

2022-2025 WORK PLAN

Denver and Xcel Energy – Colorado
Energy Future Collaboration



DENVER
THE MILE HIGH CITY



Xcel Energy[®]

August 2022

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

BACKGROUND

On February 28, 2018, the City and County of Denver, Colorado (“Denver”) and Public Service Company of Colorado, a Colorado corporation and an Xcel Energy company (“Xcel Energy”), entered into an Energy Future Collaboration - Memorandum of Understanding, as amended from time-to-time (“MOU”). For Denver and Xcel Energy, the MOU provides a strategy and framework for cooperation and achievement of a shared vision through broad collaboration, focusing on innovation, clean energy, economic development opportunities, customer choice programs and technology – known as the Energy Future Collaboration Partnership (“EFC Partnership”).

In August 2020, Denver and Xcel Energy amended the MOU to clarify the role of the Denver International Airport (“DEN”) in the EFC Partnership by providing a list of DEN-focused projects for illustrative consideration. The amended MOU is attached and incorporated into this Work Plan as Exhibit A. Section 4.1 of the MOU contemplates that upon execution of the MOU, the Parties will develop a plan to advance the EFC Partnership, which is this Work Plan for 2022 through 2025. Denver and DEN are collectively referred to as Denver or the City, unless specifically stated otherwise. Denver and Xcel Energy are collectively called the “Parties” in this Work Plan.

This Work Plan details the governance structure and anticipated deliverables under the EFC Partnership for 2022-2025 and follows the guiding principles in the MOU (see Section 3 of the MOU). Exhibit B to the Work Plan outlines the Parties’ planned EFC Partnership governance structure. The structure includes an “Executive Group,” “Core Team,” and “Technical Team(s)” all as defined in Exhibit B.

Group Level	Functions
Executive Group (Executive leaders)	<ol style="list-style-type: none">1. Promote and ensure consistent communication between Denver and Xcel Energy.2. As appropriate, provide additional guidance or review policies for the Core Team.
Core Team (Working group leads)	<ol style="list-style-type: none">1. Support the Technical Working Groups.2. Keep the Executive Group informed.3. Encourage knowledge sharing and collaboration.
Technical Working Groups (Subject matter experts)	<ol style="list-style-type: none">1. Establish a clear purpose for each group as it relates to a city-wide climate objective.2. Implement strategies towards measurable near-term goals.3. Topic-specific knowledge sharing and collaboration.



Michael B. Hancock
Mayor, City and
County of Denver



Robert S. Kenney
President, Public Service
Company of Colorado

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The EFC is not a legal or binding governance structure, but rather provides a framework and process for how the Parties envision the large and diverse organizations they represent interacting together to successfully identify and implement EFC Partnership projects.

TECHNICAL WORKING GROUPS RESTRUCTURING

In prior years, Denver and Xcel Energy have organized annually established EFC goals into six technical working groups: 1) Renewable Electricity, Policy, and Regulatory; 2) Strategic Electrification; 3) Resilience and Reliability; 4) Municipal Operations; 5) Streetlight LED Conversations; and 6) Electric Vehicles. While this has been a useful initial organizational structure, the EFC has determined that consolidating the technical working groups and establishing a multi-year work plan will be more conducive to achieving the EFC's climate objectives.

The 2022-2025 Work Plan shifts the focus of the EFC and its technical working groups to regulatory coordination and implementation of programs and pilots. Each group will establish policy and demonstration project goals. They will focus on creating benefits for disproportionately impacted communities. The three working groups and representative regulatory coordination opportunities are as follows:

1. Renewables and Resilience

- Renewable Energy Plan – Distributed solar and battery storage
- Electric Resource Plans – Electric system planning and utility-scale resource procurement
- Empower Resiliency – Systems integration to create microgrids at critical facilities
- Critical Resiliency Initiative – Microgrids at critical infrastructure in Denver

2. Building Electrification and Demand Management

- Demand Side Management Plan – Electrification; energy efficiency; demand response/management
- Distribution System Planning – Use of distributed energy resources to support grid management
- Clean Heat Plan Implementation – Decarbonization and transition from natural gas systems

3. Transportation Electrification and Managed EV Charging

- Transportation Electrification Plan – Fleet/public charging programs; Community charging hubs; Vehicle-to-building pilots; Managed EV charging DSM programs; and more

Cooperation between the Parties will help to enable and track progress towards Denver's community-wide energy and equity goals. Participation in relevant regulatory proceedings will ensure that Denver can provide feedback into the design of and subsequently participate in Xcel Energy's programs and pilots. In addition to receiving working group updates, the monthly Core Team meetings will promote discussion and help to ensure prompt resolution of franchise issues, interconnection agreements, and program contracts.

The Parties have other day-to-day dealings that will continue to occur in their course and not as part of this Work Plan. Additionally, the Parties recognize that this is an iterative process, and the Parties may need to update and modify this Work Plan from time to time.

Denver will seek to implement EFC Partnership projects at strategic locations and across Denver agencies and offices. These include, but are not limited to, Denver's municipal facilities, DEN, the National Western Center, and the Denver Arapahoe Disposal Site. Representatives across Denver's municipal agencies and offices will participate in the EFC Partnership as necessary to achieve its goals.

1. Renewables and Resilience (R&R)

The R&R working group will advance Denver’s goal that 100 percent of community-wide electricity use contributes to a carbon-free electric grid by 2030. Decarbonizing Denver’s electric grid can be accomplished through Xcel Energy’s grid mix, distributed energy resources, and community participation in renewable programs.

Xcel Energy’s recurring Renewable Energy Standard Compliance Plans (“RE Plan”)—most recently the 2022-2025 Plan from proceeding 21A-0625EG—provides the primary opportunity to design, implement, and track the performance of renewable energy programs and distributed energy resource procurements. Denver will engage in other relevant proceedings at the Public Utilities Commission to advance its electricity decarbonization objectives.



Policy Goal –Increase RE Plan renewable electricity capacity additions to serve Denver.

Xcel Energy’s proposed 2022-2025 RE Plan requests the addition of approximately 700 MW of solar through its distributed renewable programs and a proposed additional 300 MW of solar through Renewable*Connect, for a total of roughly 1 GW of renewable electricity capacity over the program period. The working group recognizes that the final approved RE Plan is likely to differ from the plan as filed. Additionally, certain programs may have lagging data metrics from program/project approval vs installation.

The working group will track program participation and renewable energy installations within and serving Denver. The working group will strive for City initiatives and programs to complement and encourage participation in Xcel Energy’s programs.

Programmatic Objective – Collaborate on City initiatives to complement and leverage Xcel Energy programs.

The working group will explore opportunities to leverage the City’s Climate Protection Fund and other resources to encourage the deployment of renewable energy resources within and to serve Denver. The City will seek to participate in Xcel Energy’s SG time-of-use rate pilot. Additionally, the working group will support Xcel Energy’s proposed Empower Resiliency program and seek opportunities to utilize the product as a pilot project or a suite of pilot projects at locations such as DEN, municipal critical facilities (i.e., emergency shelters), and with non-profit human services providers through the City’s Renewables and Resilience Incentive Program. The City believes that Empower Resiliency will allow for a simplified, streamlined approach to project execution and has the potential to create additional economic and resiliency benefits through coupling with Xcel Energy’s demand management programs.

Data and Tracking

The Parties commit to working together to collect and share data necessary to track progress towards Denver’s goals. The Parties will strive to collect data to identify whether the City and Xcel Energy’s programs are reaching disproportionately impacted communities. These insights will help to inform the community outreach, marketing, and programmatic strategies that may be needed to ensure that programs are accessible and that their benefits are equitably shared across Denver. The City’s desired data tracking metrics are discussed later in this work plan.

2. Strategic Building Electrification (SBE)

The SBE working group will advance Denver’s goal of achieving net zero energy in new buildings and homes by 2030 and in existing buildings and homes by 2040. Xcel Energy’s recurring Demand Side Management Plans (DSM)—most recently the 2021-2022 Plan from proceeding 20A-0287EG—provides the primary opportunity to design, implement, and track the performance of DSM and building electrification programs.

Denver will participate in stakeholder working groups related to DSM implementation and its subsequent update that will occur during this Work Plan period. Denver will also engage in other relevant proceedings at Public Utilities Commission to advance its building decarbonization objectives.



Policy Goal –Increase Xcel Energy electrification rebates to serve Denver.

Under Xcel Energy’s 2021-2022 DSM Plan, Xcel Energy has a total program budget of approximately \$264 million for energy efficiency, demand response, and demand management programs. Key relevant proceedings will initiate at the Public Utilities Commission in 2022 including the Demand Side Management Strategic Issues proceeding which will include, for the first time, Colorado’s Beneficial Electrification Plan filing, and a one-year update to the current DSM Plan. The City will advocate that Xcel Energy increase the proportion of its DSM program budgets that are dedicated to advancing strategic beneficial electrification and demand management. The SBE working group will strive for City initiatives and programs to complement and encourage participation in Xcel Energy’s programs. The working group also will track electrification program participation and heat pump installations in Denver.

Programmatic Objective – Collaborate on City initiatives to complement and leverage Xcel Energy programs.

The SBE working group will collaborate on programs including but not limited to Xcel Energy’s Heat Pump Field Data Pilot and Income Qualified Multifamily Beneficial Electrification Pilot in tandem with the Denver Healthy Affordable Home Electrification Program and Climate Action Rebate Program. The working group will provide information and resources to develop commercial and multifamily electrification pilots and incentive programs that complement Xcel Energy’s building electrification efforts.

Data and Tracking

The Parties commit to working together to collect and share data necessary to track progress towards Denver’s goals. The Parties will strive to collect data to identify whether the City and Xcel Energy’s programs are reaching disproportionately impacted communities. These insights will help to inform the community outreach, marketing, and programmatic strategies that may be needed to ensure that programs are accessible and that their benefits are equitably shared across Denver. The City’s desired data tracking metrics are discussed later in this work plan.

3. Transportation Electrification (TE)

The TE working group will advance Denver’s goal of 30% of Denver vehicle registrations being electric by 2030 and to equitably accelerate the electrified mobility transition. Xcel Energy’s recurring Transportation Electrification Plans (“TEP”)—most recently the 2021-2023 plan from proceeding 20A-0204E—provide the primary opportunity to design, implement, and track the performance of TEP programs.

Denver will participate in stakeholder working groups related to the TEP implementation and its subsequent update that will occur during this Work Plan period. Denver will also engage in other relevant proceedings at the Public Utilities Commission to advance its transportation decarbonization objectives.



Policy Goal – Increase TEP spending on equity programs to serve Denver.

Under Xcel Energy’s 2021-2023 TEP, Xcel Energy expects over 1,500 income-qualified and higher-emissions community program participants and to spend nearly \$21.5 million on equity programs. The program also includes rebates for purchase of electric vehicles and adds programs and rates to help manage the new charging load. The City prioritizes investment in Denver’s Neighborhood Equity & Stabilization (NEST) neighborhoods of East Colfax, Elyria-Swansea, Globeville, Montbello, Northeast Park Hill, Sun Valley, Valverde, Villa Park, West Colfax, and Westwood.

The working group will track TEP program participation and equipment installations in Denver. The working group will strive for City initiatives and programs to complement and encourage participation in Xcel Energy’s programs.

Programmatic Goal – Collaborate on City initiatives to complement and leverage Xcel Energy programs.

The TE working group will collaborate on the design and implementation of City initiatives and will encourage participation in Xcel Energy’s suite of TEP programs including, but not limited to, the following:

- a) Fleet and Workplace Charging (at least 40 fleet charging stations in Denver)
- b) Community charging hubs (at least 1 CCH in Denver)
- c) Public fast charging (at least 20 public fast charging stations in Denver)
- d) Municipal Refuse Fleet Electrification Pilot
- e) V2X (vehicle-to-grid [V2G] and vehicle-to-building [V2B]) and Resilience Project
- f) Electric Car Sharing for Underserved Communities Pilot
- g) Electrify Paratransit Mobility Pilot
- h) DCFC Charging + Storage Demonstration Project
- i) Advisory Services

Data and Tracking

The Parties commit to working together to collect and share data necessary to track progress towards Denver’s goals. The Parties will strive to collect data to identify whether the City and Xcel Energy’s programs are reaching disproportionately impacted communities. These insights will help to inform the community outreach, marketing, and programmatic strategies that may be needed to ensure that programs are accessible and that their benefits are equitably shared across Denver. The City’s desired data tracking metrics are discussed later in this work plan.

DATA AND TRACKING

The Parties commit to working together to collect and share data necessary to track progress towards Denver’s climate and equity goals. Xcel Energy’s Community Energy Reports have served as a valuable starting point for city-wide energy data and program participation information. However, more granular geographic resolutions are needed to evaluate whether the City and Xcel Energy’s programs are reaching disproportionately impacted communities. Figure 1 demonstrates how neighborhood level data can be a valuable tool for evaluating how program participation and the benefits are or are not reflective of factors such as climate vulnerability or access to social, educational, and economic opportunities.¹

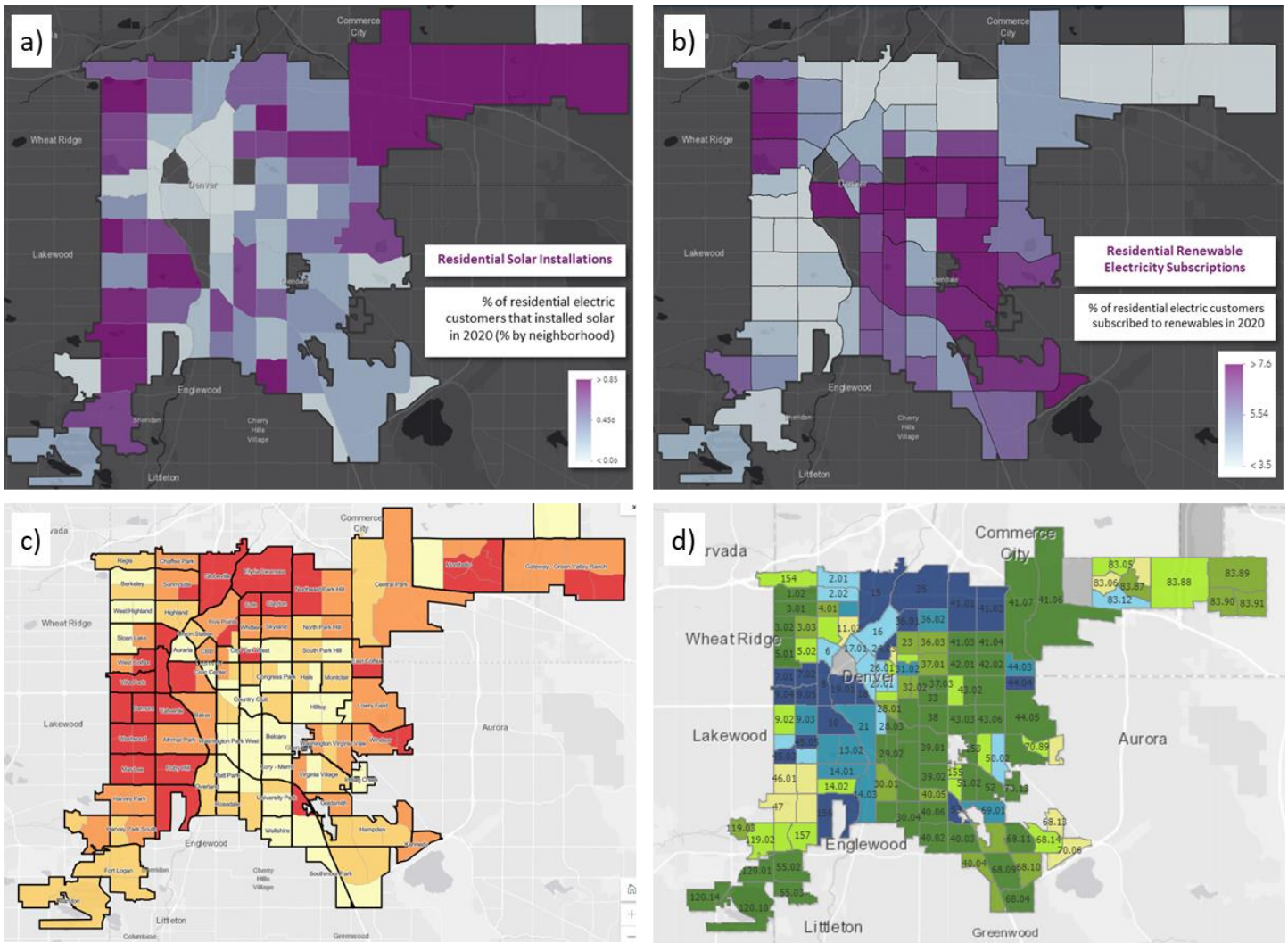


Figure 1. Representative Denver Neighborhood Maps

- a) The number of residential solar installations in 2020 as a % of the number of residents in that neighborhood.
- b) Participation in Xcel Energy’s "premium" renewable energy offerings reflects Denver's Opportunity Index.
- c) Denver Heat Vulnerability Index (Red = more vulnerable)
- d) Denver Opportunity Index (Green = more opportunity)

¹ Data compiled from multiple sources including: a/b) Xcel Energy Community Energy Reports; c) Denver Heat Vulnerability, www.storymaps.arcgis.com/stories/0416c6998f04450c855ae1fea13b4a67; d) Denver Opportunity Index, www.geospatialdenver.maps.arcgis.com/apps/MapSeries/index.html?appid=ff9da000f1a344beb341ce839a720021

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

The Parties will measure progress towards policy and program goals through data-sharing between Denver and Xcel Energy. The Parties will strive to capture multiple levels of information regarding Xcel Energy’s Colorado Service Territory, Denver community-wide, and within Denver’s neighborhoods. The City will aid in automating and streamlining the data gathering process as much as possible.

As Denver’s community-facing programs are launched, the City will seek to create an interactive map that overlays program participation data to effectively display how the Parties’ efforts complement each other and/or fill gaps. The maps will provide a visual of how programs prioritize under-resourced neighborhoods and equitable participation. Additionally, the Parties will use charts to demonstrate continued growth annually towards the EFC goals/targets and will report on progress at Core Team meetings, Executive Briefings, and to the public.

The EFC has developed a list of priority data elements that are intended to be as closely aligned with Xcel Energy’s data tracking and reporting requirements for Public Utilities Commission Programs as possible. This list may change over time as programs are added or changed and represents a starting point for the Parties.

Table 1. General Electricity and Natural Gas Customer, Use, and Cost Metrics

General Information	
Electricity	Electricity - Business Customers
	Electricity - Business use (kWh)
	Electricity - Business cost (\$)
	Electricity - Residential Customers
	Electricity - Residential use (kWh)
	Electricity - Residential cost (\$)
Gas	Gas - Business Customers
	Gas - Business use (Therm)
	Gas - Business cost (\$)
	Gas - Residential Customers
	Gas - Residential use (Therm)
	Gas - Residential cost (\$)

(program specific data metrics continue on the following pages)

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

Table 2. Renewable Energy Program Participation and Energy Metrics

Renewables & Resilience Programs (aligns with 2022-2025 RES Plan)	
Net Metering Only	Net Metering Only (On-site Solar (non-S*R)) - Business Customers (#)
	Net Metering Only (On-site Solar (non-S*R)) - Business new capacity (kW)
	Net Metering Only (On-site Solar (non-S*R)) - Residential Customers (#)
	Net Metering Only (On-site Solar (non-S*R)) - Residential new capacity (kW)
Solar*Rewards	Solar*Rewards (Battery Connect) - Business new battery installs (#)
	Solar*Rewards (Battery Connect) - Business new solar capacity (kW)
	Solar*Rewards (Battery Connect) - Business new battery capacity (kW)
	Solar*Rewards (Battery Connect) - Business new stored energy value (kWh)
	Solar*Rewards (Battery Connect) - Residential new battery installs (#)
	Solar*Rewards (Battery Connect) - Residential new solar capacity (kW)
	Solar*Rewards (Battery Connect) - Residential new battery capacity (kW)
	Solar*Rewards (Battery Connect) - Residential new stored energy value (kWh)
	Solar*Rewards (Residential IQ) - Customers (#)
	Solar*Rewards (Residential IQ) - New capacity (kW)
	Solar*Rewards (C&I) - Customers (#)
	Solar*Rewards (C&I) - New capacity (kW)
	Solar*Rewards (Large) - Customers (#)
	Solar*Rewards (Large) - New capacity (kW)
Solar*Rewards Community	CSG - Business Customers (#)
	CSG - Business subscribed capacity (kW)
	CSG - Residential Customers (#)
	CSG - Residential subscribed capacity (kW)
	CSG (PSCo owned) - IQ Customers (#)
	CSG (PSCo owned) - IQ Customers subscribed capacity (kW)
	CSG (3rd party owned) - IQ Customers (#)
	CSG (3rd party owned) - IQ Customers subscribed capacity (kW)
Off-Site Solar (VNEM)	Off-Site Solar (VNEM) - Customers (#)
	Off-Site Solar (VNEM) - Subscribed capacity (kW)
Renewable*Connect	R*C-MTM (Windsorce) - Business Customers (#)
	R*C-MTM (Windsorce) - Business subscribed capacity (kW)
	R*C-MTM (Windsorce) - Business subscribed energy (kWh)
	R*C-MTM (Windsorce) - Residential Customers (#)
	R*C-MTM (Windsorce) - Residential subscribed capacity (kW)
	R*C-MTM (Windsorce) - Residential subscribed energy (kWh)
	R*C 1.0 - Business Customers (#)
	R*C 1.0 - Business Customers subscribed capacity (kW)
	R*C 1.0 - Residential Customers (#)
	R*C 1.0 - Residential Customers subscribed capacity (kW)
	R*C 2.0 - Business Customers (#)
	R*C 2.0 - Business Customers subscribed capacity (kW)
	R*C 2.0 - Residential Customers (#)
	R*C 2.0 - Residential Customers subscribed capacity (kW)

Xcel Energy Renewable Energy Plans and Reports:

www.xcelenergy.com/company/rates_and_regulations/filings/renewable_energy_plans_and_reports

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

Table 3. Strategic Building Electrification Program Participation and Equipment Installation Metrics

DSM Programs (aligns with 2021/2022 DSM Plan)	
Residential Heating & Cooling (list from the Xcel Energy rebate application from)	Air Conditioner (# installed)
	Air Conditioner with Natural Gas Furnace (# installed)
	Air Source Heat Pump (# installed)
	Air Source Heat Pump replacing Electric Resistance Heat (# installed)
	Cold Climate Air Source Heat Pump replacing Electric Resistance Heat (# installed)
	Cold Climate Mini-Split Air Source Heat Pump replacing Electric Resistance Heat (# installed)
	Dual Fuel Air Source Heat Pump (# installed)
	Dual Fuel Cold Climate Air Source Heat Pump (# installed)
	Dual Fuel Cold Climate Mini-Split Heat Pump (# installed)
	Dual Fuel Mini-Split Heat Pump (# installed)
	Evaporative Cooler (# installed)
	Furnace or Boiler (# installed)
	Gas Storage Water Heater (# installed)
	Gas Tankless Water Heater (# installed)
	Ground Source Heat Pump replacing Electric Resistance Heat (# installed)
	Ground Source Heat Pump replacing Natural Gas Furnace (# installed)
	Heat Pump Water Heater (# installed)
	Heat Pump Water Heater replacing Natural Gas Water Heater (# installed)
	Mini-Split Heat Pump (# installed)
	Western Cooling Control (# installed)
Residential Demand Response	Saver's Switch - (# participants)
	AC Rewards - (# participants)
	Smart Water Heaters - (# participants)
Energy Star New Homes	Total # of participants
	All-Electric Homes (#)
Business HVAC + Refrigeration Systems	Business HVAC+R Systems - (total # participants)
	Business HVAC+R Systems - (# of heat pump installations)
Multifamily Building Efficiency	Multifamily Buildings - (total # participants)
	Multifamily Buildings - (# of heat pump installations)
Business New Construction	Total # of participants
	All-Electric Business New Construction (#)
Insulation and Air Sealing	Air Sealing and weather-stripping (# installed)
	Attic Insulation (# installed)
	Wall Insulation (# installed)
Energy Audits and Assessments	Home Energy Squad (total # participants)
	Commercial Streamlined Assessment (total # participants)
	Small Business Energy Solutions (total # participants)
Income Qualified Single Family Weatherization	Energy audits (# conducted)
	Efficient furnace (# installed)
	Wall Insulation (# installed)
	Attic Insulation (# installed)
	Crawl space insulation (# installed)
	Water heaters (# installed)
	Storm windows (# of properties)
	Air sealing (# installed)
	Water heater blanket (# installed)
	Evaporative Cooler (# installed)
	Heat pump water heaters (# installed)
	Air source heat pumps (# installed)
Mini-split heat pumps (# installed)	

Xcel Energy Demand Side Management Plans and Reports:

www.xcelenergy.com/company/rates_and_regulations/filings/colorado_demand-side_management

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

Table 4. Transportation Electrification Program Participation and Equipment Installation Metrics

Transportation Electrification Programs (aligns with table on page 59 of 2021-2023 TEP)	
Residential	Residential - Standard 'Home Wiring Rebate' (# issued)
	Residential - Income Qualified Charging Rebate (# issued)
	Residential - 'Home Charging Service' (# of participants)
Multifamily Housing	MFH - Shared Parking - Site Host Provided Equipment (# of ports)
	MFH - Shared Parking - Full Service (# of ports)
	MFH - Assigned Parking - Full Service (# of ports)
	MFH - New Construction Rebate (# of ports)
	MFH - IQ Rebate (# of ports)
Commercial and Public Charging	Commercial - Fleet & Workplace EVSI (# of sites)
	Commercial - Fleet & Workplace EVSI + Optional Charger Service (# of sites)
	Commercial - Fleet & Workplace IQ (# of sites)
	Community Charging Hubs - EVSI (# of sites)
	Community Charging Hubs - EVSI (# of ports)
	Community Charging Hubs - IQ (# of sites)
	Community Charging Hubs - IQ (# of ports)
	Public DCFC - Privately owned (# of sites)
	Public DCFC - Privately owned (# of ports)
	Public DCFC - PSCo owned (# of sites)
	Public DCFC - PSCo owned (# of ports)
	Primary General EV Pilot - EVSI (# of sites)
	Small Commercial Rebate (# of sites)
EV Purchases and Lease Rebates	New EV Rebate - IQ Customers only (#)
	Used EV Rebate - IQ Customers only (#)

Xcel Energy Transportation Electrification Plans and Reports:

www.xcelenergy.com/company/rates_and_regulations/filings/transportation_electrification_plan



2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

EXHIBIT A – Energy Future Collaboration Memorandum of Understanding Between the City and County of Denver, Colorado and Xcel Energy

This Memorandum of Understanding (“**Memorandum**”), dated August 3, 2020, 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 memorialized, in a Memorandum dated February 28, 2018 (“**2018 MOU**”), their shared vision, guiding principles, values and goals regarding the EFC Partnership.
- I. Denver and Xcel Energy desire to update the 2018 MOU to clarify the role of Denver’s Department of Aviation in 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.

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

- 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

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

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 Xcel Energy and Denver agencies other than the Department of Aviation to consider for the Work Plan are outlined in [Attachment 1](#) to this Memorandum. Due to the size, scale, and complexity of Denver International Airport (“**DEN**”), which is operated by Denver’s Department of Aviation, different considerations will apply to DEN-related aspects of the Work Plan. Initial ideas for consideration for DEN are outlined in Attachment 2 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 Fiscal Obligation.* Xcel Energy understands that this Memorandum is not a funding mechanism, that Denver has not encumbered funds for activities contemplated in this Memorandum, and that Denver cannot and does not create any fiscal obligation by executing this Memorandum.

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

- 4.6 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.
- 4.7 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: 
Alice K. Jackson, President

ATTACHMENT 1

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.
2. **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.
3. **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.
4. **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.
5. **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.
6. **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.
7. **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.

ATTACHMENT 2

1. **Smart technology:** DEN’s size, scale, and complexity make it a valuable pilot site for emerging technologies that support energy efficiency, reliability, and related grid services. DEN is committed to innovation that will improve operations and enhance the passenger experience, and as the leading economic development driver in Colorado can provide high visibility to Xcel Energy’s business partners. The concentration of commercial and industrial customers at DEN provides Xcel Energy the ability to generate data to support rate cases based on innovative technologies, which can benefit ratepayers and customers throughout Colorado.
2. **Energy efficiency:** DEN is one of the largest energy consumers within Xcel Energy’s Colorado service territory, and working directly with a large and committed consolidated entity like DEN would allow Xcel Energy to make considerable progress towards its emissions reduction, energy efficiency, and

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

resource planning goals. Opportunities include maximizing DEN’s participation in existing and future incentive programs and continued energy support for new construction and major renovation projects.

3. **Fuel switching – Mobile Sector:** DEN’s status as an employment center and vehicle destination separate from the downtown core creates unique opportunities for partnerships to advance electric vehicle infrastructure. Providing more charging opportunities at a location like DEN will alleviate range anxiety that limits electric vehicle adoption and will support our customers’ transition to low-emissions transportation options.
4. **Fuel switching – Stationary Sector:** DEN’s Central Utility Plant uses natural gas as a fuel source to heat several million square feet of airport facilities. Long-term partnerships to evaluate fuel-switching opportunities as the electric grid continues to decarbonize have the potential to support carbon reduction at a massive scale.
5. **Resilience:** DEN and Xcel Energy have worked together on the development of a microgrid at Peña Station NEXT, and the lessons learned from that project may inform opportunities for additional microgrid applications on the DEN campus. Microgrid evaluation is a key element of DEN’s Energy Master Plan, and the airport would be an ideal location for additional research considering the criticality of DEN operations and infrastructure. Additionally, DEN provides an ideal proving ground for the integration of renewable energy generation and storage technologies to improve the resiliency of the overall grid and address challenges associated with renewable energy intermittency.
6. **Transparency and data access:** Data accuracy, integrity, timeliness, and availability are key elements of an effective energy management program, and support DEN’s participation in the international Airport Carbon Accreditation program. DEN and Xcel Energy will work collaboratively to establish documented protocols to improve the efficiency of routine data requests as allowable under data privacy rules, including requests related to business partners operating out of DEN-owned facilities.
7. **Reliability and operations:** As the fifth-busiest airport in the United States servicing over 64 million passengers each year, secure and reliable energy supplies are an operational necessity for DEN and impact the performance of the entire National Airspace System. DEN and Xcel Energy will proactively share information about our respective capital improvement programs and jointly analyze the costs and benefits of solutions that will improve reliability for critical airport facilities, with a goal of improving DEN’s energy reliability to the maximum achievable level.
8. **DEN Real Estate:** DEN is embarking on the commercial development of thousands of acres of airport-owned land that is not required for future aeronautical use. Many of these projects will require collaboration between DEN and Xcel Energy to achieve ambitious sustainability goals such as net-zero energy. Opportunities for engagement include analyzing the energy infrastructure needs of proposed developments, considering impacts to the DEN grid such as the need for a new electrical substation, sustainable energy infrastructure planning for greenfield and low-infrastructure sites, and investigating custom rate structures and incentive programs to value Distributed Energy Resources in ways that will maximize economic development benefits.

EXHIBIT B – EFC PARTNERSHIP GOVERNANCE STRUCTURE OVERVIEW

The purpose of the EFC Partnership Governance Structure (“**Structure**”) is to provide a framework and process for how the Parties envision the large and diverse organizations they represent interacting together to successfully identify and implement EFC Partnership projects. The Structure is not a legal or binding governance document for either of the Parties. Specifically, the Structure provides a means of ongoing communication between the Parties and allows for meaningful input to projects, policy, and/or strategies that the Parties may pursue as part of the EFC Partnership. The Structure is a recommendation for implementing the EFC Partnership; however, the process is not intended to be the only means for communication or project coordination and implementation. To the maximum extent possible, the Parties intend to utilize the Structure in pursuit of the projects listed below and other projects that may arise as part of the EFC Partnership.

EXECUTIVE GROUP

- Purpose and Membership: The “**Executive Group**” is intended to provide high level guidance, as needed, to the Core Group. The Executive Group is comprised of Denver agency executives, a representative from the Mayor’s Office, up to two City Council representatives, DEN executive(s) & Xcel Energy executive(s).
- Scope: As appropriate and related to the EFC Partnership, the Executive Group may provide additional guidance and consent to pursue projects or review policies that require a formal process (e.g., PUC actions, legislative support) via their own internal approval processes. The Parties intend to use their normal internal channels for matters that don’t require full Executive Group discussion. The intent is not to restrict any Party, collectively or independently, from pursuing action without Executive Group consent; rather, the Core Group will use the Executive Group to better ensure communication is consistent through each Parties’ hierarchy. As needed, and when applicable, policy or PUC involvement may require more timely action on the part of either Party. In lieu of a formal meeting, the Executive Group may simply acknowledge and consent to the needed action.

CORE TEAM

- Purpose and Membership: The “**Core Team**” consists of Denver, DEN and Xcel Energy staff serving as the main points of contact among the Parties related to the EFC Partnership. The Core Team consists of representatives from Denver’s Office of Climate Action, Sustainability, and Resiliency, Department of Transportation and Infrastructure, General Services, DEN, City Attorney’s Office, Office of Economic Development and others as determined by the Core Team. For Xcel Energy, the Core Team will include the Denver Area Manager, any head of EFC Partnership efforts as well as other staff as deemed appropriate by Xcel Energy given the scope of the EFC Partnership.
- Scope: The Core Team will meet regularly with a prepared agenda and recording of prior meeting minutes or summaries. These meetings may include reports from various Technical Teams (defined below) and/or updates may be provided from previous reports to Core Team members. The Parties intend that the Core Team also do the following:
 - Support the Technical Teams (e.g., related to resources and tools, etc.).
 - Prepare materials to update the Executive Group, as needed.
 - The Core Team will regularly provide updates and communicate efforts about the projects listed in the Work Plan in the following function areas: (1) ongoing knowledge and baseline sharing and (2) updates on any ongoing pilot projects.

TECHNICAL TEAMS

- Purpose and Membership: The “**Technical Team(s)**” consist of project team members within a specific project or effort, including the staff members of the Parties that have applicable subject matter expertise. These Teams will meet according to EFC Partnership project needs.

2022-2025 Work Plan – Energy Future Collaboration between the City and County of Denver and Xcel Energy

- Scope: The Technical Teams will be focused on the Work Plan priority projects and will report to the Core Team, as needed.
 - **Ongoing Pilot Project Identification:** With emerging cutting-edge technology comes significant opportunities to change the way Denver and Xcel Energy operate. The EFC Partnership will identify opportunities to test, pilot, and utilize smart technology to achieve the shared vision. The Parties will seek to identify pilots related to resiliency as well. As part of this process, they will also consider related implementation processes and steps. In addition, the Parties will explore ways that projects can also further education, and possibly leverage existing low-income assistance programs.



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