Denver Climate Action 2020 Recommendations Report - APPENDICES

Developed by the Denver Climate Action Task Force

with support by the:

Civic Consulting Collaborative
operated by Wellstone Collaborative Strategies

Technical support by:

Group Engineering

Equity training and support by:

Kapwa Consulting
TABLE OF CONTENTS

Appendix 1. Task Force Members
Page 4. This appendix lists the 26 members of the task force and their respective organizations.

Appendix 2. Recommendations Process
Page 5. This appendix describes the voting process the Task Force used.

Appendix 3. Issue Briefs (Fact Sheets)
Page 6. This appendix includes information from the 2018 emissions inventory along with strategies gathered from other cities, states, and countries that informed the Task Force recommendations.

Appendix 4. Public and Stakeholder Input
Page 48. These appendices describe the public engagement process that was lead by the Civic Consulting Collaborative team.

4.a. Methodologies
Page 49. Members of the public provided insights through three distinct processes around needs and opportunities, equity, and solutions. This included two rounds of Meetings in a Box, Stakeholder Advisory Groups, and broad public input through an on-line forum. Even in the face of COVID 19, we reached over 4,000 members of the public and collected thousands of comments.

This appendix describes the purpose of the various public engagement processes and why they were selected. In-person public meetings needed to shift to virtual meetings in the face of COVID 19. The methodology section describes why the Consider.it Platform was selected.

4.b. Meetings in a Box Round 1
Page 53. Meetings in a Box are a dispersed engagement technique that leverages social networks for intimate conversations. There were 28 confirmed in-person Meeting in a Box round 1 sessions that drew at least 247 participants.

This appendix provides a summary of the findings from the first round of Meetings in a Box.

4.c. Meetings in a Box Round 2
Page 71. Over 100 people virtually participated in Meeting in a Box round 2. This appendix provides a summary of the findings from the second round of meetings in a box.

4.d. Stakeholder Advisory Groups
Page 88. Five Stakeholder Advisory Groups (SAG) were conducted. The purpose was to specifically reach out to those we wanted to hear more from in a small group setting after viewing the MIB participants. About 40 individuals participated. The following groups of people were identified as critical voices in this process:

1. Climate Justice and Equity
2. Workforce
3. Business and Industry
4. Youth and Climate Advocate
5. Climate Vulnerable People

This appendix provides a summary of the findings from the Stakeholder advisory groups
4.e. Consider.It Public Online Forum
Page 100. Due to COVID 19, we had to switch from in-person public engagement forums to an online forum. From April 20 through May 4, 2020, 3,686 unique individuals visited the site and made over 9,000 pageviews. Within the broader array of spectators identified through Google Analytics, 814 individuals created accounts in to participate in rating and commenting on proposals. These individuals generated thousands of proposal ratings and comments as well as hundreds of new proposals. It was a very active forum! We hired community liaisons to specifically outreach to communities of color, the Spanish speaking community, and immigrants.

This appendix describes the methodology and themes by category of the public comment.

Appendix 5. Revenue Subcommittee Criteria
Page 243. Although the Revenue Subcommittee only met a few times due to COVID 19, they were able to develop a set of criteria for the Task Force to consider when selecting revenue options. This appendix lists the criteria.
Appendix 1. Task Force Members

Brandon Rietheimer, Resilient Denver
Dominique Gomez, Salazar Center for North American Conservation
Emily Gedeon, Sierra Club - Colorado
Eugene Downing, New Hope Baptist Church
Frank Locantore, Colfax Ave BID

George E. Ware, Community Member (resigned on April 30th due to new responsibilities as a result of COVID-19)

Jackie Bouvier, Santa Fe BID
Jasmin Barco, Eco-Cycle
Jennifer Gremmert, Energy Outreach Colorado
Jessica Goad, Conservation Colorado
Jon Buerge, Urban Villages / LoDo District / Downtown BID
Kathie A Barstnar, NAIOP Colorado, the Commercial Real Estate Association
Kelly Shanley, Student Advocate, Community College of Denver
Laura Zaspel, Serendipity Catering
Lori Pace, Denver Metro Association of Realtors
Micaela Iron Shell-Dominguez, International Indigenous Youth Council
Mike Kruger, Colorado Solar and Storage Association (COSSA)
Naomi Amaha, Denver Streets Partnership
Patricia G Iwasaki, Metro/NorthEast Denver
Piep van Heuven, Bicycle Colorado
Rhiannon Duryea, Denver Area Labor Federation
Sam Knaizer, BPX Energy, BP America
Sebastian Andrews, Youth Sustainability Board, environmentally concerned youth of Denver

Thomas Riggle, Resilient Denver
Tyler Smith, Xcel Energy
Veronica Booze, Green Valley Ranch/KIPP Colorado Schools
Appendix 2. Process for Reaching Agreement: A blended approach

- Work to achieve full consensus and understand dissenting opinions. Consensus minus one is needed to approve a recommendation at meeting one.
- If after every effort is made in the meeting to reach consensus minus one and it cannot be reached, then any member can ask for a 75% supermajority to vote to move the recommendation to a 75% supermajority vote during the following meeting.
- The time between meetings is used to continue to pull together a package that can work for everyone.
- A 75% majority of those present is needed to approve a recommendation. Dissenting opinion(s) will be added to the record.

The Task Force reached full consensus on the final version of the report. However, there was one time when a task force member asked for a vote to move to a supermajority vote. This vote failed to pass the 75% threshold.
Appendix 3: Issue Briefs (Fact Sheets)
Denver Emissions

EMISSIONS SUMMARY

- The 80x50 Climate Action Plan summarizes Denver’s Greenhouse Gas (GHG) inventory process using the Global Protocol for Community-Scale (GPC) GHG Emission Inventories methodology.
- Denver’s inventory focuses on the three most frequently occurring GHG’s: carbon dioxide (CO2), methane (CH4), and nitrogen oxide (N2O).
- Emissions can be divided into two areas of control:
  - Core or direct emissions are within the city’s boundary and/or are more directly controlled by the city (buildings, transportation, street lights, waste).
  - Upstream or indirect emissions are outside of the city’s boundary but are used by people and businesses (airline fuel, cement, food, etc.).

MITIGATION TOPIC AREAS

BUILDINGS
Commercial, multi-family, and industrial

HOMES
Single family homes, townhomes, and some condo buildings

ELECTRICITY SUPPLY
Xcel Energy supplied electricity to buildings and homes

TRANSPORTATION
- On-Road Transportation
- Aviation
- Rail and Light Rail
- Off-Road Vehicles and Equipment
- Transit

CONSUMPTION/WASTE
- Food
- Cement
- Waste
- Refrigerants
- Water Delivery
- Wastewater

DENVER 2018 GREENHOUSE GAS INVENTORY

2018 Emissions by Source (mt CO2e)
- Consumption/Waste 21%
- Grid Electricity (Buildings and Homes) 33%
- Transportation 30%
- Natural Gas/Propane/Diesel 16%
**Denver Emissions**

**CURRENT GOALS**

- Be a leader in clean and local energy
- Transform buildings into high-performing places
- Inspire action and ensure equity and affordability
- Transform transportation by walking, biking, taking transit, carpooling, and using carbon free vehicles

**EMISSIONS TRENDS**

- Total emissions **dropped around 13%** from 2005 to 2017.
- Reduction in emissions is primarily from Xcel Energy’s electricity grid getting cleaner.
- Since buildings consume the most electricity, that sector has had the biggest drop in emissions due to the cleaner grid.
- Direct emissions (primarily from natural gas in buildings and on road vehicles) have not reduced from 2005 to 2017.
Buildings

CURRENT GOALS

<table>
<thead>
<tr>
<th>Goal</th>
<th>Target Year</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% reduction in energy use</td>
<td>2030</td>
<td></td>
</tr>
<tr>
<td>New buildings Net Zero Energy Code</td>
<td>2035</td>
<td></td>
</tr>
<tr>
<td>50% reduction in heating emissions</td>
<td>2040</td>
<td></td>
</tr>
<tr>
<td>Reduction in energy use</td>
<td>2050</td>
<td></td>
</tr>
</tbody>
</table>

WHAT DENVER IS CURRENTLY DOING

- **Net Zero Energy (NZE) - New Buildings**
  - Adoption of the 2018 IECC & Denver Green Code - Moving the energy code toward NZE
  - NZE New Building Implementation Plan - NZE in 6 code cycles with stakeholder input

- **Energize Denver/ Benchmarking** - Increasing energy efficiency in existing buildings through the Benchmarking Ordinance (Benchmarking Map), efficiency awards, and voluntary Energy Program

- **Smart Leasing Denver** - Providing tools, training, and recognition to align the interests of tenants and landlords to achieve high performance buildings

- **Green Buildings Ordinance** - Lowering heat island and energy consumption with options to install green space, increase efficiency, or install renewables

- **Strategic Electrification** - Planning and solutions for reducing building heating emissions

EMISSIONS TRENDS

- Emissions from commercial buildings have dropped around 19% from 2005 to 2017.
- The drop in emissions is primarily from the state Renewable Portfolio Standard driving a cleaner electric grid.
- Emissions from 2016 to 2018 were relatively flat.
  - Energy use is rising due to new construction but a cleaner grid and more efficient equipment are keeping emissions from growing at the same rate.
- **Denver resource center** highlights the actions buildings are taking to save energy.
**Buildings**

**POTENTIAL STRATEGIES**

- Energy Resource Center, Education, and Training (Public & Workforce)
- Incentives and New Financing for Efficiency and Renewables
- Building Energy Efficiency Policies & Codes
- Advocate at the Utility and State Level
- Plans, Policies, and Support for Electrifying Buildings

**CASE STUDIES**

**Benchmarking and education programs can save 2% to 7%; more action is needed to meet goals**
- Denver has a benchmarking program and educational resources in place; program savings are outweighed by new construction.
- **Boston’s large commercial buildings** reduced their total energy use by 7% between 2013 and 2017 with benchmarking, education, and promotion of utility programs.
- Benchmarking and disclosure reduced **energy consumption in New York buildings 6% over three years.**

**Building performance policies and codes are spreading across the U.S. and showing results**
- Actions **beyond benchmarking** are required in 15 cities and 1 state. This can include required studies, specific upgrades, and/or energy/emissions limits.
- **More than 9 jurisdictions** (including Denver) have developed “stretch codes” heading to net zero energy codes.
- **Seattle reduced building energy, emissions 13% from 2008 levels** by implementing building performance standards, providing utility incentives for actual performance, and more.

**Electrification is needed to achieve aggressive decarbonization goals**
- **Rocky Mountain Institute study** states that reaching decarbonization goals of 75% or greater will require eliminating CO2 from gas heating equipment.
- **More than a dozen U.S. cities** have banned natural gas equipment in new buildings.
- The all electric **Stanford energy system** cut greenhouse gas emissions 68% and fossil fuel 65%.
- Denver will be conducting an electrification study to understand what it will take to electrify buildings and vehicles.
Homes

CURRENT GOALS

- 2025: 10% reduction in energy use
- 2035: 20% reduction in energy use
- 2040: 25% reduction in thermal heating emissions through efficiency and fuel switching

WHAT DENVER IS CURRENTLY DOING

- Providing **information and educational resources** through Denvergov - [Home Energy](#) and [Residential Solar](#)
- Driving efficiency in new construction and major renovation with the adoption of the 2018 IECC
- Offering **low-income energy services** through the Office of Strategic Partnerships utilizing funds from the Xcel Energy Franchise agreement
- **Analysis of Home Energy Labels** - Performed a pilot focused on sharing an energy label during the transaction of a home (sellers or buyers).
- **Feasibility Study - Residential Rentals with Efficiency Standards** - Executed a study examining whether increasing energy efficiency in rental properties can help to meet Denver’s climate and equity goals.

EMISSIONS TRENDS

- Emissions from residential buildings have dropped around 9% from 2005 to 2017.
- The drop in emissions is primarily from the state Renewable Portfolio Standard driving a cleaner electric grid.
- Emissions from 2016 to 2018 were relatively flat
  - Energy use is rising due to new construction but a cleaner grid and more efficient equipment are keeping emissions from growing at the same rate.
- Equipment is getting more efficient, especially lighting, cooling, and appliances, but it is slow to change out.
# Homes

## POTENTIAL STRATEGIES

- **Free/ Discounted Energy Audits and Homeowner Education**
- **Community Targeted Homeowner Education Events**
- **Incentives for Efficient System Upgrades and Retrofits**
- **New Home Energy Efficiency Codes and Standards**

## CASE STUDIES

### Energy audits and homeowner education increase program awareness and adoption

- Massachusetts electrification and efficiency programs perform no-cost energy assessments on **22% of Boston households** in 10 years and incentivize heat pump replacements in **more than 18,000** homes in 5 years
- Benchmarking and transparency has been shown to lead to **3-8% reduction in energy consumption or EUI**
- A Jackson, WY study concludes home energy audits resulting in measure implementation produced **4.7% electricity savings**

### Incentivizing electrification increases project implementation even in cold climates

- Maine’s residential rebate programs have incentivized more than **25,000 heat pump installs since 2011**
- The Mass Save and MassEC programs in Massachusetts have incentivized 18,000 heat pump installs from 2015 to 2018
- The Vermont heat pump program incentivized **8,200 installs including 1,000 leased units** between 2014 and 2018
- Connecticut’s rebate program has resulted in **6,176 heat pump installations** between 2012 and 2015

### New home energy codes incentivize building better and help improve occupant health

- Net Zero Energy homes in CA are expected to **reduce GHGs in 2020 by 30-60%** compared to a natural gas fueled home
- In 2020, an **all-electric** single family home **reduces GHG emissions by 33-56%** compared to a natural gas-fueled home - increasing to a **76-88% GHG reduction in 2050**
- Increased insulation levels and a tighter envelope (ex. Passive House building methods) **reduce energy use by 40-60%** and can improve occupant health and **reduce asthma triggers**
Electricity Supply

CURRENT GOALS

2025: 100% renewable electricity supplied to municipal buildings

2030: 100% renewable electricity, community-wide

- Take actions that influence decarbonization of Xcel Energy’s entire electric system (Denver represents about 25% of Xcel Energy’s Colorado retail sales.)
- Encourage participation in voluntary renewable energy programs
- Focus on adding renewable energy which has a greater impact than purchasing renewable energy credits
- Plan for electrification of transportation and buildings which can alter the distribution system and lead to high penetration of renewable electricity

WHAT DENVER IS CURRENTLY DOING

Three action pillars for equitable decarbonization:

1. Systemic Change - Shifting the status quo by being active in State Regulatory proceedings and updating building codes
2. Infrastructure - Leading by example with targeted investments in distributed energy resources at City facilities
3. Empowerment - Offering solar energy resources, publicizing solar success, and creating opportunities for community members to become advocates for and participants in the energy transition

EMISSIONS TRENDS

- Xcel Energy’s “physical grid mix” was powered by 28% carbon free sources in 2018 (only about 18% can be claimed by Denver).
- Xcel Energy has committed to ambitious renewable energy goals but there is still a gap to achieve Denver’s targets.
- 100% electric buildings and transportation will increase electric loads.
## Electricity Supply

### POTENTIAL STRATEGIES

<table>
<thead>
<tr>
<th>Community Education and Engagement</th>
<th>Workforce Development Programs</th>
<th>City-hosted Community Solar Gardens</th>
<th>Influence State Proceedings for Electricity Regulation</th>
<th>Require Renewables and Grid Flexibility in Building Codes</th>
</tr>
</thead>
</table>

### CASE STUDIES

| Regulatory decisions and code updates are driving nationwide systemic changes |
| City infrastructure can be leveraged to advance renewables and decarbonization |
| Workforce development and targeted renewable energy programs can help progress |

- **Minneapolis Public Utilities Commission** rejects Xcel Energy's 720 MW Mankato gas plant purchase over **stranded asset concerns** (October 1, 2019)
- **Indiana Public Utilities Commission** reject 850 MW Vectren gas plant over **stranded asset concerns** (April 25, 2019)
- **New Mexico Public Utilities Commission** approves plan to **phase out coal by 2031** (December 20, 2018)
- **California Becomes 1st State to Require Solar Panels on New Homes** (December 6, 2018)
- **Boston to Require All New City-Owned Buildings to be “Net Zero” for Carbon emissions** (October 8, 2019)
- **Pittsburgh City Buildings Ready to Go Net Zero** (November 20, 2019): The Mayor signed an ordinance following a unanimous City Council vote on October 15, 2019 requiring all new or renovated City government buildings to be net-zero energy (NZE) ready
- **Big Sun Community Solar, Sacramento, TX**: Community solar program established by Sacramento’s municipal utility to create cost-savings and simplify access to renewables for residents.
- **GRID Alternatives**: Solar training programs offering participants hands-on installation training to develop their skills and increase employment opportunities.
- **Solar Energy International**: SEI offers hands-on workshops and online courses in solar PV, micro-hydro and solar hot water.
- **Colorado Energy Office Weatherization Assistance Program**: Targeted investment in cost-effective services including solar PV for qualified residents to reduce energy and lower costs, while improving the overall comfort and safety of a home.
Transportation

**ELECTRIC VEHICLE GOALS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2025</td>
<td>15% of Denver vehicle registrations are electric</td>
</tr>
</tbody>
</table>
| 2030 | 30% of Denver vehicle registrations are electric  
100% of EVs are powered by 100% renewable electricity |
| 2050 | 100% of light duty vehicles are electric |

**GETTING TO WORK GOALS**

<table>
<thead>
<tr>
<th>Transportation Mode</th>
<th>Current</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walk or Bike</td>
<td>6%</td>
<td>15%</td>
</tr>
<tr>
<td>Telecommute or Carpool</td>
<td>16.7%</td>
<td>20%</td>
</tr>
<tr>
<td>Public Transit</td>
<td>6.8%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**2050 GOALS**

- 75% of freight trucks will use carbon neutral fuel
- 100% of taxis and transportation network vehicles are electric
- 100% of public transportation will be carbon free

**WHAT DENVER IS CURRENTLY DOING**

- **Electrifying City fleet** vehicles and installing EV charging stations
- **Outreach and education** on the benefits of electric vehicles
- Supporting the electrification of rideshare vehicles
- Requiring new commercial & multi-family construction to **support EV charging**
- Dedicating space to **buses on high capacity routes**
- Working to increase **frequency of buses** on key corridors
- Building **125 miles of bikeways** within 5 years
- **Building sidewalks** and improving intersections
- Including programs & policies in development to **expand transportation options**

**EMISSIONS TRENDS**

- Vehicle emissions rising in recent years
- Long turn over time to replace inefficient vehicles since they last 15 years
- Population increases combined with individuals driving more miles have outpaced vehicle efficiency gains
### Transportation

#### Potential Strategies

<table>
<thead>
<tr>
<th>Targeted Transportation Education Events</th>
<th>EV Purchase Incentive Programs</th>
<th>Increase Public Transportation and Multi-Modal Ridership</th>
<th>Increase Quantity of EV Charging Stations</th>
</tr>
</thead>
</table>

#### Case Studies

**Incentive programs & education help facilitate EV adoption**

- The [DriveClean program in the San Joaquin Valley](#) offers EV purchase incentives for disadvantaged and low-income communities.
- The [Seattle Airport](#) created rideshare environmental guidelines to improve rideshare fleet vehicle emissions.
- The [BlueLA electrified car sharing](#) program has 100 EVs with 200 chargers and offers significant discounts to low income residents.
- Increases in EV sales in Sacramento County are a result of [public education](#) on reduced costs to operate EVs in addition to State and Federal EV rebates.

**Financial incentives and public transportation improvements drive change**

- [Seattle decreased private vehicle commuting 10% and increased bus ridership 8%](#) since 2010 by changing the frequency of bus arrivals, and bridging the gap between agencies and local employers.
- Transportation emissions in Portland have [decreased by 14% since 2002](#) due to connected neighborhoods, and a shift towards using public transportation, biking, and walking.
- New York City has [added ~54 miles of bike lanes per year](#) since 2007 and Chicago has added [~27 miles per year since 2011](#), leading to more riding bikes and lower injury rates for people riding bikes.

**Investment in EV charging stations (EVSE) is needed to drive adoption**

- [Portland](#) has successfully streamlined EVSE Permitting & Interconnection through EVSE guidelines and checklist.
- Portland has achieved an overall [7% reduction in gasoline sales](#) (1990 baseline) in part due to increased EVSE infrastructure.
- Los Angeles has installed more than [130 EVSEs on light poles with hundreds more planned](#), giving residents more public charging options.
Consumption & Waste

CONSUMPTION BASED EMISSIONS INVENTORY

Definition: Inventory of greenhouse gas (GHG) emissions associated with the consumption of goods and services by the residents of the city. For most U.S. cities, the GHG from consumption outweighs the GHG from production within city limits.

- Excludes emissions from visitor activities
- Excludes emissions from goods and services that are exported from the city
- Includes emissions from goods and services that are imported into the city
- Consumerism, product supply chain, & waste are all significant factors

CURRENT GOALS

2020:

- Complete first city-wide Consumption Based Emissions Inventory

2030:

- 50% diversion of waste from landfills
- 57% reduction in tons of residential food waste collected by the city

2040:

- Zero waste (100% diversion from landfills)

Note: A full consumption based emissions inventory has not been conducted. The data presented is an estimate and does not include all categories.

WHAT DENVER IS CURRENTLY DOING

- Recycle Colorado & CDPHE Contractors Challenge
- CDPHE provides free pollution prevention assessments for businesses
- Improved landfill data for more accurate diversion rate
- City waste GHG inventory conducted in 2019
- Food Matters restaurant food waste program

Without action, many cities around the globe will see their consumption-based emissions nearly double by 2050.
Consumption & Waste

**POTENTIAL STRATEGIES**

- Community Based Social Marketing & Education
- Sponsor or Incentivize Repair Clinics & Related Job Training
- Policies and Regulations to Minimize Landfill Waste (“Zero Waste Ordinance”)
- Incentives and Initiatives to Encourage/Require Material Reuse

**CASE STUDY**

**C40 Cities**

*C40 Cities Climate Leadership Group*

- Study evaluated consumption-based emissions of 79 cities and investigated strategies to reduce consumption-based emissions.
- 85% of emissions associated with goods & services consumed were imported from elsewhere, demonstrating the importance of reducing consumption.
- *The table to the right shows the results of this study and potential strategies to reduce consumption-based emissions.*

**Other City Efforts:**

- Waltham, MA has a resource to lookup where items that cannot be sent to the landfill can be repaired or recycled.
- Waste emissions in Portland have decreased by 82% (from a 1990 baseline) as a result of diverting waste from landfills using recycling, composting, and landfill methane capture.
- In 2012, San Francisco diverted close to 80% of the city’s waste stream from landfills.
Overview

1. Natural Hazards in Denver Exacerbated by Climate Change
2. Public Health
3. Water and Green Infrastructure
4. Critical Facilities and Supply Chains
5. Climate Change and Equity
6. 100 Resilient Cities Framework
NATURAL HAZARDS AND CLIMATE CHANGE
Climate Change and Natural Hazards

Top Natural Hazard Risks in Denver

Hazards Exacerbated by Climate Change

Table 4.1: Hazard Significance Summary

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Geographic Extent</th>
<th>Magnitude/Severity</th>
<th>Probability of Future Occurrences</th>
<th>Overall Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dam Failure</td>
<td>Limited</td>
<td>Critical</td>
<td>Unlikely</td>
<td>Medium</td>
</tr>
<tr>
<td>Drought</td>
<td>Extensive</td>
<td>Critical</td>
<td>Likely</td>
<td>High</td>
</tr>
<tr>
<td>Earthquake</td>
<td>Extensive</td>
<td>Critical</td>
<td>Unlikely</td>
<td>Medium</td>
</tr>
<tr>
<td>Expansive Soils/Subsidence</td>
<td>Negligible</td>
<td>Negligible</td>
<td>Occasional</td>
<td>Low</td>
</tr>
<tr>
<td>Extreme Heat</td>
<td>Extensive</td>
<td>Limited</td>
<td>Highly Likely</td>
<td>Medium</td>
</tr>
<tr>
<td>Flooding</td>
<td>Limited</td>
<td>Limited</td>
<td>Occasional</td>
<td>High</td>
</tr>
<tr>
<td>HazMat Incident</td>
<td>Limited</td>
<td>Limited</td>
<td>Highly Likely</td>
<td>Medium</td>
</tr>
<tr>
<td>Severe Thunderstorm</td>
<td>Extensive</td>
<td>Limited</td>
<td>Highly Likely</td>
<td>High</td>
</tr>
<tr>
<td>Severe Winter Storm</td>
<td>Extensive</td>
<td>Limited</td>
<td>Highly Likely</td>
<td>High</td>
</tr>
<tr>
<td>Tornado</td>
<td>Limited</td>
<td>Critical</td>
<td>Occasional</td>
<td>Medium</td>
</tr>
<tr>
<td>Wildland Fire</td>
<td>Limited</td>
<td>Limited</td>
<td>Occasional</td>
<td>Low</td>
</tr>
</tbody>
</table>

Data Sources: 2017 Denver Hazard Mitigation Plan
Average temperature likely to increase by 2.5-5.5 °F by 2050

Data Sources: CMIPS Climate Models, ORNL (National Lab), and 2015 Colorado Climate Change Vulnerability Study
Urban Areas Can Be 5.4 °F Higher Than Rural Areas, 22 °F Higher at Night

Data Sources: Scorched: Extreme Heat and Real Estate (ULI), Heat Island Group, Lawrence Berkeley National Laboratory, 2019
Climate Change Means Increased Variability around Water

Denver metro could add another million people by 2040

The CO river is experiencing a drought unprecedented in last 1200 years. Drought increases the possibility that water use could be curtailed to meet interstate compact obligations.

Data Sources: Denver Water. Images – Denver and “Bathtub Ring” at Lake Power
Wildfires and Air Quality

“In the last few years, we’ve seen enormous spikes in episodes where wildfires contribute to pollution,” said Janice Nolen [American Lung Association]. “It doesn’t have to be a continuous problem every day to be unhealthy. A spike that happens for a few days of difficult breathing can shorten lives.”

Data Sources: American Lung Association, Climate Central, 2015 Colorado Climate Change Vulnerability Study
Wildfires and Water Quality

- Climate warming is also expected to increase area burned and length of fire season
- Post-fire erosion can cause major problems for water supply and storage infrastructure, as evidenced by damage to the Strontia Springs Reservoir from erosion after the Buffalo Creek and Hayman fires

The Buffalo Creek Fire in May 1996 lowered the erosion threshold of the watershed. As a consequence, a 100-year rainstorm that occurred 2 months later caused erosion upstream and deposition of this alluvial fan at the mouth of a tributary to Buffalo Creek.

Organic debris and sediment were deposited as a result of the fire in Strontia Springs Reservoir, which supplies drinking water to the cities of Denver and Aurora. The debris resulted in excess manganese in the water supply, which increased the chlorine demand of water treated for municipal usage.

Erosion of a drainage creates incised channels – another consequence of wildfires and subsequent rainfall. Prior to the storm, this drainage had no definite banks.

Data Sources: Denver Water, 2015 Colorado Climate Change Vulnerability Study, Hydrologic and Erosion Responses of Burned Watersheds, Moody et al, USGS
17% of homes hit by the 2013 floods were outside of the mapped floodplain.

- FEMA flood maps based on historical data only
- Takes 2-3 years to update a region
- Nationally, 25% of flood insurance claims come from outside of designated floodplains
- Denver has a Community Rating System Class of 7, (15% discount for residents on flood insurance)

Moving to Class 6 would offer a 20% discount.
Denver is currently at ~50% impervious surface area. This is projected to increase to 61% - 67% by 2040.

-- Denver Department of Transportation and Infrastructure
Winter Precipitation Events are Projected to Increase in Frequency and Magnitude
PUBLIC HEALTH AND CLIMATE CHANGE
How does climate change impact public health?

- Air Pollution
- Heat Stress
- Infectious Disease
- Waterborne Disease

Health
Public Health and Climate Change

DECLINING AIR QUALITY

- Metro Denver residents in 2018 inhaled elevated levels of pollution on 282 days, including 225 days of moderate degradation, 49 days deemed unhealthy for sensitive groups and eight days deemed unhealthy for all.
- Climate warming is expected to intensify air pollution because heat speeds the formation of ground-level ozone and boosts the frequency and severity of wildfires, which infuse more particles into smog.
- Children and pregnant women are key vulnerable populations. They breathe in more air per pound of body weight. Children in poverty are particularly vulnerable because they are more likely to develop asthma in the first place and to be exposed to asthma triggers from the high exposure to traffic pollution.

RISING HEAT

- Higher temperatures speed up algal growth and promote toxic species. Paired with extreme rainfall and flooding, the risk of contamination can make areas with well water systems uninhabitable, as was the case in the Town of Jamestown during the 2013 floods.
- “Very young children, elderly, chronically ill persons taking drugs that impair thermoregulation, and outdoor workers are vulnerable to higher daytime temperatures. The population of residents 65 and older, will increase 128% by the year 2030.”

Smog and fine particulate matter has been linked to preterm births, birth defects, developmental delays in children, strokes, heart attacks, dementia in older adults, lung cancer, and other health problems.

Exposure to ground-level ozone is worst on hot, sunny days. Inhaling ozone can cause inflammation deep in the lungs, and repeated exposure may result in permanent scarring. Between 2013-2015, high levels of smog and pollution have contributed to an estimated 73 excess deaths and 153 excess illnesses in CO.

WHO IS MOST AT RISK?

Higher temperatures can speed up algae growth and promote toxic species over non-toxic ones. Algae-filled water can be harmful to public health when high enough concentrations enter recreational or drinking water.

Heavy precipitation events may increase due to climate change. Runoff can wash animal wastes, artificial fertilizers, and other nutrient-rich pollution into rivers and lakes, increasing the risk of waterborne disease.

Vector-borne pathogens are expected to emerge or reemerge due to the interactions of climate change factors with many other drivers, such as changing land-use patterns and seasonal distribution.

Data Sources: Colorado Department of Public Health and Environment, Colorado Lake and Reservoir Management Association, NRDC, Denver Public Health and the Environment, Global Change Climate and Health Assessment
Public Health and Climate Change

We can protect our air quality by cleaning up power plants, vehicles, and other big carbon polluter emitters to cut unhealthy levels of smog and other air pollution.

What Denver is Currently Doing:

- Hazard Mitigation Planning and Implementation
- CO’s wind and solar power reduced carbon emissions by 36 million tons from 2007-2017
- Piloting more resilient building code requirements through the Denver Green Building Code

Existing Goals:

- Attain all National Ambient Air Quality Standards
- In 2018, plan was finalized by state agencies to reach 1 million electric vehicles by 2030, which could cut up to 3 million tons of climate changing pollution and 800 tons of smog-forming nitrogen dioxides.
- Protect and expand the urban forest

Data Sources: American Lung Association, 2015 Colorado Climate Change Vulnerability Study, Colorado Children’s Campaign, EPA 2009; Peel et al. 2005., Denver Post, 1/30/2020; Climate Change and Health in Colorado, Constible et al, 2018, NRDC.
Maricopa County Public Health identifies the needs of homebound individuals during extreme heat events, determines whether existing services are sufficient, and identifies how to improve capacity for this vulnerable population to prevent heat related illness.

Anchorage, Alaska has seen a significant change in climate, with new vector-borne disease pathways. The city has instituted central surveillance programs and conducted education campaigns to enroll the public in the fight against emerging threats.

The American Public Health Association has provided best practices to health departments around air quality and climate change. These include establishing a network clean air shelters and an early warning system for poor air quality events for high risk communities.

Data Sources: ULI Urban Resilience, American Public Health Association, Anchorage, Alaska Department of Health
WATER, GREEN INFRASTRUCTURE, AND CLIMATE CHANGE
Water and Green Infrastructure

INCREASED VARIABILITY IN WATER SUPPLY

- Colorado River Compact call: Decreased water availability in other states increases possibility that water use in CO is curtailed.
- Impacts of extreme [drought] events increase wildfire risk. Wildfire in turn can lead to higher chances of erosion, impacting water quality and load on water treatment facilities.
- Water based cooling solutions may become more expensive to operate.
- Denver may add an additional 1 million residents by 2040, increasing water demand.
- Denver is projected to increase impervious coverage rates from 50% to 61-67%, which degrades water quality and increases urban heat island effect.

IMPACT ON GREENSCAPE

- Longer and more intense droughts, especially megadroughts, could impact the ability to maintain landscape infrastructure, including lawns, parks, and trees that are not heat and drought resistant.
- Higher population density will also result in increased use of public green space.

Data Sources: Denver Water. 2015 Colorado Climate Change Vulnerability Study
Strategies for Water and Green Infrastructure

- Improve community flood preparedness to reduce flood insurance rates
- Create incentive for developers to use alternative water sources
- Limit impervious surfaces through landscape zoning and building codes
- Provide annual funding mechanism for green infrastructure
- Invest in workforce development for green infrastructure and resilient landscape

What Denver is Currently Doing

- Green Infrastructure Master Plan addresses small and large-scale green infrastructure in basins most in need
- One Water Plan and Water Efficiency Plan to prepare for multiple possible water conditions, including water shortage during drought
- Denver Green Building Ordinance provides options for additional greening and stormwater best practices

DENVER GOALS:

- Ensure all neighborhoods have a park within a 10 min walk
- Build 25 miles of green streets over the next 5 years
- Make the city’s park systems more resilient
- Expand the use and support of alternative water supplies
- Sustain resilient system that ensures service of a reliable supply of high quality water
- Fishable and swimmable waters in all our lakes and streams by the year 2020

CASE STUDIES

- Prince George’s County Clean Water Partnership is a 30 year public private partnership used to finance and implement green and stormwater infrastructure. Key focus areas include workforce development, market transformation, and growing local small business capacity to implement projects.

- Philadelphia’s Green City, Clean Waters initiative is investing $1.6 billion over a 25 year horizon in green and blue infrastructure. The majority of stormwater management amenities will be placed in low-income communities.

Data Sources: Denver Water. 2015 Colorado Climate Change Vulnerability Study, ULI, Denver Game Plan For a Health City
Climate events can disrupt critical supply chains and increase critical infrastructure downtime.

- "Impacts of changing temperature and precipitation patterns within and outside Colorado can lead to higher food prices, increasing food insecurity."

- "Road materials have a limited range of heat tolerance, and road buckling occurs with sustained temperatures above 90°F. Bridges are particularly vulnerable to extended high temperatures, which stress bridge integrity."

- "Planes have more difficulty taking off at high air temperatures. This is more acute at high altitude airports like DIA. Runways may need to be lengthened, and DIA could have summer cargo losses as high as 19% by 2030."

- "Although virtually any aspect of Colorado’s economy could be affected by changes in the climate, specific industries that rely on natural resources—agriculture, tourism and recreation, and mining and extraction—are particularly vulnerable."

- A current Denver Office of Emergency Management goal is to increase micro-grid back up power systems for critical facilities.

<table>
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<tr>
<th>Category</th>
<th>Facility Count</th>
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<tr>
<td>At-risk Population Facilities</td>
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Flooding poses risk to real estate assets

- “There are 134 critical facilities in the 100-year flood plain (1% annual chance Zone) and 117 critical facilities in the 500-year flood plain (0.2% Annual Chance Zone).”

- “Buildings in the floodplain are susceptible to damages by rising waters; damages could also require costly and time-consuming clean-up during the recovery process. Flood recovery can take years for affected communities to be rebuilt, depending on the severity of the flood.”

- “In Denver, there are 1,846 buildings in the 100-year flood plain and 4,906 buildings in the 500-year flood plain.”

Data Sources: 2017 Denver Hazard Mitigation Plan
EQUITY AND CLIMATE CHANGE
Some Communities in Denver are Disproportionately Vulnerable

- Vehicle ownership, income levels, disability, and lack of neighborhood green infrastructure (shading, green space) can render areas more vulnerable to extreme heat.

- Multi-family affordable housing is more likely to rely on unfiltered natural ventilation than market rate multifamily housing (due to apartment size and cost). This increases vulnerability to poor air quality.

- “The health risks and impacts of climate change are not equally or fairly distributed across communities. The impacts of climate change on health are significantly moderated by individual and community vulnerability and resilience. Two critical components of climate vulnerability are pre-existing health status and living conditions.”

Data Sources: 2015 Colorado Climate Change Vulnerability Study, Denver Parks and Rec Game Plan for a Health City, Group14, Denver Department of Environmental Health, Climate Change, Health, and Equity – American Public Health Association
Many of the same neighborhoods that have a high vulnerability to extreme heat are also in the 100-/500-year flood plain and have worse air quality. There is a significant overlap between neighborhoods with multiple climate change vulnerabilities and multiple obstacles to success.
Many peer municipalities have embraced the 100 Resilient Cities Framework.
Resources

- Denver Department of Environmental Health
- Denver Parks and Rec Game Plan for a Health City
- CMIPS Climate Models, ORNL (National Lab)
- Heat Island Group, Lawrence Berkeley National Laboratory, 2019
- 2015 Colorado Climate Change Vulnerability Study
- Scorched: Extreme Heat and Real Estate (ULI)
- Denver Office of Emergency Management
- Denver Department of Transportation and Infrastructure
- NOAA
- Climate Central
- North American Electric Reliability Corporation
- Hydrologic and Erosion Responses of Burned Watersheds, Moody et al, USGS
- https://www.nature.com/articles/s41558-018-0236-4
- https://www.documentcloud.org/documents/4066233-OIG-17-110-Sep17.html
- Denver Water
- 2017 Denver Hazard Mitigation Plan
- Climate Change and Health in Colorado, Constible et al, 2018, NRDC.
- American Lung Association
- Colorado Children’s Campaign
- EPA 2009
- Peel et al. 2005.
- Denver Post, 1/30/2020
- 100 Resilient Cities
- Denver Office of Children's Affairs
- Climate, Health and Equity, American Public Health Association
Appendix 4: Public and Stakeholder Input
APPENDIX 4. Public and Stakeholder Input Methodologies

Engagement Methodology

Understanding the critical importance of community engagement in this process, the consulting team created a community engagement process that included the following components:

1. Two rounds of Meetings in a Box;
2. Three Social Justice and Equity Site Visits;
3. Five Stakeholder Advisory Group Meetings;
4. Six Community-based Facilitated Sessions; and
5. Consider.it Online Engagement Tool

The goal was to both go broad and go deep, understanding that community will buy into and help implement community plans that they have helped to build and shape.

Meetings in a Box

To explore needs and opportunities we chose to use a dispersed method known as Meetings in a Box (MIBs). MIBs are a nationally recognized model used in public participation to reach and connect with community members that often don’t engage in these processes. By mobilizing the meetings into the hands of community members instead of only offering a limited set of public meetings at a certain place and time, participation is increased, along with ownership of the process. While initially designed to engage Millennials, MIBs have proven to be an effective method for engaging with a broader, diverse set of community members, whose voices are often under-represented.

All Task Force members were asked to hold at least one MIB with their respective constituents. The City’s Climate Action, Sustainability, and Resiliency’s listserv of over 10,000 residents was sent information on how to host their own MIB. Additionally, any community member who expressed a desire to hold one was also provided the materials (including pens, sticky notes, a discussion board, a facilitator script, and response forms). Materials were provided in English and Spanish. Those who could not attend a Task Force meeting to pick up materials were provided a centralized location to do so, and the consulting team also hand-delivered materials to individuals throughout the City. If requested, gift cards of $75 were provided for hosts to purchase snacks or meals for participants.

The first round of MIBs were held to explore the challenges, barriers, and opportunities that participants and our communities may face in addressing climate change. Videos that provided context on the climate crisis were shown and participants were asked a series of questions in response. The MIB also covered the potential future and the individuals’ role in helping create a sustainable city. Almost 250 residents participated in Round One.

The second round of MIBs were different than round one. Whereas Round One focused on challenges Denver residents would face with the climate crisis, Round Two provided space for thinking through interventions and solutions. Round Two also emphasized the need for high impact, systemic change to achieve science-based climate goals, rather than only individual action. In the seventeen MIB Round 2 Discussion Summaries, facilitators reported over 100 participants attending meetings. On final tally, 80 participants completed the survey. It should also be pointed out that this second round of MIBs began at the beginning of the COVID-19 outbreak in Colorado, and continued through the first week of the City’s shelter-in-place order. This halted many planned discussions from happening, decreased participation for those that went forward using virtual formats, and were made easier by those with better access to technology.
Social Justice and Equity Site Visits

The purpose of social justice and equity site visits was to help the task force understand the impact of climate change on communities directly affected in their own words and to provide an opportunity for direct communication. After the initial round of Meetings in a Box, it also became clear that further understanding business, labor, and entrepreneurship would be important as well. The site visits were also designed to invite affiliate agencies to share in the process and to give a platform for affected groups to share their experience with this unfolding challenge. The consulting team designed and began planning site visits across the city to explore the following:

1. **Sun Valley and the West Side**: Sun Valley is an energy burdened community that also experiences high rates of asthma and high flood and heat risk. Other communities included Valverde, Westwood, and Athmar Park. The Latinx and Immigrant communities were to be tapped and a tour of the eco district work, including DHA housing, flood facilities, and engaging youth had been planned.

2. **Elyria Swansea and Northeast Side**: These communities have a high-income burden and air quality issues along with historical Environmental Justice issues related to industry and the impact on soils. There has been some energy improvement work there. A tour of Growhaus and Stock Show complex was in the process of being established.

3. **Business, Labor, and Entrepreneurship**: This event was to give Task Force members the opportunity to hear from business, labor, and entrepreneurial representatives.

Unfortunately, due to COVID-19 these site visits had to be canceled.

Stakeholder Advisory Groups

In an effort to dig deeper with a small subset of stakeholders, the consulting team planned and executed five stakeholder advisory group (SAGs) meetings. These meetings engaged the groups most impacted by climate change and the potential policies and revenue generation solutions in order to inform the process. Groups ranged in size from four to over 20, with almost 40 individuals participating in total. The following groups of people were identified as critical voices in this process:

1. **Climate Justice and Equity**: To better understand the challenges around justice and equity as we respond to climate change and to give a voice to those who often do not have a voice in these types of processes. and who have developed some of the most innovative solutions to solving problems.

2. **Workforce**: Members of groups that will need to address workforce challenges as we respond to climate change. They represented the people who will have to build the infrastructure, change jobs, learn new skills, etc. Knowing the needs of our shifting workforce is incredibly important for the task force to consider.

3. **Business and Industry**: Better understand the needs, challenges, and solution propositions of the business and industry community as the city moves forward with plans to tackle climate change.

4. **Youth and Climate Advocates**: Members that will be the most long-term impacted by climate change and how our city moves processes forward – therefore the “most invested” group.

5. **Climate Vulnerable People**: To give a voice to those who could be most impacted by climate change and who often do not have a voice in these types of processes.

Initially, SAGs were to be held in person with food provided to increase participation and break down social barriers. They were also scheduled during days and times that the consulting team felt would be most likely to see participation from each group. Invitees were selected from a variety of sources, including, but not limited to: those who applied to be on the Task Force but were not selected; those who are known and involved in climate conversations throughout the city; personal connections of City staff,
the consulting team, and Task Force members. Due to COVID-19, these were shifted to a Zoom meetings. This decreased participation for some groups, and new scheduling conflicts as a result of the onset of COVID-19 response led to more cross-over between these five groups than initially planned. Participants and invitees were later tapped for participation in the online forum described below.

Community Engagement Sessions

Initially, in an effort to engage diverse community members across Denver to provide input into potential solutions and revenue sources needed for addressing Climate Change six public meetings were planned around Denver. Participants from Meetings in a Box and Stakeholder Advisory Group discussions were going to be encouraged to join the general public in what was to be the culminating conversation on priorities and funding. Community “Liaisons” were to be hired to increase participation from certain underrepresented communities. Each city council member identified locations that would yield diverse participation and were set to provide an introduction to the session. The design of these meetings was an intentional way to continue to strengthen community through meaningful, humanizing connection/interaction. Simultaneous translation was to occur. In coordination with city council members, the following in-person community engagement sessions had been planned:

1. South High School – hosted by Councilwoman Black, Councilman Kashmann, and Council President Clark
2. Swansea Rec Center – hosted by Councilwoman CdeBaca and Councilwoman Ortega
3. Montbello Rec Center/Montbello Campus – hosted by Councilman Herndon and Councilwoman Gilmore
4. Site determination in process – hosted by Councilwoman Sandoval and Councilwoman Torres
5. Christ Church Methodist – hosted by Councilwoman Sawyer and Councilman Hinds
6. Church of All Saints – hosted by Councilman Flynn and Council President Clark

It became clear that these meetings had to be canceled due to the social distance requirements established in mid-March when COVID-19 hit Colorado. For this reason, we pivoted to use an online forum.

Consider.It Online Community Engagement

The decision to use this approach was made after the COVID-19 pandemic emerged and required a shift to a remote approach to engagement. The Consider.It online forum platform was selected as the best fit for the engagement goals, allowing real time displays of poll question responses and greater understanding of the rationale behind those opinions through narrative “pro” and “con” statements.

The City’s solid waste text message system was used to tap into over 70,000 households, asking them to participate. Additionally, the City’s Climate Action, Sustainability, and Resiliency’s listserve of over 10,000 residents was sent information periodically throughout the duration urging participation. Including diverse voices – across neighborhoods, city council districts, racial/ethnic identification, and income levels – was an important goal in this effort. It was also a big challenge, given that not everyone has a computer, tablet or smart phone for participating; language and literacy can also be a barrier to participating; and the usual strategies for overcoming these barriers are all in-person approaches, which were not an option given COVID-19 social distancing requirements. The project team and partners promoted access to wi-fi and computers to help bridge digital divides, conducted outreach in a variety of ways (including emails, social media, videos and even a Facebook live event), and offered direct phone support to anyone in need. At least half of these efforts were conducted in Spanish as well as English to promote participation throughout Denver and by diverse groups. The site itself uses google translate so that participants can read proposals and comments in their native language as well as respond in their native language.
In addition, Community Liaisons from Spanish speaking, immigrant, African American, and other underrepresented populations in Denver were hired to reach out to their communities to encourage participation. Additionally, Community “Energizers” were identified and asked to share social media tiles and communication with their networks, again to increase participation from individuals who traditionally are underrepresented in these types of processes.

The online forum was initially populated with a selection of proposals for which the task force was seeking public input. Community members were also invited to add their own proposals on the site. Anyone who created an account on the site could then rate them on a sliding scale from oppose to support and could add comments and/or “agree with” others’ comments by including them as their own.

The project team moderated the site at all times ensuring no user was breaking the code of conduct agreed to upon sign up. They also answered questions and asked questions of participants in order to gain additional specifics or clarity and to increase user engagement. The total number of participants exceeded projected participation at the originally planned in-person public meetings. From April 20 through May 4, 2020, Google Analytics reports that 3,686 unique individuals visited DenverClimateAction.Consider.It and made over 9,000 pageviews. 814 people creating accounts in order to actively participate in the forum.
Denver’s Climate Action
Community Conversations

Thematic Summary of Responses from
Round 1: Challenges

Brought to you by:
Executive Summary

I. Overview
The primary purpose of the MIB method is to engage community members in meaningful discussion with their peers, led by their peers and community leaders. This vibrant discussion environment offers the ideation, critical thinking, and collaborative context necessary for a community to arrive at the best solutions and decisions possible, not to identify the statistical significance of a single word or opinion. We believe this is a unique and powerful opportunity for public participation.

Some diverse audiences were reached during this first round of MIBs, but it was certainly not at the breadth expected to truly elevate the participation of the entire community. The focused distribution of the kits to those already involved in the Task Force process in some way, might be the key reason this came to be. The raw demographic data collected by the survey is presented earlier, uninhibited by further interpretation (p. 3 – 5).

II. Sentiments About the Climate Crisis
While in general there was a clear sense of urgency among all participants across demographics to take action (see p. 6 for more), three respondent personalities (and in some way group personalities as most meetings seemed to have only one or two personality types gathered) began to emerge at this point in the surveys and conversation summaries:

- **The everyday community member**, familiar to the issue of Climate Change, unsure about what to do about it or what others should be doing about it beyond some personal action, and ready to gain more education or understanding about what to do next.

- **The confident community member**, feeling content in the everyday actions of reducing impact such as composting, recycling, utilizing alternative forms of transportation by choice, gardening, talking about the climate crisis, and questioning why others and the City aren’t already doing more to change and address impacts.

- **The expert community member**, arriving to these discussions well prepared with scalable solutions, and/or with an intimate understanding of how efforts in mitigation, adaptation, and resiliency would impact their business or way of life, and a general skepticism about the overall Climate Action process, with a robust eagerness to participate in the process at a more advanced and meaningful level.

III. Transitioning Homes and Businesses
Using a slider on a scale of 1 to 5 when asked about the importance of transition, the average rating for this question was a 4, indicating high importance, though not full consensus on the issue.

**Themes included:** 1) it’s not enough and not soon enough, coupled by doubt that it could be accomplished no matter what the timeline, 2) concern about the negative impact to residents and 3) concern about the negative impact to certain industries, and 4) a “no resistance” theme which immediately turned to solution-oriented conversations.

Participants were asked how easy it would be to transition their homes to all-electric heating. Using a slider on a scale of 1 to 5, 1 being impossible, and 5 being no problem at all. The
average rating for this question was under a 3, identifying that it would be harder than it would be easy to make this transition. Most skepticism in the comments relate to cost, time, and knowledge about 'how to.' Challenges were distributed amongst five options given.

IV. Transportation
Using a slider on a scale of 1 to 5 when asked about the importance of transitioning transportation, the average rating for this question was also just over a 4, indicating high importance, though once again, not full consensus on the issue.

Themes included: 1) the cost of solutions, 2) the scalability of solutions, 3) inclusiveness amidst options, 4) equity, 5) the need for a range of more robust and diverse transportation solutions, and 6) the importance of recognizing that different methods of transportation are a need for some and a privilege to others (those that have to take the bus and those that can choose to take the bus).

Participants were asked how easy it would be for them and their families to travel only by electric vehicles, public transit or people-powered modes. Using a slider on a scale of 1 to 5, 1 being impossible, and 5 no problem at all. The average rating for this question was once again just under a 3, identifying that it would be harder than it would be easy to make this transition. Skepticism in the comments section relate to convenience, accessibility and availability, knowing options, equitable distribution, cost and expense to implement and for individuals, needing larger vehicles for work, frequency of charging stations, safety issues, and the challenge of changing personal habits. Challenges were distributed amongst the six options given.

V. Resource Efficiency
Quantitative data was not collected about the importance or perceived challenge of this category, but similar themes were seen that appeared in earlier sections including: 1) this is needed and doable, 2) incentivize Commercial Real Estate owners and developers to pursue greener buildings, and 3) challenges of implementing these measures, with cost as a particular barrier, and regulation as a potential carrot. The deeper dive into the overall challenges associated with all potential initiatives further describes this section as well.

VI. Challenges
Participants were asked, "considering the potential future, what challenges might these initiatives mean for you and/or within your households and for your communities? As well as your business or your place of work?"

Challenges that were identified included:
• Individuals
  1. Options must be affordable and meet individual needs,
  2. There must be engagement and buy in,
  3. There needs to be education and we must raise awareness,
  4. How do we get people to change their habits, and
  5. Recognizing that raising taxes for lower income citizens should be avoided.
• Systemic
  1. How to fund it ... expensive and [we] have limited financial resources,
2. While there is an "appetite" to be part of the solution, there is an unwillingness for new taxes without addressing the regulatory barriers,
3. There will be systemic barriers for low to middle income residents,
4. The need for a diversified workforce,
5. Regulation and incentives despite a lack of resources, and
6. The potential negative impact on industries such as being punished for a truck fleet hauling solar panels.

VII. Opportunities
The responses to the opportunity questions were extensive and comprehensive, far too much to adequately capture here in a summary of summaries, but some predominant themes are important to highlight:

1. An abundant and dedicated energy to ensure that the right solutions are put into place with a sense of urgency
2. A table of contents for a climate-conscious lifestyle
3. The bigger, more complicated issues are still overwhelming and it appears that until we get more engagement with these simpler tasks it is hard to think about how to more forward
4. The paradigm needs to be flipped: Make the environmental thing to do the easiest and cheapest
5. Opportunities seemed to focus on community benefits - building neighborhood strength, collaboration, simplifying lifestyles, and [reducing] stress
6. It remains that unless the most marginalized are included, they will be left out and left to bare the brunt of the changes
7. In terms of opportunities, there is potential if we do this right to have a more connected and equitable society.

What Facilitators Can Do Next
A myriad of feedback has been offered about the MIBs to better design and facilitate the process for Round 2 and future versions of this method. Much of this is being incorporated into that design for Round 2. There was one particular response that seemed noteworthy for current and future facilitators, which we will work to address in the design as well, “there was concern that only those who are already active are taking part in these kinds of discussions. We are wondering how to engage someone new. Maybe at our next meeting ask each person to bring someone new who they think is not as engaged.”

Conclusion and Next Steps
Among the nearly 250 people who participated in the first round of these meetings, the outlook for taking impactful climate action is daunting, to say the least. The heavy lift that is needed to make an impact is made even more challenging by looming questions about whether any of our efforts will make a difference. Given that the impacts we seek grow more challenging the longer it takes to get to aggressive action and following the spirit of one group that “focused on HOW to achieve [the transition],” the next step is to consider how to reach the goals the task force identifies, ideally including plans to overcome the array of challenges identified in the first round, including: cost and affordability for all; convenience, availability and accessibility of options; information about options and how to participate; safety, and the needs of specific groups.
Overview

In February of 2020, Denver’s Climate Action Task Force, with the help of the Civic Consulting Network, helped mobilize the first part of its public engagement strategy, Meetings-in-a-Box (MIBs). MIBs are a nationally recognized engagement model used to reach and connect with community members that often don’t engage in public meetings. By mobilizing the meetings into the hands of community members instead of only offering a limited set of public meetings at a certain place and time, participation is increased, along with ownership of the process.

MIBs have proven to be an effective method for engaging a broad, diverse set of community members, especially people whose voices are often under-represented. Some diverse audiences were reached during the first round of MIBs in this project, but it was not as diverse as hoped to truly elevate the participation of the entire community. The focused distribution of the kits to those already involved in the process in some way might be the key reason this came to be. The raw demographic data collected by the survey is presented uninhibited by further interpretation (p. 3 – 5), so that Task Force members can form their own opinions about where additional focus might need to be emphasized when planning for other parts of the strategy (much of which is already being considered as planning for public meetings and other focused group discussion continues).

Following the demographic information, this report takes a closer look at the themes that emerged during each of the four parts of the MIB conversations. These themes were unearthed through careful reading of every facilitator summary and every comment in every survey. For further redundancy, any submitted photos of discussion boards were investigated to be sure that identified themes were what individuals and groups were documenting during the process as well. This latter method truly proved to be redundant.

By using the words and summaries quoted directly from participants in surveys and facilitator summaries, we hope to accurately describe the overarching themes that arose during the 28 confirmed MIBs that drew at least 247 participants\(^1\). While not every individual comment nor every summative paragraph can be included in a brief thematic summary, we brought forward those quotes that seemed to not only speak for themselves but many others as well. We hope that by complimenting direct quotes from participants and facilitators with the more quantitative data presented by certain questions asked in the survey, less of the information is skewed by subjective analysis.

Last, it is critically important to understand that both the MIB process and the data collected were not designed for coding to achieve a statistical analysis. The primary purpose of MIBs is to engage community members in meaningful discussion with their peers, led by their peers and community leaders. This vibrant discussion environment offers the ideation, critical thinking, and collaborative context necessary for a community to arrive at the best solutions and decisions possible, not to identify the statistical significance of a single word or opinion. We believe this is a unique and powerful opportunity in public participation.

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\(^1\) This is the total number of opened surveys. The consultant team anticipates more attended meetings without opening a survey and that more meetings were held than what’s accounted for in summaries.
I. Trends in Participation

It’s important to remember that Meetings-in-a-Box are not a one-size-fits-all method, and these small group discussions are part of a broader public engagement strategy. Some of these sectors are represented on the task force and in Stakeholder Advisory / Affinity Groups, while others will likely have a higher participation rate at public meetings. Two questions to ask: 1) Are we engaging under-represented groups? 2) If not, how can we build on this baseline of participation? In other words, who do we need to make extra effort to reach in the next round of MIBS, in affinity group discussions and at public meetings, and what are the best ways to do that for each identified group?

Sector Representation

Keep in mind that in this question one participant could self-select representing more than one sector. No one sector represented a majority, though 32% of participants represented some type of nonprofit or public entity, and more than 1 in 4 participants represented parents of young children. As shown in Figure 1, the remaining groups could be divided into two categories:

1. Sectors represented by 13 – 25% of participants = Energy industry, local workers, environment and conservation advocates, and health workers.
2. Sectors represented by 10% or less of participants = Real estate and development, transportation, faith communities, people with varying abilities, people with compromised immune systems, and people experiencing homelessness, and ‘other’ which included students, educators, and agricultural.

Figure 1. Sectors Represented
Other Demographics
Figures 2-6 further describe characteristics of the people who participated, presented without interpretation.

**Figure 2. Age Representation**

**Figure 3. Education Levels**

**Figure 4. Income Distribution**
Figure 5. Participation by Ethnicity

- White: 169 participants
- Hispanic or Latinx: 25 participants
- Black or African American: 21 participants
- Multiple races: 14 participants
- Asian: 6 participants
- I don’t know: 3 participants
- American Indian or Alaska Native: 2 participants
- Native Hawaiian or other Pacific Islander: 0 participants

Figure 6. Zip Code Representation (Range ~ 80239 = 3 participants, 80206 = 19 participants)
II. Sentiments About the Climate Crisis

After watching the videos, participants were asked how worried they were about climate change. Using a slider on a scale of 1 to 5, the average rating was a four, with the median at 4.25. This was represented in the discussions and sticky notes by words with negative connotations such as fear, anxiety, depression, frustration, crisis, daunting, doom, hopeless, and helpless. Given the nature of the videos, many survey responses highlighted general climate change, natural disasters, and ocean related issues (sea level rise and severe hurricanes) within the category of the “two things that most worried them.”

It is important to note at this point in the summary that the content of the videos disrupted the small group conversations. While there was a general sense of urgency and despair about climate change, there was also:

- a sense of **frustration at the perceived level of inaction** by city leaders (and the need to raise the issue to the top),
- **ambiguity** about what is actually happening in Denver (what’s happening now versus what is proposed or being considered), and
- general questioning about **whether efforts can be appropriately enacted in a timely manner**.

Some of these conversations also expressed a need to better highlight the urgency of the situation, skepticism about the focus on individual actions in the videos as opposed to the larger more systemic actions that are needed, and a **call for broader education about the topic, especially about the impacts of climate change specific to Denver and Colorado**.

While **in general there was a clear sense of urgency among all participants across demographics to take action**, three respondent personalities (and in some way **group personalities** as most meetings seemed to have only one or two personality types gathered) began to emerge at this point in the surveys and conversation summaries:

1) **The everyday community member**, familiar to the issue of Climate Change, unsure about what to do about it or what others should be doing about it beyond some personal action, and ready to gain more education or understanding about what to do next.

2) **The confident community member**, feeling content in the everyday actions of reducing impact such as composting, recycling, utilizing alternative forms of transportation by choice, gardening, talking about the climate crisis, and questioning why others and the City aren’t already doing more to change and address impacts.

3) **The expert community member**, arriving to these discussions well prepared with scalable solutions, and/or with an intimate understanding of how efforts in mitigation, adaptation, and resiliency would impact their business or way of life, and a general skepticism about the overall Climate Action process, with a robust eagerness to participate in the process at a more advanced and meaningful level.
This is by no means to limit the nuance, variability, or broad diversity represented by nearly 250 participants. Instead, these three respondent personalities might offer some way to consider the varying levels of experience and knowledge coming to this process, and the different ways they might be engaged now and in the future. It is also a way to see the interconnected lives of the community and to highlight the complex solutions needed.

III. Transitioning Homes and Businesses

Importance

Participants were asked during the conversation and in the survey how important it was for transitioning homes and businesses to be heated by electricity from renewable energy. Using a slider on a scale of 1 to 5, the average rating for this question was a 4, with the median at 4.5, indicating high importance, though not full consensus on the issue.

One discussion leader summarized their conversation by noting their agreement that it’s “necessary but it seems like a big change. How can we get there? Feeling that 2050 is too long to wait, but skepticism we can even get there by then.” This juxtaposition that it’s not enough and not soon enough, coupled by doubt that it could be accomplished no matter what the timeline, best characterized many of the responses during this part.

For example, one participant asked, “what happens to all the old gas appliances?” Similarly, another group of expert community members observed, “as a group of extremely energy conscious people who work with the electric utility, I think this was a major point of contention. While we all see the value of converting to electric, many of us saw the potential for waste, and potential inefficiencies in achieving efficiency through converting to electric.”

Yet another group commented similarly that there’s, “not enough infrastructure; not large enough labor force; time consuming and costly to homeowners and business owners; interference in private life while construction happens; causes a lot of new materials in the dump.” Not only did these responses point out skepticism about the system to implement the transition, but it also began articulating another common theme about the impact to Denver residents and different members of the community.

One group’s comments and questions underscored the theme of impact to residents, which was echoed by others, “Will there be assistance to help low income? I worked hard for my house and car: I know you aren’t asking me to give up something that I spent all my life trying to
obtain? It might be possible for ‘young folks’ to bike and walk, but I have to keep my job to pay my bills. What happens if electricity goes out? What are back-up plans for folks?”

A third theme looked more closely at the impact on specific industries, when one facilitator pointed out that it was “not practical for restaurants who prefer to cook on fire,” while another group similarly pointed out the “many problems within the restaurant industry for this.” It seems these conversations could be drawn out more during Round 2 when similar groups are asked to define what supports they might need to make the transition, or how else they can be incentivized or supported to make the switch.

Last, a fourth theme could be characterized as “no resistance,” which immediately turned to solution-oriented conversations. This theme is best demonstrated by a facilitator summary that wrote their group was, “focused on HOW to achieve [the transition]. People need more information about how to do it and what is the cost. They talked about all the older homes in Denver and the need for tax incentives or rebates in order for people to be able to afford the full total cost; the need for regulations to require all new development to be electric.”

**Challenges**

Participants were asked how easy it would be to transition their homes to all-electric heating. Using a slider on a scale of 1 to 5, 1 being impossible, and 5 being no problem at all. The average rating for this question was under a 3, with the median at 3, identifying that it would be slightly harder than it would be easy on average to make this transition. Though there might be a ‘will’ for this transition, as identified in the ‘importance’ section above, it is not perceived as an easy action or strategy to undergo without knowing more about the support systems. Most skepticism in the comments relate to cost, time, and knowledge about ‘how to.’

A look at the distribution of the reasoning for this rating helps tells more of the story of why this would be difficult (see Figure 7 on next page). Participants were able to choose more than one reason when asked, “If any, what challenges would you face in making this transition in your home?”
IV. Transportation

Importance
Participants were asked how important it was for using all electric vehicles and creating more robust transit options. Using a slider on a scale of 1 to 5, the average rating for this question was also just over a 4, with the median at 4.5, indicating high importance, though once again, not full consensus on the issue. A closer look into the quotes and comments from the discussions might illuminate some of the nuance and doubt in these responses.

One facilitator summary likely captured it best, “while this was agreeable, there was an insistence in evaluating cost and scalability,” and “how this can be made inclusive. “The themes of cost/scalability and inclusivity run through the responses for this question as well. Additionally, this facilitator wrote, “while Denver has an opportunity to lead nationally on this front, how do we do so in a framework that prioritizes the most impactful work and takes into account existing priorities.”

Participants underscored the needs for equity in considering electric vehicles by observing, “EVs are only an option for a small number of financially-able people.” Another asked, “how will EVs be made more affordable for all?” And that while diverse “transit is a great option, it needs to be more frequent, reliable, and take people where they need to go.”
recognizes the third major theme found in these conversations, the need for a range of “more robust” transportation solutions, including making current options more reliable and accessible, and how we will “invest in approaches to change behaviors so people use [public] transit more.”

One particular conversation illustrated the privilege assumed in owning personal cars, thus recognizing the need for diverse solutions: “All but one of the participants used mass transportation, (the RTD bus). None of these women using RTD owned a car. The one exception was a woman who stated that she would love to use mass transit but she needed to be at work at a certain time and must use her car for work-related travel during the day. This drew an immediate response from other participants, ‘Riding the bus is not a luxury for us. It’s how we have to get around.’”

Challenges
Participants were asked how easy it would be for them and their families to travel only by electric vehicles, public transit or people-powered modes. Using a slider on a scale of 1 to 5, 1 being impossible, and 5 being no problem at all. The average rating for this question was once again just under a 3, with the median at 3, identifying that it would be slightly harder than it would be easy on average to make this transition.

Congruent with the outcomes of the questions about transitioning to electricity, though there might be a ‘will’ for this transition, as identified in the ‘importance’ section above, it is not perceived as an easy action or strategy to undergo without knowing more about the support systems that will be put into place or how a diverse set of options will be handled. Skepticism in the comments section relate to convenience, accessibility and availability, knowing options, equitable distribution, cost and expense to implement and for individuals, needing larger vehicles for work, frequency of charging stations, safety issues, and the challenge of changing personal habits.

A look at the distribution of the reasoning for this rating helps tell more of the story of why this would be difficult (see Figure 8 on the next page). Participants were able to choose more than one reason when asked, ”If any, what challenges would you face in traveling only by electric vehicles, public transit or people-powered modes?”
V. Resource Efficiency

During the discussions, participants were asked about their thoughts regarding resource efficiency including better-insulated buildings and efficient water use. Overall, sentiment and responses during this section of the conversations seemed positive, with slightly less confusion about how it would even be possible. One group of confident community members even reflected, “100% support. All believed this is the first thing we should do.” And another facilitator summarized that their group felt, “obviously, this is needed and doable.”

However, that same group noted that it’s “hard to retrofit old buildings.” And other groups echoed this sentiment and concerns, by asking and observing, “how do we not only retrofit existing buildings (and leverage a skilled workforce) but how does Denver incentivize Commercial Real Estate owners and developers to pursue greener buildings that are not only healthier for occupants and the community, but as solar makes clear, bring them financial value?”

A group of expert community members carefully observed, “again, as people who work in energy efficiency, we strongly advocate for these measures to be implemented. However, as millennials and homeowners, we saw the challenges of implementing these measures, with cost as a particular barrier, and regulation as a potential carrot.” As has been seen in earlier sections of the conversation, concerns about cost, incentives to offset cost, a need for understanding how things might be implemented, and how different communities throughout Denver would be impacted rose to the surface quickly.

Other groups dove deeper into the systemic challenges at play. Resource and product chains, and the complex impact of any changes were concerns that came up in this section of the discussion again and again: “FOOD SYSTEMS are not in Denver. Our transportation, our appliances, all of these things are brought in from outside Denver. Create more industry HERE … part of resource efficiency is putting the supply-side back in Denver. Companies coming into Denver, few ship out. How to create more industry to produce more HERE and not bring it in?”

A related, and more in-depth documentation of these challenges can be seen in the following sections.
VI. A Closer Look at Challenges

Since the focus of this first round of Meetings-in-a-Box was about identifying challenges, more time was spent during the conversations exploring the nature of these challenges than what was represented in the survey questions. While there is some redundancy to the responses above specific to transitioning to electricity and new transportation options, the quotes that emerged from this portion of the conversations are important to share.

Participants were asked, “considering the potential future, what challenges might these initiatives mean for you and/or within your households and for your communities?” The following is representative of responses recorded:

“The options must be affordable for people to actually implement. Options must also meet the individual needs of people.”

“Our group feels that the biggest challenge is engaging the citizenry. We feel that our group did not represent Denver and that there are a lot of people who are not engage or do not care about these issue for all kinds of reasons. You even see this in Boulder where city council pushes something but the person remodeling their house does not what to do xyz because of added cost or other reasons. So the biggest challenge is engagement and buy in.”

Challenges include: “the lack of resources, how to educate people, how to fund it, how to get people to change their habits.”

Challenges include: “Cost, ability to pay for it, and raising taxes for lower income citizens. Raising awareness about why the city would do these programs. Getting people to individually participate.”

“The efforts to live more sustainably are expensive and [we] have limited financial resources. Recycling resources are more readily available in some neighborhoods (e.g., curbside pickup for discarded items in more prosperous neighborhoods) while [many of us] need transportation to travel greater distances to recycling centers.”

“What happens if a storm knocks out electrical grid? Food cut off? Does City have a plan for designated available spots in EVERY community that will share resources: energy saving, emergency calls, clean water, food agents with local access?”

Participants were also asked, “considering the potential future, what challenges might these initiatives cause for your business or your place of work?” The following is representative of responses recorded:

“Fear that the identified actions would be too small and meaningless. While there is an "appetite" to be part of the solution, there is an unwillingness for new taxes without addressing the regulatory barriers (building codes), land use policies and decisions that preserve climate-damaging single-family home zoning that also limit the effectiveness of public transportation (low density is a public transit negative).”

“COSTS, barriers for low to middle income.”

“We need a workforce to meet the needs of that new economy.”

“Conversion to electric has expensive upfront costs. This may be a difficult measure without regulation and incentives.”
“From a culture standpoint, even small measures like water conservation, energy saving, **require habit changes** in both business and residential population.”

“Worried that the lack of [EV] trucks currently on market will mean they will be **punished for their fleet that is necessary for hauling solar panels** to job sites.”

“Cost and human labor: might need to lay-off people to afford to do these expensive changes. May have to close business for a while during construction.”

**VII. Opportunities**

In an effort to close this first round of Meetings-in-a-Box conversations at a transition point to Round 2, participants were asked, “What are residents already doing? What are the opportunities of these initiatives?

There were 356 comments in the survey responding to this last question which offered a set of open-ended text boxes, backed by comprehensive paragraphs in the Facilitator Summaries, pictures that could not capture all of the sticky notes on the discussion boards, and additional pages of notes submitted outside of the intended data collection methods. The responses here were not only about opportunities, but a general repository for anything that was not covered by the questions asked or the conversations shared.

Many of these responses reflected the three-respondent/group personalities described in part 2, while also re-iterating and re-stating many of the themes that were discussed during earlier sections of the conversations. This demonstrated a high level of advocacy for ideas and points of view shared, and a collective commitment to the topic, matched by **an abundant and dedicated energy to ensure that the right solutions are put into a place with a sense of urgency.**

In addition to a consistent mention of solar, the responses read, rightfully so, like **a table of contents for a climate-conscious lifestyle:**

- Energy efficient appliances
- Small conversion of lawn to native plants
- Small growing of own vegetables
- LED lights
- Smart system watering
- Filtered water on shower heads
- Filtered water in kitchen – no water bottles
- Recycling
- Compost through city
- Metered showers
- Smart heating and cooling thermostat
- Automatic lights off system when not in the room
- Building an app that shares eco-friendly products, behaviors, services and getting points for using them- verification system with scans of bar code upon purchase.
- Neighborhood Block competitions with rewards for most positive changed behaviors.
- Getting Registered Neighborhood Organizations more involved in outreach at events, in facilitating meeting that can be shared with the city for transforming communities, by getting city speakers or other professionals to discuss changes being made, new practices being implemented.
- Car share throughout neighborhoods - Companies that pick up employees with their fleet.

Others were more focused, but got at the same point, “[The group] already uses public transit, lives in high density housing and composts. [The group] **believes they are doing more than the average person.**” And some offered yet another layer of self-awareness about their individual contributions, “This was a group of people who take climate and pollution seriously. Almost everyone drives electric or hybrid vehicles. High RTD use. We all compost and work to reduce our water use. **We could have gone on for a very long time and didn’t think it was worth our time.**”
Several groups tackled similar lists of activities, “The belief here was to start with the small attainable things: removing single use plastics from our lives, stop accepting plastic bags and bring your own (bag, bottle, ... create a can tax), trying to be more energy conscious and efficient. Composting and recycling. Figuring out markets other than China for our waste,” etc.

but then moved to the greater dilemma, stressed and discussed by many groups throughout the entire conversation, “the bigger, more complicated issues are still overwhelming and it appears that until we get more engagement with these simpler tasks it is hard to think about how to move forward.”

In considering how to scale individual actions beyond those already involved, another response offered, “People are good. They are well-intentioned, and many will go out of their way to do what they feel is right. They will even inconvenience themselves to a degree. But a huge problem is that the most environmental/climate worthy actions are difficult while damaging actions are easy to do. The paradigm needs to be flipped: Make the environmental thing to do the easiest and cheapest.”

Meanwhile, an opportunity with an overall theme of strengthening neighborhoods and communities emerged. Representing several others, one group offered, “opportunities seemed to focus on community benefits - building neighborhood strength, collaboration, simplifying lifestyles, and [reducing] stress.” The hope that the Climate Action plan could potentially strengthen Denver and its many neighborhoods and communities was clearly on numerous participants’ minds.

Additionally, several groups and responses also underscored the access, ability, and equity involved in responding to the climate crisis. A facilitator summarized, “[there was] a huge focus on transportation, commute and quality of life. That said, there was the recognition of Maslow’s hierarchy of needs and how there is privilege in being able to respond.” Another group similarly offered, “Large parts of this conversation revolved around societal and cultural adaptation. There will be greater emphasis on neighbors helping neighbors, hopefully, and moving away from a conversation of scarcity to abundance. But it remains that unless the most marginalized are included, they will be left out and left to bare the brunt of the changes.” This concept came up in the closing several times and, as hopefully demonstrated in this summary, occurred at several points throughout the discussions.

One particular answer stood out in its brevity and profundity that likely gets at the intention of just about everyone that participated, “in terms of opportunities, there is potential if we do this right to have a more connected and equitable society.”

**Conclusion and Next Steps**

Among the nearly 250 people who participated in the first round of these meetings, the outlook for taking impactful climate action is daunting, to say the least. The heavy lift that is needed to make an impact is made even more challenging by looming questions about whether any of our efforts will make a difference. Given that the impacts we seek grow more challenging the longer it takes to get to aggressive action and following the spirit of one group that “focused on HOW to achieve [the transition],” the next step is to consider how to reach the goals the task force identifies, ideally including plans to overcome the array of challenges identified in the first round, including:

- Cost and affordability for all,
- Convenience, availability and accessibility of options,
• Information about options and how to participate,
• Safety, and
• Needs of specific groups.

On this last point, to be thorough in our understanding of the challenging facing Denver community members if they are to be full partners in taking action on climate change, we need to ensure that we are hearing from everyone. Therefore, the immediate next step should be identifying who else needs to be reached in the next round of community discussions and how best to do so, while also identifying the specific questions various groups need to be asked to understand how solutions can be developed best to meet that full array of needs.
Denver’s Climate Action Community Conversations

Summary of Responses from Round 2: Solutions

Brought to you by:
I. Executive Summary

Approach
The Meetings-in-a-Box (MIB) method engages small groups of community members in meaningful discussion among their peers, each one led by a peer in the community who has volunteered to serve as host and discussion facilitator. This vibrant discussion environment offers the ideation, critical thinking, and collaborative context necessary for a community to arrive at the best solutions and decisions possible. We believe this is a unique and powerful opportunity to understand community perspectives, though it should be noted that the results should not be taken as a statistically valid representation of what all Denver community members think.

In this second round of MIBs, we explored participants’ perspectives about different types of solutions to address climate change and the potential impacts of these solutions on their lives and the lives of fellow community members. We also sought to understand what types of support services people would need to have in place for a solution to be successful throughout Denver.

Key Themes and “Conditions”
As shown in the charts on pages 11-14 of this report, there is general support for the different types of solutions that were shared with participants. However, that support comes with conditions, and those six conditions constitute the most important themes heard in this round of small group conversations. Following is a succinct look at those conditions:

**Equity.** Discussion and concern for equitable solutions appeared often throughout the responses to all questions in the facilitator summaries and participant surveys. “Support our most vulnerable communities” appeared frequently in comments, consistently requesting that the impacts of any solution on Denver’s most vulnerable communities be well understood and mitigated. Many also called for action to create “green infrastructure for all.”

Specifically in participant survey question 12, which asked directly about support for Denver’s most vulnerable communities, 40% of participants mentioned outreach, education, and the direct involvement of the most vulnerable communities in decisions to be included in any strategy or solution. Nearly half of the question 12 participants mentioned the need for incentive-based programs and financial support that would greatly reduce the cost-burden on vulnerable communities. Green infrastructure including, but not limited to green spaces, green building programs, green jobs, transportation with support programs, and solid waste, were connected often to discussions of equitable solutions. Lastly, small businesses were also often referred to when discussing equitable outcomes and the need to ensure that small businesses are not negatively impacted either.

While demographics of participants will be illustrated later, it should be noted here that most participants that completed the survey identified as white and/or being from middle to high income. This indicates that community members may be actively looking to support one another and not just looking out for their own self-interest.
Specificity. In facilitator summaries and survey responses, participants asked again and again for the city to give the public more detailed, concrete options with clear strategies and/or implementation plans to help them better understand the options and give more accurate feedback. The need for more specificity regarding solutions and plans has broad implications for the next phase of the public outreach process and the online forum.

Education. Education was one of the most frequently used words in reports from MIB discussions. Many identified the need for a public education campaign about how the new solutions work. While this relates to “specificity” of proposals mentioned above, many of these comments were really talking about once solutions are ready to launch. For instance, one participant said that “broad, frequent, and impactful education about new solutions must go hand-in-hand with implementation.” Additionally, one facilitator emphasized the need for extensive education around the city about the “cost of doing nothing.”

Cost Clarity and Incentives. Similar to the two themes above, participants were eager to understand how solutions would be complemented by incentives. As discussed in the theme of equity, participants wanted to better understand the cost burden of options for addressing climate change in order to give more reliable input on these options. For instance, participants referenced solar panels and the need to make panels affordable and accessible to the most vulnerable communities, including eliminating taxes on solar panels. Similar to Round 1, there was a notable level of detailed and nuanced thinking, specifically about how programs would work and what cost burdens could unintentionally arise. Anticipated costs of implementing climate strategies and clarity about the relative benefits offered through participation incentives will help people give more in-depth insights to this process.

Transportation. The topic of transportation was specifically prompted by discussion questions, but participants returned to it frequently during discussions and survey responses. Specifically, three themes emerged:

1) Bike and pedestrian-only streets with green spaces, with the appropriate infrastructure to support this shift in mobility, are desirable.
2) There is need for increased public transit options that are more convenient, accessible and affordable, and participants suggest that Denver purchase more services from RTD and offer transportation for free or at a reduced rate.
3) Careful attention is paid to incentives and infrastructure for electric vehicles, including increasing charging stations, especially for the most vulnerable communities and in neighborhoods without garages.
**Waste and Consumption.** Many conversation groups discussed “pay as you throw models” as well as more convenient and more regular trash/composting/recycling behaviors and service. There was also discussion about more efficient water use (water being pointed out as a major crisis point), and improvement to the city’s policies regarding water use and landscaping that would create more consistency and improved health and safety for Denver residents.

**Index**
In addition to the inter-related aspects of the themes mentioned above, specific attention is given to these key subject areas again on the following pages:
- Participant Demographics (pp. 6-7)
- Equity (throughout; focused pp. 8, 15)
- Education, Specificity, and Cost Clarity (pp. 9, 15)
- Emissions, Public Health, Green Infrastructure, Waste and Consumption (pp. 9-11)
- Participants’ Support of Solutions and Perceptions about Impact (pp. 11-14)
- Denver as Innovative Leader: Transportation, Renewable Energy, & Solid Waste (pp. 16)
- A Community Culture of Action (pp. 17)
II. MIB Approach and Demographic Trends
It’s important to remember that Meetings-in-a-Box is not a one-size-fits-all method, and these small group discussions are part of a broader public engagement strategy. Some of these sectors are represented on the task force and in stakeholder advisory group discussions, while others will likely have a higher participation rate during the public forum. For the public forum, it is critically important that we continue to engage under-represented groups and find new ways to help these communities participate.

It should also be pointed out that this second round of MIBs began at the beginning of the COVID-19 outbreak in Colorado and continued through the first week of Mayor Hancock’s shelter-in-place order. This halted many planned discussions from happening, decreased participation for those that went forward using virtual formats, and were made easier by those with better access to technology. Fortunately for the upcoming online public forum, the technology divide is being bridged throughout the city and will hopefully not be the same impediment as it was in this round of MIBs.

MIB Participation
In the seventeen MIB Round 2 Discussion Summaries, facilitators reported over 100 participants attending meetings. Eighty (80) participants completed the survey. All voices are heard at least through the facilitator summaries, even though not all participated in the individual surveys.

...by Sector
Keep in mind that in this question, participants could select representing more than one sector. No single sector represented a majority, though more than 1 in 3 participants considered themselves an advocate for conservation. More than 1 in 4 participants represented parents of young children, and more than 1 in 4 represented a nonprofit or public entity (the latter was a notable decrease from Round 1). As shown in Figure 1 on the next page, the remaining groups were each represented by less than 20% of participants with only one person representing the transportation industry and no one experiencing homelessness participating during Round 2.
**Figure 1. Sectors Represented**

- Conservation advocates: 29
- Nonprofit/public entity: 21
- Children/parents of children: 21
- Local business owners/managers: 14
- Health: 14
- Local workers: 11
- A faith community: 10
- Other: 9
- Real estate and development: 9
- People with varying abilities: 8
- Energy industry: 5
- People with compromised immune systems or...: 5
- Transportation industry: 1
- People experiencing homelessness: 0

**Other Demographics**

Figures 2-6 further describe characteristics of the people who participated. These figures are presented without interpretation.

**Figure 2. Age Representation**

- <15: 3
- 15-24: 15
- 25-34: 8
- 35-44: 12
- 45-54: 14
- 55+: 27

**Figure 3. Education Levels**

- Doctorate: 7
- Master’s degree: 25
- Bachelor’s degree: 26
- High school degree or equivalent: 4
- Exited high school without diploma or...: 10
- In K-12: 7
- Other: 0
Figure 4. Income Distribution

- Over 150k: 18
- 100k-150k: 13
- 50k-100k: 28
- 10k-50k: 11
- Below 10k: 0
- Don’t know: 9

Figure 5. Participation by Ethnicity

- White: 57
- Hispanic or Latinx: 15
- Multiple races: 6
- I don’t know: 1
- Black or African American: 0
- Asian: 0
- American Indian or Alaska Native: 0
- Native Hawaiian or other Pacific Islander: 0

Figure 6. Zip Code Distribution
III. Themes from Facilitator Summaries

General
The following summarizes key themes from MIB discussions, as described by the discussion hosts/facilitators. Ideally, this is examined in complement to the participant surveys to get an overall feel, content, and tone of the conversations.

In the seventeen conversations that were reported, all facilitators referenced having a productive conversation in some way. About half of the discussions explicitly demonstrated hope and optimism about the potential for positive impacts from this process, while more than two-thirds expressed a sense of urgency about this crisis, heightened by COVID-19. One group talked extensively about none of these solutions being enough, emblematic of the anxiety that ran through several conversations in this and the previous round. In Round 1, viewpoints appeared to be fairly consistent within each group. In Round 2 discussions, at least half of the conversations seemed to offer diverse viewpoints and different perspectives among participants.

Discussion Themes
While some conversations addressed specific climate change solutions, MIB discussions tended to focus on how solutions should be implemented. Therefore, the remainder of this section first describes the three meta-themes that emerged from these discussions – Equity, Specificity and Education – then offers summaries of participants’ responses to specific solution options.

Equity. With the exception of one group, there was broad energy in the conversations regarding questions concerning the cost burden of new solutions, access for vulnerable communities to new programs or the resulting negative impacts on those same communities, and the potential negative impacts on local businesses. More than half of the conversations mentioned the need for financial incentives to be built into any solution to assist communities and businesses. The idea of utilizing penalties was also raised, but with caution, asking that undue burden on individuals and businesses be addressed. Additionally, almost all of the groups elevated the need to consider how solutions would “compound the impact” on already vulnerable communities. A “new green infrastructure for all” was echoed by most.

With this in mind, two facilitators offered similar sentiments, “Please choose actions that help people do what they already want to do. This will build long-term support for action on climate change. Leave forced actions to later, when there is support for the goal ... doing this the wrong way could impact the most vulnerable communities.” Emerging from these conversations on equity, access, and impact came a clear need for more specificity.
Specificity. Equally as common in the conversations and comments came the request for more specificity in the solutions that were being presented, which may be the reason so much of the discussions focused on how to implement solutions generally. Participants seemed to crave more information in order to really be able to judge or have an effective opinion on the topics and questions being asked. Similar to Round 1 of the MIBs, though much less pronounced, there was some frustration with the questions being asked during these discussions. One facilitator wrote, “What will these [solutions] actually look like when implementing?” And another wrote, “We could support this but we would need to know how it’s going to happen.”

Repeated in a similar way by at least two other facilitators, one wrote, “I think it’s time to plan with actions, analysis of unintended consequences, costs, schedule, accountability, and structure. Time to more precisely synch up the public outreach with the products of the task force.” The need for more specificity regarding solutions and plans has broad implications for the next phase of the public engagement process and the online forum. It will be very important to have specific solutions on the table with enough information about how they will be implemented and what impacts are anticipated when inviting the broader public to participate in the online forum.

Education. Education, the last of the three meta-themes, was reported in some way by more than three-fourths of the facilitators. As one person noted, “we need toolkits to educate businesses, youth, and community members” about programs, changes, incentives, and solutions. It was clear that whatever comes out of this process needs to be accompanied by what one facilitator observed as a “statewide marketing campaign,” or as another described, “a public education campaign about how the new solutions work”. Additionally, one facilitator emphasized the need for extensive education around the city about the “cost of doing nothing.” That might be a needed addition given the broad requests for more specificity about the solutions to better understand the impacts and the implementation process.

Emissions: Transportation, Buildings, and Renewable Energy. When asked about reducing emissions, one facilitator spoke extensively for their group that they felt “EVs (electric vehicles) are the most effective route” to reducing emissions. More than half of the groups spent a good bit of time talking about transportation, with particular attention paid to the necessity of thinking through the appropriate green infrastructure for access and supports, (EV charging stations, bike-only blocks, the pros and cons of congestion pricing, and the overall benefits and challenges of density, especially given the potential for new public opinion in a COVID-19-sensitive world to density and travel).

One facilitator summarized, “If we actually want people to stop driving, we have to create a world-class transit system.” While another facilitator remarked on behalf of their group, “The second largest end-use (31% of all carbon) is transportation. Helping Denverites switch to electric vehicles is far and away the most effective strategy for the city in tackling climate
change.” A facilitator observed, “Denver is not at all ready. Denver is particularly ignoring the needs of disabled and lower-income residents who will need to charge in public because they don’t have a garage, where most EV owners charge now.” Issues of access, equity, and impact arose again and again, which is why it emerged at the top of this section on themes.

One-third of the groups had particular conversation focus around building and housing, particularly exploring the pros and cons of requirements for new and old buildings, and residential and commercial buildings. Zoning regulations and questions arose, as did the impacts that costs could have on builders and Denver’s most vulnerable communities.

A quarter of the groups explicitly discussed utilities and renewable energy, with one facilitator observing that, “all reliable data shows [that] electrical production is the largest source of carbon, and Xcel is making major progress on that.” Others surface the need for specificity in this area, “Where is the [energy] coming from?” And another wrote, “We need more education to homeowners [about these programs].”

Public Health, Resiliency and Adaptation. While questions in this MIB 2 process specifically identified resiliency and adaptation, discussions were overall integrated and focused on resiliency and adaptation through the above themes. That being said, the connections made to the current COVID-19 crisis (as discussed earlier), and general emergency preparedness, are worth noting. Specifically, one summary included comments on the need for “cooling centers” in the face of intense heat waves. While another highlighted, once again, the need for extensive education to the public about the City’s emergency response plans, speculating that no one knows what the plans are in advance. This underscores the need for education to accompany all solutions.

Green Infrastructure, Consumption and Waste. During MIB 1, composting and recycling were mentioned often, most frequently in long lists of how residents and communities could take action. While one-third of facilitators explicitly mentioned discussion on consumption and waste, or green infrastructure, there was less emphasis (or specific enough understanding) about these themes in Round 2. Additionally, it is likely that “Green Infrastructure” is also integrated into many community members’ minds with systems to reduce emissions including transportation, building, renewable energy, and personal action.

In terms of consumption, two facilitators pointed out some city policy inconsistencies that appeared frustrating to participants. One wrote, “One participant [in our group] is water conscious and doesn’t water her lawn in the summer to conserve water. She got a letter from the city saying her lawn wasn’t green enough.” While another facilitator shared questions from their group’s conversation: Why are public taxes and funding from ballots used to manage our land with toxic chemicals and synthetic fertilizers? Many people are trying to protect nature and while the department of Park and Recreation is not caring for our soil. Carbon sequestration can come from large open spaces, parks, golf courses and land around churches and large office buildings. We need more healthy land care that other
communities are getting. Non-toxic neighborhoods and non-toxic communities are popping up throughout our nation – why not here?

This brings to light once again the need for specificity to accompany any proposal about solutions. The intricacies and interconnected impacts and needs of any solution requires consistent consideration by departments, residents, and communities throughout the city.

IV. Participants’ Perceptions about Solutions and Perceived Impacts

Figures 7-18 display participant responses to the questions asked about specific solutions. There was overall support for the proposed solutions, but with conditions on many of them. Specifically, extensive education and efforts to mitigate the negative impacts solutions could have on vulnerable communities arose as key ways to address participants’ “support with conditions” perspectives on these potential climate change solutions.

**Figure 7: Most Participants Unconditionally Support Large Building Energy Reduction Requirements**
(Survey question: Do you support requiring existing large buildings to reduce their energy consumption or greenhouse gas emissions to meet a certain target over time?)

![Bar chart showing responses to Figure 7](#)

**Figure 8: Participants Identify Both Community Benefits and Burdens with Energy Reduction Requirements**
(Survey question: How might requiring existing large buildings to reduce their energy consumption or greenhouse gas emissions to meet a target over time affect you or your community?)

![Bar chart showing responses to Figure 8](#)
Figure 9: Most Participants Unconditionally Support Switching to Renewable Energy
(Survey question: Do you support switching to renewable energy for electricity?)

Support: 46
Support w/ Conditions: 19
Neutral: 1
Oppose: 1
No Opinion: 1

Figure 10: Participants Identify Both Community Benefit and Burden with Switching to Renewable Energy
(Survey question: How might switching to renewable energy for electricity affect you or your fellow community members?)

Disrupt Daily Routine: 6
Make Sustainable Actions Easier: 40
Create Business Opportunity: 34
Cost Money: 36
Cause Confusion: 3

Figure 11: Most Participants Conditionally Support Bike/Pedestrian Only Areas
(Survey question: Do you support restricting some streets within the city to bikes and pedestrian only?)

Support: 30
Support w/ Conditions: 33
Neutral: 1
Oppose: 4
No Opinion: 1

Figure 12: Participants Identify More Burden than Benefit with Bike/Pedestrian Only Solutions
(Survey question: How might restricting some streets within the city to bikes and pedestrian only affect you or your fellow community members?)

Disrupt Daily Routine: 36
Make Sustainable Actions Easier: 27
Create Business Opportunity: 16
Cost Money: 12
Cause Confusion: 31
Figure 13: Most Participants Unconditionally Waste Reduction Requirements in Large Buildings
(Survey question: Do you support requiring room for recycling, composting, and trash services at large buildings, such as multifamily housing, businesses, and schools?)

- Support: 48
- Support w/ Conditions: 20
- Neutral: 1
- Oppose: 2
- No Opinion: 0

Figure 14: Participants Identify More Benefit than Burden with Waste Reduction Requirements
(Survey question: How might requiring room for recycling, composting, and trash services at large buildings, affect you or your fellow community members?)

- Disrupt Daily Routine: 10
- Make Sustainable Actions Easier: 47
- Create Business Opportunity: 26
- Cost Money: 26
- Cause Confusion: 12

Figure 15: Most Participants Conditionally Support Congestion Pricing
(Survey question: Do you support implementing congestion pricing which would charge a fee for vehicles entering certain high use areas of the city (like toll roads)?)

- Support: 14
- Support w/ Conditions: 31
- Neutral: 11
- Oppose: 9
- No Opinion: 4

Figure 16: Participants Identify Much More Burden than Benefit with Congestion Pricing
(Survey question: How might implementing congestion pricing affect you or your community members?)

- Disrupt Daily Routine: 37
- Make Sustainable Actions Easier: 19
- Create Business Opportunity: 10
- Cost Money: 34
- Cause Confusion: 27
**Figure 17: Most Participants Unconditionally Support New Construction Requirements**  
(Survey question: Do you support requiring all new construction to be highly efficient and generate zero emissions?)

<table>
<thead>
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<th>Count</th>
</tr>
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<tbody>
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</tr>
<tr>
<td>Support w/ Conditions</td>
<td>22</td>
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<tr>
<td>Neutral</td>
<td>1</td>
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<tr>
<td>Oppose</td>
<td>6</td>
</tr>
<tr>
<td>No Opinion</td>
<td>1</td>
</tr>
</tbody>
</table>

**Figure 18: Participants Identify Much More Benefit than Burden with New Construction Requirements**  
(Survey question: How might requiring all new construction to be highly efficient and generate zero emissions affect you or your fellow community members?)

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
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<td>12</td>
</tr>
<tr>
<td>Make Sustainable Actions Easier</td>
<td>37</td>
</tr>
<tr>
<td>Create Business Opportunity</td>
<td>36</td>
</tr>
<tr>
<td>Cost Money</td>
<td>35</td>
</tr>
<tr>
<td>Cause Confusion</td>
<td>8</td>
</tr>
</tbody>
</table>

**Comments and Conditions**

Consistent with what facilitators reported in their summaries, comments under each of these questions requested specificity about what the solutions would entail. *What would the implementation really look like? What will the solutions actually be? Where will the cost burdens exist?* Participants also questioned the efficacy of some solutions, like pedestrian and bike only streets. *Will it really have a net positive impact? Will it have negative impacts on business? Will cars end up driving around more?*

Some conditions were surfaced, though they likely would’ve been more detailed if they had more understanding of what the solutions would entail. One person did note that “tolls have to go to a fund to further emission reduction, not the general fund.” It seems clear that there might be “general support with conditions,” but those conditions ask for an acute level of specificity so policies and solutions can be clearly understood and carefully evaluated. More detailed feedback is possible when more information is offered.

Other conditions were offered at the meta level, with many surfacing the common themes about equity, noting that “things like congestion pricing could hurt the most vulnerable communities.” While yet another wrote that all solutions and plans “must be carried out with laser-like precision” to avoid extensive negative impacts – presumably for vulnerable communities and beyond.
V. Supports

The survey asked two questions about support services that would be needed if solutions were put in place to 1) reduce carbon emissions and 2) help Denver become a more resilient and adaptable city. For some participants, it’s possible that the two topics are not differentiated in people’s minds. If the topics are differentiated, the outcome is much the same, given that responses to both questions were nearly identical.

Education. In both questions, education was cited between 46 and 48% of the time as the most important support that could be put into place, and the word was used more than any other key word. Some referred to education by talking about public awareness campaigns, marketing strategies, city branding, workshops, toolkits, and school programs. Motivation, and specifically peer/community motivation often appeared alongside education, illustrating the overall need for a general cultural shift. Examples of public announcements and behavior shifts that have taken place in response to the rapidly changing COVID-19 situation provided rich comparisons of the mediums and approaches that could be taken. All told, it is clear that participants believe that broad, frequent, and impactful education about new solutions must go hand-in-hand with implementation.

Cost Clarity and Incentives. Related (sometimes inextricably linked) to education, and equal in prominence, participants asserted that clarity about the cost burden of different solutions was going to be key to fully evaluate them. They also noted that education, incentives, tax breaks, and financial support would be necessary to get any program off the ground, such as:

- Renewable energy programs (discussed in 40% of surveys),
- New transportation (discussed in 20% of surveys),
- Green infrastructure (discussed in 20% of the surveys),
- Consumption/waste challenges (discussed in 15% of the surveys), or
- Building initiatives (discussed in 10% of surveys).

Some did mention financial penalties, but as a second line of action after incentives were in place. Both low-income/vulnerable communities and the small business community were mentioned as being in particular need of clarity about costs and in need of incentives to make any program equitable. The building community also frequently called out the need to understand cost.

Shifting to funding for these solutions, particular time was spent addressing the problems caused by taxation based on property value instead of on land and how that disincentivizes improvements like solar panels. Two other voices echoed concerns about congestion pricing, surfacing the conversations about the negative impact on vulnerable communities and the likelihood that, while it might reduce congestion, it does not reduce emissions. Among others, they also wanted to know if those fees would support additional green transportation or go into the general fund.
VI. Ending on a Note of Leadership and Hope

Denver Leading as a Green City
To gain further clarity about participants’ perspectives and to help prioritize solutions based on opinion, the survey asked, “What one solution that you heard during the conversation do you think will have the most impact in helping Denver become an innovative leader as a green city?” While this offered some redundant responses to earlier answers and comments, it also provided a more nuanced understanding about perspectives in several key areas.

Transportation. More than 30% of participants mentioned transportation, with three consistent themes:
   1) Create bike and pedestrian-only streets with green spaces and the appropriate infrastructure;
   2) Increase public transit options, making them more convenient, accessible and affordable (specifically suggesting that Denver purchase more services from RTD and offer transportation for free or at a reduced rate); and
   3) Pay careful attention to incentives and strategies used for electric vehicles, including increasing charging stations, especially for the most vulnerable communities and in neighborhoods without garages.

It is also important to note that “congestion pricing,” was not selected by any participant as an answer to this question. It has emerged as a least desirable solution among those that were suggested to MIB participants.

Renewable Energy. Mentioned by approximately 20% of participants in response to this question, participants most frequently referenced solar panels and the need to make panels affordable and accessible to the most vulnerable communities, including eliminating taxing solar panels.

An additional 8% of participants mentioned the need or desire for green buildings. Those comments were also often about solar panels and overall efficiency of buildings.

Consumption and Waste. Mentioned by approximately 15% of participants in response to this question, participants discussed “pay as you throw models,” as well as more convenient and more regular trash/composting/recycling behaviors and service. There was also discussion about more efficient water use (water being pointed out as a major crisis point), as well as charging more for less-green products and reducing overall waste in buildings.

Ending with Hope
The survey concluded with a question to generate a sense of participants’ support for action, and their overall optimism “What’s one solution that you heard tonight that makes you the most hopeful?” Participants were asked to pick one solution, but many responses included two and three solutions, which were all counted. While only 60% of participants answered this question, comments affirmed the earlier discussions. Additionally, several responses offered a new insight about the “culture” needed behind any climate action in Denver.
**Affirmed Priorities.** Where participants thought Denver could provide leadership, they also found hope. If they talked about Denver providing leadership on changes in transportation and green infrastructure, they also noted it as giving them hope. The same holds true for renewable energy (with emphasis on solar panels), increased and more successful recycling and compost services, and green buildings.

**A New Culture of Action.** While some comments about hope were seen in response to earlier questions and in facilitator summaries, there was a unique emphasis in this question around a culture of action. More than 35% of participants offered comments about needing “teamwork,” to make these plans successful or that “taking action” community-wide is now necessary. Another two participants identified a hope for the city to “set targets and then allow communities to innovate solutions around those targets.” Others reiterated the need to carefully assess the impact of any solution to mitigate negative impacts on the most vulnerable communities, and such a process gave them hope in the overall strategy. At least one other participant pointed out hope for this to create a circular economy within Denver that would have positive impacts.

Finally, the comment section provided space for several thank you notes, appreciation for this process, and affirmation of discussion facilitators. Clearly, participants also felt good about the engagement, as reported in facilitator summaries. Keeping this momentum as part of any climate action will be key to its success.
Denver 2020 Climate Action - Stakeholder Advisory Group Summary

Denver Climate Action - Stakeholder Advisory Groups

All Group Summary

Overview
Five Stakeholder Advisory Groups (SAG) were conducted during the week of March 16, 2020. Groups ranged in size from four to over 20, with almost 40 individuals participating in total. The following groups of people were identified as critical voices in this process:

1. Climate Justice and Equity
2. Workforce
3. Business and Industry
4. Youth and Climate Advocate
5. Climate Vulnerable People

Summaries for each group have been created. The following pages summarize themes from all groups.

Identified Concerns, Stakeholder Needs
It was obvious that SAG participants are concerned about climate change and its impacts on health, the environment, and business. Participants are worried about overall quality of life in Colorado and believe that if climate change isn’t addressed it will lead to a sicker population, increase in costs (for insurance, food, and building materials), and even economic instability with individuals and businesses leaving the state and others not entering or vacationing. Specifically, participants are worried about air quality and water scarcity, which have health implications on asthma and event food shortages, respectively. Almost all groups described how each impact of climate change is compounded, and there is concern that one more dramatic climate event would cause their communities and businesses to collapse.

Many were also worried about how climate change impacts vulnerable communities more frequently and with more intensity. There is concern about systemic racial and economic inequity in Denver, with many participants feeling that Denver needs to put most vulnerable residents at the center of whatever solutions, policies, initiatives are established.

Carbon Reduction, Adaptation, and Resiliency Solution Ideas
Participants had numerous ideas for additional ways to reduce carbon emissions and increase adaptation and resiliency. Transit improvements (such as increased RTD routes and free public transit) and training for new green economy jobs were themes in multiple groups. Not surprisingly, the workforce and business and industry groups were heavily focused on Buildings and Homes and Transportation. Climate justice and equity, and youth and climate activists really focused on taking an asset-based approach, empowering communities to create and implement their own solutions, with financial support from the city.

Across all groups, a mix of community-driven and system-driven actions appear to be desirable. Local leadership and decision-making seems important to create change at the neighborhood level, like providing education to help make sustainability a habit, leading local green infrastructure development and helping to plan and support implementation of conversion of homes and local business buildings to
reduce emissions and be more resilient to climate change. These efforts would need to be financially supported by the city. In addition to providing funding, other system-driven roles that appeared desirable across stakeholder groups are focused on citywide infrastructure and larger business and industry changes, including advancing green economic development and helping to create training to take advantage of new job opportunities.

Some unique solutions emerged from these groups that are worth calling out. Specifically, some of these ideas include:

- Install solar labs in schools
- Have solar companies work with unions for re-training
- Improve living conditions in high impact neighborhoods while also adapting to and reducing harm from climate change
- Neighborhood specific “Carbon Reduction Response Team”

There was a split amongst the groups on whether to use more of a “requirement” or “incentive” approach. About half the groups were strongly in favor of “requirements” with fines for those who do not comply. However, the other half of the groups believe that incentives would be enough, suggesting that most people and businesses want to do the right thing and sometimes need additional support to be able to do so. Equity was raised as a concern on the “requirement” approach. For both small businesses and vulnerable communities, there is fear that requirements will be too expensive to implement, even if there is desire to do so.

Additional specific solutions can be found in the individual Stakeholder Advisory Group summaries.

Concerns
As mentioned previously, cost and equity were the biggest concerns raised by participants (i.e. costs to retrofit buildings, to switch to electric, to upgrade homes to ensure better air quality, etc.). The business community expressed a desire to make the needed changes but expressed concerns about the costs associated with doing so – which they then will pass onto the consumer. There were concerns about equity in Denver’s communities of color and low-income communities – with these communities feeling that they take the brunt of harm that carbon emissions have on the environment. Participants from communities of color and communities with lower incomes expressed a desire to be included in all stages of climate solution development and to be given priority access to incentives to improve resilience to climate change effects where it is needed most.

A tension exists around whose burden it is to act; while most indicate desire to participate and help reach desired outcomes, most also point to others to pay for it. The business and industry groups pointed to government to pay for changes they need to make (“incentives equivalent to costs”) or they would pass costs onto the consumers. Those representing the workforce pointed to employers to take responsibility in some cases (i.e. “come up with a plan for employee transportation”), while others, such as young people and climate activists, called for accountability by business and industry. Lastly, for some of the lower income and communities of color participants, there was a concern that it would be difficult for these communities to focus on climate action when basic needs, such as affordable housing, are not being addressed first.
Denver Climate Action - Workforce Stakeholder Advisory Group

Meeting Summary 03-16-2020

Overview

- **Purpose:** This SAG consisted of members of groups that will need to address workforce challenges as we respond to climate change. They represented the people who will have to build the infrastructure, change jobs, learn new skills, etc. Knowing the needs of our shifting workforce will be incredibly important for the task force to consider.

- **Participants:** Eight members of the workforce development community joined the call. Participants ranged from pipefitters to solar companies to real estate.

- **Main Question:** How can the city support businesses and individuals with the transition and shifts in their job?

Identified Concerns, Stakeholder Needs

Participants were asked to think about some challenges or hardships they, their families, and their communities would face if no action was taken on climate change. Answers included:

- Water
- Food pricing/farming
- Businesses/Employees
- Physical health (heat exhaustion, activity levels, children)
- Mental health (anxiety, guilt)

When asked about hardships the workforce they represent would have, participants were concerned generally about how each impact of climate change is compounded and, for many, there is concern that one more dramatic climate event would cause their businesses and their communities to collapse.

Carbon Reduction, Adaptation, and Resiliency Solution Ideas

Participants were presented with some initial ideas from the Task Force on ways to reduce carbon emissions and were then asked to add possible solutions. Their additions included:

- **Transportation:** Require companies to come up with a plan for employee transportation; create alternative means for travel; free RTD; increase public transportation routes (instead of decreasing which is currently occurring)
- **Electricity Supply:** Require solar panels on all roofs; install solar labs in schools
- **Buildings and Homes:** Think about new software and technology for large community buildings; give incentives for alternative heating not just energy assistance
- **Other:** increase efforts towards carbon capture technology (could both save and create jobs)

Concerns

Participants were asked to share concerns they have about some of the potential solutions to reduce carbon emissions. These concerns were:

- Sometimes commercial building owners or tenants do not have control of their buildings to implement requirements. (i.e. surgical centers are required to have certain HVAC systems to meet licensing requirements).
Some industries have high energy needs in order to meet their production needs.

There is a need to clearly separate what the state can and will do and what the city can and will do.

**Workforce Specific Issues**

Participants discussed the following ways in which the city could support businesses and individuals with the transition and shifts in their job as part of implementing climate change solutions:

- **Communication**: have more conversations to share what businesses and industries are doing and other opportunities that exist.
- **Training**: be proactive in creating workforce training programs for fields that are going to be important in the future (i.e. solar, electric vehicles, etc.) and create links to city hiring; high school trade programming in these fields.
- **Transitioning**: Just Transition programs that are part of the community; better funding for the Office of Just Transitions; increase Just Transition laws and regulations.
- **Industry Ownership**: solar companies need to work with the local unions to recruit and train people (i.e. IBEW 68 and IBEW 111 have training facilities).
Denver Climate Action
Youth and Climate Advocates Stakeholder Advisory Group
Meeting Summary 03-18-2020

Overview
- **Purpose**: This consisted of members that will be the most long-term impacted by climate change and how our city moves processes forward – therefore the “most invested” group.
- **Participants**: Twenty members of the community that either represent Colorado youth or climate activation. Participants included youth advocates, program directors and coordinators, climate change experts, and community members.
- **Main Question**: What are some groundbreaking and innovative ideas you have to address these challenges?

Identified Concerns, Stakeholder Needs
Participants were asked to think about some challenges or hardships they, their families, and their communities would face if no action was taken on climate change. Answers included:
- Hopelessness/anger/depression from perceived lack of protection for “our families”
- Desire for accountability for big businesses and industry
- Farmers’ and other smaller businesses lack of control over market pricing
- The fear of embracing new ways of being (i.e. community embrace more walking/biking, cultural/behavior changes in motorized transportation, etc.)
- Government and elected officials not having courageous enough conversations with those in control of the capitalist systems

When asked about hardships that may be experienced by the businesses and communities they represent, participants were concerned about the following:
- Affordability (organic products, benefits need to outweigh the costs)
- Social justice and accountability (for big business’s harmful practices, people of color are continuously dealing with the symptoms of climate change, public safety concerns, public health deterioration)
- Victimization and overt discrimination of black and brown communities (eruptions, retaliations, and continued marginalization of people of color, lack of trust, increased tension)
- Opportunity development (real and fully supported tools and opportunities to care for and enable individuals to have economic ownership, community buy-in)

“Oftentimes people of color and those on the frontlines of climate chaos spend over 80% of their time fighting off the imposition of bad ideas. So much energy, money, and legislation goes into those struggles, which obstructs our abilities to enact so many of the good ideas we know exist.”

Carbon Reduction, Adaptation, and Resiliency Solution Ideas
Participants were presented with some initial ideas from the Task Force on ways to reduce carbon emissions and were then asked to add possible solutions. Their additions included:
- **Denver Emissions**: neighborhood specific Carbon Reduction Response Teams led and hired from within zip codes consistently labeled as high-need to find solutions specific to their
neighborhood; sue or use other legal processes against big polluters (i.e. Suncore); contract with a systems expert for an assessment to make data-informed decisions

- **Buildings & Homes**: funding dedicated for communities of color to weatherproof homes; ensure homes and apartments in vulnerable neighborhoods are being upgraded to have cooling

- **Resiliency & Adaptation**: more direct support to resilience building from within existing community infrastructure; building the economic sustainability of historically marginalized communities through this effort specifically

- **Public Health**: gather specific data on toxic environment impacts (i.e. asthma for African American and neighborhoods like Globeville/Elyria/Swansea, migrant communities’ deaths due to pesticides, etc.); prevent negative health outcomes for communities of color to promote health equity and better health outcomes; develop proactive and holistic medical solutions for youth and other populations

- **Green Infrastructure**: funding dedicated for communities of color to do things like grow their own food, re-landscape their lawns

- **Other**: use Asset Based Community Development to activate community voice and stop separation between technical “experts” and those who are experts due to lived experience; impose economic sanctions on the state for inaction or other high-level pressure; RFPs with a call to minority business; build a specific program for minority businesses to prepare for and be ready to execute on coming prime contracts; support work already happening in communities (i.e. economics, health, sciences, regenerative farming, social services, etc.)
Overview

- **Purpose:** To better understand the needs, challenges, and solution propositions of the business and industry community as the city moves forward with plans to tackle climate change.
- **Participants:** 16 members of the business community joined the call. Participants ranged from developers, to energy companies, to law firms.
- **Main Question:** The task force has discussed bringing economic development through sustainability and climate action. How could solutions be structured to support a sustainable economy that also supports business through the transitions?

Identified Concerns, Stakeholder Needs

Participants were asked to think about some challenges or hardships they, their families, and their communities would face if no action was taken on climate change. Answers included:

- Less snowpack (will affect tourism / aviation industries)
- Increased fires (poor air quality)
- Physical health (poor air quality, asthma, health inequities)
- Water shortages/Floods
- Wildlife changes (will affect grazing)
- Lower quality of life

When asked about hardships anticipated for the businesses and industries they represent, participants were concerned about rising costs resulting from climate change events. Examples included:

- Business insurance (more expensive to insure buildings because of flooding and wildfires)
- Personnel costs (increase in health insurance cost due to a sicker population)
- Affordability and attraction of Colorado living (difficult to keep tenants in place (residential and commercial), loss of workforce)
- Material costs (containment to improve indoor air quality, faucets to manage water flow)

Carbon Reduction, Adaptation, and Resiliency Solution Ideas

Participants were presented with some initial ideas from the Task Force on ways to reduce carbon emissions and were then asked to add possible solutions. Their additions included:

- **Transportation:** fleet electrification
- **Electricity Supply:** reinforcing industrial roofs to allow for solar panels
- **Buildings and Homes:** embodied carbon offset requirement to encourage existing building reuse instead of demolition and rebuild; incentives equivalent to costs (i.e. tax exemptions to finance new-construction and existing building energy/sustainability upgrades); gap and creative financing options to help with building retrofits and new construction; have a 50% CWM requirement for construction waste; incentivizing Fit Well/Well Build with the user in mind; LEED type recognition program that isn’t as expensive; benchmark all building and use data when creating incentives; replace LEED with new standards; work with general contractors on
ways to increase efficiencies (i.e. one fork lift, one vertical conveyer, reduce number of deliveries)

- **Resiliency and Adaptation**: teach sustainability in schools; create internships in green fields; create trade programs/pathways for youth; ensure K-12 schools understand different career paths (engineers, project managers, etc.)

- **Consumption & waste**: a recycling/compost service requirement; recycling curriculum in all schools; charging for using plastics (bags and containers); shift to reusable containers

- **Other**: improved technology for scalability of some of the solutions

**Concerns**

During the conversation, participants were asked to share concerns they have about some of the potential solutions to reduce carbon emissions. There were two main concerns raised. The first was around the costs, especially to retrofit existing buildings. The business and industry community warned the task force that these costs eventually will be passed onto the consumer, making living and working in Denver unaffordable. The other main concern raised by the industry and business community group was around the words “require” or “mandate”. Participants expressed a desire to do their part to combat climate change but strongly suggested using an incentive approach.

Lastly, the group raised concerns about equity, especially for small businesses, should requirements be put in place (i.e. small restaurants who use a lot of natural gas). “I’d be concerned with inadvertently harming the livelihoods of those we might be trying to otherwise help.”
Denver Climate Action  
Climate Justice and Equity & Climate Vulnerable  
Stakeholder Advisory Groups  
Meeting Summary 03-16-2020 and 03-19-2020  

Overview  
- **Purpose:** To better understand the challenges around justice and equity as we respond to climate change and to give a voice to those who often do not have a voice in these types of processes and who have developed some of the most innovative solutions to solving problems.  
- **Participants:** Thirteen members of the climate justice and equity communities joined the calls. Most were either community organizers or service providers. Given the similarities in the participants of these two meetings, the summaries have been combined.  
- **Main Question:** How can we build a more equitable city through these solutions while ensuring that vulnerable, low income, and communities of color have the support they need to adopt these changes?  

Identified Concerns, Stakeholder Needs  
Participants were asked to think about some challenges or hardships they, their families, and their communities would face if no action was taken on climate change. Answers included:  
- Increased costs (energy, water, insurance, health)  
- Health issues (increased temperatures and a lack of air conditioning, poor air quality, asthma concerns, mental health impacts)  
- Unsafe building and living conditions (low quality living conditions)  
- Under-resourced populations (pushed out of the city)  
- Water scarcity  

When asked about hardships the population they represent would have, participants were concerned about a number of different things, including:  
- **Business Resiliency:** businesses owned by people of color fighting for sustainability as they become pillars of society; paradigm shift from being money-centered to community-centered; break down barriers upheld by city government (i.e. procurement and purchase orders, lack of stipends, etc.); displacement pressures  
- **Low-Income Communities:** ill-equipped to tolerate multiple, complex issues; improve application process for participants via centralized documentation systems; widespread lack of access (technology); need for social networks for preventative measures; need for community leaders to lead and build climate resilience  
- **Health and Safety:** community health and safety, school attendance, lack of access to healthy food, sustainable food systems  

Carbon Reduction, Adaptation, and Resiliency Solution Ideas  
Participants were presented with some initial ideas from the Task Force on ways to reduce carbon emissions and were then asked to add possible solutions. Their additions included:
- **Buildings & Homes**: improve the conditions of community housing (i.e. air quality, electric hot water, etc.); expose and address the everyday challenges of living in affordable housing; implement a load sharing approach (commercial and residential building compatibility); incorporate vocational and trade schools in city building projects
- **Transportation**: Increase access to public transit/remedy bus routes and trails
- **Electricity Supply**: build energy sources away from vulnerable communities; ensure energy is affordable
- **Public Health**: mental health programming; begin developing social infrastructure to deconcentrate ills and side effects of poverty
- **Green infrastructure**: pavement reduction; community garden creation and ownership
- **Other**: work on full-service grocery store access; create “Healthy Zones” in marginalized communities; keep communities and accompanying culture thriving amidst gentrification threats; buying into sustainability via workforce development and job creation; more funding for community-based programs; teach energy conservation methods to kickstart paradigm shifts and behavioral changes in underserved communities

**Climate Justice and Equity Specific Issues**
Participants from these two groups discussed a desire to include communities, especially those most vulnerable or with the greatest need, in all stages of climate solution development, from the conversations around change/needs to designing the systems (especially doing this with those most vulnerable at the center) to implementation. There is a need to foster trust between community and city/municipalities/community partners, which can be accomplished if the city evokes input, improves marketing and communication, hires within the community, taps into current grassroots groups/leaders/local ambassadors, and recognizes that there are differences in starting/access points. Participants also noted the difficulty of communities of color and low-income communities focusing on climate action when there are so many other basic needs that are not being met, such as affordable housing.
Denver Climate Action
Sustainability Advisory Council
Meeting in a Box Summary 02-19-2020

Barriers and Obstacles
The Sustainability Advisory Council was asked what barriers and obstacles may exist in Denver that are holding back the City’s progress on reducing GHG emissions. Their answers fell into the following categories:

- **Public Opinion**: not enough community engagement, buy in, or community pressure; lack of public will; lack of community understanding of the “cost of doing nothing”; no sense of urgency;
- **Transportation**: inadequate, unreliable, infrequent public transportation; urban sprawl outpacing public transportation; single occupancy vehicles; car culture; lack of safe/effective bike and walking paths;
- **Political Will and Leadership**: lack of bold leadership; heavy oil and gas influence;
- **Business**: lack of mandates/incentives for businesses to care/participate; lack of coordination
- **Population**: homelessness; development and population growth; insufficient density;
- **Funding**: budget constraints; competing priorities (economic growth vs reducing GHG emissions); emissions from construction due to population growth and gentrification
- **Other**: leveraging technology; inflexible permitting; lack of outside and air quality monitoring of oil and gas production surrounding the city

Carbon Reduction, Adaptation, and Resiliency Solution Ideas
Council members were asked what solutions or programs they would suggest Denver implement/adopt to more quickly reduce greenhouse gas emissions, adapt to climate change and implement resiliency. Their solution answers were to:

- **Buildings & Homes**: require all new development to be solar, EV, and storage ready; change new building codes for efficiencies (i.e. no new gas lines); include resiliency requirements in building code; residential PACE financing
- **Transportation**: robust alternative transportation options throughout city; free public transportation/bus service; enhance bike infrastructure and safety; rapid adaptation of electric cars; ban single occupancy vehicles; force all commuters to leave their car home at least one day per week; employer paid or supported commute options
- **Consumption & Waste**: require less plastic waste in manufacturing; require “reusable first”, disposables only on request; free composting; zero waste ordinance; 100% recyclable or compostable consumer goods required in city; ban single use plastics and Styrofoam; economic incentives for waste diversion
- **Electricity Supply**: increase solar incentives; develop renewable natural gas and pilot hydrogen option; 100% clean energy through grid; adopt DoD mandate onsite powered microgrids
- **Public Health**: eat less meat; transition to plant-based diet; increase urban food production
- **Green Infrastructure**: improve quality of green spaces/habitat/soil; plant a ton of drought-tolerant trees; set aside certain percentage of land for open space/ green space
o **Other**: develop a tech hub to research new carbon-free technology; develop flexibility in regulations to allow and incentivize innovation; create and fund an innovation department; Create incentives for businesses to adopt renewable energy and/or water conservation efforts; engage chambers of commerce; require businesses to get green score that leads to fines or a monetary incentive

**Funding Mechanisms**
Council members were asked what potential funding mechanisms they might suggest or they have seen other cities implement to ensure Denver has the proper financial backing to achieve its goals. Their answers were:

- **Bonds**: green bonds; rainbow bonds
- **Trade**: offset program (credits companies can buy or donate)
- **Taxes and Fees**: 1% real estate transaction tax; carbon tax/energy tax on business (annual escalator); fees/tax for biggest impactors; Japanese Hometown tax; sales or property tax; high consumption tax for yearly purchases exceeding a certain amount
- **Financing**: long term futures financing with high fees if goals aren’t met; lack of transformational financing
- **Job Transition**: Green New Deal; job transition support
- **Resource Pricing**: water pricing to reflect scarcity

**Concerns**
The biggest concerns shared by this group centered around equity and urgency. Members shared concerns about the structural barriers that are in place preventing equity, the ability to ensure communities of color and low-income communities voices are heard, and that the unintended consequences of solutions are considered (especially for those who will be the most impacted). Concerns around the sincerity of the city’s efforts in this area were also expressed, with members feeling unclear if there will be follow through, if there is a true desire (and political will) for bold action, and if proper buy in across all city agencies and departments has been or can be achieved. Other concerned were raised around the influence of lobbyists (from oil and gas), communication about the problem and needed immediate solutions, and the funding needed to implement bold solutions.
Table of Contents

Community Support for Climate Action

Tab 1: EXECUTIVE SUMMARY
Tab 2: APPROACH AND PARTICIPATION REPORT
Tab 3: SUSTAINABILITY GOALS REPORT
Tab 4: TRANSPORTATION REPORT
Tab 5: BUILDINGS AND HOMES REPORT
Tab 6: ELECTRICITY REPORT
Tab 7: CONSUMPTION AND WASTE REPORT
Tab 8: ADAPTATION REPORT
Tab 9: FUNDING REPORT
Tab 10: OPPORTUNITY REPORT
Executive Summary

Community Support for Climate Action in Denver

This report is intended for Denver’s Climate Action Task Force, offering its members insights into design principles that community members would like to see in the final task force recommendations, priority action items based on the most favorable proposals and funding preferences. Highlights are provided in this summary document, and details can be found in the additional report sections as listed in the Table of Contents.

Approach and Participation

This report summarizes the community priorities and preferences gleaned from proposal ratings and comments in the online forum, DenverClimateAction.Consider.it. The decision to use this approach was made after the COVID-19 pandemic emerged and required a shift to a remote approach to engagement. The Consider.It online forum platform was selected as the best fit for the engagement goals, allowing real time displays of poll question responses and greater understanding of the rationale behind those opinions through narrative “pro” and “con” statements.

Including diverse voices – across neighborhoods, city council districts, racial/ethnic identification, and income levels – was an important goal in this effort. It was also a big challenge, given that not everyone has a computer, tablet or smartphone for participating; language and literacy can also be a barrier to participating; and the usual strategies for overcoming these barriers are all in-person approaches, which were not an option given COVID-19 social distancing requirements. The project team and partners promoted access to wi-fi and computers to help bridge digital divides, conducted outreach in a variety of ways (including emails, social media, videos and even a Facebook live event), and offered direct phone support to anyone in need. At least half of these efforts were conducted in Spanish as well as English to promote participation throughout Denver and by diverse groups.

Participation

The total number of participants exceeded projected participation at the originally planned in-person public meetings, with more than 2,400 people visiting the site from the greater Denver area and 814 people creating accounts in order to actively participate in the forum. Despite significant effort to boost participation among lower income community members, communities of color, immigrant and refugee community members, as well as across all neighborhoods, participation was dominated by moderate to higher income and white participants, which correlates to greater participation by higher income neighborhoods. Many participants were sensitive to and thoughtful of equity factors, which showed up in response to the very first questions on the overarching goal drafted by the task force, and throughout each category of proposals on the site. It is important to note that opinions gathered from this site are informative, not declarative, and may not mirror public opinion if a scientific poll were to be done.
Orientation to Task Force Goals
The first two questions on the forum were designed to understand participants’ orientation to the goals, gauging how people’s beliefs about the urgency and equity aspects of the goals might influence their proposal responses. Two patterns emerged across the responses to all proposals:

1. Participants that supported the urgency aspect of the goal tended to more strongly support each proposal than those that opposed it, and
2. Participants that supported the equity aspect of the goal also tended to more strongly support each proposal than those that opposed it. However, the strength of support was typically 5-10 points lower on the normalized support scale among the group of people who supported the equity aspect of the goal than the group that supported the urgency aspect. This may be a reflection of the equity concerns frequently addressed on the site.

Proposal Evaluation Approach
The online forum was initially populated with a selection of proposals for which the task force was seeking public input. Community members were also invited to add their own proposals on the site. Anyone who created an account on the site could then rate them on a sliding scale from oppose to support and could add comments and/or “agree with” others’ comments by including them as their own.

The responses produced ratings for each proposal on a scale of -1 (completely oppose) to 1 (completely support). Final ratings were downloaded from the forum the day after the forum closed and were normalized to a 0-100% scale for ease of understanding. The scale was then divided into quintiles, with the top quintile (80-100%) identified as strong support (4-star rating) and the second quintile from the top (60-79%) identified as moderate support (3-star rating). The rating system continues from there, with the bottom quintile (0-19%) receiving zero stars. Additionally, proposals that did not garner enough participation were not given a star rating – see each report for the applied minimum participation levels.

The narrative comments were analyzed for common themes, which were shared along with any additional information shared on the forum about each proposal. Themes were shared in summaries of topical reports from each section of the forum, which were then reviewed for potential design principles. The consultant team’s assessment of high priority design principles, according to public preferences, are shared below, for the task force’s consideration when reflecting on the results shared in the full report.

Priority Design Principles
Each of the remaining tabs in this report explores community responses to climate action proposals, by category, and each segment identifies major themes and messages gathered through comments on each proposal. Four priority design principles for all climate action plans were identified by reviewing the major themes and messages within each of these topical reports.
Design Principle #1: Be impactful.

This principle came up in nearly all categories, including the goals (Tabs 2 and 3). The essential message is this: There is a long way to go to reach desired outcomes, so make sure every goal set and every action planned is going to be impactful. When the likely impact of a proposal is clear and that impact is likely to be substantial, there tends to be stronger support for it, as most clearly shown in the Buildings and Homes and Opportunity Reports (Tabs 5 and 10). Additionally, the Electricity Report (Tab 6) found that participants wanted to see stronger proposals with greater impact than the community believes will result from the set of proposals shared on the forum.

Design Principle #2: Improve lives.

While working toward net-zero emissions, normalized sustainability practices and changes that support greater resilience to climate change, present opportunities to also address actions that will improve people’s quality of life. Proposals in both the Buildings and Homes and Consumption and Waste Reports (Tabs 5 and 7) which were able to clearly show quality of life impacts, in addition to climate impacts, garnered more attention and support. The Adaptation and Opportunity Reports (Tabs 8 and 10) also showed support for proposals which would generate more living wage jobs and care for the transition of workers from jobs in polluting industries.

Design Principle #3: Share responsibilities.

The Sustainability Goals and Adaptation Reports (Tabs 3 and 8) added a collective action lens to getting to impact, reflecting community members’ acknowledgement that we will only reach desired outcomes when everyone shares in the responsibilities. There is a role for everyone, participants say, though they are mindful that some people and businesses will need support in order to do their part.


Equity is the second most important principle to incorporate in climate action plans, immediately following the determination that a proposed action will be impactful. (Principles 2 and 3 above can be considered sub-elements of being impactful.) Many participants expressed a great deal of support for including equity features in action plans, though they frequently also want to ensure that impact is made – the combination garners more support. The Sustainability Goals, Electricity and Opportunity sections (Tabs 3, 6 and 10) all speak to the need to integrate equity considerations generally. Some specific aspects of equity that are important to include in planning as well are:

a) Address environmental racism by prioritizing action in neighborhoods where more communities of color reside and where residents are suffering greater impacts from polluting industries and activities. (See Tab Adaptation Report – Tab 3.)

b) Enable communities to act in their own best interest. Give support, tools, resources, guidance – otherwise, let local communities lead in ways they know best without too much central control (take empowerment approach). (See Tab Adaptation Report – Tab 3)

c) Consider different lifestyles, abilities and needs when designing individual strategies and across the full package of action plans. This was particularly important in the
Transportation section (Tab 4), where mobility is inextricably linked to equity, whether addressing cost, modes of transportation, or streetscape design.

d) **Mitigate cost of action** for small businesses and people with lower incomes. Most people recognize and/or are concerned about the high cost of the level of climate action that is needed to make a difference – whether those costs are direct for homeowners and other property owners (like changing waste practices suggested in Consumption and Waste – Tab 7), a potential transfer of costs from developers to consumers (like concern that shifting energy sources will drive up housing costs in the Buildings and Homes Report – Tab 5), potentially untenable overhead costs borne by small businesses for developing and tracking sustainability goals (Tab 3), fees described in the Transportation Report (Tab 4) or other fees and taxes suggested in the Funding Report (Tab 9). Subsidies, exemptions, and other kinds of financial support are recommended for inclusion in all climate action plans when people, neighborhoods, and businesses couldn’t otherwise participate without significant challenges to their ability to make ends meet.

**Priority Action Items**

Following are “Most Favored Proposals” excerpts from each sub-report that found strong support (4-star ratings) for one or more proposals, except Funding, which is addressed in the next section of this summary. They are shared here as the list of priority action items within each climate action category, though virtually all of them require more development. The task force and city should be mindful of the additional details provided in each section as well as the design principles described above to guide further development.

**Transportation (Tab 4)**

- Increase the frequency and geographical coverage of public bus and light rail service along key transportation routes. (86% support)
  - Related proposal: Improve public transportation to all neighborhoods. Promote new ideas for this - not just light rail. Other cities have used smaller, on demand buses. (82% support)
- Implement bus rapid transit on major corridors, allowing buses to operate more like a rail system. (85% support)
  - Related proposal: Add dedicated offset bus lane on S. Lincoln street from I-25 North to reduce delays of the RTD buses. (82% support)
- Provide free or reduced fares for some people, such as those with low-incomes, youth, and seniors. (84%)
- Shift how street space is used: dedicated bus and bike lanes, car-free and car-lite streets, as well as on-street bike and scooter parking. (82% support), plus related proposals:
  - Restore Tree Lawn space along streets with inferior Site Amenity (ROW space) and re-build the urban canopy. (90% support)
  - Improve walkability in South Central Neighborhoods. Improve sidewalks, bus shelters, and cross walks. (88% support)
  - Increase safe storage areas for bikes in public, residential communities and offices. (87% support)
  - Build out biker and pedestrian infrastructure. (88% support)
  - Expand the use of Open Streets. (84% support)
  - Better infrastructure and wayfinding to City trails. (82% support)
  - Denver should build out the bike lane and sidewalk networks for all neighborhoods
within 5 years. (81% support)
  
- Create Neighborhood Mobility Hubs that serve the first and last mile trips to rail stations and other transit services. (80% support)
- Allow for high density and mixed commercial and residential zoning near public transportation, with affordability requirements. (80% support)

Buildings and Homes (Tab 5)
- Develop incentive programs for low-income households and affordable housing providers. (81% support)
- Create job programs to support clean energy transition. (80% support)

Consumption and Waste (Tab 7)
- Establish requirements for all businesses, schools, universities, prisons and multifamily buildings to divert waste, such as through recycling and composting. (86% support)
- Coordinate regionally to establish programs and policies that support a circular economy for waste products, such as funding for local and regional end markets that use waste materials to create new products, or research that creates new processes to recycle waste materials. (85% support)
- Require Denver infrastructure projects to meet reduced carbon emissions standards for construction materials and to reuse, recycle, or compost construction waste when economically viable. (84% support)
- Require minimum waste diversion rate for construction and demolition as part of building codes and ensure viable end markets. (80% support)

Adaptation (Tab 8)
- Change zoning and building codes to incentivize buildings and landscapes that are low energy use, low water use and storm resistant. (84% support)
- Encourage and provide incentives to transition to native planting. (84% support)
- Focus on organic land care practices (use of non-toxic products). (83% support)

Opportunity (Tab 10)
- *For economic recovery*: Invest in an affordable, expanded, and carbon-free bus system. (87% support)
- *For economic recovery*: Invest in reconfiguring streets to be shared streets while vastly expanding the use of bicycles, e-bikes and walking. (87% support)
- *For equity and social connection*: Establish additional small parks in all neighborhoods. (82% support)

Funding Preferences

While many participants expressed concern about the anticipated high cost of many of the proposals shared on the forum, some also expressed understanding that the proposals don’t quite go far enough to achieve the impact that is needed. Getting to impact will require significant funding, and getting to equity will require even more.

Generating public revenue at the level that is needed is unlikely to be popular from any source – unless “someone else” is paying for it. Collectively, the words cost, funding, and money show up 298 times in comments on proposals and discussions among participants. That is among the most
frequent references on the forum – and almost as many as climate, environment, and pollution combined (351) – and most of these comments are concerns. The fact that cost and funding sources are top worries on people’s minds when they think about climate action is the backdrop against which the funding preferences expressed in the online forum may be understood.

Following are key design principles to aid in developing a reasonable funding package to support an enhanced climate action plan, as derived from key messages learned from funding proposal discussions:

- **Equity**: Help people with lower incomes and small businesses pay for required changes (or make them useful incentives), and avoid regressive taxes and fees.
- **Connection between funding source and climate change**: Ensure that the funding source(s) selected makes sense for funding climate action. The strongest connections with the most support seem to be aimed at putting the burden of funding on polluters, those of industries and individual behaviors that contribute most to pollution and climate change.
- **Need for specifics**: Enhance proposals with more details, and bring those under serious consideration back to affected communities to gather additional input, if that input will help to make the funding mechanism(s) work best for people who struggle the most.

### Top Funding Proposals

The proposals that garnered the strongest support (4-star ratings) included a pollution fee on industrial polluters and increasing parking fees at downtown meters. These proposals both appear to relate to the second funding design feature listed above. See Tab 9 for more details on these and other funding proposals.

### Conclusion

The input gathered through the online climate forum, which was built with reflections on learning from each of the Meetings-in-a-Box (MIB) and Stakeholder Advisory Group (SAG) discussions held in the prior two months, is informative for enhancing the task force recommendations. The task force should add detail to solutions so they are understandable, select the most impactful strategies, design implementation with a strong equity lens, and recommend highly relevant funding sources that avoid impact on community members without means to pay.
Online Forum Approach & Participation

Community Support for Climate Action in Denver

This report provides an overview of the DenverClimateAction.Consider.It online forum approach and participation. It includes background information to contextualize it within the broader work of the Denver Climate Action Task Force, an overview of the online forum approach, information about participation levels and characteristics, including their views on the urgency and equity aspects of the overarching climate action goal developed by the task force and the relationship between those views, and rest of the views expressed in the forum.

Background

Denver’s Climate Action Task Force was assembled for the first time in January 2020 to advise the city in its efforts to strengthen local action on climate change in order to meet targets recommended through the best available climate science. More specifically, the task force charge is to:

- Engage Denver’s communities in defining goals, gaps, solutions, and investment opportunities.
- Review goals, current work, and gaps
- Recommend the policies and solutions needed to meet the goals equitably
- Recommend investment opportunities

In February through early April, three sets of small community meetings (community-hosted meetings referred to as “Meetings-in-a-Box” (MIBs) and facilitated Stakeholder Advisory Group (SAG) discussions) gathered initial input to help the task force develop a draft set of proposed recommendations. Specifically, they gathered information including community and stakeholder perspectives on why it is important to take action on climate change, assets and challenges involved in taking local action, and insights into the kinds of strategies that will work best in Denver.

Plans were also underway to hold a series of community-engaged site visits and six in-person community meetings when the COVID-19 pandemic emerged, and in-person gatherings were banned. The site visits had to be cancelled, and the remaining MIB and SAG engagements were shifted to online meetings via Zoom software. Something different was needed to replace the in-person public meetings, which were being designed to engage larger groups of people and gather more in-depth and detailed feedback on the array of proposals the task force was developing, ultimately seeking input into priority action items and preferred funding mechanisms.

Approach

It was determined that an online forum would be used in place of the in-person public meetings, and the Consider.It platform was selected as the best fit for the engagement goals, allowing both
real time displays of poll question responses and potential for greater understanding of what’s behind those opinions through narrative “pro” and “con” statements, as shown to the right in the sample taken from this project.

Including diverse voices – across neighborhoods and city council districts and by racial/ethnic identification and income levels – was an important goal in this effort.

To maximize accessibility, generally, new resources that came in response to social distancing and subsequent stay-at-home orders were leveraged. Denver Public Schools (DPS) distributed computers to DPS students’ homes in an effort to support at-home learning, so most homes with school-age children would have access to a computer interface for the site. The site could also be accessed on smart phones and tablets. Xfinity made wifi hotspots available for free to everyone, so more people could access the internet without having to pay for it. These two efforts were promoted to help community members access the forum. It was also verified in advance that the site is accessible for people who use screen readers to engage with the content.

To include an array of voices from locations around the city, council offices created video messages from each council member on why talking about climate change now is important and why it was important to participate. These videos were incorporated into the online forum and into email messages and e-newsletters sent to community members in each council district. They were also promoted through social media sites hosted by Denver’s Climate Action, Sustainability and Resiliency Office. These were sent in advance of the forum and at key points throughout the originally planned 10-day period, April 20-30, including toward the end to promote participation on extended days, through May 4, 2020. Text messages went out to 70,000 waste services users, and three local news outlets ran information from the city’s media release as well.

To encourage participation across racial and ethnic groups in the community, the consultant team recruited and worked with eight trusted community liaisons and 25 lighter touch community “energizers” to conduct outreach through their networks. A stock email in both English and Spanish language, a stock newsletter blurb, and a series of social media tiles were shared with them to support their outreach efforts. Several of them also created and distributed their own messages, like a video aimed at engaging African immigrants and refugees and a Facebook live event to discuss the forum and show how participation in the forum works. A set of introductory and inspirational videos were also created to support people as they engaged in the online forum, including an instructional video using both Spanish and English text, two task force videos about the project (one in English and one in Spanish), and a video to inspire creative thinking about equity, social connection, and economic recovery while also taking bold action on climate change. Finally, it was verified that Google Translate was embedded in the forum, which would help with real-time translation of forum discussions, even though imperfect.
Participation

From April 20 through May 4, 2020, Google Analytics reports that 3,686 unique individuals visited DenverClimateAction.Consider.It and made over 9,000 pageviews. A handful of these visitors (65) came from outside the United States, with more than 2,400 coming from the greater Denver area and hundreds more participating from devices along the front range between Colorado Springs and Fort Collins. The vast majority explored the site in English, though 20 used Google Translate to view the site in Spanish, and on average, they spent just over two minutes on the site per session across nearly 6,000 sessions (5,914 to be exact).

Within the broader array of spectators identified through Google Analytics, 814 individuals created accounts in order to participate in rating and commenting on proposals. This participation grew steadily through the end of the originally planned 10-day period, slowing but still growing over the added days – see Figure AP-1.

More detailed data on these participants are available through Consider.It’s administrator dashboard, as described below.

Participant Type

Most participants (81%) identified as Denver residents, followed by representatives of local businesses (19%), local non-profits (18%), government agencies in Denver (9%) and task force members (3%). Note that these figures do not equal 100% because participants were asked to identify the viewpoint from which they were primarily participating and if they also identify with other affiliations on the list. For example, someone could primarily participate as a resident and indicate that they also own or work for a private business in Denver. Nearly three out of four participants (70%) said they were primarily participating as Denver residents.
Residential Zip Code

Participants reported being from 96 different zip codes. Figure AP-2 shows the number of people participating from the top 15 Denver zip codes, according to their relative location within the City and County of Denver. Approximately two-thirds of participants report being from one of these 15 zip codes. The largest concentration of participants (112) identified being from central Denver zip codes (80206, 80203, 80218, 80202), followed closely by east Denver participants (80220, 80209, 80222).

A full list of participant counts by zip code is available upon request.

Race/Ethnicity

Most participants (74%) identified as White when they created their accounts. Hispanic/Latinx community members were significantly underrepresented among participants. They made up only about 4% of participants, yet they represented nearly 30% of Denver residents in 2018, according to the U.S. Census Bureau’s American Community Survey yet.
Income Level

More than one-quarter of participants did not want to identify their income level. This was the largest group responding to this question, and the smallest group by far was the lowest income range, under $10,000 per year.

![Figure AP-4: Count of Participants by Income Level](image)

Orientation to Task Force Goals

Data were not sufficient to identify any significant differences across participant demographics related to their responses to climate action proposals. However, the first two questions on the forum were asked to understand participants’ orientation to the goals, gauging how people’s beliefs about the urgency and equity aspects of the goals might influence their proposal responses. Two patterns emerged across the responses to all proposals.

First, participants that supported the urgency aspect of the goal tended to more strongly support each proposal than those that opposed it. For instance, if respondents said they support the urgency aspect of the task force’s overarching goal (68% of these respondents), they strongly supported the fossil fuel tax proposal (97% support rating). If they opposed the urgency aspect of the goal (16% of these respondents), they strongly opposed this funding proposal (13% support rating). This degree of difference in opinions among these two groups of respondents was similar for all proposals.

Second, participants that supported the equity aspect of the goal also tended to more strongly support each proposal than those that opposed it. However, the strength of support was typically lower among the group of people who supported the equity aspect of the goal than the group that supported the urgency aspect. For instance, if respondents said they support the equity aspect of the goal (63% of these respondents), they strongly supported the fossil fuel tax proposal (90% support rating). If they opposed the equity aspect (14% of these respondents), they strongly opposed this proposal (7% support rating). In nearly every case, proposal ratings (on the normalized scale) were 5-10 points lower among people who supported the equity factor than among those who supported the urgency factor. This may reflect the equity concerns frequently addressed on the site. Following are detailed summaries of responses to the goal questions.
It is urgent that Denver take action on climate change.

#major goal | submitted 4 weeks ago by Denver Climate Action Task Force

The major goal that the Task Force adopted highlights an urgent need for action in Denver, along with other communities around the world. Do you support this part of the goal?

⭐⭐⭐⭐⭐

(n=363)

363 participants responded to this question and gave it strong support, approximately 84%. The most common messages among the 102 comments on this question include:

- The situation is **beyond urgent yet possible to make an impact**, as science says and as we have experienced in air quality before and since the COVID-19 pandemic emerged. This is represented across approximately 28 comments and many more agreements with those comments.

- **The urgency of the situation compels action.** While some debated who should lead climate action (federal versus local versus private), most addressed the need for local action at least as part of the solution. Several commenters noted that multiple levels of action are needed, from personal to federal. This showed up across 21 comments, with many more participants in agreement.

- We are **worried about air quality and public health if we fail to act locally** (or hoping for positive results in the areas as a result of taking action), but we also are **worried about the financial burden of taking action**. Approximately 14 comments addressed each of these commonly expressed concerns.

- Some of us don’t buy into the notion that human behavior is driving climate change or that it exists at all. Skepticism about whether or not climate change is real drives most opposition to this aspect of the goal and is linked to disdain for “liberal politics” – represented across approximately 10 comments with 19 people in agreement.
It is important for Denver to prioritize actions by people and organizations in communities that are most impacted by climate change and who need financial assistance to act.

The major goal that the Task Force adopted also aims to support implementation among "frontline communities" - groups in Denver that are most impacted and that may have a hard time participating in the bold actions that are being proposed. Do you support this part of the goal?

292 participants responded to this question and gave it moderate support on the high side of the 3-star rating range, approximately 76%. The most common messages among the 64 comments on this question include:

- **Our finances are not equal.** Many participants (approximately 26) acknowledged that finances are not equal across households and businesses and not all have the ability to pay more money in taxes, fees or direct expenses to put these ideas into action.

- **We share a desire to make an impact, but we don't understand equity in climate action in the same way.** Across most comments on this page (approximately 39, with many more in agreement), there is significant tension between acting for impact and acting with equity – some see urgency as paramount and believe that all will benefit from the results, while others see the necessity of acting with equity in order for everyone to benefit.

- **We want everyone to reap the benefits of climate action.** This rang true across at least nine comments with 16 agreements.
Proposal Evaluation Approach
The online forum was initially populated with a selection of proposals for which the task force was seeking public input. Community members were also invited to add their own proposals on the site. Anyone who created an account on the site could then rate them on a sliding scale from oppose to support and could add comments and/or “agree with” others’ comments by including them as their own.

The responses produced ratings for each proposal on a scale of -1 (completely oppose) to 1 (completely support). Final ratings were downloaded from the forum the day after the forum closed and were normalized to a 0-100% scale for ease of understanding. The scale was then divided into quintiles, with the top quintile (80-100%) identified as strong support (4-star rating) and the second quintile from the top (60-79%) identified as moderate support (3-star rating). The rating system continues from there, with the bottom quintile (0-19%) receiving zero stars. Additionally, proposals that did not garner enough participation were not given a star rating – see each report for the applied minimum participation levels.

The narrative comments were analyzed for common themes, which were shared along with any additional information shared on the forum about each proposal. Themes were shared in summaries of topical reports from each section of the forum, which were then reviewed for potential design principles.

The summary information shared on participants’ response to the urgency and equity aspects of the task force’s overarching goal statement reflects these proposal evaluation components. Each of the report sections that follow are organized in the same way, generally following the same evaluation and reporting approach (see each section for any variations that may exist).
Sustainability Goals Report

Community Support for Climate Action

This report has been prepared for Denver’s Climate Action Task Force to consider public input into sustainability goals for Denver. Only two questions were asked about this topic on the forum, and no additional proposals were made in this section. Below are brief highlights of key messages from the online discussion on this topic, followed by more detailed descriptions of the two proposals. They are presented in order of favorability (most to least), though both received moderate support ratings, both at the high end of the range for 3-star proposals.

Major Themes and Messages

There is really just one major theme across these two proposals, with one key sub-theme in one proposal that shouldn’t be overlooked:

Impact: The big message across both of these proposals is about getting to impact. Setting goals, leading and getting recognition are all good things in most participants’ minds, but ultimately, people want to see these efforts made worthwhile and make a difference. Suggestions for improvement to the first of these proposals tend to be about ways to get to that impact with an equity lens, from ensuring that goals are meaningful for hyperlocal needs to supporting neighborhoods and small businesses to be able to participate and take action.
All neighborhoods and businesses in Denver should set sustainability goals and actions to ensure sustainability is a norm.

Additional information on this proposal: This is a task force proposal, and no additional information was provided.

Overview of opinions: 227 participants rated this policy and gave it moderate support, approximately 75%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: About one-quarter of the commenters expressed interest in getting to collective action in order to make an impact, and some see neighborhood and business goal-setting as a means of getting there. As one participant said, “While individually, our challenge may seem insurmountable, it is only through our individual contributions that we will overcome this challenge.” And another said, “Everyone needs to be part of the solution and everyone needs to participate in setting and achieving goals.”

The importance of establishing a local agency and say in what they will do is another reason people expressed support for this approach. As two people agreed, “Setting goals allows a community to participate and allows them meaningful goals,” and five others agreed, “Groups from various businesses and neighborhoods can convey what is most important to their population and set goals that are more meaningful and realistic.”

Rationale for opposition and suggestions for improvement: There was limited opposition expressed in the comments, though various people expressed concerns about how this would work, if it might not be feasible for some neighborhoods and businesses, if some would set superficial goals to get out of responsibility, and if it might be better to have them devise plans to get to a common citywide goal for neighborhoods and/or businesses. Some also addressed ‘what’s next?’ – getting from goals to action – and advised that resources will be needed to do this equitably across neighborhoods and small businesses.
Following is a checklist of suggestions for improvement for task force consideration:

- Set city-wide goals. “Setting neighborhood-specific goals and tracking them is a huge amount of time and effort. Why are neighborhood-specific goals better than city-wide?” (12 agreed)

- Allow for neighborhood customization. “Create broad, standard goals for neighborhoods. Each neighborhood can adjust/add goals for their specific needs and residents. Aligned goals and not recreating the work.” (10 agreed) “Each neighborhood is working with different resources, settings, and populations. Hyper-local plans that are grounded in city-wide initiatives and goals are more likely to succeed.” (17 agreed)

- To address concerns about business overhead involved in doing this, establish business districts, and have them establish district-level sustainability plans. “I think businesses of a certain size should have to provide a sustainability plan, but perhaps Denver should start to more fully adopt formal business districts, and have those districts create collective sustainability plans, rather than putting the pressure on each individual business (particularly small ones with less capacity) to create a full sustainability plan. Collective action in these districts would be more likely to succeed anyway, since they would be able to collaborate on things like composting initiatives, collective solar purchasing, and other cost-splitting and cooperative measures.” (7 agreed to parent comment – agreement not possible at this level)

- Ensure that it is possible to get to action. “Setting goals is the first step. We also need to ensure that we meet those goals. We’ve been setting (but not meeting) sustainability goals for half a century.” (3 agreed) See two specific suggestions below:
  - Voluntary goals are nice but will ultimately fail. We need mandates from the city, along with support and resources so undue burden is not placed on residents and businesses.” (2 agreed)
  - “Establish a voluntary "score" program for green actions per household and business. Like a video game or credit score, you'd have bragging rights and it would peer pressure others... Give green action an established, verifiable, accurate, bragging rights recognition system with an app. For businesses, connect it to their Google rating, like with a green dot or green map icon. All the solutions in this plan can have a set of points for how effective they are. Make it compoundable, like you have to add 3 significant actions annually to keep your initial standing. Like my friend who avoids driving, calls 311 to turn in [idling] trucks or when she sees ROW broken sprinkler flooding the gutter, volunteers at the local school with her clean background check, sponsors internet for a low income family, telecommutes, has solar panels, minimizes AC use, Adopta Park, buys bulk, composts, xeriscapes, plants pollinators, gives eco gifts, supports Xcel's wind effort and got her employer to allow 50% telecommute, and sources local recycled materials would have a high Green score. Do a Green Score for businesses, and one for Green Denver Kids too. Got Green? How Green Can You Go? It's just bragging rights, in an effort to reward and pressure people to go green in many ways that add up.” (3 agreed)
Denver should be the nationally recognized hub for sustainable economic development and innovation.

#sustainability goals | submitted 4 weeks ago by Denver Climate Action Task Force

![Support Rating](n=239)

Additional information on this proposal: This is a task force proposal, and no additional information was provided.

Overview of opinions: 239 participants rated this policy and gave it moderate support at 74%. Again, this is a three-star proposal.

Rationale for support and strengths identified: At least half of the comments (26) express support for the underlying notion that Denver should lead on this issue, take action, and most importantly, make the impact that is needed. As one person wrote: “If we’re good enough to be recognized, then we are good enough to make a difference. This is a good, high bar to set for ourselves.” (2 agreed) And another: “Let’s lead by example by enacting policies that will actually deliver on our pollution reduction goals.” (7 agreed)

Some also recognize the value of recognition as a goal, saying it can help spur shared leadership, attract resources, and again, make an impact. For at least one-quarter of commenters, it’s all about impact in the end. “Being a national leader and a hub for sustainable economic development and innovation is very important, but recognition of that is only important if it can help others to action.” (5 agreed) Eleven people also agreed: “Recognition as a leader can bring resources to help get the job done, and help other cities co-learn and co-create with us in a community of practice.”

Rationale for opposition and suggestions for improvement: Others questioned seeking recognition. They suggest that recognition shouldn’t be the goal, rather the bonus when warranted. Seven people agreed with this representative comment: “If we were worthy of recognition that would be great! But let’s focus on doing the actions that deserve recognition, not trying to directly pursue recognition for its own sake”.

COMMUNITY SUPPORT FOR CLIMATE ACTION – SUSTAINABILITY GOALS REPORT 4
Transportation Report
Community Support for Climate Action

This report has been prepared for Denver’s Climate Action Task Force to consider public input into action that may be taken regarding Transportation in Denver as they prepare their recommendations to the city. It begins with a brief overview of the results of the online discussion on this topic, highlighting most favored proposals and major themes and messages. More detailed descriptions of proposals follow. Task Force transportation proposals were organized by a common thread on the Consider.It forum and are presented by those threads here, and then in order of favorability - most favorable to least – within that thread.

Additionally, the majority of the community-submitted proposals related specifically to at least one Task Force proposal, so for ease of reading and seeing the interconnection between many proposals in this Transportation Report, those “Connected Proposals,” are included as part of Task Force proposal summaries. Proposals that engaged at least 50 participants and received at least a moderate support rating were included in the summaries. A table of all other proposals is included at the end.

Most Favored Proposals
There were several transportation proposals from the task Force and the community that garnered strong support (4-star ratings). The four-star proposals are shared here in the same order as they appear in the summary, with Task Force proposals in bold, and those connected community proposals just below in plain font:

PART 1: MAKE PUBLIC TRANSPORTATION ACCESSIBLE, AFFORDABLE, RELIABLE, AND CONVENIENT

- **Increase the frequency and geographical coverage of public bus and light rail service along key transportation routes.**
  - Improve public transportation to all neighborhoods. Promote new ideas for this - not just light rail. Other cities have used smaller, on demand buses.
- **Implement bus rapid transit on major corridors, allowing buses to operate more like a rail system.**
  - Add dedicated offset bus lane on S. Lincoln street from I-25 north to reduce delays of the RTD buses.
- **Provide free or reduced fares for some people, such as those with low-incomes, youth, and seniors.**

PART 2: ENCOURAGE EMISSIONS-FREE AND MULTI-MODAL TRANSPORTATION

- **Shift how street space is used: dedicated bus and bike lanes, car-free and car-lite streets, as well as on-street bike and scooter parking.**
  - Restore Tree Lawn space along streets with inferior Site Amenity (ROW space) and re-build the urban canopy.
  - Improve walkability in South Central Neighborhoods. Improve sidewalks, bus shelters, and cross walks.
  - Increase safe storage areas for bikes in public, residential communities and offices.
  - Build out biker and pedestrian infrastructure.
• Expand the use of Open Streets.
• Better infrastructure and wayfinding to City trails.
• Denver should build out the bike lane and sidewalk networks for all neighborhoods within 5 years.
• Create Neighborhood Mobility Hubs that serve the first and last mile trips to rail stations and other transit services.

• **Allow for high density and mixed commercial and residential zoning near public transportation, with affordability requirements.**

PART 3: INCENTIVE PROGRAMS TO ENCOURAGE THE USE OF ELECTRIC VEHICLES

• No four-star proposals in this last section

**Major Themes and Messages**

Following are major themes identified across these proposals:

**Integration:** Many of these proposals are inextricably linked, by implementing one proposal it will function better if others are implemented alongside of it. For example, there was significant conversation around safety for bike riders (and pedestrians). If bike safety is increased, then more people might want a bike, and a bike voucher program would make more sense, increasing equitable access to affordable transportation. Additionally, if neighborhoods and streets are well-designed, (or re-designed with bikers and pedestrians in mind) then bikes become a viable form of micro mobility, and fewer people would take short trips by car.

**Equity:** In a variety of different ways, participants pointed out that how community members get around safely, timely, and affordably is fundamental to creating an accessible and low-emissions city. Vouchers for electric vehicles and reduced fares on mass transit are viable solutions, but the design of streets and neighborhoods is fundamental. At each turn, potential negative impacts can burden frontline communities the most. Participants often noted that the proposal itself might be good, but the details of how it would be carried out would matter greatly.

**Diverse Options:** There was a noticeably vocal bike-advocacy contingency in several of the key transportation proposals. While many community members supported an increase in bike safety, bike commuting, and bike support services, it was made clear that for many community members, even at its safest and most convenient, biking would not be a viable form of mobility. Given the myriad of voices, lifestyles, and transportation needs that were shared in this forum, it is clear that the future strategy should include mobility options that are viable for all community members in a four-season city, to reduce their carbon footprint and still get from one point to the next safely, and with ease.
PART 1: MAKE PUBLIC TRANSPORTATION ACCESSIBLE, AFFORDABLE, RELIABLE, AND CONVENIENT

Increase the frequency and geographical coverage of public bus and light rail service along key transportation routes.

Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed by both Meetings-in-a-Box and Stakeholder Advisory Groups with particular attention paid to the benefits of making the city more accessible and more equitable. The Group 14 analysis offers that this is a low-to-medium-cost, medium-to-high-impact solution.

Overview of opinions: 254 participants rated this policy and gave it strong support, approximately 86%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 19 pro considerations, which tended to echo one another, this proposal gained strong affirmation. The pro statements with the largest agreements that also best represented other comments overall included:

- Adding frequency is great. Once the frequency of public transit is every 10 minutes or less, people don’t have to worry about a schedule. Short waits make transit more viable for everyone. (44 agreed over three considerations)
- Several statements brought up a similar point: “I’ve wondered about a move for RTD to just manage regional light rail and longer bus routes (like between Denver and Boulder), and leaving local routes to each separate city.” (20 agreed over four similar considerations)
- More public transit means less cars emitting pollution and wearing down our roads. (7 agreed)
- This will help people without cars get and keep jobs. Unreliable public transportation is a huge employment barrier for individuals who do not drive. (4 agreed)
Rationale for opposition and suggestions for improvement: Opposed by 13 opposition consideration, this proposal drew a lot of discussion overall. There were questions overall about supply and demand and understanding the actual need in Denver overall, in addition to questioning RTDs “current state.” Considerations with the highest agreements included:

- RTD have already gotten into a fix trying to accommodate all geographies, this should focus on dense areas that make sense. (15 agreed over 3 comments)
- Adding geographic reach is great, but we'll get more ROI with increasing frequency in more densely populate areas. (13 agreed)
- I don’t think you can focus on both frequency & geography - have to pick one, or solve the problem of the last mile - getting people to the stations. (8 agreed)

Connected Proposals: Submitted by Community Participants

“Improve public transportation to all neighborhoods. Promote new ideas for this- not just light rail. Other cities have used smaller, on-demand buses.”

- 70 participants rated this policy and gave it moderate-to-strong support, approximately 82%. The score earns the concept four out of four stars. (n=70)
- Key pro consideration: We have a need in this city for smaller buses that can reach all neighborhoods and travel on all streets (4 agreed)
- Key opposition consideration: I agree with this except for the "on-demand" part. I strongly support expanding bus frequency instead of light rail, but the buses don’t need to be on-demand. (6 agreed)

“Demand that RTD end the purchase of fossil fuel buses and that electrified buses are first used in highest populous areas.”

- 82 participants rated this policy and gave it moderate support, approximately 79%. The score earns the concept three out of four stars. (n=82)
- Not entirely connected to frequency and geography, but related extensively to RTD as a service provider, which came up in considerations for the Task Force proposal. Considerations also illuminated some innovative ideas related to implementation.
- Considerations included: “More and smaller electric vans could substitute large buses that are often largely empty. We should do the same with school buses.” “Should be combined with switching the electricity grid to be reliant on renewable sources.”
Additional information on this proposal: This proposal was put forth by the Task Force, with the further description of, “Bus Rapid Transit is a bus-only lane on-street system that acts like a subway system except that it is above the ground and uses buses. Its advantage is that it can move a lot of people fast without the expense of building a metro. Because it operates with bus-only lanes the buses can move faster than traffic, and traffic lights can be timed to give priority to the buses. There are fewer stops so the bus can move passengers long distances quickly. BRT is planned for Colfax Avenue and a broader system could include Denver’s main arterials.” The Group 14 analysis offered that this is a high-cost, moderately high-impact solution.

Overview of opinions: 245 participants rated this policy and gave it moderate to strong support, approximately 85%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 18 pro statements, participants discussed how this might be implemented, the impact it would have on ridership, and whether or not it was the most important action. The pro statements with the largest agreements included:

- Speedy buses that are not stuck in traffic are more efficient and will be used by more people. (20 agreed over two similar considerations)
- Cities that invested in BRT witnessed a decrease in carbon emissions w/ dramatic improvements to local air quality. BRT is the equivalent of taking 20,000–40,000 cars off the road. (18 agreed)
- When there is a clear and regular schedule, it is easier to rely on a service. (15 agreed)

Rationale for opposition and suggestions for improvement: Opposed by 14 opposition considerations, several “cons” were looking at the overall implementation and making additional suggestions, not necessarily blocking the proposal. Statements included:

- How will the buses be powered? Can we look at hybrid/alternative fuels to make sure that by adding more buses we’ll decrease our carbon emissions and pollutants? (15 agreed)
• It’s been widely demonstrated both here in Denver and around the country that public transit is a loss leader. Government projects to "encourage" greener choices by people don’t work. (8 agreed)
• BRT systems can negatively impact pedestrians and cyclists if not designed correctly. (4 agreed)

**Connected Proposal: Submitted by a Community Participant**

“Add dedicated offset bus lane on S. Lincoln street from I-25 north to reduce delays of the RTD buses.”

• 56 participants rated this policy and gave it moderate-to-strong support, approximately 82%. The score earns the concept four out of four stars. (n=56)
• Connected directly to BRT as a specific corridor to add to the system.
• Pro considerations included: “If we focus more on moving people rather than moving cars - it is the appropriate decision. Bus delays in this area are due to the congestion created by cars. Congestion is actually a good thing for traffic calming: slow traffic speeds, fewer deaths.
• Opposition considerations included: “Rob Peter to pay Paul. The dedicated lane can be achieved only by taking away a lane for cars, which would increase delays and congestion in the remaining lanes of traffic.”
Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed by Meetings-in-a-Box extensively, as well as Stakeholder Advisory Groups as an option that would increase ridership, create equity, and reduce emissions. Group 14 identified this as a low-to-medium-cost, high-impact solution.

Overview of opinions: 248 participants rated this policy and gave it moderate to strong support, approximately 84%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 25 pro statements, this proposal created support and questions in the pro and opposition statements as to why it wasn’t free for everyone. There were questions about the studies that were done to arrive at this proposal. Overall, the pro statements with the largest agreements that also best represented sentiments overall included:

- In order for more people to take transit regularly, it needs to be either cheaper or faster than driving -- or, ideally, both. (18 agreed)
- We should have a goal to make transit free for everyone. It should become the primary mode of transportation outside of bikes and walking. (13 agreed)
- We already provide a heavy subsidy to drivers, but not to public transport riders. This could help bridge that gap. (11 agreed)
- Until our working class in Denver can afford to live near where they work, we’d be smart to make getting to lower wage jobs easier. (8 agreed)

Rationale for opposition and suggestions for improvement: Opposed by 12 opposition statements, this proposal drew out similar discussions in both pro and opposition threads. Concerns about RTD’s financial ability to do this, and questions regarding why it was free for some and not everybody, rose to the top. The opposition statements with the largest agreements that also best represented sentiments overall included:
• RTD needs the revenue, so I can support some "reduced" fares, but "free" isn't helping to keep the service viable. (6 agreed)
• This is more about helping the transit-dependent reduce travel costs. Great idea, but what does that have to do with climate change? The choice rider should be our focus. (5 agreed)
• RTD cannot handle the job now. Unreliable service, continuing shortage of workers. I would not want to count on them to get me to work and back. (3 agreed)

Understanding how the City and RTD would handle the costs, and getting clarity about whether or not this would increase ridership came up in later comments as well. Other participants seemed adverse that some would get free or discounted rates but not everyone. It seems that participants are asking for clarity about the deeper climate mitigation and equity impacts, and the research behind those impacts.

Connected Proposal: Submitted by a Community Participant

“Affordable costs for bus and light rail fares. Have a wider area for bus service for all citizens.”

• 60 participants rated this policy and gave it moderate support, approximately 79%. The score earns the concept three out of four stars.
• It’s a very similar proposal as to what was put forward by the task force with the slight difference being about overall “affordability,” and not identifying any particular beneficiaries.
• There were no additional pro or opposition comments made other than descriptor:
• Affordability of transit is pivotal. Free transit is ideal. The cost of subsidizing public transit fares is much lower than what we spend subsidizing personal vehicle use.
PART 2: ENCOURAGE EMISSIONS-FREE AND MULTI-MODAL TRANSPORTATION

Additional information on this proposal: This proposal was put forth by the Task Force. The Group 14 analysis observed that this was a low-cost, medium-to-high-impact solution.

Overview of opinions: 249 participants rated this policy and gave it moderate-to-strong support, approximately 82%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 32 pro statements, participants affirmed the policy overall while much of the conversation centered around making it safer for cycling and bike commuting. Overall, the pro statements with the largest agreements that also best represented sentiments overall included:

- The public right of way has been dominated by the private automobile. It is absolutely necessary to rebalance how we allocate that space. (23 agreed)
- A huge barrier to cycling in Denver is the fact that there are very few safe places to do so. Car-free or car-light roads have worked in other cities. (22 agreed)
- Just a 20% increase in cycling can cut CO2 emissions by 10%. We need to make it easier, safer, and more comfortable to encourage citizens to use sustainable transport. (12 agreed)
- What is being described here is called a Complete Street, and I’m hoping Denver implements them ASAP, instead of relying on traffic engineering fixes that just move cars. (10 agreed)

Additionally, participants discussed safety issues including both reckless drivers and cyclists, parents’ fear of kids biking because of safety concerns, the need for more off-street bike paths (such as Cherry Creek), the concept of shared streets, the necessity to address parking issues, and some
debate about how many people are actually interested in cycling with a common thread of reducing space we devote to cars overall.

Rationale for opposition and suggestions for improvement: Overall, the 10 opposition considerations posed questions about bike commuting in bad weather, the actual desire for bike commuting, and the issues of access for vulnerable communities unable to get around by bike. Overall, the opposition statements with the largest agreements that also best represented sentiments overall included:

- The mobile elderly and disabled often need closer drop off points. Forcing people to foot traffic or bikes eliminates a huge portion of the population to business access. (10 agreed over a number of similar considerations).
- I support this statement, but we also have to account for winter weather, and that when snow occurs people will shift back to cars; we need streets to be flexible. (6 agreed)
- We aren't NYC or Manhattan and never will be. This sort of thing only works well in very compact urban environments. I think the subway systems in NYC and DC work great. (4 agreed)

Connected Proposals: Submitted by Community Participants

The concepts of shifting how street space is used and “Complete Streets” drew a lot of attention from forum participants. Three highly rated community-driven proposals are described here, related to the Task Force approvals, offering a number of further considerations that will help strengthen the strategy of Complete Streets.

**Restore Tree Lawn space along streets with inferior Site Amenity (ROW space) and re-build the urban canopy.**

- 94 participated, with strong support, 90%
- Further explanation: Tree lawns provide a safety buffer from speeding traffic & trees help rid the air of pollutants. Downtown Denver is starting to rebuild its canopy, but this needs to happen city-wide, especially along polluted, car-centric arterials that carry the burden of the interstate traffic and the pollution along with it.
- Key pro points:
  - Don’t forget the urban poor, who need trees, clean air, and shade in their neighborhoods. (4 agreed)
  - Tress lessen the heat sink in urban areas and create a drought resistance, carbon capturing, water in-fill, tree/shrub/pollinator plant canopy throughout Denver. We have too much impermeable, heat-trapping infrastructure! (8 agreed)
  - Green space also lowers the demand for sewage infrastructure, saving money in the long term. This is relevant as Denver lies on a floodplain, and has been upgrading its sewers.
- Key opposition: Properties or private businesses can hire someone to take care of the trees and surrounding grass area. Individuals are responsible for all private and public street side maintenance. (3 agreed)
Improve walkability in South Central Neighborhoods. Improve sidewalks, bus shelters, and cross walks.

- 65 participated, with strong support, 88%
- Further explanation: South Broadway, Platte Park, and Baker have easy access to everything a person needs. However, crossing the streets and getting to grocery stores and restaurants are increasingly dangerous due to highway style conditions on Lincoln Street and S. Broadway. Putting pedestrians first would allow a better connection to businesses and restaurants by the residents who live there.
- Key pro points: This is needed all over the city. Some places more than others. Improving walkability in dense areas like Lincoln/Broadway is a no-brainer! Most people don’t realize that a lot of this area does not have adequate ROW for transit shelters.
- Key opposition: No statements submitted

“Increase safe storage areas for bikes in public areas, residential communities and offices.”

- 118 participated, with strong support, 87%
- Further explanation: Theft of bikes is not acceptable. Few places are available to be sure your bike does not get stolen.
- Why ride a bike if you have nowhere to put it when you get to your destination?
- Key pro points:
  - Having had a bike stolen from me in downtown Denver makes me a believer in this need. Rental lockers near transit hubs, offices and retail areas should be expanded. (5 agreed)
  - This is one of the top two reasons I haven’t started biking in Denver yet (along with unsafe infrastructure). I can’t afford to get a bike stolen, so secure storage is pivotal. (4 agreed)
  - Cost per parking slot is so much lower for bikes than for cars. This should be a no-brainer! Please put them under awnings. (3 agreed)
- Key opposition: No opposition statements submitted

“Prioritize safety over driver convenience and speed - No Turns on Red - No Beg Buttons – 20mph is Plenty”

- 79 participated, with moderate support, 74%
- Further explanation: We cannot make non-car transportation modes viable without prioritizing safety for vulnerable road users. I suggest banning turns on red, changing demand actuated light signals to timed intervals, eliminating "beg buttons" and reducing the speeds on our neighborhood roads to 20mph.
- Key pro points: If we want to truly encourage sustainable transportation, we have to make it easy and safe for people to walk and bike. Absolutely, 100% agree. Our transportation system in Denver must prioritize the most vulnerable users - peds & bikes - instead of cars. Please also change arterials to 25. (5 pro statements and discussion)
- Key opposition: This discussion and proposal seemed off-topic for some participants, with the statements that “the focus should be on reducing VMT overall,” and “you are adding more traffic regulation to a broken system that doesn’t enforce the laws already there.”
Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed extensively during both Meetings-in-a-Box conversations and the Stakeholder Advisory Groups. Housing issues, particularly policies that will impact gentrification of neighborhoods and accessibility to housing, are a challenge that run much deeper and city-wide. Based on the many conversations about this issue, community members underscore the point that any proposal which might impact the equity and access of housing, neighborhoods, and community, regardless of ratings during this forum, should be examined carefully and co-developed with existing communities. The Group 14 analysis observed that this was low-cost, medium-impact solution.

Overview of opinions: 224 participants rated this policy and gave it moderate-to-strong support, approximately 80%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 15 pro statements, participants affirmed the policy overall while much of the conversation also brought up the integrated challenges of transportation resources meeting the needs of higher density. Overall, the pro statements with the largest agreements that also best represented sentiments overall included:

- Density and mixed-use will allow for the idea of a "15 minute" city. (14 agreed)
- A study showed that cities like Denver can cut their climate impact by 1/3 through density and transportation policies alone. (13 agreed)
- Allowing more people to live near places they need to go and services they need to access reduces how much people need to drive, helping meet our climate goals. (10 agreed)
- Being near a light rail station explodes the property value, which means low income folks still need to live too far away from such services for them to be useful. (8 agreed)
Additionally, participants in support of the proposal discussed the need to “run new public transportation [to these areas] to make mass transit work for all,” and the hope that this would help “save what little green and open space Denver has.” There was additional discussion about affordability: “Higher density has proven to reduce rents by increasing supply,” yet it was pointed out that “affordability requirements, however, can reduce supply if not well-crafted.” With a final conclusion: “Yes, but the details on how, where and why this happens is incredibly important.”

Rationale for opposition and suggestions for improvement: Overall, the 12 opposition considerations posed questions about implementation, affordability, and the access to transportation, in addition to how this could alter the community make-up. The opposition statements with the largest agreements that also best represented sentiments included:

- If there is to be affordable housing with price controls then the entire building needs to be price controlled since Denver has failed on managing individual units. (5 agreed)
- "Near public transportation" means anywhere in Denver. Not in favor of expanding High Density housing throughout Denver and this goal opens that door. (4 agreed)
- The success of increasing density and mass transit is directly linked to whether the transit connects homes and offices. At the moment, this isn’t the focus on many planning documents. (4 agreed)

Additionally, participants questioned and addressed the role of developers in this process, the issues of supply and demand to control rental costs, and the ways in which “Residential R1 zones make Denver desirable. Please don’t wreck that.” Other observed that “Density is essential, but must be preceded with sufficient transportation programs and investments to give people options to cars. Not the case now, so density is resisted.” A final comment culminated in the same place that the pro conversation ended: “I think it depends entirely on how this is done. If increasing density focuses on preserving historic properties and culture while eliminating parking lots… then, yes.”

Connected Proposals: Submitted by Community Participants
This proposal brought up a number of community-driven proposals and concepts in regards to zoning. While not necessarily about multi-family housing, the following proposals do bring up issues effecting commercial areas and driving, particularly in the downtown vicinity. These offer a number of further considerations that might help strengthen creating multi-use and higher density communities throughout the city.

Require developers of properties with 50,000 or more square feet to design and implement a Transportation Demand Management Plan that will support multi-modal access to the facility while minimizing single occupant car trips.
- 94 participated, with moderate support, 77% (n=94)
- Key pro consideration: Easier to enact strict parking maximums and let individual companies and employees distribute their trips as is most efficient for them. This is critical. The amount of unchecked buildings creating massive congestion (Lowry for example) is unconscionable.
• Key opposition consideration: Transportation Demand Management is not nearly as effective as managing supply. Workers and residents will be shoved aside to make way for tourists and customers parking.

Create a Zero-Emission Vehicle Delivery Zone in downtown Denver with perks to incentivize the use of ZE delivery vehicles.

• 123 participated, with moderate support, 72%  
• Key pro points:  
  o This could push delivery vehicles to be smaller electric vehicles that would be more compatible on the streets with bikes and pedestrians. (5 agreed)  
  o Couple this with a delivery vehicle drop-off area parking plan (preferential loading zones) to help eliminate blocked bikes lanes. (5 agreed)  
• Key opposition (sole consideration, not supported by other participants): This just creates more stressful rules, barriers, obstacles, impediments, etc. If you want to promote electric vehicles, promote charging infrastructure and EV cost reduction. If the intent is to limit delivery conveyance to only ZE in a downtown area, it will fail. Moving companies, trash removal, construction delivery don’t have many ZE options. Sounds impractical to make an extra rule for downtown as long as the overall goal of reducing emissions is met.

Ban private vehicles and create a vehicle free zone in downtown.

• 137 participated, with moderate support, 72%  
• Further explanation: We cannot make non-car transportation modes viable without prioritizing safety for vulnerable road users. I suggest banning turns on red, changing demand actuated light signals to timed intervals, eliminating "beg buttons" and reducing the speeds on our neighborhood roads to 20mph.
• Key pro considerations:  
  o London reduced pollution by 36 percent by doing something similar with no increased pollution around the boundary. (8 agreed)  
  o People drive because it is permitted and convenient. Make it less so and they’ll find other options for getting where they need to go. (5 agreed)  
  o This is easy to do and the resiliency this builds in community connectivity far outweighs the initial "gripe" of convenience for cars and transport.
• Key opposition: We want to encourage people to live in denser areas and downtown. If they aren’t allowed to have their private vehicle there, they may be less likely to make that choice. Parking for workers downtown is already a nightmare. (4 agreed)
Ensure and expand affordable citywide micro-mobility options.

#transp-multi | submitted 4 weeks ago by Denver Climate Action Task Force

🌟🌟🌟 (n=192)

Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed extensively during both Meetings-in-a-Box conversations and the Stakeholder Advisory Groups. Creating affordable and diverse options for transportation that also reduce emissions and total VMTs of personal cars arose often. If implemented correctly, it was cited during MIBs as a win-win for Climate mitigation and creating a more equitable city. The Group 14 analysis observed that this was a low-cost, medium-impact solution.

Overview of opinions: 192 participants rated this policy and gave it moderate-to-strong support, approximately 77%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 13 pro statements, participants affirmed the policy overall, while identifying the importance that micro mobility options reduce short trips. Overall, the pro statements with the largest agreements that also best represented sentiments overall included:

- Last-mile travel is always the biggest hurdle to overcome, so having a variety of low-cost micro mobility option to cover last-mile needs is essential. (12 agreed)
- Micro mobility allows for transportation modes other than a car. Short trips can be made much easier if affordable options are available. (7 agreed)
- We should have micro mobility options in all neighborhoods. Many lower income neighborhoods have been passed over by micro mobility companies both private and public. (5 agreed)
- Micro-mobility offers a lot of promise for reducing car use locally. Streets need to be retrofitted to ensure safety so people will choose this option. (4 agreed)

Additionally, participants asked that needs of seniors and disabled also be addressed, while also underscoring the effectiveness of micro mobility overall. There was also discussion of how micro mobility reduces short car trips, if the public is educated and motivated on the option.
Rationale for opposition and suggestions for improvement: Overall, the seven opposition considerations posed concerns about safety issues on sidewalks and the overall current behaviors of scooter riders. There was less opposition discussion, but the statements with the largest agreements that also best represented other sentiments included:

- Potential hazards on city sidewalks. (3 agreed)
- To help, they need to be spread out a little more and have designated drop-off/pick-up locations. Bus stops of course, but also key intersections or locations. (2 agreed)

Additionally, individual participants added: “Scooter drivers are quite often very rude in both their driving and in their encumbrance dumping in the worst places. They look like they need some training.” “Will need ways to regulate mixed-use conflicts but worth it.” “Only if for the sake of first mile/last mile, not just to have more recreation.” “Scooter people are not bike movement friendly.” And the often present: “This may help with the issue but how much will it cost and who will pay?”

Connected Proposals: Submitted by Community Participants
Micro-mobility was definitely a robust topic on the forum with a lot of discussion, even from oppositional considerations. This proposal brought up a number of community-driven proposals, which could also be easily integrated and considered with the first Task Force proposal in this section as well, “shift how street space is used,” which goes to show how deeply integrated many of these proposals are ... you likely can't have one without the other. The infrastructure for micro mobility seemed to be on many participants’ minds, not just in these proposals but throughout the Transportation section, often mostly focused on bicycles. All of these were four-star proposals.

**Build out biker and pedestrian infrastructure.**
- 86 participated, with strong support, 88%
- **Key pro considerations:**
  - It would be great to have some more safe bike/pedestrian-friendly roads so people can get to their destination carbon-free and not have to worry about parking. (6 agreed)
  - The safer and easier people can bike to work, preferably separated from cars, the more people will be motivated to do so. (3 agreed)
- **Key opposition considerations:** Overall, participants presenting opposition considerations brought up confusion about how this might work and the impact on climate mitigation. Some questioned the intention behind the support: “All the references posted indicate that the primary economic benefit from bicycle projects is in the bicycle-related industry. I fail to see how this benefits other industries.”

**Expand the use of Open Streets.**
- 122 participated, with moderate-to-strong support, 84%
- **Additional information presented:** Designate specific streets as people-centric streets to discourage thru traffic and encourage alternative uses for pedestrians, cyclists, and other modes of travel. I support this *only* if it applies to all types
of streets in all neighborhoods and prioritizes the arterials, collectors, and local streets in the High Injury Network. "Designating specific streets as people-centric streets" is not an equitable approach. All streets should be designated as "people-centric," so people can walk to the grocery store safely, access transit comfortably, and perform daily activities without getting run over or having to dodge speeding cars. That is not the case right now with Denver's approach to shared streets. We have racetracks and then we have cul-de-sacs. I don’t see how this is a fair, sustainable approach long-term, but am willing to stay open to it if the approach is expanded to include everyone, particularly those who most need it.

- **Key pro considerations:**
  - This could help reduce speeding and make streets safer for everyone. (8 agreed)
  - Open streets give a public space option to those without one nearby (7 agreed)
  - I imagine this would be a hard transition. But the most successful areas of most cities are walking corridors. (6 agreed)
- **Key (and relevant) opposition:** This may be a good idea downtown. It did not work in Cherry Creek and the City approved Fillmore street to be reopened to cars.

**Better infrastructure, and Way-Finding to City trails**

- 64 participated, with moderate-to-strong support, 82%
- **Further explanation:** The City has a great trail system that connects to many neighborhoods and destinations, including downtown. Few people know about the trail system, Way-finding both to and from trails is lacking. Micro-mobility (particularly e-bikes) can expand the range people are willing to travel. The urban trail system could become the micro-mobility super highways of the city. No congestion, you get exercise, and your travel time is all but guaranteed.
- **Key pro consideration:** Way-finding is such an easy and inexpensive way to improve mobility. Our trails should be marked at every entrance and connections should be easy to navigate.
- **Key opposition:** Many of the workers in Denver come from outside the city limits. All these proposed changes are not going to work for many (most) of them.

**Denver should build out the bike lane and sidewalk networks for all neighborhoods within 5 years.**

- 118 participated, with moderate-to-strong support, 81%
- **Further explanation:** Given that transportation is one of the largest sources of CO2 emissions, we should build out our bike lane and sidewalk networks in all neighborhoods so citizens can easily and safely move about in the two most sustainable ways possible. Not just for people going to work downtown but also for people to access their schools, grocery stores, and other retail. This is an aggressive goal but cities like Barcelona have built out sustainable transportation networks in the period of only a few years.
Key pro considerations:
  - Our two most sustainable transportation networks are not being given priority. It will take decades to build them out based on current planning. We need these quickly. (9 agreed)
  - One of the best ways to get people out of their car and to make communities more livable and walkable. (8 agreed)

Key opposition: This strategy has not been shown to be cost effective and a comparable result could be achieved by lowering speed limits. Cost and time to implement are both factors to consider. From a taxpayer standpoint, this doesn't feel like a wise investment for the majority of our city. (5 agreed)

Create Neighborhood Mobility Hubs that serve the first and last mile trips to rail stations and other transit services.
- 82 participated, with moderate-to-strong support, 80%
- Key pro considerations:
  - Neighborhood mobility hubs should not be uniform in nature and should cater to the specific infrastructure present in the neighborhood which the mobility hub is serving. The "last mile" problem is a major reason that people do not use public transportation. (11 agreed over three considerations)
  - Neighborhood level efforts are a great level of granularity and should have an equity lens.
- Key opposition: This concept works well in densely populated cities. I can't see how it would work in the way our city has developed. (3 agreed)
Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed during both Meetings-in-a-Box conversations and most often referred to as congestion pricing. As seen in the summary here, a common thread across all discussions about this proposal has to do with equity and who will be put at a disadvantage by the proposal. The Group 14 analysis observed that this was a low-cost, high-impact solution.

Overview of opinions: 240 participants rated this policy and gave it moderate support, approximately 70%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 20 pro statements, discussion affirmed the concept, “The wear and tear on city streets, which have to accommodate the ever-increasing regional interstate traffic demand, needs to be paid for by that which is causing it – driving,” and looked at how fees might be spent. Overall, the pro statements with the largest agreements that also best represented sentiments overall included:

- We need to realize the true cost of driving, and not subsidize the method of transportation that is most detrimental to the planet. (20 agreed)
- It is a shame that we subsidize driving as much as we do. Those that choose different methods still pay for other’s driving habits. This needs to be rebalanced. (12 agreed)
- Fees could be used to support green infrastructure improvements as well as reduce driving. (7 agreed)

Rationale for opposition and suggestions for improvement: Overall, the 19 opposition considerations asked questions about the equity of the proposal and pointed out several times that this would negatively impact Denver’s low-income and most vulnerable communities the most. Two others also saw these types of fees as government overreach, and one person wrote that it was “nonsensical.” The opposition statements with the largest agreements that also best represented sentiments included:
• Punishes poor people, shifts costs to those already struggling instead of redistributing costs in a way that makes sense for everyone and the planet ... May adversely affect disadvantaged communities ... This policy could and should only be implemented if transit is able to achieve affordability, reliability, effective (grid) connections, and regularity for ALL communities. (25 agreed over three considerations)
• More important is making driving less convenient, not just more expensive. (5 agreed)

Additionally, later conversation before the forum closed included: “How do you compensate for those who have no choice but to drive for their job?” And “make other non-car options more attractive,” which echoed earlier sentiments as well.

**Connected Proposals: Submitted by Community Participants**

This proposal brought up a number of community-driven proposals and concepts in regards to zoning. While not necessarily about multi-family housing, the following proposals do bring up issues affecting commercial areas and driving, particularly in the downtown vicinity. These offer a number of further considerations that might help strengthen the creating of multi-use and higher density communities throughout the city.

“City dollars will not be used to add lanes to roads or highways. We cannot use our transportation dollars to expand the mode of transportation that is most detrimental to climate change.”

- 94 participated, with moderate support, 74%  
- Additional information: Induced demand means that adding more lanes and roads means more people will be driving. If we are truly going to focus on the urgency of climate change, we cannot continue to spend dollars on expanding and subsidizing the most detrimental method of transportation that uses the most energy. An exception to this would be any lanes dedicated to transit or biking.  

**Key pro considerations:**
- They say a city’s true priorities are found in its budget. If we are truly going to practice what we preach, we cannot continue to create more space for single occupancy cars. (10 agreed)
- Absolutely. It is proven that expanding lanes of traffic actually increases congestion by 200-300% and does not help traffic at all. No more lane increases! (8 agreed)

**Key opposition consideration:** Good for built out areas. But the north portion of Denver, i.e., Green Valley Ranch, will need some additional roadway - It would require a "Complete Street" approach to new roadway. (2 agreed)
Additional information on this proposal: This proposal was put forth by the Task Force. It might also be discussed with the proposal in part 3 of this transportation report regarding vouchers for electric cars and electric bikes. It should also likely be studied as an equitable solution that could be integrated into prior proposals in part 2 regarding creating more micro mobility options and shifting the nature of streets in Denver. Many of the bike advocacy observations are very similar. The Group 14 analysis observed that this was a moderately low-cost, low-impact solution.

Overview of opinions: 190 participants rated this policy and gave it moderate support, approximately 69%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 7 pro statements, those with the largest agreements that also best represented affirmation overall included:

- Biking has less of a climate impact than even buses. If we subsidize buses, we should subsidize programs that are more impactful in fighting climate change. (12 agreed)
- We already provide heavy subsidy to drivers, but not to bike riders. This could help bridge that gap. (6 agreed)

Additional, individual participants observed, “We need a system to allow individuals who do not have credit cards to use bikeshare. But if the discount requires the type of verifications that RTD LiVE does, it won’t work.”

Rationale for opposition and suggestions for improvement: Similarly, seven opposition considerations pushed back on this proposal, with a common theme underscoring the concept of just giving bikes away instead of creating a voucher system. The opposition statements with the largest agreements that also best represented others included:
• Public Transit is cheaper than bike share. Charges can rack up quickly. We should prioritize subsidies for public transit passes. (8 agreed)
• Just give out free bikes to those that need them. (7 agreed over three very similar considerations)
• Biking in the city is dangerous - we would also need more robust protections against people getting hit by cars and other vehicles. (5 agreed)

The latter considerations reflect the need to see many of these proposals as an integrated strategy: If we create safer and more enjoyable streets with more robust micro mobility options, then more people would be inclined to ride a bike, and creating a voucher program (or giving the bikes away) would provide more equitable access.

Additional Transportation Proposals from the Community (Relevant to Part 2: Multi-Modal)
Considering that this Part 2 of the Transportation Report has included many proposals that were inextricably linked to one another and which would require change on a larger systemic level, it seems fitting to look at a few other community proposals that would affect the overall system. While they don’t connect as directly to the Task Force proposals as the earlier community proposals, these certainly reflect multi-modal transportation, the topic of Part 2, in some form.

Implement an Employer-based Trip Reduction requirement similar to the State of Washington’s Commute Trip Reduction rule that has removed over 32,000 single occupant cars from the roads
• 93 participated, with moderate support, 75%
• Further explanation: Working with the Regional Air Quality Council and the Denver Regional Council of government to implement ETRP regionally since traffic has no borders and we need to maintain an equitable distribution of trips reduced.
• Key pro points: This could be immediately implemented and would be a pragmatic, cost-effective way for Denver to start to achieve climate action goals. My employer provides an EcoPass. As a result, I’m getting rid of a car.
• Key opposition: TDM is not as effective as managing supply. If you want fewer drivers, make the costs of driving align with what people pay. This would need to be statewide to be helpful. Otherwise it will just penalize Denver businesses and employers.

Telecommuting Proposals
Likely due to COVID-19, three proposals examined telecommuting:
1. Incentivize teleworking through tax-credits
   • 60 participated, with moderate support, 70%
2. Make working at home the top mobility strategy
   • 105 participated, with moderate support, 66%
3. Participate as a City in promoting an increase in telecommuting
   • Only 4 participated, but with strong support, 93%

Insights from all three proposals:
- Further explanation: Teleworkers on average are 12% more productive than in-office employees, making our businesses more productive and efficient.
- Key pro: The pandemic has proven that having a large percentage of the population work from home is not only feasible, but has dramatically improved air quality and decreased traffic congestion.
- Key opposition: I'm in favor of telework as a strategy, but I wouldn't call it a "top priority," at least not from a time & effort standpoint. It definitely should not be the top priority, as it's only feasible for a certain privileged percentage of the population [other participants cited educators and frontline workers]. (6 agreed)

### Air Travel

Only one proposal submitted by the community mentioned air travel:

1. **Aviation makes up 18% of CO2 emissions but is not addressed in the recommendations. DIA and airlines need to contribute towards the solution.**
   - Only 66 participated, but with moderate-to-strong support, 82%
   - Only one pro consideration was given without any other discussion or opposition:
     “There are current technologies available to airlines to use sustainable alternative jet fuel and creating a mandate to use this will drive more demand and supply.”

### Root Cause

One proposal looked at the root cause of needing transportation. When thinking about impacts on neighborhoods or designing micro-mobility options, this might be considered.

**“End food deserts to improve health and low carbon transportation costs for neighborhoods.”**

- Only 51 participated, but with strong support, 87%
- Key pro consideration: Having the ability to walk to their neighborhood grocery helps with lowering carbon and helps with the health of the neighborhood. Denver is grown up enough now to support many corner bodegas [and co-ops added another] with fresh produce and protein, bulk items like rice, pasta, nuts, beans and toiletries, not just junk food like 7-11s.
- Key opposition consideration: If we make it easier for businesses to do business in Denver, we would not have food deserts.
PART 3: INCENTIVE PROGRAMS TO ENCOURAGE THE USE OF ELECTRIC VEHICLES

Develop a robust network of charging stations for electric vehicles and electric bikes.

#transp-incentives | submitted 4 weeks ago by Denver Climate Action Task Force

Support: 

Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed in a number of Meetings-in-a-Box conversations as way to increase infrastructure for more sustainable lifestyles. Particularly for residents and community members without garages, alternate charging options were seen as an absolute necessity to incentivize and encourage EVs. Group 14 identified this as a low-cost, highest-impact solution.

Overview of opinions: 207 participants rated this policy and gave it moderate support, approximately 78%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 14 pro statements, there was some debate within the comments about emphasizing electric bikes over cars, and need called out a couple of times to focus stations on neighborhoods and areas without garages. The pro statements with the largest agreements that also best represented sentiments overall included:

- If we don’t build the infrastructure then we can’t ask people to go electric ... Building the bike infrastructure to make it convenient and pleasant to ride is critical for getting people out of cars. (19 agreed over two similar considerations)
- Increase charging stations at apartments and multi-family housings. (6 agreed)
- Needs to be comprehensive. We need incentives for private sector to build. Need fast charging. (3 agreed)

Other participants wrote that it was “too big an investment for government,” which was later articulated in the opposition discussions about needing private incentives or market-driven solutions. While other threads continued: “Even without a direct subsidy for vehicle purchase, the existence of a network of charging stations makes the transition easier to choose on its own merit.”
And one key conversation around equity and increasing access continued: “Encouraging lots of charging stations, especially in garage-less neighborhoods, is the most cost-effective way for Denver to reduce trillions of pounds of carbon.”

Rationale for opposition and suggestions for improvement: With 7 opposition statements, some comments and threads that rose up in the pro section were also discussed here. The statements with the largest agreements that also best represented this side of the argument overall included:

- Electric vehicles do not resolve problems of storage and sprawl. ... Cars are still cars. Electric is better than gas but their negative impacts are much more than just emissions. (16 agreed)
- Electric cars are only a small step in the right direction. This investment could be better allocated. (10 agreed)
- At $0.26/kilowatt hour, there is enough incentive for the private sector to make this happen. i.e., Tesla is introducing a gas station model for charging as a nation-wide network. (5 agreed)

Less considered comments posed other important perspectives: “Electric cars do not eliminate complete carbon footprint,” as another wrote that, “electricity must be fossil-fuel free for this to make sense.” In light of these and similar comments, decisions to support electric vehicles, particularly cars, once again need to be backed by more specific reports and research, along with clear education about the costs and benefits.
Create a voucher program to subsidize the purchase of an electric vehicle and/or electric bike

#transp-incentives | submitted 4 weeks ago by Denver Climate Action Task Force

⭐⭐⭐⭐
(n=212)

Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed during Meetings-in-a-Box and SAGs as a way to increase equitable incentives for residents and to increase the access and opportunity of switching to a different vehicle. The Group 14 analysis observed that this was a moderately-low-cost, low-impact solution.

Overview of opinions: 212 participants rated this policy and gave it moderate support, approximately 70%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 10 pro statements, this proposal provoked a lot of discussion about the benefits of a vehicle subsidy (bikes over cars, human-powered bikes over electric). While there is support for the policy, it is met with questions about this being goal to prioritize. The pro statements with the largest agreements that also best represented the discussion included:

- Electric bikes are 40x more energy efficient than electric cars. We should focus our efforts on the most sustainable program, and bikes are much more affordable for everyone. ... Because the personal car is so heavily subsidized it makes sense that we would add incentives to the more efficient mode of transport: the electric bike. (29 agreed over two considerations)
- This is essential for those (many) areas of the city where commuting by mass transit or bike is not practical. Every ICE car replaced by an EV helps the climate ... like it or not, many people still need to drive. (5 agreed and other considerations shared similar ideas)

Additionally, stand-alone considerations that further clarify the proposal approval included: “All VMT [vehicle miles traveled] must be electric by 2040 in order for Denver to reach its goal,” to which another participant responded, “Sure, but this shouldn't be top priority. Many pollutants come from the wheels on the ground, not the tailpipe, and moving folks to electric vehicles will not solve congestion.”
Rationale for opposition and suggestions for improvement: Opposition considerations continued the nuance questions and views of the pro statements. The opposition statements with the largest agreements that also best represented the discussion included:

- This creates a lot of cost per vehicle. Additional funds would be needed for charging. It would be a lot more effective to use these funds to subsidize use of mass transit. (6 agreed)
- A municipality should not be subsidizing even more single occupancy vehicle use. (6 agreed) [and other comments echoed this sentiment and questioned if it is the role of a municipality to offer any type of subsidy like this, not just specific to EVs.]
- Need to consider the end-of-life issues of batteries. (6 agreed)
- Even with subsidies, this may not be affordable for all. (5 agreed)

Much of the discussion and debate seem to be not so much about giving vouchers, but about giving vouchers to electric bikes over electric cars. Echoing earlier conversation and discussions in the pro column, one participant wrote, “I would still like to see more subsidy given to electric bikes (particularly cargo bikes) to reduce trips, as electric vehicles will still cause pollution through brake dust and tire dust. And because subsidy cost for bikes would be far lower. Bikes over cars, overall improvement.”
Overview of opinions: 187 participants rated this policy and gave it moderate support, approximately 58%. The score earned two out of four stars. This proposal was put forth by the Task Force and it is included here because though it only received two stars, a forum participant later broke the proposal into parts; one for expanding electrified car share, and one for expanding electrified rideshare. The Group 14 analysis observed that this was a low-cost, medium-impact solution. While it’s unlikely that not every participant picked up on the nuance, the split did change the outcome:

Expand Electrified Carshare (Participant version of the proposal)

- 102 participated, with moderate support, 68%
- Key pro points: Rideshares and carshares do not offer the same benefits, and thus should be considered separately. We need to get to a point where owning a car is not a necessity in Denver. Carshare reduces overall car production, and reduces need for impermeable car lots for car storage. (7 agreed)
- Key opposition: Invest in public programs like transit, not inaccessible car sharing! (6 agreed) Carshare isn’t sustainable already. The future of carshare will be similar to "Get Around" which is peer-to-peer carshare. This requirement would kill what is left.

Expand electrified rideshare (Uber & Lyft) (Participant version)

- 91 participated with less-than-moderate support, 57%
- Key pros: Rideshare companies are likely here to stay. It may be worth encouraging their transition of existing vehicles to electric vehicles, particularly given their high mileage use. (5 agreed) Current ride shares increase pollution by 70%. Go exclusively electric.
- Key opposition: We should require that rideshare be electrified but not incentivize expansion. Rideshare adds vehicle miles traveled to our roads, with severe pollution impacts, and does little to slow the production and purchasing of many cars. Invest in public programs, stop giving handouts to corporations!
**ADDITIONAL TRANSPORTATION PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION**

Following is a quick reference table by sub-category of additional proposals made on the Transportation page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
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<tbody>
<tr>
<td><strong>SYSTEM</strong></td>
<td></td>
<td></td>
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<tr>
<td>Make transportation investments based on connecting people to places (access), rather than encouraging speed to destinations (mobility).</td>
<td>41</td>
<td>82%</td>
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<tr>
<td>Implement congestion pricing and use the revenue to fund improvements in transit/bike/walk infrastructure &amp; service.</td>
<td>29</td>
<td>87%</td>
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<tr>
<td>Reducing public health risk of Public Transportation during a pandemic.</td>
<td>28</td>
<td>81%</td>
</tr>
<tr>
<td>We must focus on emissions reductions from the transportation sector, namely via vehicle miles traveled. We should set a goal of 2 billion VMTs reduced per year.</td>
<td>25</td>
<td>74%</td>
</tr>
<tr>
<td>Eliminate off street minimum parking requirements. It makes housing more affordable and gets more people using sustainable transportation.</td>
<td>20</td>
<td>78%</td>
</tr>
<tr>
<td>Denver should create a voucher/rebate program for purchase of an EV, e-bike, or RTD ecopass.</td>
<td>14</td>
<td>87%</td>
</tr>
<tr>
<td>We must invest big in public transit projects.</td>
<td>13</td>
<td>80%</td>
</tr>
<tr>
<td>Create a centralized card that would connect bike rentals, scooters, and vehicles.</td>
<td>13</td>
<td>78%</td>
</tr>
<tr>
<td>Overall: the policies in the entire transportation section do not add up to get us to where we need to go in terms of meeting our carbon emissions reductions goals.</td>
<td>12</td>
<td>68%</td>
</tr>
<tr>
<td>Have an annual celebration of the electrification of Denver’s transportation sector.</td>
<td>51</td>
<td>37%</td>
</tr>
<tr>
<td><strong>BUSES</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denver could purchase or subsidize RTD bus service.</td>
<td>25</td>
<td>74%</td>
</tr>
<tr>
<td>Make Denver Public Schools address their transportation plan. Currently they don't offer bus service to the majority of students, forcing parents to drive students to school.</td>
<td>10</td>
<td>96%</td>
</tr>
<tr>
<td><strong>BIKE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make sure every child in Denver has access to free bicycle training.</td>
<td>22</td>
<td>81%</td>
</tr>
<tr>
<td>Create and interconnect more protected (comfort) bike lanes throughout the city.</td>
<td>10</td>
<td>99%</td>
</tr>
</tbody>
</table>
## CARS AND DRIVING

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Support</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Put restrictions on days you can fill up your vehicle.</td>
<td>90</td>
<td>33%</td>
</tr>
<tr>
<td>Make parking in metered spaces free to electric vehicles.</td>
<td>57</td>
<td>32%</td>
</tr>
<tr>
<td>Convert Lincoln street between I-25 and 6th street back to two way.</td>
<td>34</td>
<td>60%</td>
</tr>
<tr>
<td>Go back to regulating vehicle registration emissions standards. The less a vehicle pollutes, the less it costs to register.</td>
<td>24</td>
<td>91%</td>
</tr>
<tr>
<td>Stricter Enforcement of Denver’s Idling Vehicle Law, or alternative measures?</td>
<td>24</td>
<td>89%</td>
</tr>
<tr>
<td>Denver should increase the number of EV charging stations at apartments and multi-family housing.</td>
<td>22</td>
<td>80%</td>
</tr>
<tr>
<td>Approve car-free neighborhoods.</td>
<td>18</td>
<td>87%</td>
</tr>
<tr>
<td>Improve traffic light flow software. Allowing traffic to flow through multiple intersections without having to stop at several red lights on the same street.</td>
<td>16</td>
<td>64%</td>
</tr>
<tr>
<td>Create low or zero-emissions zones where the only vehicles are allowed are zero-emissions for light-duty or delivery/freight vehicles.</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>Implement a fee for non-electric ride-share trips.</td>
<td>5</td>
<td>100%</td>
</tr>
<tr>
<td>Denver could implement the type of HOV Lane policies that California has to encourage EV’s.</td>
<td>3</td>
<td>100%</td>
</tr>
<tr>
<td>Collect energy conducted from cars driving on our highways, use that energy to reheat our city, provide lighting.</td>
<td>2</td>
<td>65%</td>
</tr>
<tr>
<td>License # day restrictions, will implement other uses of mobility. Already being done in Costa Rica &amp; China to cut emissions.</td>
<td>2</td>
<td>59%</td>
</tr>
<tr>
<td>Car transition from gas to electric to use hydrogen, electricity, or biofuels, with 5 hydrogen fueling stations (this is being done in Copenhagen).</td>
<td>1</td>
<td>42%</td>
</tr>
</tbody>
</table>

## RAIL

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Support</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build a Denver rail system to compliment the RTD regional system.</td>
<td>77</td>
<td>49%</td>
</tr>
<tr>
<td>Build a subway system for the amount of population in the city of Denver and to be linked to a rail system for the front range.</td>
<td>42</td>
<td>36%</td>
</tr>
<tr>
<td>East Colfax monorail.</td>
<td>37</td>
<td>32%</td>
</tr>
</tbody>
</table>

## MISCELLANEOUS

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Support</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>End all gas-powered boat motors.</td>
<td>9</td>
<td>54%</td>
</tr>
</tbody>
</table>
This report has been prepared for Denver’s Climate Action Task Force to consider public input into climate action related to buildings and homes as they prepare their recommendations to the city. It begins with a brief overview of the results of the online discussion, highlighting most favored proposals and major themes and messages. Excerpts from Group 14’s report on impacts and cost of climate action approaches, as related to buildings and homes, are included for ease of reference as the task force considers public input. More detailed descriptions of input on proposals follow, in order of favorability (most to least) for those proposals that engaged at least 50 participants and received at least a moderate support rating – or were originally proposed by the task force. A table with links to all other proposals is included at the end.

**Most Favored Proposals**
The only funding proposals garnering strong support (4-star ratings) included developing incentive programs for low-income households and affordable housing providers and creating jobs programs to support clean energy transition. Common characteristics of these proposals and responses to them include:

- **Equity-oriented solutions**
- **Support transition to clean energy**

**Major Themes and Messages**
Following are major themes identified across the proposals that garnered the most support (3- to 4-star ratings).

**Impact and return on investment**: Proposals that are known to reduce emissions and/or enhance resiliency tend to be supported more strongly, especially if a favorable return on investment.

**Cost – need for support/subsidies**: Whenever cost appears to be significant for property owners/buyers, subsidies are strongly recommended to support participation among people with lower incomes and small businesses, when applicable.

**Focus on new homes and buildings**: Proposals that include changes in regulations for new construction produced more favorable responses than improvements to existing buildings, even though comments demonstrate understanding about the “greenest building”.

**Effect on housing affordability**: Concerns were raised about the potential impact of several proposals on housing affordability. Even though participants tended to favor action on new construction, they expressed significant concern about increasing housing prices, largely related to developers passing on new upfront costs to them.

**Preference for incentives**: Participants tended to favor incentive-based change versus requirements.

**Quality of Life**: Participants appeared to get excited about things that would improve quality of life for them and people they care about – from producing living wage jobs to reducing nuisance noise.
Relevant Excerpts from Group 14’s Strategy Impact and Investment Report

GHG Projections and Gaps

Denver’s Projected Emissions and Goals

- Business as Usual (BAU) primarily from additional renewable electricity on the utility grid
- Estimating a 76% emissions reduction in 2040; remaining emissions primarily from natural gas in existing buildings and gas vehicles

Buildings Co-Benefits

- Energy costs have a disproportionate impact on lower income residents
- Energy efficiency measures lower energy bills, saving money for households and businesses

Social Equity

- Reduction in building energy use reduces costs
- When a business or household lowers their energy costs, the savings can be spent elsewhere in the local economy, resulting in additional jobs

Local Economy

- Reducing the use of imported fossil fuels lowers the community's vulnerability to energy price and supply shocks

Energy Independence

- Reducing energy consumption can help defer the need for new sources of energy generation

Deferred Infrastructure

- Reducing fossil fuel use in buildings and energy generation reduces the emission of air pollutants, improving air quality and lowering risks of asthma, respiratory disorders, heart attacks and cancer

Public Health
Buildings Annual Program Investment

Annual Program Costs - Buildings

- City Cost $/yr (Phase 1: 2020-2022)
- City Cost $/yr (Phase 2: 2023-2025)
- City Cost $/yr (Phase 3: 2026-2030)

Evaluate feasible incentive levels, use targeted incentives to drive equity.

Policies have biggest ROI for GHG impacts, balance with marketing and incentives to ensure buy-in.

Buildings Strategies

BUILDINGS: Program Cost vs Impact

- Low Income Incentives for EE and RE
- Cash Reward for NC EE measures
- ExB Incentives for Electrification
- ExB EE & Performance Policies
- NC EE Code / Net Zero
- Green Job Training
- Rental Property Performance Requirement
- ExB Energy Transparency Policy
- Contractor/Tech Training

Policies for buildings are high impact and low cost, but require other marketing, training, and incentives to be effective and maintain equity.
Develop incentive programs that prioritize low-income households and affordable housing providers to support energy affordability through increasing energy efficiency and access to low-cost renewables.

Additional information on this proposal: This is a task force proposal and was supported in SAG discussions.

Overview of opinions: 129 participants gave their opinion about this policy. It earned a 4-star rating, with an average of 81% support.

Rationale for support and strengths identified: There were few comments on this proposal, though four people seemed to agree that it makes sense given the greater impacts on lower income communities. They said, “Lower income communities are often the most impacted by pollution and the climate crisis. For example, 80216 in N Denver is the most polluted zip code in the US.”

Rationale for opposition and suggestions for improvement: Three people noted access should be made possible for everyone: “We need widespread capacity and access to renewables for all, not just low income. Build capacity and make this an economic no-brainer for all businesses and households.”

Others suggested the following improvements:

- “Some tweaks in the typical green split lease should be warranted in the tenants favor. Perhaps LEAP should be involved.”
- “A residential PACE program would help financing but there are obstacles. Attach the energy loans to the property, not the person.”
Additional information on this proposal: This is a task force proposal and was supported in SAG discussions.

Overview of opinions: 133 participants gave their opinion about this policy, with an average of 80% support. It is the second of two proposals that earned four stars.

Rationale for support and strengths identified: People appreciate the fact that this proposal supports access to more living wage jobs, that it offers protection for workers in transition from polluting industries and that training will support faster implementation by getting more qualified workers into the field. Participants also seemed to be energized about different ways of getting more qualified workers in the field:

- Offering sustainability scholarships – one participant noted, “A guiding example is Santa Fe Community College programs in green job training. MANY opportunities right now!!”
- Promoting to young people, including “Every Earth Day, infiltrate all public and private schools K-12 & colleges with apps to promote age-appropriate green action/lifestyle/training/jobs.”
- Providing “eco-job on-the-job training, eco-trades and small business ways to make your business greener” as well as “Green business incubators, paired with colleges & finance industry,” which reportedly has worked well in northern Colorado.

Rationale for opposition and suggestions for improvement: Opposition included one person’s pushback on the equity aspect of the proposal, claiming that equity and climate issues should be separate, and two in agreement that the private sector should be taking lead on this. Several also emphasized that the jobs are needed as well as the training, and another participant noted that some of the new jobs are high skill and require years of training, which doesn’t sync with urgency.
Train contractors and technicians to understand and utilize the latest technology and standards to ensure that buildings and homes across Denver can be energy efficient, have net-zero greenhouse gas emissions, and have electric heating.

Additional information on this proposal: This is a task force proposal. Training to use new technology was also suggested by some SAG participants.

Overview of opinions: 132 participants gave their opinion about this policy, with an average of 79% support – the top of the range of support included in 3-star ratings.

Rationale for support and strengths identified: Participants said that next generation skills are needed quickly, and contractors are often an obstacle to getting green designs on the ground, so this approach would be useful.

Rationale for opposition and suggestions for improvement: No real opposition to this proposal was expressed, though one person noted a potential challenge if construction worker and contractor values don’t align with climate action goals. Several suggestions were made to strengthen this proposal:

- Educate builders on energy efficient building techniques
- Leverage existing programs in trade schools and community colleges
- Look to New England for examples of contractor training on electric heat pumps
- Include solar thermal and hybrid solar system training
- Include consumer education to generate demand
- Include net-zero changes in building code
Additional information on this proposal: This is a task force proposal. For increased understanding of this proposal, they shared, “‘Net-zero energy’ in buildings means that buildings are highly efficient, powered and heated through on and off-site renewable electricity, and have smart appliances or controls that mediate peaks in energy demand.” Focusing on new buildings versus retrofits was also a recommendation by some SAG participants.

Overview of opinions: 198 participants gave an average of 74% support for this proposal.

Rationale for support and strengths identified: The most commonly reported strength, identified by 14 participants, is that it is "widely shown to be cost-effective for homebuyers, with the increases in first costs paid for through reduced energy bills in only a few years. Helps housing affordability." Several also note that it also "makes homes more comfortable, less noisy, and more resilient to extreme weather" and "benefits health, by reducing indoor air quality issues, mold, etc." It is noted that this is especially important to limit negative environmental impacts of the fast growth that Denver has been experiencing. Some also appreciate the burden of the upfront costs being put on the developer and suggest it will support change among the lowest-performing builders.

Major concerns: Though developers bear the initial cost of this change, there are concerns the increased costs would simply be transferred to the end buyer. In fact, the potential increase in the cost of purchasing a new home is the most common concern expressed (11 agreed). Additionally, several people noted, “This question seems to imply eliminating natural gas furnaces & water heaters in new homes. I am concerned that this will really drive up construction costs” (4 agreed). Specific concern is also expressed about the upfront investment needed for ground source heat pumps and the “economic injustices to low-income residents and will lead to displacement of long-time community members” (4 agreed). Overall, participants are seeing challenges for many people in getting to long-term savings if they can’t afford the upfront costs.

Additional concerns include technology readiness to support code change, impacts to existing jobs and possible worker displacement, more burden placed on newcomers buying new homes, pricing
people out of housing (like in CA and WA) and pushing them into suburbs. There also is less support for this applying to homes, more support for applying to commercial buildings.

Suggestions for improvement: There is a long list of suggestions for improvement. The task force might consider the following checklist of things to consider when further developing this recommendation:

- “Allowing off-site energy generation to be considered in this equation defrays potential costs.” (5 agreed)
- Look to examples from “1) The Zero Energy Appendix from the upcoming 2021 International Energy Conservation Code (final and published by the end of this year) 2) The Zero Code from New Buildings Institute https://zero-code.org/ 3) the DOE Zero Energy Ready Home Program https://www.energy.gov/eere/buildings/zero-energy-ready-homes (adopted by Summit County) 4) Boulder and Boulder County’s net zero energy requirements for large homes >5,000 sq ft (gradually including smaller homes over time)” (5 agreed)
- “Offer grants/subsidies for affordable housing developments”
- “AND no new/greenfield development. Sprawl is one of the biggest cancers in terms of urban GHG emissions. Growth boundaries and increased density should be considered.”
- “Reduce influence of utilities. Permit wider spread use of PV, wind and geothermal energies. Net-metering needs to be brought to par with other states.”
- “The timeline should be 2030.”
- “Refine net zero terminology... Generally, I’ve seen NZE apply to increasing efficiency 30-40% and then offsetting usage with solar, which doesn’t necessarily manage grid impacts. Load-shaping should be considered along with load reduction to reduce system costs and carbon. It may be useful to consider: NBI’s grid friendly building standard, DOE’s work on grid-interactive efficient buildings, California decarb/electrification pilots like BUILD, aligning utility distribution planning with city code authorities”
Develop programs, such as a group buy or co-op model, for businesses and homeowners to go solar, with education, training and resources that are tailored for specific needs.

Additional information on this proposal: This is a task force proposal. SAG participants also discussed support for going solar, though they did not specifically discuss group buy or co-op models.

Overview of opinions: 149 participants rated this policy, averaging 72% support.

Rationale for support and strengths identified: Most commenters (11) expressed support for “community solar” or “solar gardens” if they are voluntary. They report that such efforts have been “wildly successful” in other cities in the past, and they see this proposal as an important part of equitable access to solar energy.

Rationale for opposition and suggestions for improvement: One participant expressed concerns about who pays for these projects, and another expressed skepticism about the savings incurred from switching to solar. Most concerns (4) though were about needing to understand the proposal better. In addition to better explaining the concept, four participants agreed that there is a need for clearer guidance on solar use for renters and HOA owners. The original commenter explained, “It’s not impossible now, but clarification of virtual net metering would likely be helpful to make it much more accessible. I live in a complex with a roof where solar is feasible, but the current legal restrictions mean that rooftop solar could only go to offset complex electricity, not shares to individual units.”
Additional information on this proposal: This is a task force proposal.

Overview of opinions: 144 participants rated this policy and gave it moderate support, 71%.

Rationale for support and strengths identified: Ten participants shared strengths with this proposal, indicating it is a worthwhile effort that can encourage owners to improve energy efficiency and create new skilled jobs to collect all of the data needed.

Rationale for opposition and suggestions for improvement: More comments address the challenges with this proposal, saying it would be labor-intensive” (7), “complicated” (4), “a nightmare to manage” (2) and “almost impossible to hit design energy exactly” (2). Six people expressed concern about change in tenancy, for example, “A single change in tenant could dramatically change usage.” Additionally, three people agreed, “This recommendation could have a chilling effect on construction of new builds...if future owners are held responsible for non-conforming performance of a prior owner’s construction.” (3 agreed)

One person noted that this may be more feasible for buildings than homes, while another wrote, “That could be very difficult for buildings to do. It is difficult enough to get the construction crew to build to design specifications. However, the effort should still be made”. Suggestions for improvement include providing more information about how this would work and disclosing review periods for buying/selling/leasing buildings.

Finally, one person said this is “extreme government overreach”, and another suggested letting the current benchmarking program do what was intended.
Develop policies for existing buildings and homes that reduce greenhouse gas emissions through improved energy efficiency, operational improvements, and strategic electrification of natural gas heating systems at time of replacement.

Additional information on this proposal: This is a task force proposal and was recommended by some SAG participants.

Overview of opinions: 166 participants rated this policy with moderate support, 70%.

Rationale for support and strengths identified: Participants that supported this proposal basically agreed that there should be policies in place, with many clearly following the mantra that the “greenest building is the one already built.” However, specific policy proposals are needed to evaluate this proposal effectively. Some specific suggestions were offered and are described on the next page.

Additionally, seven participants said that this is more thoughtful and achievable than net-zero, is a huge job generator (with at least “two or three great companies in Denver that can train people and scale up if the business materializes”) and can be cost-effective with a focus on low-hanging fruit.

Rationale for opposition and suggestions for improvement: As shown in the histogram above, there were a number of people strongly opposed to this proposal. Some of the reasons for opposing it include:

- Claims that shifts to electric heating runs counter to emission goals, suggesting that it may create more reliance on coal due to lack of renewable capacity at the moment (5 agreed)
- Concern about people's ability to pay if on fixed incomes (5 agreed)
- Where the funding will be found (2 agreed)
- Suggestion that this is getting ahead of things and that change should start with new construction (2 agreed)
Many others offered suggestions for what might be included (or not) in new policies – following is another checklist of these suggestions for the task force to consider:

- Consider low-income housing and homeowners who may not be able to afford upgrades, and provide subsidies to offset any higher costs incurred (8 agreed)
- Make policy incentives: “more carrot than stick” (7 agreed)
  - Include incentives for cleaning and servicing AC units: “A global study by The Carbon Trust, based in the UK, estimated an average savings in electric in running those energy hogs of 20%, possibly as high as 60% for units not recently cleaned.”
  - Link to incentives for historic preservation
- Consider banning new gas installations or lines (4 agreed)
- Design policies to make building reuse the easiest choice (3 agreed)
- Conduct life cycle assessment of each product and before retrofitting buildings (2 similar suggestions)
- Consider how low-hanging fruit can be used to help finance higher fruit, so these efforts can combine to get to net-zero
Additional information on this proposal: This is a task force proposal. It was also discussed by some SAG and MIB participants.

Overview of opinions: 173 participants rated this policy and gave it moderate support, approximately 70%. The big message appears to be: Solar is great, but on-site doesn’t seem important.

Rationale for support and strengths identified: Support for this proposal, as shown in the comments, is grounded in its effect of creating more distributed energy sources, reducing dependence on coal and natural gas, and enhancing local resiliency. While some MIB participants talked about the need to make solar panels more affordable for vulnerable communities, some participants in this forum say it is more affordable now, and it improves the cost of electrification in the long run. However, supporters and opponents alike question the need to include on every home, saying it is not workable on every home, solar gardens are desirable and utility-level energy generation is most efficient.

Rationale for opposition and suggestions for improvement: The most common concern expressed is about the increase in housing costs (13 agreed), including costs shifted to the end-buyer even if the developer bears the initial cost. Three people also noted a concern about this regulation forcing residential and commercial owners to sign undesirable leases or to own and maintain their own solar panels.

Participants identified the following ways this proposal could be improved:

- Mitigate homeowner costs (11 agreed)
- Set neighborhood-level goals (9 agreed)
  - “Some homes and buildings will not be well situated for solar, but could benefit from others that are. My home has south facing roof and in Summer I can produce more than I use. My neighbor may benefit indirectly from that, but they benefit more directly from a microgrid or battery bank. Attaching an article on the subject. [https://www.vox.com/energy-and-environment/2017/12/15/16714146/greener-more-reliable-more-resilient-grid-microgrids](https://www.vox.com/energy-and-environment/2017/12/15/16714146/greener-more-reliable-more-resilient-grid-microgrids). I think there is a neighborhood in New York that is already doing this.”

- Provide education for skilled implementation (6 agreed), including enhancing local LEED programs, rewarding business leaders who go green and working with business coalitions to strengthen innovation, partnership – “don’t make it harder to do business in Denver though.”

- Define “feasible” (4 agreed)
- See Boulder 2020 Energy Conservation Code for guidance (2 agreed)
- Couple with batteries to provide better grid services for Xcel (2 agreed)
- Follow Boulder model of collecting fees from those who can't fully meet the requirement (due to technical infeasibility) and using this for low-income programs
- Need plan for handling end-of-life solar panels first
- Remove any unnecessary limits on the number of panels you can put on your roof (if applicable)
- Include rooftops (especially schools and businesses) and parking lots as possible community solar areas (though a task force member noted that these are more expensive)

Finally, though not directly related to this proposal for on-site renewable solar, four participants agreed that sustainability regulations should be added to zoning, moving away from single family zoning.
End the use of fossil fuel powered tools including lawn equipment when other sources of power become available.

Additional information on this proposal: Jeff Neuman-Lee, the author of this proposal, also explained that battery-powered push lawnmowers now equal fossil fuel push lawn mowers in effectiveness, though he is not aware of electric riding lawn mowers at this time. He suggests setting a date for when an existing fossil fuel tool will be confiscated.

Overview of opinions: 55 participants rated this policy and gave approximately 65% support.

Rationale for support and strengths identified: Multiple participants supported this idea, saying they would like to get away from the “highly polluting”, “loud, obnoxious, allergen circulating,” lawn mowers and leaf blowers that are even uncomfortable for their owners to use, which one person said “should have been outlawed years ago”.

Rationale for opposition and suggestions for improvement: One of the supporters also suggested, “At least educate, encourage or require landscape maintenance with fossil fueled machines to focus operation after dusk, whenever possible.” Another person suggested, “Need more available info on TV and the web regarding the free solution to saving water and reducing the use of poisons. That is to simply cut your lawn 4 inches long.”

Suggestions for improvement include starting this effort by transitioning city fleets, shifting to banning sale of gas-powered yard tools and working with landscapers to ensure they have the equipment they need to do their jobs.

Note: Similar proposals were also made on this page and received a lower level of participation but higher support. They are listed in the table on the last page of the Buildings and Homes report, but comments are incorporated above.
End the installation of fossil fuel water heaters. Subsidize heat-pump water heaters for low-income purchasers. Subsidies would apply to rental properties by income of the renter.

Additional information on this proposal: In response to a comment on the proposal, the proposer furthered explained that a ban is not intended, rather, he suggests a requirement to replace fossil fuel-powered units with electric, “with perhaps insistence on efficiency to protect the grid.” This proposal is related to the task force proposal to retrofit homes and buildings and was supported by some SAG participants.

Overview of opinions: 59 participants rated this policy, giving it approximately 65% support.

Rationale for support and strengths identified: Positives shared about this proposal include improving indoor and outdoor air quality, encouraging homeowners to upgrade during initial build or at the end of life of existing heaters, and eliminating a local source of highly toxic PM2.5 emissions.

Rationale for opposition and suggestions for improvement: No actual opposition is expressed in the comments, though an outright ban is discouraged. Three people agreed, “We shouldn’t outright ban fossil fuel heaters when they power homes of the impoverished. Encouraging through subsidy seems a fine alternative.” Support for both incentives and subsidies is expressed in multiple comments.

Additional suggestions for improvements to the proposal include:

- “Need to consider tradeoffs between the heat pump variety and the electrical resistance variety as there are fuel cost issues (kwh) with the resistance style water heaters.”
- “Xcel should be giving huge rebates as these are great for load shifting since hot water stays hot for a long time throughout the day. Only heat water when electricity is cheap.”
Require existing buildings and homes to reach the most efficient standard of operation for their type of use, such as office, retail, and multi-family.

#bldg-retrofit | submitted 3 weeks ago by Denver Climate Action Task Force

🌟🌟🌟🌟 (n=154)

Additional information on this proposal: This is a task force proposal and was addressed in both MIBs and SAGs.

Overview of opinions: 154 participants rated this policy with 59% support, the top of the range for giving proposals only two out of four stars.

Rationale for support and strengths identified: Several people noted that this is a “great idea if...” No specific rationale for support is offered, and people were quick to move to their concerns about this proposal.

Rationale for opposition and suggestions for improvement: The biggest and most repeated concern is about cost – shared by at least a dozen online forum participants and MIB participants. Furthermore, multiple people express concern about the return on investment for this strategy. There were also multiple concerns expressed about the fact that buildings are different and need to be addressed differently. Additional concerns point to the vagueness of the statement, the requirement aspect of it (a hot button issue for SAG participants as well), how subsidies may be funded, and what happens to historical buildings like churches and museums.

The most common suggestion for improvement is to offer subsidies to address cost and equity concerns for both homeowners and small businesses. Additional suggestions include:

- Implement this during re-sale (5 agreed)
- Be more specific, like” require existing homes and buildings to meet performance standards by 2025, based on benchmarking results” (2 agreed)
- Be clear about “standards” referenced and if LEED certification would be required (2 agreed)
- Be proactive and incorporate benchmarking: “As interval metering rolls out, there could be a partnership where city-permitting data is combined with load profiles to identify neighborhoods where contractors should reach out to homeowners or businesses about
proactive upgrades to efficient equipment prior to malfunction (or as soon as it’s noticed). The Colorado Energy Office could be a partner to manage a project like this and develop anonymized data. Denver could use insights from such a project to inform triggers in the building lifecycles for requirements. Denver should also encourage utilities to make this kind of information directly available to customers to promote informed efficiency decisions.”

- Require contractors to offer efficient options: “Contractors are a primary gate-keeper to seeing more efficient equipment deployed in existing buildings. If a building owner (residential or commercial) isn’t even being offered a more efficient option beyond code by their contractor, how can they be expected to achieve a more efficient standard? Rather than requiring the building owner achieve a higher standard, start by requiring the contractors serving them to offer the opportunity to pursue the higher standard.”

- Shift to incentives and find a way to align costs and benefits – a message that is consistent with SAG participant recommendations.
### ADDITIONAL BUILDINGS AND HOMES PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION

Following is a quick reference table of additional proposals made on the Buildings and Homes page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating smart stores that control heating, lighting, refrigeration, and energy use in the most efficient way possible (have LED lighting adjust to natural light levels outside)</td>
<td>2</td>
<td>98%</td>
</tr>
<tr>
<td>Green Roofing, feasible with the amount of sunshine we collect, creating fresh produce &amp; community gardens on roofs, can even include chicken/hen coops for fresh eggs. Can be built along side the pool roof tops for more elegance.</td>
<td>4</td>
<td>97%</td>
</tr>
<tr>
<td>A low carbon concrete ordinance such as in Marin County, CA.</td>
<td>5</td>
<td>95%</td>
</tr>
<tr>
<td>Just like pre-sale home/building inspectors, develop network of energy-efficiency consultants available to show proven ROI on green solutions. Enhance with standardized green product/service promotions.</td>
<td>7</td>
<td>91%</td>
</tr>
<tr>
<td>A comment on the overarching goal of net zero buildings by 2040: there should be 2025 and 2030 interim goals to make sure that we are on track to meeting the 2040 goal</td>
<td>13</td>
<td>88%</td>
</tr>
<tr>
<td>Study &amp; adopt funded, incentivised programs for geothermal+Solar energy+Solar hot water heated systems at large new builds and retrofits (e.g. Schools Den. Water, Parks &amp; Rec, Utilities, housing, etc.)</td>
<td>14</td>
<td>87%</td>
</tr>
<tr>
<td>Reduce demolition and construction debris going to the landfill by prioritizing and adopting policies that better support adaptive reuse and the continued use of existing buildings</td>
<td>22</td>
<td>82%</td>
</tr>
<tr>
<td>Allow onsite water reuse and incentivize water efficiency. We have less and less water in Colorado, and yet you wouldn’t know it with our current policies and practices.</td>
<td>10</td>
<td>80%</td>
</tr>
<tr>
<td>Ask Denver Public Schools and all other schools to start mid-September and go through June, because the heat of old buildings stifles learning at best.</td>
<td>5</td>
<td>77%</td>
</tr>
<tr>
<td>Eliminate single-family zoning mandates to encourage smart growth &amp; compact development.</td>
<td>22</td>
<td>76%</td>
</tr>
<tr>
<td>Ban or limit the use of gas-powered leaf blowers in the city.</td>
<td>42</td>
<td>75%</td>
</tr>
</tbody>
</table>
Electricity Report

Community Support for Climate Action

This report has been prepared for Denver’s Climate Action Task Force to consider public input into action that may be taken regarding electricity in Denver as they prepare their recommendations to the city. It begins with a brief overview of the results of the online discussion on this topic, highlighting most favored proposals and major themes and messages. Excerpts from Group 14’s report on impacts and cost of climate action approaches, as related to electricity, are included for ease of reference as the task force considers public input. More detailed descriptions of proposals follow. They are presented in order of favorability – most favorable to least – for those proposals that engaged at least 50 participants and received at least a moderate support rating – or were originally proposed by the task force. A table with links to all other proposals is included at the end.

Most Favored Proposals

None of the proposals about electricity garnered strong support (4-star ratings), and only three with high enough levels of participation gained moderate support (3-star ratings). Both Task Force proposals achieved 3-stars, as did one community proposal, (which also gained substantial community support). Several other community proposals gained support, but by 20 or fewer participants. Those are listed at the end for reference and include useful ideas that could help achieve the three main proposals reviewed here.

Major Themes and Messages

Following are major themes identified across these proposals:

Confusion: General support for the proposals, but confusion about the proposals themselves.

Equity: Support for the equity aspect of the two task force proposals was clear, though at times it might have made the intention of the proposal less clear. As it also surfaced extensively in MIBs and SAGs, an overall proposal should be put forth to make decisions about all proposals with equity as a consideration and a criterion.

Greater action: Participants also called for more aggressive action, to either reduce emissions, transition to a renewable energy grid, or address equity and resiliency. Some felt that the proposals were not going far enough or missing the most critical need at this time.

Specificity: Support for the one community proposal about solar on parking lot roofs drew interest by the creativity of the idea. The Task Force proposals garnerered interest, but some request clarity about the actual actions. The juxtaposition between the responses draws out the need for identifying concrete strategies.
Relevant Excerpts from Group 14’s Strategy Impact and Investment Report

GHG Projections and Gaps

- Business as Usual (BAU) primarily from additional renewable electricity on the utility grid.
- Estimating a 76% emissions reduction in 2040; remaining emissions primarily from natural gas in existing buildings and gas vehicles.

Renewables Annual Program Investment

- Evaluate feasible incentive levels, use targeted incentives to address equity.
- Advocacy is key to achieving 100% renewable energy for the overall grid.
Electric Supply Strategies

Advocacy is low cost and has the highest impact to increase renewable energy on the electric grid.

Significant investment is also needed to achieve substantial community solar goals.
Additional information on this proposal: This is a task force proposal that seeks to address emission resiliency in the face of climate-events and to do so in such a way that it prioritizes frontline communities first. Some of the specific community proposals mentioned at the end of this section on electricity regarding solar might offer concrete strategies for that section of the proposal.

Overview of opinions: 126 participants rated this policy, with approximately 77% support.

Rationale for support and strengths identified: Supported by three participants, one pro statement called for more aggressive transition to renewable energy overall, while three other comments, supported by six participants total, drew clear support for this effort, calling out resiliency as a “big deal” and “necessary.” One of these comments specifically addressed equity as well, “dependency on institutional systems reinforces already existing racial disparities,” which is a strong thread through all of the public engagement work during this process.

Rationale for opposition and suggestions for improvement:

- “I'm confused by this goal because it combines infrastructure resilience (critical facilities) with equity (communities most impacted). I think it may make more sense as two goals.”
- “This is asking Xcel to divide and change the current electrical grid, which will be extremely costly. A better goal is to expand renewable energy availability and usage.”

Similarly, a conversation was had by participants about the vulnerability of the grid, with one participant unsure about whether or not it was at risk. And another participant called to focus on prevention proposals first instead of resiliency.
Additional information on this proposal: This is a Task Force proposal that seeks to address emissions reductions and to do so in such a way that it is a benefit to frontline and vulnerable communities throughout Denver as a priority.

Overview of opinions: 134 participants rated this policy and gave it moderate support, approximately 73%. This earns it three out of four stars, as indicated in the header above.

Rationale for support and strengths identified: Some pro statements called for more aggressive emissions reduction through electricity transition overall, while others clearly affirmed this proposal and generated further support specifically focused on equity.

- Some neighborhoods in Denver bear a larger share of the consequences of fossil fuel use in Denver, and fixing those issues first makes a lot of sense. (9 agreed)
- Environmental racism has run rampant in this city and state, and it’s time we faced that fact head on. (4 agreed)

Rationale for opposition and suggestions for improvement: As addressed in some of the pro comments, much of the discussion in the con comments pointed out the lack of clarity and confusion in the proposal as it was written, and also sought to address pollution on a larger scale:

- Air pollution may be local but climate change is global. (4 agreed)
- I’m not sure I understand this solution. Maybe the transition proposed is to move off of natural gas? Then this would make sense since natural gas use causes local pollution. (3 agreed)

Other comments also addressed the concern that creating an electric grid in the most vulnerable communities might not be the thing that reduces their pollution the most. A Task Force member answered the confusion with, “Generally, this solution asks if traditionally disadvantaged members
of the community that have borne a disproportionate share of negative environmental consequences resulting from industrial and commercial activities should be prioritized in municipal programs as the city transitions to 100% renewable electricity.” That answer was met with understanding and appreciation, though the actual action still remained unclear to participants. Rewording this proposal or clarifying the actions to be taken would help, but there was overall affirmation in concept, particularly with the equity strategies that it would create. Equitable solutions have been a thread through all moments of this public engagement process and figuring out what is meant by that in this proposal is a critical step in addressing equity.
Additional information on this proposal: As described by the proposer, Irene, “Make all parking lots for strip malls, full size malls, and supermarkets have solar panels. They would generate energy for the businesses, charge electric cars, offer protection from snow, rain, and heat in the summer.”

Overview of opinions: 35 participants rated this policy and gave it strong support, approximately 93%. This would’ve earned it four out of four stars if it reached the minimum participation limit set at 50 for all non-funding proposals. A similar task force proposal was considered in the Buildings and Homes section and generated input on parking lot and other rooftop solar panels. It is included after this discussion for ease of reference.

Rationale for support and strengths identified: All pro statements on this proposal demonstrated enthusiasm and underscored the strength of multi-use spaces, including:

- Parking lot solar systems are a smart way of turning single use space to multi-use space.
- This same idea can be applied to grocery store parking lots as well as ramadas at parks.
- Add to this pollinator garden strips in and around the parking lots. It converts the parking lot to an energy producer and biodiversity supporter.

Additionally, three other community proposals under the “Electricity” tab mentioned solar panels. Though each of these received 70-80% support, all of them had very low participation rates. They are referenced at the end and shared here as other possible innovative ways to address solar.

- Demonstrate leadership by building a large solar [and wind] complex for 100% RE
- Subsidize installation of solar panels on a sliding income scale

Rationale for opposition and suggestions for improvement: Only one respondent was neutral about this policy (no one opposed it), and suggested that, “Denver needs to develop a plan to deal with end-of-life solar panels. They only last 25-30 years and they are extremely difficult to recycle due to heavy metals.”
Require on-site renewable solar power for new construction, wherever feasible (i.e. if the local grid has the capacity to take the renewable energy being generated, etc.).

Additional information on this proposal: This is a task force proposal. It was also discussed by some SAG and MIB participants.

Overview of opinions: 173 participants rated this policy and gave it moderate support, approximately 70%. The big message appears to be: Solar is great, but on-site doesn’t seem important.

Rationale for support and strengths identified: Support for this proposal, as shown in the comments, is grounded in its effect of creating more distributed energy sources, reducing dependence on coal and natural gas, and enhancing local resiliency. While some MIB participants talked about the need to make solar panels more affordable for vulnerable communities, some participants in this forum say it is more affordable now, and it improves the cost of electrification in the long run. However, supporters and opponents alike question the need to include on every home, saying it is not workable on every home, solar gardens are desirable and utility-level energy generation is most efficient.

Rationale for opposition and suggestions for improvement: The most common concern expressed is about the increase in housing costs (13 agreed), including costs shifted to the end-buyer even if the developer bears the initial cost. Three people also noted a concern about this regulation forcing residential and commercial owners to sign undesirable leases or to own and maintain their own solar panels.

Key message: Solar is great, but...
## ADDITIONAL ELECTRICITY PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION

Following is a quick reference table of additional proposals made on the Electricity page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Educate &amp; support appliance suppliers to change the market toward</strong></td>
<td>6</td>
<td>90%</td>
</tr>
<tr>
<td><strong>highest-rated energy efficient appliances that “last.” Older appliances</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>last longer, but are less efficient and consumer demand is there for</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>eco-appliances.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Demonstrate leadership by building a large solar and wind complex for</strong></td>
<td>11</td>
<td>90%</td>
</tr>
<tr>
<td><strong>100% RE at Denver’s new “Smart City.” If Cincinnati can find a way,</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Denver can. Lead by example and repeat.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Subsidize installation of solar panels on a sliding income scale</strong></td>
<td>17</td>
<td>87%</td>
</tr>
<tr>
<td><strong>Denver could renegotiate its franchise agreement with Xcel asking for</strong></td>
<td>20</td>
<td>83%</td>
</tr>
<tr>
<td><strong>100% clean electricity delivered to the city by 2030.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Insure full use of residential rooftops. “Solar Access.” Prevent</strong></td>
<td>9</td>
<td>80%</td>
</tr>
<tr>
<td><strong>intrusive setbacks.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Allow “Virtual Net Metering”</strong></td>
<td>7</td>
<td>79%</td>
</tr>
<tr>
<td><strong>Distributed Generation &amp; Feed-In Tariffs</strong></td>
<td>8</td>
<td>70%</td>
</tr>
<tr>
<td><strong>Denver should focus on investing in electricity infrastructure</strong></td>
<td>6</td>
<td>69%</td>
</tr>
<tr>
<td><strong>(poles/wires/etc) in low-income neighborhoods.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proposal</td>
<td>Participant Count</td>
<td>% Support</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Denver should pass regulations or standards for indoor air pollution.</td>
<td>15</td>
<td>73%</td>
</tr>
<tr>
<td>End all gas-powered lawn motors</td>
<td>23</td>
<td>72%</td>
</tr>
<tr>
<td>Denver should pass a rental housing retrofit ordinance.</td>
<td>13</td>
<td>71%</td>
</tr>
<tr>
<td>Eliminate Single Family Zoning- allow duplexes and triplexes to be built anywhere in the city</td>
<td>36</td>
<td>70%</td>
</tr>
<tr>
<td>Step a cap on investment properties that stand empty</td>
<td>10</td>
<td>68%</td>
</tr>
<tr>
<td>No new gas heating or appliances. Incentivize electrification of existing gas facilities.</td>
<td>8</td>
<td>62%</td>
</tr>
<tr>
<td>Change zoning regulations to facilitate mixed-use and prevent entire block-long sections of only residential groundfloor space.</td>
<td>21</td>
<td>60%</td>
</tr>
</tbody>
</table>
Consumption and Waste Report

Community Support for Climate Action

This report has been prepared for Denver’s Climate Action Task Force to consider public input into action that may be taken regarding consumption and waste in Denver. It begins with a brief overview of the results of the online discussion on this topic, highlighting the most favored proposals and major themes and messages. Excerpts from Group 14’s report on impacts and cost of climate action approaches, as related to consumption and waste are included for ease of reference as the task force considers public input. More detailed descriptions of proposals follow. They are presented in order of favorability (most to least) for those proposals that engaged at least 50 participants and received at least a moderate support rating – or were originally proposed by the task force. A table with links to all other Consumption and Waste proposals is included at the end.

Most Favored Proposals

Four of the proposals about consumption and waste garnered strong support (4-star ratings), and it should be noted that while the proposals themselves don’t entirely overlap, some of the nuances of how the proposals could be implemented and how the opposition to one proposal could be mitigated by the implementation of another, will likely make a significant difference in the overall strategy. These four, four-star proposals serve as an example to that connectivity:

- Establish requirements for all businesses, schools, universities, prisons and multifamily buildings to divert waste, such as through recycling and composting.
- Coordinate regionally to establish programs and policies that support a circular economy for waste products, such as funding for local and regional end markets that use waste materials to create new products or research that creates new processes to recycle waste materials.
- Require Denver infrastructure projects to meet reduced carbon emissions standards for construction materials and to reuse, recycle, or compost construction waste when economically viable.
- Require minimum waste diversion rate for construction and demolition as part of building codes and ensure viable end markets.

Major Themes and Messages

Following are major themes identified across these proposals:

**Equity:** While not brought to the forefront as often as in other sections of Consider.It proposals, how these solutions will impact low-income communities and small businesses was brought up by participants and needs to be taken into account. Specifically, the access to programs and/or the cost of programs (such as indirect costs that construction and manufacturing might pass on to the consumer in the waste diversion proposals) should be considered carefully.

**Educate on Technical Solutions:** While proposals with more technical solutions (think embodied carbon) were supported, those proposals were met with less discussion, and statements made sometimes drew away from the nature of the proposal itself. Technical proposals should be coupled with education and/or marketing efforts so that the public has information about the why
and how of these solutions in future iterations or implementation. Otherwise discussion unravels into misinformation or a reliance on assumptions.

**Wider Individual Impact Draws More Attention:** Proposals that would impact the day-to-day life of Denver residents, such as those that could create a residential trash fee and require true equal participation in more technical proposals, had much more robust conversations between participants. When impacts are direct and tangible, community members took more notice.

**Relevant Excerpts from Group 14’s Strategy Impact and Investment Report**

![GHG Projections and Gaps Chart]

- **Business as Usual (BAU):** primarily from additional renewable electricity on the utility grid.
- **Estimating a 76% emissions reduction in 2040:** remaining emissions primarily from natural gas in existing buildings and gas vehicles.
**Consumption Annual Program Investment**

**Annual Program Costs - Consumption/Waste**

- **4. INFRASTRUCTURE**
- **3.c. TRAINING/EDUCATION/PROGRAMS**
- **3.b. INCENTIVES**
- **3.a. MARKETING/BEHAVIOR CHANGE**
- **2. INFLUENCE/ADVOCACY**
- **1. POLICIES/CODES**

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**Waste/Consumption Strategies**

**CONSUMPTION/WASTE: Program Cost vs Impact**

- Education
- Policy
- Incentives
- Advocacy
- Infrastructure

**Requiring recycling and composting for all buildings will require an investment in infrastructure.**

**Further work is planned on other consumption categories.**
Establish requirements for all businesses, schools, universities, prisons and multifamily buildings to divert waste, such as through recycling and composting.

(n=160)

Overview of opinions: 160 participants rated this policy and gave it strong support, approximately 86%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 16 pro statements, which tended to echo one another, this proposal gained strong affirmation. The pro statements with the largest agreements that also best represented other comments overall included:

- “There is great opportunity for recycling and composting at multifamily homes. These services should also be free or low-cost.” (9 agreed)
- “Very much needed. There are still so many apartment buildings in Denver that don’t even have recycling available. This needs to change ASAP.” (6 agreed)
- “This is a great opportunity for businesses who share a district to work together for cost and resource sharing.” (5 agreed)
- “All haulers need to follow the same sorting guidelines to have a uniform requirement across all buildings and customers. The streams should not vary across the city.” (4 agreed)

Additional pro statements point out the need for adding upcycling to the solutions, as well as recognizing the importance of education, (which might be a solution to the opposition that was
stated and agreed with by others, “Offering recycling and composting does not mean that occupants will do it”).

Other participants offered more ideas including, the need to measure diversion and be aware of what’s happening with diverted materials (reflected in the proposals that follow in regards to circular economies), food waste composting should be free, and also addressing some of the root causes of waste (manufacturing and packaging materials).

Rationale for opposition and suggestions for improvement: Opposed by only three statements, this proposal drew less discussion overall. These comments included the impact this proposal might have on certain buildings and businesses, offering context for how to best implement a proposal like this, and mitigate negative or unintended impacts:
- “Small businesses need fewer regulations now, not more.” (5 agreed) This may warrant consideration of incentives instead of regulations.
- “Historic buildings lack space for multiple waste types; many would require significant renovation.” (3 agreed) This concern may suggest an improvement to this solution that includes providing options for renovation or different methods of pick-up (consider case studies of other cities like NYC or SFO that also have older building stocks and have successfully mandated waste diversion).
Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed by both Meetings-in-a-Box and Stakeholder Advisory Groups as an option that warranted inquiry and further exploration. Additionally, the two proposals about waste diversion that follow should be considered in conjunction with this proposal as there were both opposition and pro comments in those proposals calling, in some form, for a circular economy for waste products. The Group 14 analysis offered that this is a low-cost, high-impact solution.

Overview of opinions: 146 participants rated this policy and gave it moderate to strong support, approximately 85%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 16 pro statements, this proposal did draw a bit of affirmation, but in lieu of discussion there was mostly agreement in comments made that reiterated language and concepts from the proposal itself. Additionally, comments called out the ideas of innovation, research, and product design. The pro statements with the largest agreements that also best represented these other comments overall included:

- Add product stewardship and producer responsibility to ensure companies think about this before they design/make things. Packaging included. (6 agreed)
- Consider that much of what we call waste can actually be quite useful. There are systems that can be put in place that give waste incredible value. (4 agreed)
- Creation of local jobs, reduction in transportation pollution, and upcycling waste products (food productions, mainly) could have a BIG impact. (2 agreed)
- Localizing our food economy (more, not completely) would allow us to be more resilient in the face of economic and health crises. (2 agreed)
Rationale for opposition and suggestions for improvement: Opposed by only one opposition statement, this proposal drew little discussion under opposition. The one statement asked:

- Are our existing waste & recycling systems efficient? Can we look at that before making entirely new ones? (6 agreed)
Require City infrastructure projects to meet reduced carbon emissions standards for construction materials and to reuse, recycle, or compost construction waste when economically viable.

(n=151)

Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed by both Meetings-in-a-Box and Stakeholder Advisory Groups as an option that warranted inquiry and further exploration.

Overview of opinions: 151 participants rated this policy and gave it moderate to strong support, approximately 84%. The score earns the concept four out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 8 pro statements, this proposal did not create much discussion between participants. The pro statements with the largest agreements that also best represented sentiments overall included:

- This diverts waste where needed and can often be more expensive but this should be re-written to do it always, not only when economically viable. (7 agreed)
- Reused and then recycled components of materials are near the top of the list in ways to reduce embodied carbon in construction and other materials. (6 agreed)

Additional comments called for “bringing the sustainable construction industry forward” and to “encourage recycling whenever possible,” and also pointed out the need to have a place to deposit and recycle the debris (seen in the next proposal about waste diversion as well).

Rationale for opposition and suggestions for improvement: Opposed by only 2 opposition statements, this proposal drew little discussion. But one opposition comment did draw more agreement than any pro statements, citing what was also posted in a pro comment:

- Increasing recycling rates is only effective if there is sufficient recycling infrastructure to handle it. Currently, the vast majority of recycling ends up in landfills. (7 agreed)

Also echoed by three others, a participant wrote, “I'd like more information on the phrase ‘when economically viable.’ Numbers and data used to determine those cutoffs.”
Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed by both Meetings-in-a-Box and Stakeholder Advisory Groups as an option that warranted inquiry and further exploration.

Overview of opinions: 134 participants rated this policy support, with about 80% support.

Rationale for support and strengths identified: Supported by 8 pro statements, this proposal did not create much discussion between participants. The pro statements with the largest agreements that also best represented sentiments overall included:

- This seems viable for commercial or larger projects, but probably not so much for individuals working on smaller projects like home renovation. (5 agreed)
- Ensuring viable markets could inspire some product redesigns. (3 agreed)
- So much construction "waste" gets dumped instead of recycled or reused. (2 agreed)

This latter comment was deepened by another, "Creating more recovery systems and end markets and better connecting contractors with the public would go a long way toward removing these valuable, big items from the landfill." This concept overlapped with the need that was pointed out about the proposal on fees on residential waste, to increase both education of the public about the life cycle of an item and creating more closed loop systems.

Rationale for opposition and suggestions for improvement: Opposed by 4 con statements, this proposal drew little discussion, but additional comments about the importance of a viable end point to the system. In addition to recognizing that costs from such an initiative would get passed on to the consumer, though ideas about how to prevent that were not shared:

- Waste diversion is only effective if there is recycling infrastructure to handle it, which there currently isn't. Most recycled materials end up in landfills. (7 agreed)
- This would add time and costs that the consumer would be unwilling to pay. (3 agreed)
Approve and implement a fee on residential waste services based on how much trash each household throws away.

Additional information on this proposal: This proposal was put forth by the Task Force. It was discussed during Meetings-in-a-Box as participants often see recycling and composting solutions in tandem with environmental sustainability and climate mitigation. The Group 14 analysis identified this as a medium-cost, medium-to-high-impact solution.

Overview of opinions: 179 participants rated this policy and gave it moderate support, approximately 76%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 25 pro statements, this proposal drew a great deal of discussion and brainstorming between participants. The pro statements with the largest agreements that also best represented the overall discussion included:

- If combined with free composting, free recycling, cost shouldn't be that much of an issue, and could be subsidized for low-income households. (18 agreed)
- Will create more recycling and compost, which is good. Compost and recycling should be free, funded by the revenue from trash. (16 agreed)
- Will incentivize people to reduce their waste just like they remember to turn off their lights. (9 agreed)
- Curbside composting will be available to everyone in 7 units and below (residential service). Composting is the EASIEST thing you can do TODAY to combat climate change. (9 agreed)

Additional comments discussed the need for increased education about how to recycle and compost and the importance of it. The pro and opposition conversations both posed questions about the potential negative impacts on low-income communities and how costs could be managed.
Rationale for opposition and suggestions for improvement: Opposed by 15 comments, this proposal drew a great deal of discussion and brainstorming between participants whether opposed or in favor of it. Some opposition stated the need to have more closed loops and places for recycling to go, in addition raising issues about equity for larger households and negative impacts on lowest income communities. Some voiced concern that this proposal would create more problems than it would solve. But the opposition statements with the largest agreements that also best represented the overall discussion included:

- This won't move the needle; Denver stats show that residential recycling rate already is far above city average; instead, require commercial/multi-family recycling and composting. (7 agreed)
- Disparate impact on individuals who are homebound, work from home, or have medical conditions requiring use of sterilized and disposable items. (7 agreed)
- I think this only works if households have free composting pickup that is not included as trash. (5 agreed)
- People will put garbage into recycling and compost, which they often already do. (5 agreed)
- This only works if we have infrastructure in place that actually recycles what can be recycled. A lot of research is showing that plastics aren't really being recycled. (4 agreed)
Additional information on this proposal: This proposal was put forth by the Task Force. The Group 14 analysis observed this to be a low-cost, low-impact solution.

Overview of opinions: 123 participants rated this policy with approximately 75% support.

Rationale for support and strengths identified: While supported by 3 pro statements, other participants did not join or affirm these comments. One comment sparked a brief debate, offering, “CO2 sequestration in concrete is a potentially excellent partial solution. Start with DIA expansion,” along with a citation: https://www.theguardian.com/sustainable-business/2016/dec/13/sequester-carbon-blue-planet-climate-change

The second pro comment offered, “With efficiency improvements, operational carbon becomes less and then embodied carbon plays a much larger role in the overall carbon footprint,” revealing a much more technical understanding of this proposal and the potential as to why others without knowledge on this subject did not participate more. Similar comments were left in both the pro and opposition sections about the need to “start with an assessment.”

Rationale for opposition and suggestions for improvement: With only two opposed comments, one about assessment already mentioned, the proposal lacks much additional conversation. The one comment with three agreements stated, “I think encouraging Businesses to do this is great. But enacting it as a law in a requirement is a totally different story.”
Require Denver's largest institutions to participate in a Good Food Purchasing Program that ensures food comes from local sources, is environmentally sustainable, complies with fair workforce policies, values animal welfare, and supports healthy nutrition.

Additional information on this proposal: This proposal was put forth by the Task Force. The Group 14 analysis observed that this was a low-cost, low-to-medium-impact solution.

Overview of opinions: 146 participants rated this policy and gave it moderate support, approximately 74%. The score earns the concept three out of four stars, as indicated above.

Rationale for support and strengths identified: Supported by 12 pro statements, participants seemed to be affirming the “Good Food Purchasing Program” more than affirming the requirement concept proposed. One pro gained others’ support:

- Make this more accessible for small businesses and groups as well! Also insert an equity piece here so that frontline communities can access this quickly and efficiently. (5 agreed)

Additionally, individual participants ideated about limiting meat in diets, looking at stadiums to meet this requirement specifically, building up a stronger regional food system, the importance of regenerative agriculture, local farming, and racial equity at the core of food access and food justice.

Rationale for opposition and suggestions for improvement: Overall, the opposed comments sought more clarity about aspects of the proposal. Three participants asked the question, “What are examples of the largest institutions?” While another comment observed, “In Denver’s arid climate, local food isn’t always the best or most sustainable option,” (7 agreed). This drew clarity from a moderator that the requirement might be looking at 30% of food to come from local sources. A participant echoed this, “I don’t think this means ALL food comes locally, just that we leverage our local resources (Colorado + surrounding regions). This increases economic and health resiliency.” One other opposition comment that stood out:

- Often, food can be produced non-locally with a lower overall carbon footprint than locally produced food. (5 agreed)
Additional information on this proposal: Unfortunately, these two nearly identical proposals by community members, each received only moderate attention, as shown in the three-star rating at the top of the page. But if we combine them for review here, we get a more useful discussion about the subject. One proposal was clarified in its description, “perhaps the ‘recyclable containers’ is just poorly worded, but that likely would result in a lot of single-use plastics being thrown away.” Based on this description, it’s possible that overall support for these proposals had to do with their intention and the compostable concept, not everything that was proposed (recyclable containers). If
viewed as helping to ban Styrofoam and single-use plastic, the Group 14 analysis labeled this as a low-cost, low-to-medium-impact solution.

Overview of opinions: 94 participants rated the first of these two policies and gave it stronger support, approximately 82%. 78 participants rated the second of these two policies and gave it moderate support, approximately 71%. The scores earn the concept on average three out of four stars, as indicated in the header above.

Rationale for support and strengths identified: Supported by a total of 12 pro statements between the two proposals, participants echoed the need to get rid of Styrofoam and single use plastic, and even on the pro side, most comments called for a focus on compostable containers over recyclable, and reusable over compostable when possible. As a pro response, one participant observed:

- We first need to ensure that composting services are more widely available in business districts, apartment complexes, and a larger adoption rate in single family homes. (7 agreed)

Rationale for opposition and suggestions for improvement: Cons from both proposals mostly echoed the pro side. People who agreed with the proposal overall, also agreed with the cons, for similar reasons, calling for compostables and reusables instead of recyclables:

- We need a focus on compostable packaging, not recycling. We don’t do well with recycling. (8 agreed)
- Denver has a very low landfill diversion rate and just because the containers are recyclable doesn’t mean they will be recycled. Compostable would be better. (4 agreed)
- Recycling can be a solution only if the city can prove that she has a really strong system. (4 agreed)

Virtually no discussion was had about the impacts of this proposal on businesses, including cost, willingness or other input, though this was certainly very evident in Stakeholder Advisory Group’s (SAG) discussions. Similar sentiments were discussed during Meetings-in-a-Box (MIB) as recycling and composting are seen as behavioral changes that could be made by more individuals and businesses. In the MIBs, this was favored as “doing the right thing.” But when it came to this issue within the context of Climate Action, one participant in the Consider.It forum under this proposal repeated something that was said multiple times during the MIBs, “This is a great goal, but this is small potatoes compared to more impactful goals around transportation and energy usage.”
ADDITIONAL CONSUMPTION AND WASTE PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION

Following is a quick reference table of additional proposals made on the consumption and waste page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outlaw single use plastic bags</td>
<td>30</td>
<td>92%</td>
</tr>
<tr>
<td>Eliminating single use plastic, in the cannabis and CBD industries</td>
<td>18</td>
<td>91%</td>
</tr>
<tr>
<td>Recycle plastic, aluminum, glass bottles at grocery stores; get either store credit or cash back</td>
<td>7</td>
<td>91%</td>
</tr>
<tr>
<td>Work with businesses, schools and neighborhoods to set up Adopt-A-Park, Adopt-A-ROW, Adopt-A-Street, to pick up trash bi-monthly and provide signage advertising local trash heroes.</td>
<td>3</td>
<td>91%</td>
</tr>
<tr>
<td>Make trash cans smaller, recycling more frequent and compost part of our waste program.</td>
<td>21</td>
<td>89%</td>
</tr>
<tr>
<td>Deploy CSU Master Gardeners to train Denver youth on composting, then they can sign up residents for a training program with a local youth.</td>
<td>6</td>
<td>85%</td>
</tr>
<tr>
<td>Require recycle</td>
<td>10</td>
<td>76%</td>
</tr>
<tr>
<td>Implement recycling education starting at 2yrs+ and all the way through their education</td>
<td>6</td>
<td>72%</td>
</tr>
<tr>
<td>Establish a green 311, like 711, for example, for residents to ask about resources for home solar energy, composting, bike route maps/apps, home energy efficiency self-audit, electric vehicle charging map/app.</td>
<td>6</td>
<td>69%</td>
</tr>
<tr>
<td>Provide meals/housing to those cleaning city</td>
<td>40</td>
<td>60%</td>
</tr>
<tr>
<td>Hire engineers to research better ways to recycle plastics.</td>
<td>9</td>
<td>58%</td>
</tr>
<tr>
<td>Using food waste as a source of renewable energy. Can even clean our oxidated lakes up, collect the algae and turn it into biomass.</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Re-inventing the use of litter to refuel the city instead. Litter impacts public health and the environment. Clean up Commerce City's Superfund site to power the city instead of smelting our waste.</td>
<td>2</td>
<td>50%</td>
</tr>
<tr>
<td>Repeal plastic bag ban and encourage creation of biodegradable plastic bags, and to provide guidance for acceptable substitutes until such biodegradable plastic bags are developed</td>
<td>20</td>
<td>47%</td>
</tr>
<tr>
<td>Get rid of single stream recycle; break it down to specific recycling: Plastic, paper, glass, compost bins. Create Neighborhood designated spots.</td>
<td>4</td>
<td>42%</td>
</tr>
</tbody>
</table>
Adaptation Report

Community Support for Climate Action

This report has been prepared for Denver’s Climate Action Task Force to consider public input into climate action related to adaptation and resilience as they prepare their recommendations to the city. It begins with a brief overview of the results of the online discussion, highlighting most favored proposals and major themes and messages. Excerpts from Group 14’s report on impacts and cost of climate action approaches, as related to adaptation and resilience, are included for ease of reference as the task force considers public input. More detailed descriptions of input on proposals follow, in order of favorability (most to least) for those proposals that engaged at least 50 participants and received at least a moderate support rating – or were originally proposed by the task force. A table with links to all other proposals from the adaptation page is included at the end.

Most Favored Proposals

Three adaptation proposals made by community members received strong support (4-star ratings). They address zoning and building code changes that support more sustainable and resilient land and energy use, native planting incentives, and required use of non-toxic products for land care. There are no clearly common characteristics across these proposals, beyond shifting to more sustainable land use practices and making Denver communities more resilient and adaptable in light of climate change that is already occurring and that is expected to continue.

Major Themes and Messages

Taking all top proposals (those with 3- to 4-star ratings) as a whole, a foundational message begins to emerge: that there is a role for everyone in helping Denver communities adapt and become more resilient to the effects of climate change. Following are additional themes that can be found across several of these proposals – otherwise, there is a high degree of variation in the subjects and issues involved in these proposals:

Environmental racism and equity: Support for vulnerable communities and communities that are most impacted by climate change tend to be elevated as priorities in these proposals. Proposals in this section support messages heard from Stakeholder Advisory Group conversations, which urged putting agency for action in the hands of local communities – with adequate support but not control.

Green jobs and business growth: Whenever economic development can be integrated into climate actions; these actions tend to be favored. This is especially true when equity is applied.

Preference for incentives: Participants tended to favor incentive-based change versus requirements. Providing products, support, training/education and funds for community projects tend to be desirable approaches.
GHG Projections and Gaps

Denver’s Projected Emissions and Goals

- Business as Usual (BAU) primarily from additional renewable electricity on the utility grid
- Estimating a 76% emissions reduction in 2040; remaining emissions primarily from natural gas in existing buildings and gas vehicles

Resiliency/Adaptation Annual Program Investment

Annual Program Costs - Resiliency

- Includes green infrastructure solution, could consider dedicated funding
- Denver Resilience Master Plan is a critical first step
Additional information on this proposal: The community member that made this proposal also suggested, “There are thoughtful ways to do this. In NW Denver, small houses are being replaced by McMansions, diminishing their neighbors’ enjoyment of their properties. Other cities have legislation that limits the size/footprint of scape & replace in return for allowing carriage housing or similar... Increased density can be done thoughtfully while increasing property value.” This has been discussed by the task force as well, though not specifically proposed as part of the online forum, and it was supported in some Stakeholder Advisory Group (SAG) discussions.

Overview of opinions: 100 participants gave their opinion on this proposal. It earned a 4-star rating, with an average of 84% support.

Rationale for support and suggestions for improvement: Four people emphasized the importance of the incentives aspect of this proposal. Supporters also suggested a number of details to be included in this strategy and offered specific rationale along with those suggestions.

1. “…incentivize properties that minimize stormwater runoff via capture methods, as these.” (7 agree)

   Rational was shared by two participants: “Homeowners are currently charged stormwater fees based purely on their ground assessed as permeable - there is no consideration given to whether they have barriers, or capture methods built to reduce runoff beyond what is typical for their level of permeability.” Storm bills are based upon “the total impervious (or impermeable) surface area” of a parcel. “An owner should definitely be given a reduction on their charges if they are preventing runoff from leaving their property and that should include not counting roof areas if it can be shown that downspouts are directed back onto the property and/or into collectors.”

2. Incentivize medium density living. (5 agree)

   One participant explained, “Currently the zoning and infrastructure investment incentivizes the two extremes: single family sprawl which has the highest environmental impact but the
best (potential) for living with nature, and high density living which has the lowest environmental and infrastructure cost but (usually) cuts you off from nature and the outdoors. It [seems] like incentives built around sustainability would do both and encourage walkable communities which are dense enough to be sustainable but still emphasize a connection to nature and the outdoors.”

3. Focus on zones that produce the most pollution. (3 agree)

Rationale for opposition: Two comments, with at least three people in agreement, address concerns about efforts to stifle single family housing. Specific opposition to R1 rezoning is expressed.
Denver should encourage and provide incentives to transition to Native planting.

Additional information on this proposal: This proposal directly addressed one of the suggestions for improvement to the previous proposal. The proposer, Wanda Osterman, also notes, “Reducing water scarcity is vital to our communities. Native plants are great for pollinators, need less water and are much easier to care for - (no toxic chemicals needed). Local plants should be in all public and private landscapes. Reduction in lawns can also be a consideration as many other States have been very successful with this transition.”

Overview of opinions: 72 participants gave their opinion about this policy, with an average of 84% support. It is the second of three proposals that earned four stars.

Rationale for support and strengths identified: Two participants agreed, “Our eco-system is a high desert prairie system and we should advocate for more drought tolerant, native species in our public spaces.” Another person said that the “amount of precious water used on grass in this part of the country is staggering.” Others noted that Denver Water already has such a program, offering a link for more information: [https://www.denverwater.org/residential/efficiency-tip/garden-box-water-smart-way-garden-colorado](https://www.denverwater.org/residential/efficiency-tip/garden-box-water-smart-way-garden-colorado).

Rationale for opposition and suggestions for improvement: Two participants expressed concern about the reduction of lawn size and adverse impacts on neighborhood characteristics and lawn value, though others countered, suggesting that the opposite may be true and that realtors should be asked about this.
Denver should focus on Organic Landcare practices (non-toxic community).
#adapt-other | submitted 3 weeks ago by Wanda Osterman

(n=58)

Additional information on this proposal: The community member that presented this proposal explained, “Toxic products, such as synthetic fertilizers, should be removed or drastically reduced from our land care practices (both private and public) to reduce health and safety concerns to people, pets, pollinators, wildlife, soil health and plants. We can heal the soil and allow our plant life to regenerate and help in CO2 drawn down. We can remove toxins from our run-off into the rivers...The best local examples come from Boulder.” She goes on to provide a long list of additional sources to guide development of this approach – see expanded description.

Overview of opinions: 58 participants gave their opinion about this policy, with an average of 83% support – the remaining proposal with a 4-star rating.

Rationale for support and suggestions for improvement: Commenters seemed to think this is a no-brainer, as shown in the quote to the right. Additionally, one person said it is in line with indigenous and black agricultural practices, and another pointed to grant funding available to “provide products, training and pilot project opportunities to Denver Parks and Recreation/schools/churches.”

Another person noted that the greenbelts that support biodiversity throughout the area are part of a healthy city and suggests this enhancement to the proposal: “Citizen participation in taking care of our greenways (and waterways) will help create an ethos of sustainability and create a sense of community at the same time. I think DPS and other educational systems should be a strong partner in this effort.”

Rationale for opposition: None given.
**Denver should focus on protecting the most vulnerable and highly impacted populations first from climate related impacts.**

#adapt-prepare | submitted 3 weeks ago by Denver Climate Action Task Force

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*(n=120)*

Additional information on this proposal: This is a task force proposal and a repeated message from both SAG and Meetings-in-a-Box (MIB) participants.

**Overview of opinions:** 120 participants gave an average of 79% support for this proposal – the top of the range for 3-star rating.

**Rationale for support and suggestions for improvement:** The most common reason people said they support this idea is, “Environmental racism is real!” One noted that these efforts must address existing environmental racism, including the fact that many communities of color here are surrounded by highways, oil refineries, and industrial pollution. Another person suggested that taking this approach will help everyone, saying, “The ‘curb cut effect’ theory is relevant here. What’s best for the most vulnerable is best for everyone.”

Four participants agreed that the proposal can be **improved by working with impacted families to find out what they want and genuinely work with them to develop workable solutions – supporting impacted individuals and families, not taking over.** This is also a key message from SAG discussions.

Others noted that details are needed: “What would this look like? It is a grand statement but what does it mean that the city would do???” (2 agreed)

**Major concerns:** Three participants said that this should not be a city function, “especially given that all models used to-date have been wrong.”
When considering recovering from our current economic crisis, Denver should focus on building a thriving and resilient economy by supporting new and existing businesses that are geared toward reducing emissions and adapting to climate change.

Additional information on this proposal: This is a task force proposal, and it is similar to another 3-star task force proposal in the Opportunity section on economic recovery. SAG participants also supported similar ideas.

Overview of opinions: 122 participants rated this policy, averaging 78% support.

Rationale for support and strengths identified: One participant summed up the strength of this proposal, writing, "The more businesses who 1) create jobs and 2) make it easier for us to reach some of these other goals, the better - right?" Another person indicated that this is something Denver should do regardless of the state of our economy, and two others advocated for not going back to the old normal and using this opportunity to “address a catastrophe that will likely have greater, more long-lasting negative impacts.”

Rationale for opposition and suggestions for improvement: Opposition to providing financial incentives was expressed by two participants, though “attracting” green businesses was suggested. Two participants also said that equity needs to be ensured and that people (not just businesses) need to be supported. Finally, three people said this idea could be improved by including “some kind of incentive for businesses to become B-Certified, or show some other dedication to sustainable business.”
Denver should focus its climate action workforce development to support people in communities that are most impacted by climate change and have had less access to economic opportunity, including communities of color and low-income communities.

Additional information on this proposal: This is a task force proposal, focusing on equity-oriented workforce development. This idea was supported in SAG discussions.

Overview of opinions: 115 participants rated this policy and gave it moderate support, 76%.

Rationale for support and strengths identified: Seven participants said they support this idea because COVID-19 has demonstrated disproportionate impacts and because “investment in low income communities has a larger return.”

Rationale for opposition and suggestions for improvement: Though not necessarily a statement of opposition, some concern about how this would be applied in practice was expressed: “Sounds wonderful. But places like Cherry Creek are the most vulnerable due to flooding resulting from Climate Change. Because it isn't lower income, it is less of a priority?” (3 agreed)

Two people suggested that the proposal could be improved by including “tradespeople who are losing jobs tied to fossil fuels and coal.”
Denver should set standards and provide incentives for all critical public buildings to have cooling so that people are safe and healthy during heat waves, including schools.

Additional information on this proposal: This is a task force proposal and was recommended by some SAG participants.

Overview of opinions: 118 participants rated this policy with moderate support, 74%.

Rationale for support and strengths identified: Eight participants that commented in support of this proposal agreed that extreme heat interferes with students’ ability to learn and teachers’ ability to teach. Another person suggested that everyone deserves to be comfortable.

Rationale for opposition and suggestions for improvement: Three people asserted that artificial cooling interferes with the body’s natural ability to adapt to different temperatures, though as many people pushed back, noting that some temperatures are dangerous and the number of days at that level each year is increasing.

Others expressed concerns about emissions and equity – the following improvements were suggested:

- Start investments in lower income and more diverse neighborhoods where heat islands are worse (7 agreed)
- Use sustainable methods and resources, such as building designs that help keep buildings cool and geothermal sources of energy or electrified, renewable energy like solar and wind. (2 agreed)
- Include indoor and outdoor strategies that are creative and proactive, such as creating “sidewalk material (i.e. hemp cloth) canopies to create shade on our walkways” and “membranes to deflect the sun’s heat off of heat retaining surfaces (cars, streets, and buildings). The surfaces should either convert the sun’s energy to electricity or to plant material (photosynthesis) or be reflected back out (like DIA’s white tent fabric).”
Additional information on this proposal: This is a task force proposal.

Overview of opinions: 108 participants rated this policy and gave it moderate support, approximately 67%.

Rationale for support and strengths identified: Supporters said that this kind of authority and responsibility, whether an individual or a team, is needed to ensure participation (5 agreed).

Rationale for opposition and suggestions for improvement: Most concerns, expressed by nine people, focused on thinking that this position or program exists already and that the new position just creates more bureaucracy and city payroll. Others suggested ways to improve the proposal:

- Make it a regulatory integration role, “ensuring climate action and resiliency are considered across all city decisions” and giving authority and budget to “build vast private public partnerships to fund and build Climate Crises Reduction programs and projects”. (4 agreed)
- Make the job part of a coordinated team (otherwise will have little impact)
- Ensure authority to make changes (otherwise will have little impact)
- Include climate action responsibilities in all city jobs and contracts
Establish an economic recovery fund that enables swift, full, and equitable recovery from climate shocks.

#adapt-resilience | submitted 4 weeks ago by Denver Climate Action Task Force

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(n=97)

Additional information on this proposal: This is a task force proposal. A community member also added, “In preparing to seriously address this, here is a useful checklist for Denver, as it begins to roll out a true commitment to Climate Crises Planning, to assure programs reach the most vulnerable to these increased numbers of hardships. Use it to report on progress being made when responding and delivering long term recovery...Focus on the section Title: Designing climate strategies that work for everyone.”

Overview of opinions: 97 participants rated this policy and gave approximately 65% support.

Rationale for support and strengths identified: Three participants agreed that a local fund is needed, since COVID-19 has shown that federal aid isn’t guaranteed. Another three said this will be necessary as these events increase in frequency and severity, and one person said that preparing to pay for what is inevitable can be done smartly with good use of investments and interest.

Rationale for opposition: Comments in opposition indicated that this doesn’t seem necessary since extreme weather and related events already happen (4 agreed) and skepticism about whether the city can help when insurance may not, role of capitalism as hero, and if the fund would be used well. Three people also pushed back on specific uses, such as rebuilding in the same location where a flood occurred and swept a house away.

Suggestions for improvement:

- Support people who are vulnerable, not industries causing environmental problems (3 agreed)
- Don’t seek “full” recovery – not realistic
- Invest before disruption as well
- Be specific – there isn’t a clear understanding about how the fund would be used
At least 30% of new businesses providing services with climate benefits should be minority or women owned.

Additional information on this proposal: This is a task force proposal and was supported in SAG discussions, specifically related to communities of color.

Overview of opinions: 105 participants rated this policy, giving it approximately 55% support—the only 2-star rating among task force proposals.

Rationale for support and suggestions for improvement: No specific rationale in support of this proposal was expressed in comments. However, Resilient Denver suggested, “Let's make sure this is the right number. It seems women and minorities make up more than 30% of the population.” A preferred target was not identified. Six participants suggested making it a goal rather than a requirement, and two suggested educating and encouraging “minorities and women to see a career path here.” Another person clarified that it should only apply to city government contracts.

Rationale for opposition:

- May have an adverse effect of limiting investment (6 agreed)
- Will slow growth and creation of jobs (4 agreed)
- Don’t see how gender has anything to do with climate change (4 agreed)
- Should be based on qualifications (3 agreed)
- Concern about history of corruption with women and minority leaders “fronting as owners” (2 agreed)
- Unclear why (2 agreed)
- Unsure about feasibility
## ADDITIONAL ADAPTATION PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION

Following is a quick reference table of additional proposals made on the Adaptation page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move towards green stormwater infrastructure</td>
<td>14</td>
<td>97%</td>
</tr>
<tr>
<td>Please ban gas-powered leaf blowers, especially two-stroke engines, which spew out the gasoline with the exhaust</td>
<td>2</td>
<td>91%</td>
</tr>
<tr>
<td>Please end the spraying of pesticides in our parks and public spaces. The native bees need our help and children playing don’t need to breath all those toxins in.</td>
<td>12</td>
<td>88%</td>
</tr>
<tr>
<td>Create a school program to educate children and students about sustainability, climate change, and resilience.</td>
<td>26</td>
<td>81%</td>
</tr>
<tr>
<td>Denver should invest in new types of building materials that are more sustainable, economical and generate local jobs in the production.</td>
<td>23</td>
<td>77%</td>
</tr>
<tr>
<td>Regularly convene people’s assemblies to oversee the changes being implemented by the city in regards to climate change mitigation and adaptation, prioritizing the voices of those who have been historically kept out of governing decisions.</td>
<td>45</td>
<td>76%</td>
</tr>
<tr>
<td>Instead of implementing requirements that can and will cause hardships on many, Denver should focus on adding incentives.</td>
<td>4</td>
<td>75%</td>
</tr>
<tr>
<td>Establish legal rights for ecosystems, especially to protect our depleted water sources.</td>
<td>47</td>
<td>71%</td>
</tr>
</tbody>
</table>
Funding Report

Community Support for Climate Action in Denver

This report has been prepared for Denver’s Climate Action Task Force to consider public input into action that may be taken regarding funding for climate action in Denver as they prepare their recommendations to the city. It begins with a brief overview of the results of the online discussion on this topic, highlighting most favored proposals and major themes and messages. More detailed descriptions of proposals follow. They are presented in order of favorability (most to least) for those proposals that engaged at least 20 participants and received at least a moderate support rating – or were originally proposed or under active consideration by the task force. In some cases, related proposals from other sections of the forum are included as well. A table with links to all other funding proposals is provided at the end.

Most Favored Proposals

The only funding proposals garnering strong support (4-star ratings) included a pollution fee on industrial polluters and increasing parking fees at downtown meters. Common characteristics of these proposals and responses to them include:

- Fees applied directly to polluting activities
- No equity concerns expressed
- Lower number of respondents (20 and 34 respectively), though the parking meter proposal is part of a similar one in a different section that garnered both high participation and a fairly high level of support (upper percentile within 3-star ratings)

Major Themes and Messages

**Equity**: Participants raised equity concerns with any proposals that appeared to disproportionately impact community members with lower incomes.

**Connection between funding source and climate change**: Participants identified stronger connections as being preferable.

**Need for specifics**: Wherever proposals were unclear about how they would work, participants had limited ability to give detailed feedback. Some may need more vetting with the public if under serious consideration and after further development.
Create a pollution fee on industrial polluters and/or the biggest users of energy in Denver.

#funding-how | submitted 5 days ago by Jessica Goad

Additional information on this proposal: Submitted by a community member without a direct link to other proposals or earlier themes from other engagement efforts. However, it has been a part of the task force’s revenue committee discussions.

Overview of opinions: 20 participants gave their opinion about this policy, with an average of 92% support. The only additional consideration given was a pro, “The fee should be directly tied to pollution, rather than energy. It should include emissions from all fuels, including petroleum (transportation) and natural gas.”
Increase amount and cost of parking meters in downtown core. Also increase amount of meter attendants.

#funding-how | submitted 6 days ago by Brandon

Additional information on this proposal: Submitted by a community member without a direct link to other proposals or earlier themes from other engagement efforts. The author wrote, “this creates a disincentive to drive and raises funds. Increasing meter attendants increases jobs!”

Overview of opinions: 34 participants gave their opinion about this policy, with an average of 81% support. No additional pros, cons, comments, or discussions were given about this proposal.

Note: A similar proposal was made in the Transportation section of the forum: “Increase the cost of driving to match impacts to society, such as through increased parking fees and tolls for driving during high-traffic periods.” It is a broader concept so not fully described in this section of the report – see Transportation section for more details. However, it is useful to note briefly here that 220 people rated it, with 73% support.
Additional information on this proposal: This was submitted by a community member with connection/overlap to the proposal on pollution fees, and it is something that the revenue committee of the task force has discussed. The author wrote, “currently there are businesses that know their responsibilities when it comes to Sustainable principles that need to be enacted and they are avoiding them by paying a fine which is much easier. Enforcement officers need to be making sure laws are being upheld and not encourage paying a fine.”

Overview of opinions: 65 participants gave their opinion about this policy, with an average of 76% support. Only one additional comment was left, asking for a definition about sustainable. That led to a longer description included below in the “suggestions for improvement.”

Suggestions for improvement – potential for increased support: The proposer indicates that she is primarily talking about sustainable development.” She writes, “Often regulatory requirements can be by-passed by paying a fine instead of implementing the needed principles. Approved documents for construction say one thing, but the actual building when completed has not met all the requirements upon completion and it still gets sold or leased.” Examples she offers include: not installing Wind Energy, not installing Solar Energy, not following guidelines for Sustainable Construction, not providing Efficient Water Fixtures, not designating Green Space, low quality or no Insulation, no noise barriers, limited or no Parking availability, not using Energy efficient appliances, no soil just sand for Landscaping, not completing ”full remediation” of site to build on, building more units than approved, not doing full environmental studies prior to beginning construction, and not using local materials.
Additional information on this proposal:Submitted by a community member looking at a reprioritization of existing spending. The author wrote, “The I-70 reconstruction is costing $1.2 Billion which does not even include the cost of the health impacts and maintenance. Nothing currently proposed by the Climate Action Task Force comes even close to that. Identify projects in the pipeline, which have a negative environmental or health impact and shift those dollars to sustainability programs. In a time of crisis, some things will lose funding. Those choices should be made based on the future of Denver and its residents, not the past or at the expense of our futures.”

Overview of opinions: 50 participants gave their opinion about this policy, with an average of 76% support. The six considerations and comments tended to discuss the I-70 project specifically, without discussion of the larger concept of reprioritization identified in the author’s proposal. I-70 was an example that became the focus of the discussion with debate about the necessity of maintenance and the impact on low-income communities.

Suggestions for improvement – potential for increased support: Let go of the I-70 example to host a larger conversation about reprioritization of existing money being spent. This is essentially a proposal to look at 0-sum, whereas instead of new funding mechanisms needing to be built, current spending on “unsustainable projects” is re-allocated. That concept may or may not have traction given by the 50 opinions.
Appropriate use of current available funding - 
Transparency of funds allocated for Sustainable Practices.

#funding-how | submitted 2 weeks ago by Wanda Osterman

Additional information on this proposal: Submitted by a community member whom was prompted by a moderator and another participant (listed under “pro”) to consider this as an underlying value of the process. The author wrote, ”What I know the feedback from the meetings in a box clearly indicated is that funds are not being used for what people voted on or thought their governmental leaders would use it for. Perhaps there needs to be accountability for misused funds. Perhaps money should not be allowed to be used unless there is a 3rd party reviewing its intended use. People have heard a lot is being done to become a more Sustainable city, but many are unaware of what is being done and with how much money. How can this lack of information become more visible? Can it be placed on a website?”

Overview of opinions: 43 participants gave their opinion about this policy, with an average of 72% support. Four additional considerations were made without follow-up comments or discussion.

Rationale for support: Two “pro” considerations affirmed the need for transparency in government spending to avoid waste.

Rationale for opposition: One “con” comment stated that they did not understand the proposal.

Suggestions for improvement – potential for increased support: As the moderator and two participants pointed out in some way, this proposal is likely more about a value system within this work and within government. A proposal about that value system specifically may be needed for this process.
Additional information on this proposal: This option has been part of task force discussions. As described by the proposer, Stephen Tifft, “Increasing fuel tax (diesel, gasoline, jet fuel, natural gas) will encourage those consuming massive amounts to reduce their consumption, reducing their emissions while also funding projects to mitigate their pollution. Those polluting the most will contribute the most to mitigating their negative effects.”

Overview of opinions: 104 participants rated this policy and gave it moderate support, approximately 71%. This earns it three out of four stars, as indicated in the header above.

Rationale for support and strengths identified: Two comments on the pro statements on this proposal received the most support:

- “the gas tax hasn’t been raised in decades. raise it and link to inflation.” (7 agreed)
- “A fossil fuel consumption tax makes sense to reduce fossil fuel consumption.” (6 agreed)

Related to the comments about it being a long time since the gas tax was raised, one participant suggested, “The gas tax is usually considered political poison, but broadening the existing tax to include all fossil fuels should be politically much easier.” Two participants agreed with this statement.

Rationale for opposition and suggestions for improvement: Ten respondents agreed to equity concerns with this proposal, saying, “We need to figure out how to keep it from being regressive and hurting low income communities.” This was a repeated theme in many MIB and SAG discussions and is a major goal of the task force. If this can be addressed, it may be an even more favorable approach for those who agree that it is urgent to address climate change. One suggestion that could help with this issue was to “[i]nclude a definition of ‘massive amounts’ so that it targets the heaviest hitters and those most able to put resources towards cleaner energy.” Another person suggested, “Robust expansion of public transit would make cars optional for a lot more families, such that a fossil fuel tax would no longer be regressive.”
Three additional comments demonstrated general opposition to the tax:

- Insufficiency of source generally and for competing needs: “Californiawificating Colorado doesn’t work...Low gas prices encourage MORE driving= Increases degradation of roads. In CO ice, salt, and snowplowing breaks down roads much faster. Gas tax revenue is often used to pay for road maintenance, repairs, admin, and major construction along corridors. Even with a gas tax, there won't be enough funds needed to address climate change.”
- Who should be taxed: “We need to be punishing producers more than consumers.”
- Trust in allocation of funds: “history shows these taxes never go towards intended purpose especially obvious in CO [given] the state of the roads.”
Additional information on this proposal: This option has been part of task force discussions. As described by the proposer, Stephen Tifft, this would be a “blanket tax that is applied to businesses and individuals.” He details how it would work for each:

For businesses, it can be applied as a percentage of revenue, not profit because regardless of if they are making a profit, they are still having some impact on the environment. It would be equivalent to a climate expense. Depending on different businesses it could vary but stay relatively low on the order of 0.5% to 1%. This would exclude any non-profits, and exemptions could be made for businesses owned by individuals most at risk of [effects] of climate change or those who fund projects in their local communities to further the action of the Climate Change Task Force. For example, if they organized and held weekly trash pickups/tree planting events for different areas of the city.

For individuals, it could be applied through a small percentage tax increase on their property tax or on their energy bill. There are pros and cons of both. Many people who live in Denver are renters so they benefit without actually paying the tax if it were property tax; though some landlords would increase rents to reflect the increased property tax expenses. If it is on their energy bill it could be a tiered system where for the first 100kWh of non-renewable energy used they are taxed at a 2% rate, and the next 100kWh it goes to 4% and so on. [People] who are using more fossil energy at home will pay more. This would also be an incentive for individuals to either pay more for renewable energy (through Xcel’s wind or solar programs) driving demand for it and therefore forcing Xcel to create more supply, or invest in solar for their individual homes.

Overview of opinions: 105 participants rated this policy and gave it moderate support, approximately 69%. This earns it three out of four stars, as indicated in the header above.

Rationale for support and strengths identified: Support for this proposal seemed to align with a desire for a tax generally, and more specifically, and several people agreed with the statement that “Many economists think this is THE way to deal with the climate emergency.”
Rationale for opposition and suggestions for improvement: One person noted that a tax isn’t the way to go at all and should look at encouraging people “to do things the right way.”

Most concerns raised were about equity issues with this proposal:

- “A tax makes sense but it shouldn’t be regressive” (3 agreed)
- “I like the idea of a tax, but this will have a huge impact on lower income communities who may not be able to afford an additional tax - income needs to be taken into consideration”
- “In full support BUT this tax should take into consideration communities doubly hit by effects of climate change + this tax. Do not agree with regressive approach.”

To improve on these factors, specifics are needed. Three people agreed, “Taxes need to be justified by clearly identifying what they’ll be spent on. We need less visions and a lot more strategies and tactics before approving taxes.” Another person also noted, “This is an interesting idea. I have read of different ways this works and doesn’t attack lower income people. Needs further investigation.”

Some did offer recommendations for getting to specifics:

- Some pointed to Canada’s reportedly successful approach to get to some more specifics.
- Another pointed to the Citizens Climate Lobby for guidance, saying that the Lobby “has a very solid and thought out plan for Carbon Fee and Dividend, which is a level playing field for our community to reduce reliance on fossil fuel.”
- Another person shared a recommendation from her own experience, “I used to work in utility billing. You can easily exclude those who are already participating in a low-income program or provide exemptions for those who request it and have the need. In many cases the amount would be quite small on the individual level and most wouldn’t notice or be impacted by the change.”
Additional information on this proposal: This option has been part of task force discussions. No additional information is provided with this proposal, though a similar one was included in the Transportation section and is described on the next page of this report.

Overview of opinions: 81 participants rated this policy and gave it moderate support, approximately 69%. This earns it three out of four stars, as indicated in the header above.

Rationale for support and strengths identified: Support for this proposal reflects its value for reducing congestion, encouraging use of transit, disincentivizing polluting activities, and raising revenue for climate action. It was also noted that it has worked well elsewhere.

- “This would reduce congestion in Denver and encourage people to take transit. It would also be put on those coming in from outside of Denver.” (5 agreed)
- “The congestion fee has worked well in London over a relatively long period. It’s one of the few transportation taxes that could be levied effectively at the city level.” (4 agreed)
- “This would be a disincentive for high co2 producing activity and could raise money to fund equitable incentives for low co2 alternatives.” (2 agreed)

Rationale for opposition and suggestions for improvement: Most concerns expressed related to vagueness. It was also noted that equity needs to be considered for implementation. With more detailed development, this proposal may warrant additional public review.
CONNECTED PROPOSAL FROM TRANSPORTATION SECTION

Implement congestion pricing and use the revenue to fund improvements in transit/bike/walk infrastructure & service.

#transp-innovate | submitted 5 days ago by Jessica Goad

☆☆☆☆

(n=18)

Additional information on this proposal: None given.

Overview of opinions: 18 participants rated this policy and gave it strong support, approximately 86%. This would earn it four out of four stars if the sample size was larger and still achieved this rating. This proposal is described here only due to its relation to the previous proposal from the Funding section.

Rationale for support and strengths identified: None given.

Rationale for opposition and suggestions for improvement: One comment made by a participant that advocates throughout the site for incentives and encouragement over punitive solutions: “Punishment is a great way to get people to hate the climate plan.”
New fee on vehicle registrations based upon carbon intensity.
#funding-how | submitted 2 weeks ago by Jeff Neuman-Lee

Additional information on this proposal: The proposer, Jeff Neuman-Lee, explains that this fee would “act as a deterrent to purchasing fossil fuel vehicles. It would, however, raise issues of environmental justice: could this not disproportionately affect folks who need their vehicles, but have less resources? Let’s remember, however, those who suffer the most from poor air might support the cleaning of their neighborhood air.”

Overview of opinions: 87 participants rated this policy and gave it moderate support, approximately 67%. This earns it three out of four stars, as indicated above.

Rationale for support and strengths identified: No specific positives were identified for this proposal.

Rationale for opposition and suggestions for improvement: Most concerns expressed related to disproportionate impacts on community members with lower incomes:

- “Would most negatively impact low-income persons.” (3 agreed)
- “Low collections when compared to the outsize negative impact on low-income populations. Highly regressive tax.” (2 agreed)

One person also noted, “The text says ‘carbon intensity’ but also clarifies ‘fossil fuel vehicles’. Electric vehicles also have huge carbon impacts and negative environmental impacts.”

Note: Similar proposals were made in the Transportation and Opportunity sections of the forum. It follows on the next page.
Additional information on this proposal: This proposal is essentially the same as the one shown on the previous page from the Funding section of the forum. The proposer explains, “Pickups, trucks and other vehicles with less than 30mpg are polluting more than their share. Pickups are empty 90% of the time - they should only be empty half the time for pickups and dropoffs, not used as commuter vehicles. For high polluting vehicles, DMV/registration should have links to resources where to get engine efficiency help and zero-cost loans.”

Overview of opinions: 16 participants rated this policy and gave it strong support, approximately 90%. This would earn it four out of four stars if the sample size was larger and still achieved this rating. This proposal is described here only due to its relation to the previous proposal from the Funding section.

Rationale for support and strengths identified: The author added this positive about the proposal: “Work with auto dealers to encourage/educate the greenest vehicles for individuals. Especially now that electric vehicles and high MPG vehicles are becoming better than gas guzzlers ... Auto sales lots could even be organized by green-scale!” Another participant wrote, “This just makes sense.”

Rationale for opposition and suggestions for improvement: None shared.
Additional information on this proposal: This proposal is essentially the same as the previous two. The proposer – the same person as in the Funding section – includes this description, “The principle is that people should pay for their own pollution. This would balance out the subsidies given to fossil fuel interests.”

Overview of opinions: 70 participants rated this policy with 62% support, three out of four stars.

Rationale for support and strengths identified: The primary positive noted with this version of the proposal is about its effectiveness as a deterrent to buying heavier polluting cars:

- “Car owners can pay a smaller registration fee by only buying the size of vehicle they need for their everyday use...make people think twice before buying gas-guzzlers.” (5 agreed)
- “Will help people think about the amount of pollution they are choosing to emit when they choose their vehicle type.” (5 agreed)

Rationale for opposition and suggestions for improvement: Most opposition relates to equity concerns, and suggestions for improvement include:

- Apply to all vehicles, commensurate with their greenhouse gas output
- Apply to only new vehicles to avoid impact on people with lower incomes who are more likely to purchase pre-owned vehicles

There were some additional comments about merits of single occupancy vehicles versus electric vehicles, debunking old myths about the negative environmental impact of EVs but agreeing that carpools and rail are much more efficient than EVs that still produce pollution from tire wear.

Finally, two participants noted, “Pay, pay, pay. When does it stop?” The author countered, writing, “We have not paid directly for our pollution, but other, innocent, people do. This would help bring responsibility to where it really resides, the polluter.”
Additional information on this proposal: The author shared, “Over 40,000 vehicles travel to the airport every day. Charging a toll on Peña would raise substantial revenues and discourage vehicle use. Exemptions for airport workers, trucks/cargo, etc.”

Overview of opinions: 76 participants rated this policy. They were highly divided in their opinions, averaging 53% support. This earns it only two out of four stars.

Rationale for support and strengths identified: Three positives are identified with this proposal:

- “This would not disproportionately affect the poor. Exemptions for airport workers included in the proposal. And the poor are less likely to drive to the airport for non-work purposes.” (5 agreed)
- “This would charge drivers based on use of the road, instead of laying that cost on the backs of those who don’t use it, or use it rarely.” (4 agreed)
- “This will help encourage people to take transit to the airport. There is really no need to drive to the airport with the A Line and SkyRide.”

Rationale for opposition and suggestions for improvement: Five participants disagreed with the first positive identified above, saying that it “punishes consumers and disproportionately impacts poor people.” Four participants agree with a suggestion that exceptions need to be made for people who live off a Peña Boulevard exit, “as there is not a simple alternative”.

However, all support and suggestions for improvement aside, one participant notes throughout the proposal page that a toll on Peña is not legal, and if it was, the revenue would go to the airport system.
Increase the utility franchise fee.

#funding-how | submitted 5 days ago by Jessica Goad

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(n=4)

Additional information on this proposal: No additional information provided with this proposal, though it has been a part of the task force’s revenue committee discussions.

Overview of opinions: Only four participants rated this proposal and only earned an average of 51% support. This would've earned it only two out of four stars if support stayed at this level upon reaching the minimum number of participants.

Rationale for support and strengths identified: No positives were identified for this proposal.

Rationale for opposition and suggestions for improvement: One participant noted, "I have rooftop solar that offsets all of my electricity usage most of the year. The only costs I pay for service are fees like this that are passed down to customers, so no thanks."
Additional information on this proposal: In response to the last rationale for opposition identified below, Theron Makley explains, “Consumption (aka Retail) is the source of around 1/3 of all of Denver’s GHG emissions. See the explanation at the top of the Consumption/Waste section of the forum.”

Overview of opinions: 58 participants rated this proposal and only earned an average of 39% support, giving it one out of four stars.

Rationale for support and strengths identified: Two positives about using a sales tax to help fund climate action were identified by one participant:

- “Helps tax consumption which is a huge part of our GHG emissions.”
- “Will spread costs onto all the tourists and visitors instead of just Denver residents.”

Rationale for opposition and suggestions for improvement: Two major cons were identified with this proposal:

- The regressive nature of this tax was the most common concern. It was further explained, “Sales tax takes more of a percentage of household income the lower on the scale you go. It is the most regressive of taxes.” No suggestions for improvement were given.
- Lack of a clear connection between the tax and desired change was another reason given for opposition. Three participants agreed, “Any tax is effectively a penalty for the taxed behavior. I don’t understand the rationale behind penalizing peoples’ retail purchases. This makes no sense.”
## ADDITIONAL FUNDING PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION

Following is a quick reference table of additional proposals made on the funding page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee on lyft/uber rides</td>
<td>9</td>
<td>86%</td>
</tr>
<tr>
<td>Energy Use Tax</td>
<td>85</td>
<td>59%</td>
</tr>
<tr>
<td>Reallocating costs and funding from state vehicle emission testing to require vehicle safety inspections instead</td>
<td>3</td>
<td>59%</td>
</tr>
<tr>
<td>Tourism tax</td>
<td>68</td>
<td>59%</td>
</tr>
<tr>
<td>On-line shopping tax</td>
<td>30</td>
<td>56%</td>
</tr>
<tr>
<td>Support the implementation of a fair tax code for all of CO: <a href="https://fairtaxcolorado.org/">https://fairtaxcolorado.org/</a> so that businesses and the top 5% of income earners pay their fair share for sustainable infrastructure in Denver and beyond!</td>
<td>46</td>
<td>54%</td>
</tr>
<tr>
<td>Meat and dairy tax</td>
<td>44</td>
<td>42%</td>
</tr>
<tr>
<td>No New Taxes!</td>
<td>7</td>
<td>21%</td>
</tr>
<tr>
<td>Bike Tax to pay for bike lane use</td>
<td>37</td>
<td>6%</td>
</tr>
</tbody>
</table>
Opportunity Report

Community Support for Climate Action in Denver

This report has been prepared for Denver’s Climate Action Task Force to consider public input into action that may be taken regarding opportunity to also make progress on equity and economic recovery in Denver. It begins with a brief overview of the results of the online discussion on this topic, highlighting most favored proposals and major themes and messages. They are presented in subsections by type of opportunity then in order of favorability (most to least) for those proposals that engaged at least 50 participants and received at least a moderate support rating – or were originally proposed by the task force. A table with links to all other proposals is provided at the end.

Most Favored Proposals

Three proposals garnered strong support (4-star ratings). Two are related to economic recovery strategies: investing in an affordable, expanded, and carbon-free bus system and reconfiguring streets for bike and pedestrian traffic. One is related to equity. Common characteristics of these proposals and responses to them include:

- Equity-oriented solutions
- Safe and connected clean mobility options, including in the small parks proposal, which references pathways connecting parks

Major Themes and Messages

Following are major themes identified across the proposals that garnered the most support (3- to 4-star ratings).

Fiscally responsible/return on investment: Proposals that are expected to provide a favorable return on investment, with responsible use of public funds, receive more support.

Equity: Equity – whether in access to new job opportunities or other community assets and resources or in means to participate in climate strategies – appears to be an essential design feature when considering any of these and other proposals. When equity is addressed well, the proposals tend to receive stronger support.

Deter polluting behavior; ease healthy behavior: Support for these higher ranking proposals also tends to be grounded in their strategic approach to behavior change – making it more difficult to engage in behaviors that pollute (and sometimes punishing those that do) and/or making it easier to engage in environmentally responsible behaviors.
OPPORTUNITY FOR ECONOMIC RECOVERY

Invest in an affordable, expanded, and carbon-free bus system

#opportunity-recovery | submitted 2 weeks ago by Denver Climate Action Task Force

Additional information on this proposal: This is a task force proposal regarding opportunity to both address climate change and economic recovery following impacts of the COVID-19 pandemic. Participants in both Meetings-in-a-Box (MIB) and Stakeholder Advisory Groups (SAG) discussions talked about the need to expand bus service, yet the bus system is experiencing a shortage of drivers during normal times paired with a large economic hit to the RTD budget. Investing in the system could include a) increased compensation and other retention strategies for bus drivers, b) ensuring bus transportation is affordable for all, c) increased frequency of buses on the most popular routes, d) expanding bus transportation routes, and e) transitioning to electric buses. Transportation is expected to outpace buildings and homes as the largest contributor to Denver’s greenhouse gas emissions. Ensuring that more people who may not be able to afford a vehicle have access to clean and reliable transportation would support those most impacted while at the same time provide good-paying jobs and eliminate emissions from buses.

Overview of opinions: 55 participants gave this strong support, earning a 4-star rating with an average of 87% support. There were only two comments on this proposal, each one suggesting an improvement.

Suggestions for improvement:

- Three people agreed that using public transit should be made “as easy to use as turning a key in the ignition.” The explanation offered with this suggestion indicates a need to incorporate travel training programming in this plan if it moves forward: “Asking someone with close to zero knowledge about using public transit to ‘figure it out’ is inhibiting. Eliminating decisions about the direction the bus will *always* go in, how to pay, etc. will make using public transit more ‘turn key.’”
- One person suggested, “consider expansion of on-demand micro-transit to right-size routes,” a proposal that is explored in the Transportation section of the Community Support for Climate Action in Denver report.
OPPORTUNITY FOR ECONOMIC RECOVERY

Invest in reconfiguring Denver’s streets to be shared streets while vastly expanding the use of bicycles, e-bikes and walking

Submitted 2 weeks ago by Denver Climate Action Task Force

Additional information on this proposal: This is a task force proposal regarding opportunity to both address climate change and economic recovery following impacts of the COVID-19 pandemic, and is something recommended by both SAG and MIB participants. It envisions that some of Denver’s residential and commercially oriented streets would be converted to being car-lite or car-free zones and would be opened up to communal gatherings, small business (food and other vendors, onsite bike repairs, etc.) in commercial areas. This would expand both construction jobs for street reconfiguration and the food and beverage industry. Paired with these efforts, a large-scale investment in vouchers for e-bikes, supporting bike sharing, build-out of planned urban “loop” trails (5280 Loop), bike taxis (pedicab) infrastructure, and on-line bike education would lead to expanded use of bikes. Expanding the use of bicycles and e-bikes paired with reconfiguring Denver’s streets would support those most impacted by the current economic crisis with more jobs and better access to a carbon-free mode of reliable transportation while making walking and biking a safer, more enjoyable, and more convenient option.

Overview of opinions: 75 participants gave their opinion about this policy, with an average of 87% support. It is the second of three proposals that earned four stars.

Rationale for support and strengths identified: There were three major strengths identified with this proposal:

- Fosters sustainability in a fiscally responsible way – The author explained, “Denver cannot continue to have over-engineered, car-centric, dangerous, pass-through streets that destroy city communities. It needs people-centric, slow-speed streets that allow people to opt out of expensive car ownership and walk or bike safely to everything they need - from work, school, stores, parks, and restaurants. Convert every single arterial to this street arrangement. This does not mean no cars - it just means cars need to drive the speed limit. (6 agreed)
• Increases safety and encourages use of this transportation mode – The author explained, “Making bicycles and small electric transportation safer and more convenient could support adoption from all demographics. Making heavy fossil fuel options less convenient will help...Look at Amsterdam. Bicycle adoption rates are about the highest in the world, and the infrastructure is designed to support the use.” (5 agreed)

• Deterrent for driving; encouragement to bike/walk – “This would be an extremely cost-effective way of encouraging active transportation and reducing car trips.” (5 agreed)

Rationale for opposition and suggestions for improvement: Negatives people identified included:

• Denver streets currently are not designed for this. Two agreed with this statement, though the proposal is to re-design some streets for this.
• One participant indicated that bicycling as a mode of transportation is not feasible and/or desirable for many people.
• The same person noted that there could be an increase in injuries involving electric scooters.

To improve on this proposal, five people agreed that streets that have been closed as part of the city’s response to the COVID-19 pandemic, “transform them into green spaces for bikes/walking...[like what was] done on Bannock St between Colfax & 14th recently.” Three people also agreed, “This will be most effective if we also vastly expand the allowed uses of the land along the streets which are shared.”

Lastly, though not directly relevant to this proposal and may be loosely relevant to many, one person suggested creating signage to name places for their indigenous names. She wrote, “We should honor the indigenous peoples whose land we occupy and the indigenous understandings that see the natural world as sacred. In addition, maybe have public poetry posted (in some format) that honors air, water, land, community and/or creation.”
Additional information on this proposal: This is a task force proposal. It would institute a large-scale program that first focuses on the most vulnerable and impacted populations to ensure all homes and buildings are green and healthy. This would include a) hiring people from local neighborhoods to support their neighbors in doing this, similar to how SAG participants talked about small business development in specific zip codes; b) making these changes at no cost or low cost for those that need it; and c) removing barriers for participation. It would also be paired with d) policy requirements to drive these changes such as requiring:

- Existing buildings and homes to reach the most efficient standard of operation for their type of use (i.e., office, retail, and multi-family).
- New buildings and homes to be net-zero emissions through code.

Retrofits would include energy efficiency (windows, weather stripping, insulation, light fixtures, electrification of natural gas heating, etc.) and installing solar where appropriate. These climate related changes would be paired with health and safety measures (such as mold, carbon monoxide, radon, and lead paint remediation), ensuring existing homes and buildings are green and healthy. In addition, it would include water conservation measures. Since approximately 1/2 of Denver’s carbon emissions are generated from homes and buildings, the impact is expected to be substantial while also generating jobs and supporting the most vulnerable and impacted communities.

Overview of opinions: 52 participants gave an average of 74% support for this proposal, earning it three stars.

Rationale for support and strengths identified: Three people agreed that increased energy efficiency in homes and buildings saves money over time and that resources, like PACE financing, currently exist to help homeowners (unclear about other property owners) to shift to energy-efficient options.
Rationale for opposition and suggestions for improvement: Cost is the big concern that participants identified. It would be expensive for home and business owners to make these changes, and with subsidies included in the proposal, the program would be expensive. One participant asked where the money would come from.

Suggestions for improvement include:

- “Even just a regularly updated list online of reliable, efficient, vendors would be great.” (2 agreed)
- “Currently we have certified inspectors for safety recommendations on the sale of a property, it would be great to have Green home inspectors available to help property owners plan.” (2 agreed)
- “This should only be done at the time of replacement. Constantly updating things, even to make them greener, is energy-intensive in itself.”
Invest in electric vehicle charging stations

Additional information on this proposal: In this proposal, the task force envisions the creation of new jobs responsible for installing charging stations. As shared on the online forum, “This could include chargers at city-owned facilities like rec centers or libraries, incentives for installation at private properties like shopping centers, and potentially on-street chargers at the curb. This can help accelerate Denver’s transition to zero-emission vehicles while providing local jobs to do the charger installations.”

Overview of opinions: 49 participants gave an average of 74% support for this proposal, which would’ve earned it three stars if it met the minimum 50-participant threshold.

Rationale for support and strengths identified: One person suggests that these charging stations will be important for inclusivity in effort to transition to electric vehicles because, “Many people will not be able to charge an electric vehicle at home.” MIB participants shared a similar sentiment, saying that people with lower incomes will need to charge in public because many do not have a garage.

Rationale for opposition and suggestions for improvement: Three participants asserted that electric vehicles are not emission-free, so it won’t have a positive impact on climate change, and two participants expressed concerns that the cost is high and with low return on investment. Two participants suggested that it would be better for private enterprise to do this, while another participant suggested that the city partner with Xcel and local businesses to jointly invest in this effort.
Additional information on this proposal: This is a proposal from a community member to address climate change and advance equity and social connection at the same time. He offered this additional explanation:

Adding many small parks through neighborhoods, instead of maintaining fewer "destination" parks, carries a number of benefits:

- Increase in permeable land throughout neighborhoods, reducing flood risk more evenly across the city
- Increases green/tree canopy cover dispersion to include less-equitable neighborhoods.
- Decreases VMT by ensuring open space access opportunities are nearer to persons’ residences.
- Shorter travel distances from reduced park distances encourages use of non-car modes of travel (walking, biking)
- More nearby parks increase opportunities for social connection in parks, and social connection en-route to parks when non-car travel modes are used to reach the park.
- Low-opportunity neighborhoods currently have less park access as well, so adding many small parks would improve equity.

Overview of opinions: 91 participants gave their opinion about this policy, with an average of 82% support – the third of three proposals in this Opportunity Report that earned a 4-star rating.

Rationale for support and strengths identified: Supporters say that this proposal offers great use of land, more equitable access to parks and opportunity for people to connect and play together. Five people agreed, “Our signature parks are lovely and overcrowded and not accessible for large numbers of residents. Pocket parks are important.”

Rationale for opposition and suggestions for improvement: Two cons were identified by one person each: 1) concern that houses would have to be torn down to make room for parks and 2) concern about “more cost for Denver taxpayers” and the need to maintain the parks we have already.
Suggested improvements were not related to the concerns. Rather, they expanded on the concept:

- “‘Green Alleys’ and the repurposing of some side streets into pocket parks could be a possible solution for some neighborhoods lacking in green space. One example of this. [https://www.tpl.org/green-alleys](https://www.tpl.org/green-alleys). (5 agreed)
- “There are surface parking lots that are too small for homes that could be converted to this. Let’s also expand definition of “neighborhoods” to those living on arterials.” (3 agreed)
- “Also, more community gardens that are actually accessible to everyone, not gated off.”
- “Everyone should live within 2 blocks of a park... and then every single one of those parks should be connected through safe walkable/bikeable paths. If we had a safe walking/biking loop that connected every park, we’d also connect every other main destination people need too.”
- “...focus on taking care of our waterways (gulches and creeks) as well. Water is life and if we can help people realize this then maybe we can orient toward what unites us and is worth protecting. Can we come together to protect our water, air and land?”
Additional information on this proposal: This proposal is essentially the same as two other proposals made in two different sections, shared after this summary for ease of reference. The proposer (same as in Funding section), adds this description, “The principle is that people should pay for their own pollution. This would balance out the subsidies given to fossil fuel interests.”

Overview of opinions: 77 participants rated this policy with 64% support, three out of four stars.

Rationale for support and strengths identified: The primary positive noted with this version of the proposal is about its effectiveness as a deterrent to buying heavier polluting cars:

- “Car owners can pay a smaller registration fee by only buying the size of vehicle they need for their everyday use...make people think twice before buying gas-guzzlers.” (5 agreed)
- “Will help people think about the amount of pollution they are choosing to emit when they choose their vehicle type.” (5 agreed)

Rationale for opposition and suggestions for improvement: Most opposition relates to equity concerns, and suggestions for improvement include:

- Apply to all vehicles commensurate with their greenhouse gas output
- Apply to only new vehicles to avoid impact on people with lower incomes who are more likely to purchase pre-owned vehicles

There were some additional comments about merits of single occupancy vehicles versus electric vehicles, debunking old myths about the negative environmental impact of EVs but agreeing that carpools and rail are much more efficient than EVs that still produce pollution from tire wear.

Finally, two participants noted, “Pay, pay, pay. When does it stop?” The author countered, writing, “We have not paid directly for our pollution, but other, innocent, people do. This would help bring responsibility to where it really resides, the polluter.”
Additional information on this proposal: The proposer, Jeff Neuman-Lee, explains that this fee would “act as a deterrent to purchasing fossil fuel vehicles. It would, however, raise issues of environmental justice: could this not disproportionately affect folks who need their vehicles, but have less resources? Let’s remember, however, those who suffer the most from poor air might support the cleaning of their neighborhood air.”

Overview of opinions: 87 participants rated this policy and gave it moderate support, approximately 67%. This earns it three out of four stars, as indicated above.

Rationale for support and strengths identified: No specific positives were identified for this proposal.

Rationale for opposition and suggestions for improvement: Most concerns expressed related to disproportionate impacts on community members with lower incomes:

- “Would most negatively impact low-income persons.” (3 agreed)
- “Low collections when compared to the outsize negative impact on low-income populations. Highly regressive tax.” (2 agreed)

One person also noted, “The text says ‘carbon intensity’ but also clarifies ‘fossil fuel vehicles’. Electric vehicles also have huge carbon impacts and negative environmental impacts.”

Note: Similar proposals were made in the Transportation and Opportunity sections of the forum. It follows on the next page.
Additional information on this proposal: This proposal is essentially the same as the one shown on the previous page from the Funding section of the forum. The proposer explains, "Pickups, trucks and other vehicles with less than 30mpg are polluting more than their share. Pickups are empty 90% of the time - they should only be empty half the time for pick-ups and drop-offs, not used as commuter vehicles. For high polluting vehicles, DMV/registration should have links to resources where to get engine efficiency help and zero-cost loans."

Overview of opinions: 16 participants rated this policy and gave it strong support, approximately 90%. This would earn it four out of four stars if the sample size was larger and still achieved this rating. This proposal is described here only due to its relation to the previous proposal from the Funding section.

Rationale for support and strengths identified: The author added this positive about the proposal: "Work with auto dealers to encourage/educate the greenest vehicles for individuals. Especially now that electric vehicles and high MPG vehicles are becoming better than gas guzzlers ... Auto sales lots could even be organized by green-scale!" Another participant wrote, “This just makes sense.”

Rationale for opposition and suggestions for improvement: None shared.
**OTHER OPPORTUNITIES**

**Denver should end all tax incentives for companies invest in, support, or profit from, the fossil fuel industry.**

#opportunity-other  | submitted 2 weeks ago by Peter

![Rating](n=62)

Additional information on this proposal: Peter, the community member that made this proposal, further explained, “My intention here was to focus on domestic resource mobilization and the decreasing profitability of the fossil fuel industry. Subsidies to keep it afloat are going to have to increase as oil drops below zero, and that’s not something the City, County, or State can afford when we have so much trouble building revenue, anyway.”

Overview of opinions: 62 participants rated this policy, averaging 69% support.

Rationale for support and strengths identified: Two people supported this proposal in the interest of making the fossil fuel industry obsolete in Denver as they see this as a tool for doing so.

Rationale for opposition and suggestions for improvement: Some discussion about potentially adjusting this proposal to include elimination of incentives for all businesses occurred and garnered support from four people. However, Peter expressed some concern, saying, “I could see examples where support for historically marginalized-owner businesses would be needed to address structural inequalities. Similarly, subsidies for environmentally-restorative SMEs could also be a starter for many.” He also explains, in response to a concern about local residents working in these companies, “My proposal is about something called a ‘just transition,’ and it means that we use a portion of the money saved when we end these pollution incentives to help those workers find better jobs.” One person said that this seems “more ideal [than] practical.”
# ADDITIONAL OPPORTUNITY PROPOSALS WITH LOW SUPPORT AND/OR PARTICIPATION

Following is a quick reference table of additional proposals made on the Opportunity page that garnered low participation and/or support.

<table>
<thead>
<tr>
<th>Proposal</th>
<th>Participant Count</th>
<th>% Support</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ECONOMY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide rhetorical and fiscal support for the creation of front range rail</td>
<td>22</td>
<td>89%</td>
</tr>
<tr>
<td>Find, support &amp; promote online connection hubs and algorythm apps for buying/selling recycled resources, maximizing trucks' delivery schedules, connecting eco-vendors.</td>
<td>6</td>
<td>88%</td>
</tr>
<tr>
<td>Denver can achieve the position as leader in new climate change technologies. Partner with venture capital firms, angel investors, investment banks, and other investment entities to create a Climate Change Technology Institute and Foundation</td>
<td>27</td>
<td>55%</td>
</tr>
<tr>
<td><strong>EQUITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Provide Education and Awareness programs for easy choices. LED lighting, PACE financing. Benefits of Biking. How to choose an Energy efficient appliance.</td>
<td>10</td>
<td>93%</td>
</tr>
<tr>
<td>Consider legislation to embed equity within the mission of state energy regulators.</td>
<td>16</td>
<td>86%</td>
</tr>
<tr>
<td>End bans on multi-family housing in every neighborhood</td>
<td>109</td>
<td>59%</td>
</tr>
<tr>
<td>Remove all single-family only zoning in all neighborhoods to allow at least duplex/triplex/fourplex units,</td>
<td>83</td>
<td>52%</td>
</tr>
<tr>
<td><strong>OTHER</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Focus on Local, Regenerative Food Systems</td>
<td>8</td>
<td>90%</td>
</tr>
<tr>
<td>City supported Organic Landcare Pilot Program for public schools</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Re-Zone Denver For Broader Agricultural uses in the Urban Environment</td>
<td>8</td>
<td>89%</td>
</tr>
<tr>
<td>Work to phase out the Suncor Refinery</td>
<td>29</td>
<td>82%</td>
</tr>
<tr>
<td>Increase composting participation</td>
<td>8</td>
<td>77%</td>
</tr>
<tr>
<td>Support B Corporations</td>
<td>27</td>
<td>75%</td>
</tr>
<tr>
<td>Provide feedback loops and transparency of decision-making in the major languages represented in Denver.</td>
<td>9</td>
<td>75%</td>
</tr>
<tr>
<td>Proposal</td>
<td>Participant Count</td>
<td>% Support</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------</td>
<td>-------------------</td>
<td>-----------</td>
</tr>
<tr>
<td>Support the expansion of the hemp industry to provide renewable materials for a variety of industries and uses.</td>
<td>47</td>
<td>63%</td>
</tr>
<tr>
<td>The city should incentivize businesses to donate a portion of their proceeds to local nonprofits.</td>
<td>3</td>
<td>62%</td>
</tr>
<tr>
<td>Government must hire/have contracts with companies that value Regenerative economic principles. They must open new RFPs and include this in their selection process.</td>
<td>19</td>
<td>62%</td>
</tr>
<tr>
<td>Require crematories to offset their carbon emissions = 540 pounds/cremation. Require funeral homes to prepare cadavers for cremation or burial by removing amalgams and all synthetic materials.</td>
<td>21</td>
<td>57%</td>
</tr>
<tr>
<td>Add a designated, connected network of structurally protected bike lanes with identical intersection treatments.</td>
<td>2</td>
<td>50%</td>
</tr>
</tbody>
</table>
Appendix 5. Revenue Subcommittee Proposed Criteria for Funding Options

1. Equity
2. Volatility
3. Capacity (total $ raised)
4. Tax and Fee Burden (breadth of tax base, percent income, ability to pay, over-burden business community culminating impact)
5. Best Practices (other cities successfully using)
6. Impact on Operating Budgets
7. Effect on Denver’s Regional Competitiveness
8. Legality
9. Feasibility (ability for city to administer)
10. Certainty (e.g., tax that must be voted on, can dedicate revenue source to climate action)
11. Co-benefits (Discourages emitting behavior, closely related to emissions, doesn’t disincentivize “good” behavior, avoids unintended consequences)
12. Timeline
13. Inherency (avoid splinter state effort, administrative effectiveness audit / admin housekeeping item that needs to be done anyway)
14. Political feasibility (maybe need polling)
15. Longevity of revenue base