

**1. What quantitative analyses has the city done on the economics of heat pumps?**

The city has both conducted its own quantitative analysis and reviewed the analysis of other third parties. Staff would offer some of the following as comprehensive references:

Attachment B (PDF page 52), Staff Council Memo:

<https://boulder.novusagenda.com/agendapublic/CoverSheet.aspx?ItemID=1610&MeetingID=508>

Independent Study by the Southwest Energy Efficiency Project:

<https://swenergy.org/pubs/southwest-heat-pump-study-2022>

**2. Has the City of Boulder considered, or will COB consider educational materials and rebates on solar thermal applications?**

The city currently offers both rebates and grants for residential solar thermal systems through the [EnergySmart program](#) . The city also offers a custom rebate program for commercial projects, which can be used to support solar thermal, through the [Partners for a Clean Environment \(PACE\) Program](#).

**3. Has the City of Boulder provided, or will COB provide educational materials on passive solar design principles?**

[The city's energy code](#) is a performance-based code that supports passive solar design principles. The city has routinely done outreach to educate and encourage passive solar design, such as staff presentations at the Colorado Green Building Guild. Staff expect to increase education and outreach in the near future and have been active supporters of enhanced incentive programs for passive solar new construction through Xcel Energy.

**4. The Clean Energy Collective solar garden developer filed for bankruptcy and now the Cowdery Meadows solar garden is not providing REC payments and has also not produced for the last month or so. Is this something the City of Boulder Staff could help with?**

It is staff's understanding that Xcel Energy has continued to make REC payments to the Clean Energy Collective for solar production associated with the garden. Because the further transfer of the REC payments to subscribers is a private contractual arrangement between the garden and its subscribers, the city would not be in a legal position to intervene. There are also many subscribers to that garden that are not Boulder residents. Staff did contact Xcel Energy. Xcel confirmed the production issue and will follow up with the Clean Energy Collective.

**5. I am a dedicated environmentalist with a deep concern about the climate crisis. We need to transition to Net Zero Energy, defined by the use of energy conservation, demand side management, smart and micro grids, energy efficiency, and renewable generation, to account for 100% of our energy usage as soon as possible. Having said that I am concerned about the city staff proposal for an additional tax to fund their climate change work. As far as I can tell and for too long, the city staff has asked for funding without measurable outcomes. Specifically what projects are we asking the community to fund, and what are the metrics that will be used to measure carbon/methane reduction resulting from funding those projects?**

The Climate Initiatives Department invests in strategies that support the city's climate-related goals and targets including:

- Reduce emissions 70% by 2030 from a 2018 baseline
- Become a net-zero positive city by 2035
- Become a carbon positive city by 2040

Since the original CAP Tax was passed by voters in 2006, the city has reported annually on the community's progress towards its climate-related goals and targets. Since 2016, the city has contracted with Lotus Engineering and Sustainability LLC (Lotus) to complete an annual greenhouse gas (GHG) inventory to measure the effectiveness of the city's efforts and progress towards its climate goals. The inventory is prepared following the Global Protocol for Community-Scale Greenhouse Emission Inventories (GPC). The GPC protocol provides a robust framework for accounting and reporting city-wide GHG emissions. Learn more about [our community's accounting and the metrics](#) for tracking progress.

Since Boulder started completing an annual GHG inventory, the city has experienced year over-year reductions in emissions. As of 2020, the Boulder community reduced emissions by 36% compared to the original 2005 baseline and 22% since the new 2018 baseline. Despite growth in Boulder's population, gross domestic product (GDP), and square footage since 2005 (by 10%, 87%, and 12% respectively), Boulder continues to reduce its emissions year over year.

At a high-level, community GHG emissions from electricity generation, natural gas combustion and vehicle emissions are measured in mt CO<sub>2</sub>e, and emissions by source

sector is published on the Boulder Measures Website:

<https://bouldercolorado.gov/boulder-measures/community-greenhouse-gas-emissions>

In addition to community-based emissions measured in CO<sub>2</sub>e, the city also publishes metrics associated with related targets on the Boulder Measures website including:

- Progress towards zero waste
- Local Renewable Electricity Generation
- Greenhouse Gas emissions from city operations and facilities

Staff has outlined many of the targeted strategies and projects to be funded should voters approve replacing the CAP and UOT taxes with a new Climate Tax in their June 8, 2021, and February 22, 2022, memos to City Council.

Attachment D of the June 8 memo, illustrates the targets and key performance indicators (KPI's) by which project investments would be measured in addition to their contribution to community-based emissions:

<https://boulder.novusagenda.com/agendapublic/AttachmentViewer.ashx?AttachmentID=4165&ItemID=3794>

Attachments C and D of the February 22 memo illustrates the types of "Big Move" projects and scales of costs associated with those efforts that are envisioned:

<https://boulder.novusagenda.com/agendapublic/AttachmentViewer.ashx?AttachmentID=4786&ItemID=4279>

**6. Does the city still believe that Decarbonize, Decentralize and Democratize are it's guiding principles for electricity? How has this changed since 2020?**

When the city began its exploration into municipalization, the process revealed three central themes that became guiding principles for the process. The first was decarbonization, where we could put an emphasis on renewables. The second was decentralization, where we could make decisions locally and be resilient at a smaller scale. And the third was democratization, where the community could have a bigger say in how their utility runs programs and how it retains and uses the revenue it generates. While Boulder voters chose to shelve the city's municipalization efforts, the city still believes these are the right guiding principles for our community's full spectrum of energy efforts.

## **7. *What specific programs have come out of the Boulder Xcel Advisory Group?***

- In December 2021, the city published a review of accomplishments from year one of the partnership: <https://bouldercolorado.gov/news/year-one-accomplishments-xcel-partnership>
- On May 11, the Advisory Panel shared recommendations for renewable energy and electrification: <https://bouldercolorado.gov/news/xcel-advisory-panel-shares-renewable-energy-and-electrification-recommendations>
- The next step is to evaluate options to implement the recommendations.
- In addition to the advisory panel recommendations, work is underway on the following projects:
  - Undergrounding
  - Zero Emissions Communities: project to add utility-scale renewables and storage to reduce system-wide electricity emissions equal to Boulder's consumption above and beyond the Xcel baseline.
  - Street light acquisition
  - Chautauqua sustainability and resilience
  - Expansion of the city's vehicle-to-grid pilot
  - Public transit charging hub
  - City fleet EV charging infrastructure
  - Regional and Boulder EV roadmaps
  - Accelerating heat pump adoption through contractor training and consumer outreach
  - Distribution system planning for improved reliability

## **8. *What carbon reductions are expected from those programs?***

- Zero Emissions Communities targets approximately 175,000 short tons of CO<sub>2</sub> per year by 2030 (though the incremental reductions may begin as soon as 2026).
- Combined building electrification efforts contribute towards the city's goal to reduce natural gas emissions by approximately 170,000 short tons of CO<sub>2</sub> per year by 2030.

**9. What programs does City Staff expect to come from the Boulder Xcel "Partnership" in the next year? next two years? next three years? What is the carbon reduction associated with these programs?**

- See questions 7-8.

**10. Does City of Boulder staff have a "demand" list for Xcel? In other words, has the city put forward a list of the things we want Xcel to do for us, or for the ratepayers in general, before the first "opt out" from the Franchise, which comes in 2026 or thereabouts?**

- Exhibit B of the Franchise Agreement outlines the commitments and expectations of the partnership to include the initial projects to be developed under the partnership (Attachments A and B):  
<https://bouldercolorado.gov/media/2288/download?inline>
- Some of the projects require enabling legislation, such as [Senate Bill 21-261](#) which increased the "120% Rule" to 200% and expanded off-site and multi-tenant solar access.
- When considering future projects, it is important to evaluate the financial feasibility depending on who will own and operate the resources. In some instances, it may make sense for Xcel to own and operate (at the Xcel cost of capital) and in other instances, it may make more sense for the city or third-parties to invest at lower cost.

**11. This should be a list of specific items that we want Xcel to do, including both actions in Boulder and actions at the PUC and Legislature. For example, it should include, at a minimum, making rooftop solar as feasible as possible — including net metering, no requirement for production meters, no charges for anything, ability to share the benefits with neighbors (and collect from them) rather than getting credits or cash at the end of the year, etc. There should be no limits on the size of the installations. Also, it should include the ability to set up solar gardens with whatever financial structure we want, so that in places where rooftops are not adequate, or too expensive, we can set these up and Xcel will handle the transmission, etc., at cost, so they in effect function like neighboring rooftops. Then there should be provisions for microgrids as we choose. And it should include a timeline for each project and action, so that e.g., if we want Xcel to go to the PUC or the Legislature with a request to change a specific rule, that we have a due date for that action, and also for any review that we want to make of Xcel's proposal before then go to the PUC or the Legislature.**

- With respect to the topics identified in this question, it is important to note the following:
  - Net metering is available to all Xcel customers in Colorado, including all Boulder residents and businesses. Customers can elect whether to get paid for excess generation or to bank credits for use in future years.
  - The 2022-2025 Renewable Energy Standard (RES) Plan will implement provisions of Senate Bill 21-261 to enable off-site solar (or “virtual net metering”) in which customers can invest in solar on non-adjacent parcels and receive credit on their electric bill as well multi-tenant solar projects in which multiple tenants of the same building (residential or business) can invest in on-site solar and receive net metering bill credits without requiring electrical interconnection of the solar array to each customer meter.
  - Production meters are not required for residential or business solar installations 10 kW or less as of summer 2020.
  - Regarding the ability to share benefits with neighbors, Senate Bill 21-261 did advance a number of provisions in this regard to include the ability to donate excess net metering credits and the ability to share a system across a multi-tenant property. The ability for residents or businesses to serve as net generators and participate in transactional sales of net metering credits would require further changes at the legislature.
  - There are no Xcel or PUC restrictions on the financial structure of community solar gardens beyond provision around the minimum number of subscribers. Further, the 2022-2025 RES Plan will implement the virtual net metering provisions of Senate Bill 21-261, allowing for significantly more flexibility in where solar is sited.
  - The current Renewable Energy Standard Plan will interconnect 75 MW of community solar gardens this year. The 2022-2025 RES Plan proposes 75 MW per year (300 MW total for the plan) but has not yet been approved.
  
- On the topic of microgrids, we would note that the term “microgrid” has been used to mean many things, often without a clear definition of the outcome a microgrid is intended to achieve (e.g., bill savings, emissions reduction, resilience, “grid defection,” other?), its intended scale (e.g., does the microgrid need to be sized to power all of a customer or neighborhood usage or just critical loads? For what period of time?) or its envisioned ownership structure (e.g., is it customer-owned, utility-owned, etc.).

- One definition is an individual customer installing on-site generation (and storage, depending on the type of generation) that can power some the home, business or campus for a period of time:
  1. This type of microgrid is permitted today and is, in fact, in wide use. For example, the University of Colorado campus operates its own microgrid.
  2. Residential and business customers can install on-site generation and energy storage as a building-level microgrid today. Residential customers have access to a demand response incentive program through Xcel to support installation. This program may be expanded as part of the Renewable Energy Standard Plan, which anticipated to be approved before the end of 2022.
  3. The city, Via Mobility Services, Boulder Valley School District and other partners are currently developing a shared transit electrification facility (land purchased, design workshops underway). The site is intended to accelerate transit electrification by sharing charging infrastructure with on-site generation and energy storage to ensure the facility can operate during emergencies.
  4. Related to the Renewable Energy Standard Plan, Xcel will propose a multi-tenant solar program after a rulemaking on this topic is complete. This product will enable tenants of a shared building to invest in solar together. While not a “microgrid” under most definitions of the term, this is considered an important first step to enabling future microgrid development.
  5. Xcel has also proposed a “Resilience as a Service” product offering that is currently under review at the Public Utilities Commission. The city has intervened in this application. The proposal would offer on-bill financing for Xcel to pair on-site generation and energy storage to enhance customer reliability and resilience.
  
- Another definition of micro-grids involves the coupling of many properties together to allow for the sharing of distributed generation and storage devices.
  1. These types of microgrids may or may not be permissible today depending on property ownership and right-of-way considerations.
  2. The city, Xcel and many parties supported the successful legislation to develop a microgrid roadmap for Colorado ([HB 22-1249](#)) as well as to offer grants for community microgrid

development ([HB 22-1013](#)). The roadmap will both consider the businesses cases and potential for microgrids to provide community and state-wide benefit, it will identify existing regulatory and policy barriers to microgrid adoption and strategies to address those.

***12. What three programs are the top priorities for Climate Initiatives in the next year?***

The Department has many priorities identified for the next year; many of which are driven by the community and City Council. Based on the vision for the future of the city's climate work, learnings from the last two decades, ongoing input from council and the community, and best practices elsewhere, staff have identified equity-centered strategies that prioritize systems change, recognize the important role of local government, leverage regional actions to reach the goals, and prepare our community for inevitable stressors. Attachment D, Achieving Systems-scale impact for Climate Actions— Potential “Big Moves”, details the types of programs that the Climate Initiatives department would prioritize going forward. Example priorities include:

- Providing turnkey technology and financing solutions, coupled with updated code and regulation to reduce emissions from and enhance the resilience of the city's buildings.
- Support and facilitate the design and implementation of a revised climate resilience strategy.
- Execution of near-term projects identified through Xcel Partnership efforts; focused on new and innovative program models to close the community's emissions gap; Increased local generation and storage.
- Show progress on minimizing food waste communitywide; Maximize high quality compost/biochar production; Maximize local use of compost/biochar through city-led biochar pilot.
- Launch “Climate challenge” call for community-based collaborative solutions to deep decarbonization.

***13. Will Climate Initiatives provide carbon reduction metrics for their programs?***

Yes. It is important to consider that individual metrics such as cost per ton of CO<sub>2</sub> reduced will not be the sole guidepost for determining projects. When evaluating Climate Tax expenditures, it may be the case that the appropriate role for community investment in carbon reduction projects funded by the tax are best focused on high cost per ton projects that enable demonstration of promising but unproven technologies that the market will not yet invest in (but may after a city demonstration project). Alternatively, tax funds may be best used to close gaps in the market on low cost per ton projects.

**14. How does City Staff intend to budget between programs and salaries if the Climate Tax passes?**

The department has historically invested less than a third of its climate tax dollars in staff salaries. The department does not anticipate adding any additional staff as a result of the tax. Any new positions would be included in the city's annual budgeting process.

**15. Does City Staff intend to do regular updates with an opportunity for two-way communication with the broad community?**

The city shares updates, educational material and community stories through biweekly climate newsletters, online [newsroom](#) articles and social media. [You can sign up for the newsletter online.](#)

This summer, the city is hosting three virtual information sessions – each with the goal of deepening the community's familiarity with city climate work and inspiring collective action. Community members will learn about city programs, projects, initiatives and partnerships, and will have the opportunity to ask questions during a Q&A portion of each session.

Staff will also collect feedback on the proposed Climate Tax ballot measure through focus groups with businesses and target communities. These sessions will be an opportunity to listen to and acknowledge concerns and aspirations voiced by community members most impacted by the climate crisis.

The public can ask questions and contribute ideas related to Boulder's climate work at any time on Be Heard Boulder, the city's online engagement platform. Visit [Be Heard Boulder](#) to learn more and participate.

Furthermore, the city has invited community members to record and share their vision for a climate resilient Boulder. Recordings will be accepted throughout the year and may be woven into an audio collage of community voices. [Learn more about the project.](#)

**16. Going forward will City Staff commit to educating the public about PUC proceedings and consult with the community before taking positions in PUC proceedings?**

Staff has always and will continue to be committed to seeking community input to inform positions taken within the PUC proceedings. Depending on the proceeding and its scope, the form of this engagement will vary, but routinely includes one-on-one and small group discussions, solicitation of broad community feedback, workshops and engagement events. Staff also provides quarterly information packets to council summarizing PUC work. It is important to keep in mind that PUC proceedings are a litigated process that evolves rapidly and

often involves confidential negotiation among parties. Thus, most engagement occurs in advance of the formal litigated process and then staff uses this input to inform decision making during the proceeding. Staff may also seek community and council input without explicitly calling out the proceeding or specifics of the negotiation. Finally, it is also important to keep in mind that the PUC process often involves highly technical analysis and information, which is why the city retains staff with recognized subject matter expertise to represent the city in these proceedings.

**17. Please provide an update on the work of Colorado Communities for Climate Action (CC4CA).**

Colorado Communities for Climate Action is a coalition of 40 counties and municipalities across Colorado advocating for effective state climate policy. Our members span the Western Slope and Front Range; small rural towns and major suburbs; counties and municipalities; and wealthy, middle income, and low-income neighborhoods. New members last year included Durango, Edgewater, Ouray County, Snowmass Village, Superior, and Wheat Ridge. Representing nearly one-quarter of all Coloradans, with rural communities making up two-thirds of the membership (and half our member communities on the Western Slope), and with populations ranging from under 1,000 to more than 500,000, CC4CA has become a high-impact voice for clean air, climate action, and public health protection.

Information on member communities, CC4CA's Policy Statement, recent highlights and reports from the various programmatic committees can be found at: [Who We Are & What We Do — Colorado Communities for Climate Action \(cc4ca.org\)](https://www.cc4ca.org).

**18. In my neighborhood of S. Boulder, there is a tremendous amount of home renovation, often including "scraping" and complete rebuilding. The vast majority of these properties are installing gas heating/ gas water heating equipment, which will then be in operation for decades. Most of these homeowners are unaware of electrification tech (cold climate heat pumps; heat pump water heaters, ...) Has the city considered a residential electrification education initiative - something as simple as putting out a flyer? I've lost track of the number of people I've met who would have considered electrification, but were not advised of such options by their contractors, and were themselves unaware of modern tech such as (cold climate) heat pumps.**

Thank you for the question and, yes, the continued lack of consumer awareness of the benefits of electrification and state of the technology is a major barrier to adoption. A key focus of the city's efforts now and going forward is to work both directly and through partners to accelerate education efforts. This includes working through our partnerships with the state's leading utilities (Xcel, PRPA, Tri-State, Holy Cross), industry organizations and other municipalities to

educate and influence the contractor market. The city will also continue to advance codes and regulation to reduce further stranded investment in gas appliances and infrastructure.

***19. Evergreens - especially junipers - can present a fire threat to nearby structures. Native short grass prairie (deep root systems) also sequesters large amount of carbon, and is much more resilient in the face of rising temps and more frequent fires. The large majority of its biomass, unlike trees, exists underground. Native short grass plant communities also support large numbers of pollinators. Shouldn't Boulder also consider prioritizing this resilient and lower fire threat (lower above ground fuel load) landscape?***

Absolutely. This is a good opportunity to highlight the [Cool Boulder campaign](#) and the city's approach to Natural Climate Solutions. For example, part of the program is focused on Pollinator Pathways. These are corridors of diverse plants that support cooling temperatures and foster biodiversity, especially for native pollinators. Creating and expanding an interconnected network of these corridors on both public and private land will provide important habitats and help manage carbon and water in ways that reduce the impacts of climate change.

This work has already begun in the Goss Grove neighborhood. Initial partners include the City of Boulder's Climate Initiatives Department, Planning Department, Bee Chicas, Butterfly Pavillion, CSU Extension, Eco-Cycle, People and Pollinators Action Network, Resource Central, and the Xerces Society

Another element of the program focuses on absorbent landscapes which hold more carbon, more water, and more thermal energy, helping to cool our city as well as prevent dangerous flooding and fire that Boulder is prone to. This effort is focused on improving carbon sequestration, soil health, and water retention/management through regenerative agriculture, sustainable grasslands and turf management, and other actions in the landscaped areas within our city as well as in the working lands surrounding Boulder.

With respect to wildfire risk, staff have work underway to foster the urban canopy and overall vegetation management on public lands thoughtfully and in a manner that mitigates against wildfire risk while also supporting the community's resilience and climate objectives. After the Marshall fire, the need to make our entire city more resilient in the face of such calamities is self-evident. At the same time, we want to increase the planting of trees for obvious environmental benefits. Fostering a healthy urban canopy does not necessarily contribute to risk of urban wildfire. While there are no "fire-proof" plants and any type of vegetation could act as fuel for a wildfire under extreme conditions, there are choices that are more resistant to wildfire. Much of the current urban tree canopy is made up of deciduous tree species which are more fire resistant due to their high moisture content and broad, waxy leaves; these characteristics make them far less susceptible to burning or carrying fire. Many of the tree

species found around Boulder are species found in the [CSU list of recommended FireWise plants \(ideal choices for planting around homes to create defensible space\)](#).

**20. Does Boulder protect existing trees on private property?**

Yes. The City Council first identified tree protection as one of its priorities in 2007 and the city added tree protection standards to the city code in 2009. A main challenge in regulating trees on private property lies in balancing private property rights with the community's interest in protection of the urban tree canopy.

Fostering a healthy urban canopy, on both public and private property, is a vision shared across many departments as it directly supports city goals related to environmental sustainability, economic vitality, and being a healthy and socially thriving community. In 2022, Boulder Parks and Recreation and Climate Initiatives will work together to identify resources, including opportunities to leverage federal funding opportunities (e.g., the Build Back Better Act) to forward initiatives outlined in [Boulder's Urban Forest Strategic Plan](#), to care for existing public trees and increase both public and private plantings. Resources are also being allocated to update BPR's drought plan and to develop a Tree Diversification and Planting Plan.

It is also important to note that the city manages less than 10% of the over 600,000 trees in Boulder's urban forest. Boulder Parks and Recreation and Climate Initiatives are working together to coordinate with groups like the Play Foundation, Tree Trust and other community organizations to coordinate effective tree care on both public and private lands.

**21. Do the building regs require passive light and passive heating and cooling in new construction?**

The city's building codes do not require passive light and passive heating and cooling; however, these strategies are encouraged through the use of stringent performance-based code where the city regulates how much energy can be used per square foot of building space.

**22. What is the City doing to get RTD to use the right sized buses instead of 43-passenger ones carrying an average of 6 people? Or to do it ourselves?**

RTD bus size deployment is an RTD operational decision based upon ridership demand, service needs, and its fleet availability. City staff continues to work with RTD and regional partners in emphasizing the need for RTD service restorations that were made with its 2020 COVID-19 Service Plan as transit demand increases.

**23. I'd like to see a sampling of the "big moves" that will be funded by a new tax.**

Example “Big Move” strategies were presented to City Council as part of the February 22 Study Session, included in Attachment D of the staff memo “Achieving Systems Scale Impact for Climate Actions—Potential”:

<https://boulder.novusagenda.com/agendapublic/AttachmentViewer.ashx?AttachmentID=4786&ItemID=4279>

Additional links are included in question 5.

***24. Will the ballot measure be written in a way that considers the option of a more competitive electricity future so that the City of Boulder doesn't become dependent on the future of Xcel's monopoly.***

The Climate Action Plan (CAP) Tax, which provides \$1.8 million in funding for our community’s climate work is set to expire in March 2023. The city is proposing a new Climate Tax that would combine the CAP Tax with the Utility Occupation Tax. The new Climate Tax, as proposed, would raise about \$5 million per year to fund city-level climate and resilience efforts. If approved by council, the Climate Tax will require voter approval in the November election. The tax, if passed, would be levied on the incumbent utility providing service in the city. While the incumbent utility is currently Xcel Energy, the tax would not be tied to a continuing relationship with them.

***25. How about hiring a full-time organizer to organize against Xcel's ongoing plans to extract its maximum profit, instead of local, democratic, resilient, and reliable energy?***

The city continues to be extremely active at the state legislature and various regulatory agencies both alone and as part of our climate coalition, CC4CA. The purpose of this policy-level work is to actively change the energy system that limits our community’s ability to go “further and faster” than our energy utility. Boulder has been extremely influential over many years at moving the overall energy landscape in Colorado. Staff will continue to be active in the policy space to transition to a renewable, equitable and resilient energy system for all customers, both in and out of Boulder.

***26. What will the City of Boulder do to educate the community on PUC proceedings and positions being taken by the city?***

See question 19.

***27. Please let the community know what specific new programs Xcel has agreed to to help Boulder meet its climate goals.***

See questions 7-10.

**28. Please provide specific examples of what microgrids are being developed and what stage they are at.**

See question 11.

**29. Will the City provide a "carbon-reduced/ \$ spent" metric for Climate Initiatives efforts?**

See question 14.

**30. I'm all for educating about trees, but I also hope you will consider solar access and fire danger issues that should be addressed.**

See Question 20.

An important point for sure. Boulder continues to prioritize a balance between solar access and an increasingly important urban tree canopy. Going back many years, the city enacted regulations to protect the use of solar energy systems on private property. The solar access regulations can be found in section [9-9-17, BRC 1981](#). These regulations limit the amount that new construction and additions can shade adjacent properties. When applying for a building permit for new construction or an addition, it is necessary to prepare a solar analysis demonstrating compliance with the solar access regulations and to submit the solar analysis and supporting documentation with your building permit application materials. Step-by-step instructions for preparing a solar analysis are provided in the [Solar Access Guide](#).

To support an accelerated move to local solar, the city provides several incentives, strategies and information on the city's website: <https://bouldercolorado.gov/projects/solar-power>. This includes options for incentives and rebates, a long-term solar strategy for Boulder, information on progress towards our local generation target and details about subscribing to a community solar garden.

With respect to wildfire risk, most will agree that as Boulder experiences increasing temperatures and extreme heat events, tree maintenance and placement is also an important consideration. Watering and pruning trees can minimize fuel loads and planting away from homes and structures can minimize ignition sources, and the 2022 Boulder Parks and Recreation budget includes the restoration of a Forester position and funds for tree pruning, both of which will allow the department to increase public tree care. As the 2023 budget is developed and council discusses the Parks and Recreation Master Plan, we anticipate discussing additional funding to restore the commercial tree program budget to improve the pruning rotation and health of trees in commercial areas, to improve the public tree pruning rotation in residential areas to reduce public safety concerns, reduce fuel loads and improve the health of public trees.

The City of Boulder's Boulder Fire rescue department Wildland Division and the OSMP Wildfire Risk Management team have been working together with the community to address shared fire risks by:

- [Maintaining healthy natural areas](#) that can help reduce the risk of dangerous fires. [Boulder Open Space and Mountain Parks](#) (OSMP) fire risk management mimics fire's natural processes and includes tree thinning, livestock grazing, prescribed burning and weed management.
- [Working to prevent fires](#) on open space by enforcing regulations that prohibit all sources of ignition, including smoking, campfires and fireworks. OSMP Rangers and OSMP staff are trained wildland firefighters and help fight fires on open space. The department also works with other public land agencies to remind visitors to recreate responsibly to prevent wildfires.
- Read [a city guide \(PDF\)](#) to help residents prepare their families, homes, and property against the year-round threat of wildfires. The most effective fire mitigation efforts are those completed within 5 to 10 feet of a structure. That work should remove flammable materials and establishing a fire-resistant buffer.

More details can also be found at: <https://bouldercolorado.gov/services/open-space-wildfire-risk-management> and the City FD and continues to enhance their efforts to educate the community on specific wildfire risks and dangers by providing detailed information on Ways you can improve your personal, home and community's wildfire safety, links to statewide and national wildfire mitigation and informational resources, and information from the city and local partners on wildfire risk and regulations. The Fire-Rescue Department is happy to conduct a free on-site evaluation of your home to help protect it from a wildfire. Details are at: <https://bouldercolorado.gov/guide/boulder-fire-rescue-department-wildland-division>.

**31. How can the broad community be involved in the "Closing the Gap on Emissions" work? I'd like to follow along and learn more.**

- The city proposed one method to "close the emissions gap" in answer testimony in the 2021 Electric Resource Plan. This testimony can be downloaded from the [PUC website](#) (beginning on p. 29). This proposal was included in a settlement agreement addressed many issues under review in the Electric Resource Plan.
- The city and Xcel have been working to conduct the necessarily analysis and developing models to inform the design of potential solutions for closing the gap. These models are being used to test potential solutions and develop an overall draft framework and roadmap for closing the gap.
- Staff has already engaged the Community Advisory Panel's 100% Renewable Working Group and would expand this engagement to the broader community once the draft has been developed.

**32. Was the "survey" a true survey or was it answers submitted by self-selected residents. If it is the latter, please make that clear as it is clearly not a "scientific poll" if it is being done by self-selected respondents.**

The City of Boulder Climate Tax Ballot Measure survey interviewed 1,180 registered voters, of which 98% were very likely to vote in the upcoming November election. A statistically valid and representative survey provides respondents with multiple ways to participate in the survey through different data collection methods. This survey utilized four data collection methods to interview respondents. The first method sent three MMS text messages over a two-week period to 30,000 registered voters inviting them to participate in the survey. The second data collection method interviewed a random sample of registered voters on their cellphone. The third data collection method invited Boulder residents to participate in the survey via email. Finally, the fourth data collection method invited residents to participate in the survey through a link on the City of Boulder's website.

**33. When will the City Staff provide a budget breakdown for how the \$5 million is expected to be spent if it is approved?**

Staff will be able to provide a more detailed breakdown of the potential funding once city Council determines the replacement Climate Tax will be placed on the November ballot for voter consideration. As a benchmark, within the current \$3.8 million of the combined CAP and UOT, on average a third or less goes to staff salaries, \$1.0 million supports voluntary community programs (advising services, rebates, grants, education), \$0.1 million supports regulatory programs and reporting consultants (e.g., help desk support, annual GHG reporting), \$0.2 million supports community and equity organizations, and the balance goes to special projects and pilots (e.g., Boulder Energy Challenge, Vehicle to Grid Pilot, strategy development). We anticipate that the additional funding under the new tax would be used to support expanded voluntary programs, particularly in the areas of natural climate solutions and resilience, and to leverage grants and private capital to accelerate these programs.

**34. In addition to an outreach/education program that Stuart Cummings suggested above, is the city planning rebate increases to those looking at heat pumps (for heat/air and water heating), and is the city considering a ban on new fossil gas infrastructure?**

The city intends to continue to offer rebates for both residents and businesses seeking to adopt heat pumps through the EnergySmart and PACE programs, respectively. The city will also continue to advocate for increased incentives through Xcel Energy. However, staff recognize that rebates, alone, are inadequate to address the cost and barriers to heat pump adoption. Therefore, in addition to continued incentives, staff are prioritizing accessible financing

solutions and turnkey program designs. Staff will also continue to work through our partnerships to accelerate market transformation efforts.

Regarding new fossil gas infrastructure, staff are exploring a suite of options to bring forward to council in the next update of the city's Energy Conservation Code, planned for late 2022/early 2023.

***35. How are manufactured housing communities included in the wonderful plans you have for the future?***

Manufactured housing communities represent some of the most energy burdened households in our community. These communities are often the most disproportionately impacted by the effects of climate change and air pollution. As outlined in the city's [Manufactured Housing Strategy](#), we are committed to preserving and supporting these communities. Offering solutions to lower energy burden and improve the resilience of the housing stock for these communities is one of the highest priority work areas for the department. Key workplan items include:

- Through city investment and partnerships, providing community members access to low-to-no cost solar garden subscriptions and, where feasible, on-site solar.
- Building regional capacity to greatly expand weatherization programs and then to provide turnkey, low-to-no cost repair, weatherization and electrification retrofits.
- Supporting efforts to provide high-efficiency modular homes.
- Supporting access to clean transportation solutions that better meet the needs of these communities.
- Continued legislative and policy advocacy.

***36. Would be very helpful if city staff helped educate Boulder residents on key issues before the PUC since the Staff is reading--and also checking with the community (and when especially important with City Council) before taking positions on behalf of the City.***

- See question 19.