residents, including access to clean water, clean air, and a stable climate.
- 2.2 *Energy Provider:* Xcel Energy must deliver safe, reliable, and affordable energy that its customers need and expect, including adding cost effective renewable energy to its system.

- 2.3 *Emission Reductions:* Reducing air pollution and greenhouse gas emissions will benefit City residents, visitors, and businesses, through improved public health, additional economic opportunities, and long-term energy price stability.
- 2.4 *Economic Development:* Innovation and technology, as well as investment in clean energy resources, will provide opportunities to boost the local and state economy and support the retention, growth and attraction of businesses.
- 2.5 *Community and Stakeholder Engagement:* Denver and Xcel Energy value community and stakeholder feedback and engagement and will strive to bring these voices into the implementation of the EFC Partnership.
- 2.6 *Thriving Energy Provider:* A healthy and thriving energy provider (i.e. Xcel Energy) is conducive to Denver achieving its goals and objectives – ranging from Denver advancing its environmental goals to advancing economic development efforts – as well as to the success of the EFC Partnership.
- 2.7 *Thriving City:* A healthy and thriving community (i.e. Denver) is conducive to Xcel Energy achieving its goals and objectives as well as to the success of the EFC Partnership.
- 2.8 *Regional Collaboration:* EFC Partnership solutions should be sought through regional collaboration whenever feasible.

GUIDING PRINCIPLES

As Denver and Xcel Energy, in conjunction with the community, seek to achieve our shared goals, we will follow certain tenets. These principles will supply the “how” of implementing our shared vision and executing the EFC Partnership.

- 3.1 *Collaboration:* Denver and Xcel Energy will work collaboratively to achieve the shared vision, with respect, transparency and innovative thinking as well as by establishing open and effective channels of communication to further our shared vision.
- 3.2 *Prioritization:* The Parties will make the EFC Partnership and its successful implementation a priority. As part of this, the Parties will prioritize their goals and objectives.
- 3.3 *Scalability:* The EFC Partnership developed between the Parties will be scalable and available to other communities in Colorado.

- 3.4 *Avoidance of Cost Shifts:* Pursuit and execution of the EFC Partnership, including renewable energy and sustainability targets, will be cost effective to City residents given the anticipated costs of the proposal, along with its anticipated benefits and will avoid shifting costs, except to the extent approved, and deemed reasonable, by the PUC.
- 3.5 *Public Policy Support:* Denver and Xcel Energy will collaborate to advance public policy matters at the state and local level where they share common interests.
- 3.6 *Colorado Regulatory Model:* The state regulatory model will be fully utilized to support the EFC Partnership and the Parties support using this model to achieve the shared vision. The Parties also agree that this model supports Xcel Energy being a thriving energy provider.
- 3.7 *Leveraging City Efforts:* The EFC Partnership will support Denver's efforts that buttress Denver's goals, such as collaboration on federal and private grants and funding opportunities that align with the partnership efforts.
- 3.8 *Leveraging Xcel Energy Statewide Efforts:* The EFC Partnership will support Xcel Energy's efforts that buttress Denver goals, such as Xcel Energy's proposed Colorado Energy Plan, which provides a jump start on Denver achieving its sustainability and environmental objectives in an economic manner.

COLLABORATION FOR RENEWABLE ENERGY, ADVANCED TECHNOLOGY AND THE ECONOMY - PLANNING, PROGRESS AND EXECUTION

- 4.1 *Planning and Deliverables:* The Parties will develop a plan to advance the EFC Partnership, typically on a biennial basis (the "**Work Plan**"). The Work Plan for each time period will detail the deliverables to be presented and will follow the guiding principles outlined in this Memorandum. The Parties will use their best efforts to achieve such deliverables. An overview of the work performed and the results achieved will be prepared by the Parties on an annual basis. In prioritizing the items to be performed in a specific Work Plan, the Parties will consider the shared vision as well as regulatory requirements in Colorado and will focus on selecting the top two to three priorities. Initial ideas for the Parties to consider for the Work Plan are outlined in Attachment 1 to this Memorandum. These ideas are not exhaustive or controlling, but illustrative.
- 4.2 *Meetings and Staffing:* Denver and Xcel Energy will meet at least quarterly. The Parties will provide staff and resources appropriate to support the work. A working structure within Denver will be established as part of the Work Plan.

- 4.3 *PUC*: The Parties recognize that future action taken by Xcel Energy to support Denver's goals and the EFC Partnership may be subject to state regulatory utility requirements under Colorado law. If the Parties agree on certain actions in support of the EFC Partnership that require state regulatory approval, they agree to cooperatively work together to facilitate such regulatory approvals. EFC Partnership program costs and incentives for Denver customers, above and beyond what is then offered by Xcel Energy to all of its customers will be the responsibility of Denver or another party that has accepted responsibility.
- 4.4 *Legal Applicability and Waiver*: The Parties agree that this Memorandum is to memorialize the intent of the Parties regarding the EFC Partnership, but does not create a legal agreement between the Parties. It is agreed by the Parties that nothing in this Memorandum will be deemed or construed as creating a joint venture, trust, partnership, or any other legal relationship between the Parties. This Memorandum is for the benefit of the Parties and does not create third party rights. Nothing in this Memorandum constitutes a waiver of Denver's ordinances, Denver's regulatory jurisdiction or Colorado's utility regulatory jurisdiction.
- 4.5 *No Impact on Franchise Agreement*: Denver and Xcel Energy are parties to a Franchise Agreement, effective as of January 1, 2007 and adopted as ordinance no. 342 Series of 2006 ("**Franchise Agreement**"). This Memorandum has no impact on, nor does it alter or modify, the Franchise Agreement.
- 4.6 *Duration*: The EFC Partnership is a new endeavor and therefore the Parties want to provide adequate time to develop the partnership and successfully implement its goals and Work Plans. It is anticipated that the duration will coincide with the term of the Franchise Agreement, but either Party may end the EFC Partnership at any time in the event it elects to do so.

This Memorandum has been signed on the date first above written.

CITY AND COUNTY OF DENVER

By: _____
Michael B. Hancock, Mayor

PUBLIC SERVICE COMPANY OF COLORADO, A COLORADO CORPORATION AND
AN XCEL ENERGY COMPANY

By: _____
David L. Eves, President

ATTACHMENT 1

- **Smart technology:** With emerging cutting-edge technology comes significant opportunities to change the way Denver and Xcel Energy operate. The EFC partnership will pursue opportunities to test, pilot and utilize smart technology to achieve the shared vision. Projects may include multi-use poles and lighting, battery storage, smart grid solutions and the like. The EFC partnership may also explore various options regarding a provider of smart technology appurtenances.
- **Energy efficiency:** Lowering energy consumption reduces operating costs for Denver businesses and residents while lowering air pollution and greenhouse gas emissions. Energy efficiency is the lowest cost energy resource and should be utilized across all sectors to achieve the shared vision. For example, LED street lights provide a significant opportunity to reduce energy consumption across Denver while increasing safety, piloting smart technologies, and enhancing resident experiences and the natural environment. Valuing energy efficiency as a long-term resource better ensures that the lowest cost resource is used to help meet emissions reduction requirements and goals.
- **Fuel switching-Mobile Sector:** Accelerated electrification of the transportation sector is critical to achieve Denver's 2050 climate goal. As part of this, an aggressive transition plan toward such a clean, carbon-free transportation system utilizing a largely de-carbonized grid program is essential. Investments by the appropriate parties in electric vehicle ready infrastructure, charging stations, fleet applications and charging depots could be a focus area of the EFC partnership.
- **Fuel switching-Stationary Sector:** Electrification of space and water heating, along with waste heat capture, has been identified by Denver as a critical step to achieving Denver's 2050 climate goal. In line with recommendations to reduce emissions from space and water heating 50% or more by 2050 in Denver, long-term the EFC Partnership could conduct assessments to understand the feasibility, impact, and costs of potential space and water heating electrification opportunities.
- **Resilience:** Microgrids, understanding emergency islanding options, district energy and battery storage all help boost resilience, especially for critical infrastructure. Priority projects should be identified and piloted to align emergency preparedness, climate, health, economic and social goals.
- **Transparency and data access:** The success of this relationship will depend, in part, on cooperative sharing of information and data in a timely manner. Sharing should be in alignment with EFC partnership activities and be to the full extent permitted by law and data sharing capabilities.

- **Reliability and operations:** A priority should be placed on identifying ways to boost reliability. Initial ideas include accelerated undergrounding of electric distribution facilities under the Franchise Agreement, improved coordination on construction projects, annual development of a rolling three-year program to discuss critical needs and system upgrades, and natural disaster preparedness planning that addresses resilient infrastructure, as appropriate.