

## Community Sustainability Advisory Board Welcome Packet

Welcome to the Community Sustainability Advisory Board! The mission of CSAB is to assist the City of Golden in defining and achieving its sustainability goals and to empower the community to live in a way that assures a high quality of life for current and future generations. Your work on this board will have an impact long into Golden's future, and we thank you for your commitment to this mission.

## CSAB Creation and Bylaws

On December 6, 2007, City Council adopted [Ordinance No. 1789](#) forming the Community Sustainability Advisory Board. This was amended in 2010 by [Ordinance No. 1863](#), which amended the Board's duties and responsibilities. An effort to standardize all City board and commission bylaws in 2017 resulted in the current Ordinance No. 2063 which updated [Chapter 2.50 of the Golden Municipal Code](#). This chapter outlines the board's bylaws including the purpose, appointments, terms, duties, and authority to adopt regulations. Please read through either Chapter 2.50 or Ord. 2063 (which can be found in Appendix A).

## City of Golden Sustainability Goals

Golden's very first sustainability goals were enacted by City Council resolution in [2007](#), further defined in [2009](#), and revised in [2014](#), and revised to the current goals in [2019](#). Please familiarize yourself with them as CSAB will continue working toward these goals during your term.

### SUSTAINABILITY GOALS



#### ENERGY

##### 100% RENEWABLE ENERGY

- 100% renewable for electricity **by 2030**
- 100% renewable for heating **by 2050** (transition away from natural gas)
- Greenhouse Gas Emission reduction aligned with Paris Accord **by 2050**

##### EFFICIENCY

- Reduce consumption of electricity **by 15% by 2030**
- Reduce consumption of natural gas **by 15% by 2030**

##### 100% FOSSIL FUEL-FREE TRANSPORTATION

- 20% fossil fuel-free transportation sector **by 2030**
- 100% fossil fuel-free transportation sector **by 2050**



#### WASTE

##### TO REDUCE TOTAL LANDFILL CONTRIBUTION BY 40% BY 2030

##### FOR ALL CITIZENS AND BUSINESSES:

- Recycle 80% of recyclables **by 2030**
- Compost 80% of compostables **by 2030**
- Reduce total trash by 20% **by 2030**
- Strive for zero waste in municipal operations **by 2030**



**GOLDEN SUSTAINABILITY**  
PROTECT | PRESERVE | PROSPER



#### WATER

##### RESPONSIBLE USE

- Reduce per capita total water use in Golden by at least 15% **by 2030**

##### DROUGHT PLANNING

- Develop a resiliency plan **by 2020** to prepare for a time where Golden's and Colorado's climate may be substantially warmer and drier than it is today.

##### RESOURCE RECOVERY

- Develop and implement a plan **by 2020** where Golden's surplus water is used effectively not only to manage the cost of water and sewer services, but to enhance the environment in Golden and elsewhere in our watershed.
- Recover resources from the city's wastewater **by 2030**

## CSAB Rules of Procedure

The Board amends and adopts rules pertaining to operation and roles to supplement the Board's formal duties as outlined in Chapter 2.50 of the Municipal Code. This document outlines membership, election of officers, meetings, special meetings, and the Board's commitment to the Golden public.

## Strategic and Work Plans

Every 5 years CSAB updates the Sustainability Strategic Plan with strategies that CSAB commits to investigate, evaluate, and develop over the next five years to meet the City's sustainability goals. The Strategic Plan is a broader, conceptual overview of possible approaches to the sustainability goals. CSAB previously adopted the [City of Golden Strategic Plan](#) in late 2010, and then in 2015 adopted the [Sustainability Strategic Plan](#), which was revised in early 2020. Please refer to Appendix B for the full 2020 Sustainability Strategic Plan.

The CSAB Work Plan is updated in the early part of every year and more specifically prioritizes actions and programs that CSAB will undertake in the upcoming year in service to the Strategic Plan. Please refer to Appendix C for the most recent CSAB Work Plan.

## Requirements of Local Officials

As appointed public officials, it's important for CSAB board members to understand the responsibilities regarding their new roles. Toward this end, please review the [CIRSA Boards and Commissions Training](#) at your earliest convenience. It can also be found at [www.cityofgolden.net/agendas](http://www.cityofgolden.net/agendas), and by scroll down to the very last section for Special Presentations.

Also familiarize yourself with the requirements of the [Colorado Sunshine Law](#), which governs public meeting procedure. Please refer to Appendix D for a memo from the City's attorney regarding the proper use of email by board members.

## State of Colorado Greenhouse Gas Emissions Goals

House Bill 19-1261, passed in 2019 is included here as a reference document.

## Colorado Communities for Climate Action Policy Statement

Colorado Communities for Climate Action is a coalition of local governments across the state advocating for stronger state and federal climate policy. CC4CA is governed by a Board of Directors of representing all of the member communities. Golden is a member community of CC4CA and has several Board members and staff that participate in the subcommittees of the organization. Golden's only voting member is a City Councilor, whomever is currently appointed by the Mayor to represent Golden's interests. The Board periodically reviews CC4CA efforts and may forward recommendations to City Council regarding support of initiatives or state legislation.

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## Appendix A – Chapter 2.50 of the Golden Municipal Code

## Golden Municipal Code Chapter 2.50 - COMMUNITY SUSTAINABILITY ADVISORY BOARD

From

[https://library.municode.com/co/golden/codes/municipal\\_code?nodeId=TIT2ADPE\\_CH2.50COS\\_UADBO](https://library.municode.com/co/golden/codes/municipal_code?nodeId=TIT2ADPE_CH2.50COS_UADBO)

### 2.50.010 - Purpose.

In Golden, and indeed across the U.S. and other nations, we are faced with impacts as a result of population growth, resource consumption, and energy needs. Golden is also affected by regional impacts such as the economy, the structuring of local tax revenues, and competing needs for resources by adjacent communities.

Balancing these factors, sustainability can be defined as living or acting in a manner that balances improving our quality of life, a healthy vibrant community, and mindful stewardship of the natural resources and environment while protecting the ability of future generations to do the same. With this in mind, sustainability efforts are not an end goal, but endeavor to continually strive toward improvement.

The mission of the community sustainability advisory board is to assist the City of Golden in defining and achieving its sustainability goals and to empower the community to live in a way that assures a high quality of life for current and future generations.

### 2.50.020 - Creation, appointment and terms.

There is created a community sustainability advisory board for the city, which board shall be comprised of seven members, each of whom shall be a resident of the city. The seven members shall be appointed by the mayor, with approval of a majority of the city council. All members shall serve without compensation. Members of the board shall not hold any other municipal office or position on a standing municipal board, commission or authority, except that members of the board may serve on other temporary committees, task forces, or similar ad hoc groups and may serve as an ex-officio member on another city board or commission to enhance collaboration, upon appointment by their primary board or commission. Members shall serve staggered terms of four years. No person having served two complete consecutive terms on the board shall be appointed by city council unless, upon appointment, at least four years have passed since that person's previous term. Upon appointment, the city will regularly provide orientation and training for new and existing board members.

### 2.50.030 - Board membership.

It is intended that the community sustainability advisory board membership consist of a diverse and committed group of individuals with a variety of complementary skills, critical thinking abilities, and expertise as necessary to fulfill their duties. Diversity of backgrounds, neighborhoods, and interests helps the commission understand and make recommendations to benefit the entire community. In addition, as a result of the technical nature of the board's duties, the mayor and city council are encouraged to strive to represent the following interests in the appointments to the board:

- (a) Three members of the community at large.
- (b) One member who is a professional in the sustainability industry (e.g., renewable energy production, energy efficiency).
- (c) One representative of a public research facility.
- (d) One representative of the education profession.
- (e) One small business owner, or a representative of a medium or large business.

#### 2.50.040 - Authority to adopt regulations.

The community sustainability advisory board shall have the authority to adopt rules of procedure governing its proceedings consistent with applicable requirements and provisions of the Golden Charter and Municipal Code, and will conduct all of its proceedings in accordance with such rules. The rules of procedure shall be posted and available to the public.

#### 2.50.050 - Meetings.

The community sustainability advisory board shall determine an annual meeting schedule based upon their fulfillment of duties listed in section 2.50.070 below, which meetings shall be open to the public. It may also hold special meetings from time to time as it deems necessary. A record of all meetings of the board shall be kept at city hall, which records shall be available for public examination in accordance with the Colorado Open Records Act. Public notice for all meetings shall be provided in advance in accordance with established city procedures.

#### 2.50.060 - Officers.

The board shall choose one of its members to act as chair and one member to serve as vice-chair. The chair shall preside at all meetings of the board, except that in his/her absence, the vice-chair shall preside. At the board's option, the function of chairing specific meetings may be rotated among the board members. The city shall provide a secretary and staff support to the board.

#### 2.50.070 - Duties of the board.

##### (1) *Primary duties.*

- (a) The primary purpose of the board is to assist the city in achieving the ten-year sustainability goals set by city council in Resolution No. 1793, as may be amended from time to time.
- (b) The board shall be responsible for securing commitment and assistance from as many residents, visitors, building owners, and business owners and their employees as possible, and to this end shall:

1. Conduct all of its proceedings in such a manner as to secure broad public support.
  2. Plan, organize and sponsor public educational initiatives.
  3. Consider the need for public support when making recommendations to city council.
  4. Develop and monitor a community outreach and communication plan.
- (c) The board shall keep the city council advised of its progress and submit a written annual report to city council and the community. The board shall prepare a ten-year plan to meet the goals in Resolution No. 1793.
- (d) The board shall recommend to council changes to the Golden Municipal Code related to the goals in Resolution No. 1793.
- (e) Periodically review the city's internal sustainability and environmental programs to track compliance with the city's energy efficiency, renewable energy, waste, vehicle miles travelled, and water conservation goals. Advise the city manager on programs to improve that effort and additional efforts and their anticipated results.
- (f) Provide leadership, monitoring, advice and reporting for city participation in state, national and international programs related to sustainability and improvement of the environment.
- (2) *Advisory activities.*
- (a) The board shall review citizen requests for funding of local sustainability related projects and/or capital infrastructure projects and forward an evaluation and recommendation to council for consideration.
- (b) The board shall review requests or initiatives for city participation in local, regional and national organizations and forward an evaluation and recommendation for action, if appropriate, to council for consideration.
- (3) *Collaborative activities.*
- (a) The board shall periodically participate in ad-hoc committees and established city boards and commissions to advocate for sustainability policies. Board members may attend meetings of these groups to collaborate and share data and information about the impact of potential projects and programs.
- (b) In fulfilling the collaborative duties described herein, the board may opt to appoint ex-officio members to other boards or commissions, where such formal non-voting participation can enhance the level of cooperation and collaboration among city boards and commissions.

( [Ord. No. 2063, § 4, 10-12-2017](#) )

**Editor's note—** [Sec. 4 of Ord. No. 2063, adopted Oct. 12, 2017](#), repealed and reenacted ch. 2.50 to read as herein set out. Former ch. 2.50 pertained to the same subject matter, consisted of sections 2.50.010—2.50.080, and derived from Ord. 1789, 2007; and Ord. 1833, 2008.

## Appendix B – CSAB Rules of Procedure



CITY OF GOLDEN  
COMMUNITY SUSTAINABILITY ADVISORY BOARD  
RULES OF PROCEDURE  
rev. 12/10/20

**INTRODUCTION**

The City of Golden Community Sustainability Advisory Board (CSAB) shall be comprised of seven (7) regular members who reside within the City of Golden. All members shall be appointed by the Mayor of the City and confirmed by a majority of the Council.

CSAB terms shall be for a period of four years, until their successor takes the position or the incumbent member is reappointed by City Council. Should a CSAB position be vacated before the term is completed, the newly appointed successor shall serve out the unexpired term of the vacated position.

The Board's Charter, as outlined in Golden [Municipal Code Chapter 2.50](#), states its purpose, creation, board membership, authority to adopt regulations, meetings, officers, and duties of the board.

**MEMBERSHIP**

Membership on the Board will be in accordance with Chapter 2.50 of the Golden Municipal Code, which states that the Board shall be comprised of seven members, each of whom shall be a resident of the city. The Municipal Code states that as a result of the technical nature of the board's duties, the mayor and city council are encouraged to strive to represent the following interests in the appointments to the board as cited from Chapter 2.50:

- (a) Three members of the community at large.*
- (b) One member who is a professional in the sustainability industry (e.g., renewable energy production, energy efficiency).*
- (c) One representative of a public research facility.*
- (d) One representative of the education profession.*
- (e) One small business owner, or a representative of a medium or large business.*

**Resignation.** Resignations of members of the Board shall be made in writing to either the City Clerk, or to any member of the Board, which member shall forward such resignation to the City Clerk. The resignation of Board Members shall be effective immediately upon receipt and verification by the City Clerk's office.

**City Staff Liaison.** A non-voting Staff Liaison provides the following support and assistance to the Board. Additional duties are subject to approval by the department head based on budget and available resources.

- A. Ensure that the agenda is prepared and distributed on schedule.
- B. Post notice of meetings in the official posting places (City Hall and City website), and in any additional places designated by the Board.

- C. Ensure that minutes are taken, posted and submitted to the City Clerk for the City's permanent archives.
- D. Ensure that actions and activities of the Board are consistent with policies and procedures of the City.
- E. Offer insights about City organization, policies, and efforts.
- F. Notify the Board of events, meetings, or circumstances when the Staff Liaison is asked to speak on behalf of the Board.
- G. Update Board's presence on the City website.
- H. Act as point person for contact with other City liaisons, departments or boards, unless otherwise delegated.
- I. Facilitate communication among members in compliance with City of Golden and Colorado open meetings laws.
- J. Assist the Chair during the meeting, if necessary.

**Attendance Requirements.** Members are expected to notify the Chair or staff liaison if they will be unable to attend the regular board meetings at least twenty-four hours in advance. Any member who has un-notified absences from two consecutive regular meetings or three regular meetings in a six-month period shall receive a written notification from the Chair of the Board advising the member of his/her absences. If a continued pattern of absences occurs the Chair shall notify the mayor.

**New member Orientation.** The chair and staff liaison will formally orient new members within twenty-one (21) days of their appointment. The new board member will receive a copy of the Rules of Procedure and all relevant plans and resolutions.

## **OFFICERS**

**Officer Terms and Duties.** The officers of the Board shall be a Chair and Vice-Chair. Officers shall serve one year terms and may serve a maximum of two consecutive terms in a single office.

- A. The Chair shall preside over all regular and special meetings of the Board, and shall, subject to these Bylaws and rules of procedure, decide all points of procedure, unless otherwise directed by a majority of the members present at a particular meeting. The Chair shall sign all documents of the Board, and shall serve as the primary contact between the Board and the City Staff Liaison.
- B. The Vice-Chair shall assume the duties and responsibilities of the Chair in the event the Chair is absent or unable to perform his/her duties.
- C. When both the Chair and Vice-Chair will be absent, the Chair will arrange in advance of the meeting for another Board member to preside over the meeting.
- D. In addition to the duties listed herein, the chair and vice Chair will be expected to perform the following specific duties:
  - 1. Role of the Chair
    - Facilitate meetings
    - Review and set agenda with staff prior to meeting
    - Define the objectives

- Keep everyone on track and on time
- Summarize salient points
- Organize the Board to reach decisions
- Ensure everyone has opportunity to weigh in
- Ensure one or more Board members is assigned to take lead on future actions
- Facilitation of individual topics may be handed off to Board lead, as appropriate
- Provide leadership outside meetings
- Meet with staff to develop meeting agendas and define objectives – limit number of topics to those that can be covered adequately
- Ensure project tracker and budget tracker are updated (by staff and with input from Board members)
- Interface with Council and other City staff

## 2. Role of Vice Chair

- Serve as back-up to the Chair
- Facilitate meetings in Chair's absence
- Support interactions with staff and others outside meetings

**Elections.** Officers shall be elected by a majority vote of the Board, at the October regular meeting, with the effective date being the first meeting of the next calendar year. Nominations for an officer position do not require a second. Nominees shall have an opportunity to speak to their nomination before the vote is taken. A voice vote shall be taken to elect all officers. Officers shall be elected by a majority of the members present.

**Vacancies of Officers.** A vacancy in an officer position shall be filled by election at the next regular or special meeting of the Board from among the Board members. Until such election, the Vice-Chair shall serve as acting Chair, if the Chair position is vacant. All officers elected to fill a vacant officer position shall serve until the next officer election.

## MEETINGS

**Schedule.** Meetings shall occur on the regularly scheduled meeting dates established for the Board. The regular meeting date is scheduled for the fourth Wednesday of each month at 6:00 P.M. in Council Chambers, 911 10<sup>th</sup> Street. Regular meetings may be postponed, rescheduled, or cancelled by the Board, if necessary or if there is no business to conduct. If inclement weather requires that a meeting be postponed or rescheduled, the City Staff Liaison shall have the authority to reschedule or postpone the meeting, and shall promptly notify all Board members accordingly. A record of the cancellation, postponement and rescheduling must be written into the minutes of the next meeting.

**Public Meetings.** All meetings of the Board shall be open to the public, pursuant to the Golden Municipal Code and Colorado law. All meetings of a quorum, or of three or more members of the Board, at which any public business is discussed or at which any formal action may be taken, shall constitute a meeting for purposes of this section.

**Notice of Meetings.** Meeting agendas shall be posted in compliance with the Golden Municipal Code and Colorado law. The City's website and/or City Hall are the designated posting places for meeting notices of the Board. The Board may designate additional posting places in for its agendas at its first

meeting of each year. Notice of any regular or special meeting shall be posted in the designated posting places no less than 24 hours prior to the holding of such meeting, unless an emergency requires posting within 24 hours of the meeting time.

**Special Meetings.** Special meetings may be called by the Chair plus one regular Board member. When a special meeting is scheduled, all Board members must be notified at least twenty-four (24) hours prior to the time set for such meeting by phone and written notice (via e-mail), including a listing of all items to be considered (agenda) at the special meeting, unless an emergency requires posting within less than 24 hours prior to such meeting. Formal action taken at a special meeting called in accordance herewith shall be considered as though it were taken in a regular meeting for those, and only those, matters referred to in the agenda contained in the notice of the meeting.

**Quorum; Voting Required.**

- A. A majority of the voting members of the Board in office shall constitute a quorum. In the absence of a quorum, no business shall be conducted by the Board, except rescheduling of the meeting, except as otherwise provided in subparagraph D. of this Section, below.
- B. All voting members of the Board shall have equally weighted votes.
- C. All members are required to vote unless recused or disqualified from voting pursuant to the provisions of the Golden Code of Ethics (Chapter 2.32 of the GMC.)
- D. If any Board members are disqualified from voting pursuant to the Golden Code of Ethics, and such disqualification causes the Board to lose its quorum (as defined by these Rules of Procedure) on the matter before the Board, the matter shall be tabled until the next meeting at which a sufficient number of qualified Board members are present to constitute a quorum. In the event that the number of disqualifications are such that tabling the matter will not result in a quorum of qualified Board members, the quorum necessary to conduct that item of business shall be adjusted to consist of at least fifty percent of those members not disqualified.

**Decision-Making.** The Board generally reaches decisions through consensus, recognizing that there will be times when full consensus is not achieved. Decisions will be made by those members in attendance at a meeting constituting the required quorum. The chair should use polling to aid in determining the need for further discussion during a decision-making process to achieve consensus. When full consensus cannot be reached, acceptance by the minority opinion should be sought. A decision can move forward only with the consent of individuals that disagree with the decision. Dissenting opinions may be reflected in recommendations to Council, if the dissenter chooses. In instances when Board members cannot reach consensus, that will be conveyed to Council with full discussion of why agreement could not be reached, along with differing viewpoints and recommendations.

**Public Participation.** Meeting agendas shall include a designated time for public comments, not including comment on those items scheduled for a public hearing. All public comments must be made during the public comment segment of the agenda. Public attendees shall sit in the audience unless asked to sit with the Board during their comments. The Board may identify time limits for public comments at its discretion.

**Meeting Agendas.** The form of Agendas shall be determined by the Board. Agendas shall be posted in accordance with all open meetings laws.

**Meeting Minutes.** Written minutes shall be made for all Board meetings. The Board's draft minutes of the previous meeting shall be posted on the City website when the agenda for the upcoming meeting is posted. The minutes of each meeting shall be approved by the Board at its next meeting and posted on the City website.

### **SPECIAL AND STANDING COMMITTEES**

**Special Committees.** Special committees may be authorized and formed for special, limited purpose(s), and to work on specific issues or projects, as needed. A special committee shall serve only until completion of the special, limited purpose(s) for which it was formed. Recommendations of a special committee must be approved by the Board before being considered officially adopted.

**Standing Committees.** There shall be no standing committee(s) of the Board, unless authorized by City Council.

**Committee Chairs.** A member of the Board shall serve as the chair of any committee.

### **COMMITMENT TO THE PUBLIC**

**Commitment to the Public.** Board members' commitment to the public shall be demonstrated by adherence to all Colorado and City of Golden laws, rules and regulations regarding conduct of public officials, including, but not limited to, Chapter 2.32 (Code of Ethics) of the Golden Municipal Code.

**Conflict of Interest.** The Board shall adhere to all Colorado and City of Golden laws, rules and regulations that may pertain to the avoidance of conflict of interest, including, but not limited to, Chapter 2.32 (Code of Ethics) of the Golden Municipal Code.

**Communications among Members.** Board members shall adhere to all Colorado and City of Golden laws, rules and regulations governing government communications.

**Electronic Communications.** Electronic communications (including emails) between Board members with respect to the business of the Board may only occur in a manner that complies with the Colorado Open Meetings Law. The Colorado Open Meetings Law prohibits the discussion of public business (including discussion via electronic means) by a group of three or more Board members, except at properly noticed public meetings. All electronic communications pertaining to Board business should be treated as a public record, and, as such, potentially subject to public disclosure under the Colorado Open Records Act.

**Communications outside the Board.** The Board may give individual members the authority to speak on behalf of the Board as needs arise. Individuals shall not speak for the Board without the Board's authorization, and shall not make commitments on behalf of the Board unless the Board has formally approved such a commitment.

**Amendments.** These Rules of Procedure shall be reviewed as needed and proposed amendments shall be approved by an affirmative vote of not less than a majority of the total current members of the Board. Copies of the proposed amendment(s) shall be provided to each member of the Board at least one (1) week prior to the date of any regular or special meeting at which the Rules of Procedure amendment(s) are on the agenda for consideration.

## Appendix C – 2020 Sustainability Strategic Plan

# 2020 City of Golden Sustainability Strategic Plan

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A Five-Year Approach toward Meeting Golden's Sustainability Goals

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## Executive Summary

This update to previous versions of the City of Golden Sustainability Strategic Plan outlines a 5-year approach for the Community Sustainability Advisory Board to follow on its path to achieve the city's adopted sustainability goals. The initiatives featured in the Plan include:

- Implementing best practices in energy efficient buildings
- Providing thorough and relevant sustainability education and communication
- Reducing community and municipal energy consumption
- Increasing Golden's commitment to renewable energy
- Reducing overall solid waste and diverting recyclables and compostables
- Incentivizing alternative methods of transportation
- Conserving water and improving water efficiency

## Purpose

This Sustainability Strategic Plan sets forth strategies that CSAB commits to investigate, evaluate and develop over the next five years to meet the City's sustainability goals. The Plan documents community-generated ideas for the Board to further evaluate and make recommendations to City Council in achieving its sustainability goals. In the case of energy, the purpose relates to the global climate crisis and the City's commitment to do its part to meet global goals.

CSAB recognizes that the path to becoming a sustainable city is a long-term commitment which has no finite end. In striving to become more sustainable, these strategies will provide direction in the city's consideration for innovative ideas and emerging technologies.

As Golden implements new policy initiatives, CSAB is committed to continually reviewing its policy goals in light of new technologies, scientific advances and changing local, regional, and national objectives. As a necessary part of fulfilling its mission and evaluating progress, CSAB intends to include the following:

- Review the Sustainability Strategic Plan on an annual basis and update as necessary.
- Review goals and metrics in 5 years (2025), or sooner, if warranted.
- Trend performance and progress of the goals revised in 2019 compared to the original 2007 baseline and provide annual Sustainability Progress reports.

In future versions of the Sustainability Strategic Plan, CSAB will look for opportunities to revise or expand sustainable policies to address Golden's current needs and abilities. Consideration of all proposed initiatives and programs will include a rigorous cost-benefit analysis and CSAB will recommend that Council adopt policies and programs that offer the greatest benefit to Golden residents and businesses.

What is Sustainability?

In Golden, and indeed across the U.S. and other nations, we are faced with impacts as a result of population growth, resource consumption, and energy needs. Golden is also affected by regional impacts such as the economy, the structuring of local tax revenues, and competing needs for resources by adjacent communities.

Balancing these factors, the Community Sustainability Advisory Board defines Sustainability as *living or acting in a manner that balances improving our quality of life, a healthy vibrant community, and mindful stewardship of the natural resources and environment while protecting the ability of future generations to do the same*. With this in mind, the Board recognizes that sustainability efforts are not an end goal, but endeavors to continually strive toward improvement.

### **CSAB Mission Statement**

*The mission of the Community Sustainability Advisory Board is to assist the City of Golden in defining and achieving its sustainability goals and to empower the community to live in a way that assures a high quality of life for current and future generations.*

The Community Sustainability Advisory Board is made up of seven Golden residents appointed by City Council who bring a broad perspective of sustainability expertise, including three at-large members, a small to medium business owner, a representative from a public research facility, an education professional and a sustainability industry representative.

### **Current Goals**

Adopted on February 14, 2019 by Golden City Council through Resolution No. 2656, Golden intends to meet the following Sustainability Goals:

- A. Energy
  - 1) Renewables. To achieve 100% renewable energy for electricity by 2030 and 100% renewable for heating by 2050. To align Greenhouse Gas Emission reductions with the Paris Accord by 2050.
  - 2) Efficiency. To reduce consumption of electricity by 15% by 2030 and reduce consumption of natural gas by 15% by 2030.
  - 3) Transportation. To achieve 20% fossil fuel-free transportation sector by 2030 and 100% fossil fuel-free transportation sector by 2050.
- B. Waste. To reduce total landfill contribution by 40% by 2030. This means:
  - 1) Recycle 80% of recyclables by 2030.
  - 2) Compost 80% of compostables by 2030.
  - 3) Reduce total trash by 20% by 2030.
  - 4) Strive for zero waste in municipal operations by 2030.

## C. Water

- 1) Responsible Use. To reduce per capita total water use in Golden by at least 15% by 2030.
- 2) Drought Planning. To develop a resiliency plan by 2020 to prepare for a time where Golden's and Colorado's climate may be substantially warmer and drier than it is today.
- 3) Resource Recovery. To develop and implement a plan by 2020 where Golden's surplus water is used effectively not only to manage the cost of water and sewer services, but to enhance the environment in Golden and elsewhere in our watershed. And to recover resources from the city's wastewater by 2030.

## Guiding Principles

The Golden Vision 2030 Plan, created with community input and adopted unanimously by City Council in 2010, lists sustainability as one of two fundamental guiding principles for the city.

### *Controlled and Directed Change*

*Our community values require that we direct and manage change, assure smart growth (transportation & development), affordable housing, and sustainability. As a community, we expect sustainability that preserves the small town look, feel and character.*

In addition, Golden Vision 2030 outlines a value-based decision making process in which sustainability impacts of programs and policies are identified and considered. From the Plan, *Decision-makers should,*

*Recognize that the continued economic and environmental sustainability of the community is critical to maintaining our Heart & Soul community values.*

## Regional and Global Commitments

Over the past several years, other strategic initiatives have been adopted that contribute toward the success of the goals and also align with the overall Golden Sustainability Initiative.

The City as an organization, City Council, and the Mayor belong to several organizations dedicated to addressing climate change. These include:

- The Paris Accord, aka, the United Nations Paris Agreement. In recognition of the current threat to our environment and in an effort to place Golden in the forefront of global communities willing to do their part to help make a difference, the Golden City Council endorsed the Paris Climate Accords goals in 2017.
- Sierra Club's Ready For 100 – a target to achieve 100% renewable energy for communities
- Colorado Communities for Climate Action – a coalition of local governments advocating for stronger state and federal climate policy.
- The Compact of Colorado Communities – a statewide group of elected officials and staffs, dedicated to climate projects, trainings, and policies.
- Climate Mayors – a peer network of U.S. mayors demonstrating leadership and building political will for effective federal and global policy action.
- WaterNow Alliance – Western U.S. communities focused on sustainable water infrastructure and policies

- Cities for Climate Protection – a campaign by ICLEI Local Governments for Sustainability to adopt milestones including a greenhouse gas emissions inventory and action plan.
- Additionally, the State of Colorado passed House Bill 19-1261 in 2019 which adopted greenhouse gas reduction goals in state statute, including a 26% reduction from a 2015 baseline by 2025.

### *Using This Document*

The strategies in this Plan will be further evaluated by CSAB and developed into recommendations to City Council for possible policy adoption and implementation between 2020 and 2025.

The Strategic Plan is organized as follows:

**Sustainability Focus.** The sustainability goals are directed toward three focus areas; energy, waste and water.

**Vision.** A synopsis of the City's vision for future sustainable practice in each focus area.

**Sustainability Goals.** The adopted goal related to each focus area.

**Strategy Name.** This describes a higher level concept of the overall strategy associated with a specific goal.

**Problem Statement.** A concise explanation of the issue addressed with context and relevance.

**Intent.** The motivation or purpose behind the specific strategy.

**Strategies.** A list of potential efforts, programs, or policies that contribute toward the overall strategy.

**Metrics.** This section includes the metrics currently used to measure progress and evaluate the strategy's effectiveness.

**Timeline for Evaluation.** Strategies will be evaluated either in the near term (2020) or over a longer period (2021-2025) based on their scope and complexity.

# ENERGY

## *Vision.*

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The energy future for Golden transitions away from fossil fuels and becomes independent from reliance on fossil fuel energy. Golden will control its local energy source choices. Diversification of renewable energy sources will increase the city's resilience and seek carbon neutrality.

## *Goals*

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### Goal 1: Renewables

Goal 1.1: To achieve 100% renewable energy for electricity by 2030 and 100% renewable for heating by 2050.

Goal 1.2: To achieve 100% renewable heating by 2050.

Goal 1.3: To align Greenhouse Gas Emission reductions with the Paris Accord by 2050.

### Goal 2: Efficiency

Goal 2.1: To reduce consumption of electricity by 15% by 2030.

Goal 2.2: To reduce consumption of natural gas by 15% by 2030.

### Goal 3: Transportation

Goal 3.1:

To achieve 20% fossil fuel-free transportation sector by 2030 and 100% fossil fuel-free transportation sector by 2050.

## *Strategies*

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Goal 1.1: To achieve 100% renewable energy for electricity by 2030.

### Strategy 1. Preserve the Right to Solar For All

Problem: Tree growth and new construction in Golden may impeded sun exposure of solar rooftop installations over their system lifetime.

Intent: An ordinance intends to preserve solar exposure and regulate compensations required among involved parties in case of solar exposure conflicts.

- 1.1 A “right to solar access ordinance” regulating compensation measures for existing systems in case of solar installation conflicts between parties.
- 1.2 A tree preservation fund to replace the value of private trees and plantings in public areas in cases of tree removals to allow for solar installations.
- 1.3 A community solar offset fund to provide subscriptions to building owners impacted by taller neighboring developments.

Possible Metrics:

- Number of “Right to Solar for All” conflicts within City boundaries per year
- Number of conflicts that have been resolved such that solar production is maintained.

Timeline for Evaluation: Long-term.

Strategy 2: Increase Rooftop Solar for Homes and Businesses

Problem: Golden cannot meet its 100% renewable energy goal by 2050 at its current pace of private investment. As of 2020, less than 3% of the community’s energy usage comes from renewable energy produced within the city. As concluded in the 2012 Renewable Energy Technical Advisory Committee final report, solar photovoltaic systems (PV) offer the largest potential of all available renewable technologies within the City boundaries and as such, the Board’s focus has been on increasing investment and use of PV systems.

Intent: While utility-scale solar is becoming more widely used, on-site renewable energy is a key component of making progress toward high performing or net zero buildings. Adopted in 2019 through Ordinance No. 2097, solar is a requirement for all new multi-family and commercial projects constructed in the City of Golden.

- 2.1 Additional rebates and incentives for residential solar.
- 2.2 Discounts for homeowners and businesses through bulk purchases by the City.
- 2.3 Requiring solar for all new single family residential construction.
- 2.4 Requiring solar for major renovations of homes and businesses.
- 2.5 Identify ideal roofs with mapping and incentivize installations.

Potential Metrics:

- Kwh produced by renewable energy by City and percentage of total kWh used within City.
- Number of Net-zero buildings within City and percentage of total number of buildings
- Number of newly constructed buildings within City with solar and total number of newly constructed buildings.
- Number of major renovated buildings within City with solar and total number of major renovated buildings.

- Number of buildings in City with solar and percentage of total number of buildings
- Number of ideal rooftops in Golden with solar installations and total number of ideal rooftops for solar installations

Timeline for Evaluation: Near- and long-term.

### Strategy 3: Use Microgrids to Increase Golden's Energy Independence and Resiliency

Problem: Golden is primarily dependent on the existing energy grid infrastructure that has been in place for decades and is also susceptible to potential negative impacts to the energy grid. As our climate changes or we experience future natural disasters, we may experience brown outs, periods of reduced availability of energy, and/or higher energy rates.

Intent: To increase energy independence through technologies that can reduce our community's risk and increase our resilience against disrupting events.

- 3.1 City investment in microgrid technology for the direct benefit of Golden residents and businesses.
- 3.2 Political advocacy at the state and federal level to allow these technologies and power agreements.

Potential Metrics:

- Kwh produced by renewable energy by City and percentage of total kWh used within City.
- Number of brownouts.
- Energy costs.

Timeline for Evaluation: Near- and long-term (ongoing).

### Strategy 4: Large Scale Renewable Energy Deployment

Problem: Microgrids in Golden are insufficient to cover the total energy needs within the City. A diverse portfolio of renewable energy sources is needed for the City create a sufficient, resilient and continuous supply of renewable energy minimizing storage capacity needed.

Intent: To take advantage of economies of scale for optimal financial terms, large scale renewables such as solar gardens, wind and solar projects outside city limits.

- 4.1 Seek innovative partnerships and energy purchase agreements with suitable partners.
- 4.2 Negotiate and construct one or more solar gardens.
- 4.3 Negotiate power service agreements with utility providers.

Potential Metrics:

- Kwh produced by renewable energy by City-owned solar gardens.

- Kwh supplied to Golden through renewable energy purchase agreements and utility provider power service agreements.

Timeline for Evaluation: Near- and long-term (ongoing).

## **Goal 1.2: To achieve 100% renewable energy for heating by 2050.**

### Strategy 5: Natural Gas Reduction

Problem: In order to meet Golden's 100% renewable energy for heating goal by 2050, we will need to transition away from natural gas (a fossil fuel) toward electricity.

Intent: To replace gas-powered appliances with electric appliances and then to offset electricity usage with renewable energy.

- 5.1 Revise building codes to phase in alternatives to natural gas technologies in public buildings, new construction and existing buildings.
- 5.2 Stronger building codes to achieve higher energy efficiency of existing and new buildings (insulation, windows, thermal envelopes, etc.).
- 5.3 Replacement of new gas-powered appliances with alternatives powered by renewable energy. Phase out gas-powered appliances in homes and businesses.

Potential Metrics:

- Therms of natural gas used within City and by sector per year.
- Number of buildings detached from natural gas (and converted uses to renewable energy) and percent of all buildings in Golden.

Timeline for Evaluation: Near- and long-term (ongoing).

## **Goal 1.3: To align Greenhouse Gas Emission reductions with the Paris Accord by 2050.**

### Strategy 6: Greenhouse Gas Inventory Updates

Problem: In order to meet the City's greenhouse gas reduction goals, emissions need to be recorded in parallel with renewable energy objectives to identify unnoticed and unintended consequences.

Intent: To maintain a City-wide inventory of greenhouse gas emissions by sources that is periodically updated.

- 6.1 Update the greenhouse gas inventory for the City at minimum every 5 years and assess steps needed to maintain City on track with reduction goals per Paris Accord by 2050.



Potential Metrics:

- Greenhouse gas emissions by City per year

Timeline for Evaluation: Near- and long-term (ongoing).

**Goal 2.1: To reduce consumption of electricity by 15% by 2030.**

Strategy 7: Reduce Electricity Consumption

Problem: In addition to converting from fossil to renewable energy sources, the City needs to reduce its overall electricity consumption.

Intent: Increase the electricity efficiency of users by 15% based on 2019 baseline conditions by 2030.

- 7.1 Stronger building codes to achieve higher energy efficiency of existing and new buildings (insulation, windows, thermal envelopes, etc.).
- 7.2 Education and training of HVAC installers and other mechanical, electrical, or plumbing systems to increase awareness of electric-based technology.
- 7.3 Evaluate the city's streetlight system and night time lighting ordinances for opportunities to reduce lighting where safely possible.

Potential Metrics:

- kWh used by sector (residential, public, businesses) per year

Timeline for Evaluation: Long-term.

**Goal 2.2: To reduce consumption of natural gas by 15% by 2030.**

Strategy 8: Energy Efficiency Resources for Commercial Users

Problem: Commercial businesses consume 75% of Golden's community energy consumption. Meeting Golden's energy efficiency and renewable energy goals cannot be achieved without strong partnerships with Golden commercial and industrial businesses.

Intent: To provide tools and resources needed by Golden businesses that can help improve energy efficiency and increase investment in renewable energy.

- 8.1 Provide businesses with design and technical assistance to plan for long range upgrades and facility improvements.
- 8.2 Research financial assistance such as matching rebates for existing utility incentives.
- 8.3 Require energy performance milestones for improvements and upgrades with consideration for financial ability.
- 8.4 Commercial Energy Benchmarking Program. Propose a benchmarking ordinance for commercial and industrial customers to report on their facility's gas and electricity usage each year. Studies show that simply understanding your utility bills incentivizes people to conserve energy.

Potential Metrics:

- Therms used per commercial and industrial customer in City per year.
- kWh used per commercial and industrial customer in City per year.

Timeline for Evaluation: Near-and long-term.

Strategy 9: Energy Efficiency Resources for Residential, Institutional, and Public Users

Problem: Meeting Golden's energy efficiency and renewable energy goals will be accelerated with higher energy efficiency practiced for public, institutional, and residential customers.

Intent: To provide tools and resources by the public, institutional, and residential sector that can help improve energy efficiency.

- 9.1 Develop materials and recommendations for pertinent public education.
- 9.2 Revise and enforce code requirement that aim to increase energy efficiency in public and residential buildings.

Potential Metrics:

- Therms used per residential, institutional, and public customer in City per year.
- kWh used per residential, institutional, and public customer in City per year.

Timeline for Evaluation: Near-and long-term.

**Goal 3.1: To achieve 20% fossil fuel-free transportation sector by 2030 and 100% fossil fuel-free transportation sector by 2050.**

Strategy 10: Electrifying Transportation

Problem: Golden cannot achieve its Golden's 100% fossil fuel free transportation by 2050 goal with traditional gas-powered vehicles such as unleaded gas and diesel fuels.

Intent: Phase out fossil fuels and phase in alternatively powered transportation.

- 2.1 City investment in electric vehicles and a plan to transition toward fuel provided by renewable energies; improve charging infrastructure and promote education. Expanded access to public electric vehicle charging stations.
- 2.2 Political advocacy by Golden to support RTD and CDOT electric fleets.
- 2.3 Fleet vehicles (company fleets, municipal fleets, taxis, car share).
- 2.4 Requiring charging stations in new homes and businesses.
- 2.5 Adding charging stations to existing commercial parking lots and multifamily complexes.

Potential Metrics:

- Number of fossil-fuel based vehicle miles traveled in City boundaries per year
- Number of fossil free miles traveled by transportation sector in City boundaries per year
- Number of fossil-free vehicles owned within City limits
- Number of total vehicles owned within City limits

Timeline for Evaluation: Near- and long-term.

Thank you to Golden residents, businesses, students and citizens who offered ideas and suggestions. These ideas, collected from the Golden community throughout 2018-2019, will be analyzed and considered by the Board, in addition to the key strategies listed above.

- |                            |                                     |                                       |
|----------------------------|-------------------------------------|---------------------------------------|
| • Carbon sequestration     | • Carbon Neutral                    | • Smart Grid                          |
| • City owned utilities     | • Meet Paris Accord Goals           | • Alternative Transportation Strategy |
| • Water conservation       | • Wind Partnerships                 | • Vertical Wind Turbine               |
| • Clear Creek hydro        | • Community Solar Garden            | • Renewable Energy Incentives         |
| • Free EV Parking          | • New-Building EV Charging Stations | • Zero Fossil Fuel Dependence         |
| • Waterless toilets        | • Energy Advisor Program            | • Distributed Generation              |
| • Solar shingles           | • Energy Benchmarking               | • Virtual Net Metering                |
| • Universal transit app    | • Energy From Waste                 |                                       |
| • Control streetlights     | • Electric City Vehicle Fleet       |                                       |
| • Wind energy              | • CFL/LED Light Bulbs               |                                       |
| • Clear Creek Hydro Energy | • Zero-car Households               |                                       |
| • New Building Solar Power |                                     |                                       |

The Board continually seeks potential partners in these areas, including industry and educational professionals from Colorado School of Mines, Jefferson County R-1 school district and retired industry professionals.

# WASTE

## *Vision*

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Golden will work to protect regional waste capacity and insulate against higher costs through diversion of multiple waste streams from landfills. It is in our community's best interest to minimize our contribution to the landfill and help to extend its life. Collectively, the city will work together to reduce the overall volume of waste and advocate for manufacturing of products made from recyclable or compostable materials.

## *Goals*

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To reduce total landfill contribution by 40% by 2030. This means:

**Goal 1: Recycle 80% of recyclables by 2030.**

**Goal 2: Compost 80% of compostables by 2030.**

**Goal 3: Reduce total trash by 20% by 2030.**

**Goal 4: Strive for zero waste in municipal operations by 2030.**

## *Strategies*

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**Goal 1: Recycle 80% of recyclables by 2030.**

### Strategy 1: Increase Recycling Access to All Multifamily and Commercial Buildings

**Problem:** Not everyone can recycle in Golden. Some landlords, property managers, and business owners choose to forgo recycling services due to cost, lack of space, or disinterest.

**Intent:** Access to recycling services is an equity issue and one that we should strive to provide for everyone, not just those in single family areas. Increase recycling of recyclables by 2030 to 80% based on the 2019 baseline conditions. This effort addresses all land use sectors. These may require changes to the City's parking ordinance, dumpster enclosure ordinance and a multi-year timeline for implementation.

- 1.1 Providing recycling access to all multi-family (dorms, apartments, condos).
- 1.2 Providing recycling access to all commercial areas (offices, restaurants, retailers, and industrial).

**Potential Metrics:**

- Number of multifamily and commercial buildings offering recycle access and percentage of all multifamily and commercial buildings
- Total amount of recycle material diverted by multifamily and commercial buildings

Timeline for Evaluation: Near- and long-term.

### Strategy 2: Increase Citywide Recycling

Problem: We cannot achieve our waste diversion goal of 80% by 2030 through only the current residential recycling program.

Intent: Recycling should be available in other public areas. We should expand recycling into other areas such as downtown for visitors, public services, institutions, downtown businesses, and in all city parks.

Funding will be required to replace and add recycling bins in downtown and in all city parks. In addition, the City needs to take a leadership role in solving the downtown issues that currently prevent more businesses from recycling (space limitations, hauling operations and costs to businesses.)

- 2.1 Provide additional recycling bins in downtown for visitors.
- 2.2 Add recycling bins to all city parks.
- 2.3 Solve recycling challenges and provide service to all businesses in Downtown Golden.

Potential Metrics:

- Amount of recyclable materials diverted to beneficial reuse in city parks
- Amount of recyclable materials diverted to beneficial reuse in downtown Golden

Timeline for Evaluation: Near- and long-term.

## **Goal 2: Compost 80% of compostables by 2030.**

### Strategy 3: Compost Service Citywide

Problem: Currently, curbside compost services is only available to single family households and businesses who pay for the additional service. We will not be able to achieve our 80% diversion target for all compostable material with the current services.

Intent: Provide access to curbside compost services to all citizens, including residents in apartment or condos and to those visiting Golden businesses. Deploy compost services throughout municipal operations. Increase composting of compostables by 2030 to 80% based on the 2019 baseline conditions. Similar to the ordinance changes needed to widen access to recycling services, expanding compost would require comparable strategies.

- 3.1 Add compost service as an included service (and as a third stream) in the City's residential program.
- 3.2 Incentivize and strengthen the existing compost service for businesses.
- 3.3 Mandate waste haulers to include compost service for all businesses.

Implement composting of materials associated with all City's services (e.g. parks and recreation).

Potential Metrics:

- Amount of compostable materials diverted to beneficial reuse City wide and percent of total compostable material produced.
- Number of residents, businesses, institutions, and public services participating in the compost program.

Timeline for Evaluation: Near- and long-term.

**Goal 3: Reduce total trash by 20% by 2030.**

Strategy 4: Reduce Single Use or Non-Recyclable Plastics

Problem: Single use plastics contribute a significant amount of volume in the waste stream and environmental and human health contamination by microplastics has become a recognized threat.

Intent: To limit the use of items that cannot be recycled locally, through bans or fees of undesirable products. Reduce industry reliance and encourage behavior change to reuse items and reduce the use of single use disposables. The City seeks partners for collaboration, including businesses who may be affected by the reduction of their use. Strategies to be considered include:

- 4.1 A ban on plastic shopping bags.
- 4.2 Fees for plastic shopping bags.
- 4.3 A ban on plastic straws.
- 4.4 A ban on items that cannot be recycled locally such as non-recyclable takeout containers & utensils.
- 4.5 A ban single use water bottles and plastic containers & utensils at city events.
- 4.6 A requirement that all single use takeout containers be compostable.
- 4.7 Support quality recycle material streams that allow recyclability and end up in the U.S.

Potential Metrics:

- The number of stores, restaurants, and other businesses participating in City programs to limit and avoid the use of single-use plastics.

Timeline for Evaluation: Near- and long-term.

**Goal 4: Strive for zero waste in municipal operations by 2030.**

Strategy 5: Strive toward Zero Waste Events, Meetings, City Operations, and Facilities.

Intent: Aim to achieve Zero Waste throughout municipal operations and position the City as a leader in modeling waste reduction and diversion through integrating zero waste policies into city-sponsored events, meetings and in city facilities.

- 5.1 Procurement of exclusively recyclable and compostable materials for all City-related operations.
- 5.2 Requirement for all vendors participating in City-sponsored events to use exclusively recyclable and compostable materials.

Potential Metrics:

- Amount of landfilled waste produced by City events, meetings, City operations, and facilities.

Timeline for Evaluation: Near- and long-term (ongoing).

Thank you to Golden residents, businesses, students and citizens who offered ideas and suggestions. These ideas, collected from the Golden community throughout 2018-2019, will be analyzed and considered by the Board, in addition to the priorities listed above.

- Curbside Recycling/Compost For All
- Increase Curbside Waste Streams
- Public Properties Zero Waste Policy
- Divert Construction Waste.
- Commercial Food Waste Diversion
- Post-industrial Waste Solutions
- Reduce Plastic Bags
- Ban non-compostable Fast Food
- Adjust trash/recycling pick up to fit usage
- Ban Disposable Bags/Straws Styrofoam
- Tool/Product Exchange
- Minimalism
- Support neighboring jurisdictions in the creation of an organics transfer station.
- Establish a local packaging policy addressing take out containers, plastic bags, and single use water bottles
- Support regional business who use recycled materials
- Engage with the state legislative processes to support greater diversion and to establish end processing operations within Colorado
- Support State Goals
- Repair/Reuse/ Donation Opportunities.
- Integrated composting and agricultural cycle
- Composting Incentives
- Restaurant BYO Utensils Discount
- Recycling Incentives
- Universal PAYT for all

# WATER

## *Vision*

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In a semi-arid desert climate, water resources are important to our individual households, as a utility provider to the Golden community and to our region. Sustainable water use means conservation, adherence to high quality water, and preservation of ecosystem health of our water habitats.

## *Goals*

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### Goal 1: Responsible Use.

To reduce per capita total water use in Golden by at least 15% by 2030.

### Goal 2: Drought Planning.

To develop a resiliency plan by 2020 to prepare for a time where Golden's and Colorado's climate may be substantially warmer and drier than it is today.

### Goal 3: Resource Recovery.

Goal 3.1: To develop and implement a plan by 2020 where Golden's surplus water is used effectively not only to manage the cost of water and sewer services, but to enhance the environment in Golden and elsewhere in our watershed.

Goal 3.2: To recover resources from the city's wastewater by 2030.

## *Strategies*

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### Goal 1: To reduce per capita total water use in Golden by at least 15% by 2030.

#### Strategy 1: Reducing Outdoor Irrigation

Problem: Golden's water conservation goal of reducing per capita total water use by at least 15% by 2030 cannot be achieved through only indoor water conservation because opportunities for conservation in indoor use is limited.

Outdoor water conservation is Golden's biggest opportunity to make significant progress toward the goals.

Intent: To focus programs on all aspects of outdoor irrigation and reuse.

- 1.1 Incentives to help with residential irrigation repair and upgrades.
- 1.2 Providing smart irrigation technology to residents.



- 1.3 Incentives to convert grass to xeric landscaping.
- 1.4 Increasing the use of xeric plants in city parks, including the reduction of grass in appropriate areas.
- 1.5 Continued works with City to establish water incentive programs for commercial and institutional outdoor water savings.

Potential Metrics:

- Total outdoor water consumption by residents within City.
- Acres of water intensive grass converted to Xeriscape in public, private and residential areas.

Timeline for Evaluation: Near- and long-term.

### Strategy 2: Conserving Indoor Water Use

Problem: Golden's indoor water use has been steadily decreasing over the past several years, primarily due to higher efficiency fixtures (sink aerators, high efficiency toilets, front loading washing machines, low flow shower heads, etc.) but opportunities for additional conservation remain. One challenge is of a technical nature at Golden's water treatment plant which requires new design and construction projects to resolve.

Intent: To identify and remove barriers of a technical nature to allow more opportunities for indoor water conservation

- 2.1 Resolve existing infrastructure limitations in homes and businesses through funding additional research and/or incentives.
- 2.2 Overcome any infrastructure limitations as needed to accommodate water conservation goals.

Potential Metrics:

- Total indoor water consumption by all sectors within City (residential, commercial, institutional, public).

Timeline for Evaluation: Near- and long-term (ongoing).

### Strategy 3: Water Reuse as Conservation

Problem: Water that we use in outdoor irrigation is treated to drinking water standards, which include costs for treatment and delivery to our homes. The potential for water reuse in making progress toward the City's 15% conservation goals a relevant contribution. Every gallon used that does not need to be treated and can be reused onsite represents savings in terms water, cost, chemicals, and energy spent.

Intent: To pursue water reuse programs and policies and evaluate their potential in making progress toward our community goals.

- 3.1 A graywater ordinance program to allow and promote residential owners to install water reuse equipment such as "Laundry to Landscape."
- 3.2 A graywater ordinance program to allow commercial and multifamily areas to install water reuse equipment.
- 3.3 An ordinance program that requires reuse infrastructure for new construction or significant modifications in Golden.

Potential Metrics:

- Total amount of water recycled by residential, commercial and multi-family users
- Total number of water recycle installations in residential, commercial and multi-family buildings

Timeline for Evaluation: Near- and long-term (ongoing).

**Goal 2: To develop a resiliency plan by 2020 to prepare for a time where Golden's and Colorado's climate may be substantially warmer and drier than it is today.**

Strategy 4: Water Resilience and Public Education

Problem: Golden has ample water supplies to provide for now and in the future, but like other communities, is susceptible to changes in climate and impacts from natural disasters (flood, fires, drought, etc).

Intent: To create a plan for water resiliency that can reduce our risk against future climate conditions and allow Golden to recover quickly from unexpected disasters.

- 4.1 Drought planning that incorporates information from climate change studies and plans for resiliency.
- 4.2 Exhibitions, information and broader public outreach about planning for future supply and recovery from natural disasters

Potential Metrics:

- Percentage of the total customer population at risk of experiencing severe restrictions during drought conditions.

Timeline for Evaluation: Long-term.

**Goal 3.1: To develop and implement a plan by 2020 where Golden's surplus water is used effectively not only to manage the cost of water and sewer services, but to enhance the environment in Golden and elsewhere in our watershed.**

Strategy 5: Identify any potential opportunities and continue to administer water resources in an efficient and sustainable manner.

Timeline for Evaluation: Long-term.

### Goal 3.2: To recover resources from the city's wastewater by 2030.

#### Strategy 1: Water Resource Recovery

Problem: Wastewater contains various resources that are currently either not at all recovered by the City or only to a limited extent.

Intent: To evaluate and pursue opportunities to increase the recovery of resources from municipal wastewater.

- 1.1 Quantify the energy that can be cost-effectively recovered from Golden's wastewater (thermal, chemical, and hydraulic).
- 1.2 Quantify the nutrients that can be cost-effectively recovered from wastewater (phosphorus and nitrogen).
- 1.3 Assess the feasibility of urine separation for recovery of ammonia as a fertilizer.
- 1.4 Expand feasible opportunities for the recovery of water for beneficial reuse.

Potential Metrics:

- Amount of water, nutrients, and energy recovered from Golden's wastewater.

Timeline for Evaluation: Long-term.

Thank you to Golden residents, businesses, students and citizens who offered ideas and suggestions. These ideas, collected from the Golden community throughout 2018-2019, will be analyzed and considered by the Board, in addition to the priorities listed above.

- |   |                             |                               |
|---|-----------------------------|-------------------------------|
| • Expand AquaHawk                         | • Grey Water                | • Xeric Lawn Contest          |
| • Tiered Pricing                          | • Watering Restrictions     | • Garden In A Box Signage     |
| • Monthly billing                         | • Weather Normalization     | • Xeric Yard Makeover Contest |
| • Low Water Sprinkler System Technologies | • Water Food, Not Grass     | • Raw Water Uses              |
| • Rain Capture                            | • Xeric Landscaping         |                               |
|   | • Rachio Weather Technology |                               |

The Board continually seeks potential partners in these areas, including industry and educational professionals from Colorado School of Mines, Jefferson County R-1 school district and retired industry professionals.

## Additional Integrated Goal Areas

### Public Health

It is important to recognize that public health is an important component of sustainability and needs to be highlighted and addressed within each goal. Below are a list of examples:

- Energy: building materials, home insulation, clean air – transportation, pollution
- Water: access to clean water
- Waste: Hygienic practices for collection and handling of waste and recycled resources

Further research and evaluation of public health, may lead to development of additional goals and strategies to address sustainability outside the energy, waste, and water goals in the following areas:

- Access to healthy, clean food
- Access to outdoor space/green space
- Access to physical activity
- Access to healthcare which includes behavioral health services
- Health education and promotion
- Tobacco and marijuana usage and policies

There are various other community organizations working on these topics. The CSAB plans to collaborate and partner with these organizations to better understand problems and identify effective solutions and strategies to address sustainability in these areas.

### Food

It is important to recognize that the food system is an important component of sustainability on a global and local and needs to be highlighted and addressed within each goal, which may include consideration of the following:

- Energy: food production, transportation, and distribution, energy recovery from food waste
- Waste: Packaging, residential and commercial food waste management
- Water: water usage in food production, pesticide usage-impact on soil and run off

There are various community organizations working on these topics. The CSAB plans to collaborate and partner with these organizations to better understand the problem and identify effective solutions and strategies to address sustainability in these areas.

# Appendices

## Appendix A: Community Metrics

City of Golden Energy Metrics (proposed)

Municipal EUI per sf	(kBtu/square foot/year)	Utility Grid Mix	%
total COG buildings sf		Coal	
Community EUI per sf		Gas	
total community buildings sf		Wind	
Total EUI	(multifamily, commercial)	Hydro	
		Solar	
		Nuclear	
		Bio Mass	
		Other	

Consumption			
Electricity	customers	kWh	
Residential			
Business			
Municipal			
Street Lighting metered			
Street Lighting non metered (COG)			
Street Lighting non metered (Xcel)			
Electric total			
Natural Gas	customers	therms	
Residential			
Commercial			
Gas total			
Transportation			
Municipal			
Regional fleets used in Golden			
Private			
Transportation total			
Consumption Total			

Production			
	customers	total capacity (kW)	generation (kWh)
Solar Residential			
Solar Commercial			
Solar Garden			
Windsource			
Hydroelectric			
Solar Total			

Efficiency	customers	kW savings	kWh savings	therms savings
Residential				
Commercial				
Efficiency total				

Utility Grid Mix	%
Coal	
Gas	
Wind	
Hydro	
Solar	
Nuclear	
Bio Mass	
Other	

### Methodologies

### Assumptions

Commercial means multi-family, commercial and industrial utility meters or consumption

### City of Golden Community Waste Diversion Metrics (proposed)

Recyclables	
Residential Curbside Recycling	Tons
Single stream	
Multifamily & Commercial Recycling	
Commercial single-stream	
Multi-family single-stream	
Multi-family & commercial Total	
Other	
Community Pride Days	
Electronics	
Tires	
Mattresses	
Metal	
Paper (shredded)	
Rooney Road Household Hazardous Waste	
Golden contribution	
Paint	
HHW	
Electronics	
Total Other	
Total MSW Recycling Tons	
Industrial Recyclables	
Scrap metal (ferrous) iron, steel	
Concrete	
Asphalt	
Total Industrial Recyclables Tons	
Total Recycling Tons	

Organics	
Residential & Commercial collection	Tons
Food Waste (residential)	
Food Waste (commercial)	
Yard Waste (residential)	
Yard Waste (commercial)	
Construction & Demolition	
Total Organics	

Landfill	
Solid Waste Landfilled	Tons
Residential	
Multi-family	
Commercial	
Industrial	
Alternative Daily Cover	
Total landfill Tons	

Recycling Participation	
Residential	% of customers
Residential Compost	
Multi-family	
Commercial	
Industrial	
Total customers with recycling	

MSW totals	Residential	Commercial	Industrial	Overall	Lbs/pp/day
Total landfill					
Total Compost					
Total Recycling					
Total ADC					
Total Disposed					
Diversion Rate					
Combined Totals					

Miscellaneous	
Pharmaceuticals	lbs/person/year
Golden population	
# of businesses	

## City of Golden Water Conservation Metrics (proposed)

<b>Residential (gallons)</b> # of customers Total Residential consumption	consumption per household indoor versus outdoor per household Gallons per day, per capita consumption per business Water Conservation programs # of Irrigation Audits # of Gardens in A Box # of Xeriscape seminar attendees total gallons treated total diverted acre feet mtCO2 equivalent (GHG)
<b>Multifamily</b> # of accounts population Total Multifamily consumption	
<b>Commercial &amp; Industrial</b> # of accounts Total Commercial consumption	
<b>Irrigation</b> # of accounts Total Irrigation consumption	
<b>Nonpotable</b> # of accounts Total Nonpotable consumption	
<b>Raw Water</b> # of accounts Total Raw Water diverted	
<b>Water Treatment Plant data</b> kWh per mgd treated GHG equivalent per mgd DW and WW treated Municipal Use	<b>Data Needs</b> Commercial category includes Multifamily and Commercial; needs to include further separation.  Commercial category includes some businesses with irrigation and some without.

### Methodologies

Total diverted means water taken out of the river

Total treated means the amount of water leaving the water treatment plant

non-potable means water used for irrigation that is not treated

### Assumptions

Totals are in calendar years

Efficiency calculation is exclusive of all non-potable golf course water

Efficiency calculation includes all water leaving the plant divided by billed water

Water leaving the plant includes treated consumption, parks non-potable water, CSM, Lookout Mountain School,

GHS, Jeffco soccer fields at 12th & Ulysses, cemetery

Local weather stations are used to collect weather data, including rainfall

An irrigation system efficiency of 75 percent, which is considered efficient by industry standards (per Denver Water)

An irrigation season of April 15 through Oct. 15

Historical irrigation requirements from 2003 to 2008 in the Denver area was 18 gallons per square foot (GPSF) and actual for 2017 was 21 gpsf per Denver Water



118 GE Sustain

**RESOLUTION NO. 2656**

**A RESOLUTION OF THE GOLDEN CITY COUNCIL REVISING  
THE EXISTING CITY OF GOLDEN SUSTAINABILITY GOALS  
AND SETTING NEW TARGETS**

WHEREAS, the Golden City Council enacted the Golden Sustainability Goals through Resolution No. 1793 in 2007 and amended by Resolution No. 2330 in 2014 in recognition of the current threat to our environment and resolved to place Golden in the forefront of global communities willing to do their part to help make a difference; and

WHEREAS, since 2007 the city has created the Community Sustainability Advisory Board (CSAB), seated several task forces to provide research and direction, made significant investments in energy and resource conservation, and has implemented numerous sustainability programs and policies toward the goals; and

WHEREAS, after reviewing the progress made to date over the past eleven years, CSAB proposes changes to reflect the achievement of some goals, the inclusion of additional goals, and the acknowledgement of many recent new data, technologies and innovation; and

WHEREAS, the Golden City Council endorsed the Paris Climate Accords goals in 2017 and would like to better align Golden's Sustainability Goals with the Paris Accords'.

THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GOLDEN, COLORADO:

Section 1. Golden intends to meet the following Sustainability Goals:

**A. Energy.**

- 1) Renewables. To achieve 100% renewable energy for electricity by 2030 and 100% renewable for heating by 2050. To align Greenhouse Gas Emission reductions with the Paris Accord by 2050.
- 2) Efficiency. To reduce consumption of electricity by 15% by 2030 and reduce consumption of natural gas by 15% by 2030.
- 3) Transportation. To achieve 20% fossil fuel-free transportation sector by 2030 and 100% fossil fuel-free transportation sector by 2050.

**B. Waste.** To reduce total landfill contribution by 40% by 2030. This means:

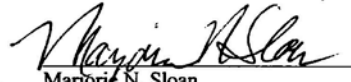
- 1) Recycle 80% of recyclables by 2030.
- 2) Compost 80% of compostables by 2030.
- 3) Reduce total trash by 20% by 2030.
- 4) Strive for zero waste in municipal operations by 2030.

**C. Water.**

- 1) Responsible Use. To reduce per capita total water use in Golden by at least 15% by 2030.
- 2) Drought Planning. To develop a resiliency plan by 2020 to prepare for a time where Golden's and Colorado's climate may be substantially warmer and drier than it is today.
- 3) Resource Recovery. To develop and implement a plan by 2020 where Golden's surplus water is used effectively not only to manage the cost of water and sewer services, but to enhance the environment in Golden and elsewhere in our watershed. And to recover resources from the city's wastewater by 2030.



Adopted this 14<sup>th</sup> day of February, 2019.

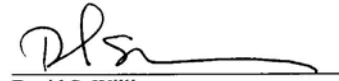
  
Marjorie N. Sloan  
Mayor

ATTEST:

  
Monica Mendoza, CMC  
City Clerk



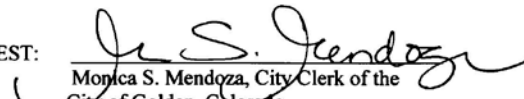
APPROVED AS TO FORM:

  
David S. Williamson  
City Attorney

I, Monica S. Mendoza, City Clerk of the City of Golden, Colorado, do hereby certify that the foregoing is a true copy of a certain Resolution adopted by the City Council of the City of Golden, Colorado at a regular business meeting thereof held on the 14<sup>th</sup> day of February, 2019.



ATTEST:

  
Monica S. Mendoza, City Clerk of the  
City of Golden, Colorado

## *Appendix C: Past Initiatives and Accomplishments*

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### **History**

In 2006, the Golden Sustainability Initiative began with over 200 residents who attended the first sustainability open house on a cold and snowy night. After four months of work, the recommendations of seven community working groups were adopted by City Council in 2007. The Community Sustainability Advisory Board (CSAB) was created and seated by City Council in 2007 (Ordinance No. 1789). The goals were subsequently amended in 2014 (Resolution No. 2330) and in 2019 (Resolution No. 2656). Each year, several projects and policies were completed:

2006: Community Open House, 7 working groups seated

2007: Goals adopted, Municipal baseline created

2008: CSAB seated, coordinator hired

2009: First Energy performance contract

2010: First Sustainability Strategic Plan adopted; Pay-As-You-Throw program created

2011: Green building codes adopted; LEED for city buildings policy adopted.

2012: Renewable Energy Technical Advisory Committee report published

2013: Second energy performance contract; Goals updated; West Line Light Rail opens

2014: Municipal solar projects constructed: seven net-zero buildings

2015: Voluntary residential compost program created; first public electric vehicle charging stations installed

2016: Golden Bike Library launches

2017: Golden voters approve Community Solar Garden; Paris Accord adopted

2018: Community Outreach to revise goals;

2019: New goals adopted

The current set of ten sustainability goals over three topic areas form the basis for this Sustainability Strategic Plan. Under the leadership of the Golden City Council and with support from the Community Sustainability Advisory Board and participation by citizens, the City has made a long-term commitment to sustainability and environmental stewardship. With the adopted goals, Golden recognizes both the operational challenges and opportunities that it will face in upcoming years. Nevertheless, Golden is committed to creating a set of governmental and community policies, metrics, and benchmarks that will assure that the community, businesses and residents are able to take proactive steps to meet ongoing challenges as well as capitalize on new opportunities. The City of Golden recognizes that it will obtain significant economic, social, and environmental benefits through successful integration of sustainability into our operations, investments, and day-to-day living.

In 2010, the Board adopted the first City of Golden Sustainability Strategic Plan, which outlined a plan of action using the strategies within Golden Sustainability Initiative Working Group recommendations and actions that Board members proposed through their own areas of expertise. Forty-eight specific strategies across the seven goal areas were defined in the 2010 version. While some projects did not make sense to implement, the Board researched each one and took action on more than 80% of the strategies.

The 2015 Sustainability Strategic Plan identified additional strategies that were brought to the public and City Council for consideration. The 2015 Plan incorporated public input with a stronger focus of community benefit in making recommendations. It is with similar intention and purpose that this current version incorporates more than a year of community input through comments, participation and surveys and is comprehensive in its list of ideas that Golden should pursue. The Board is committed to a transparent and thorough process of analysis for each of the projects with consideration for the economic, social and environmental impacts.

## CITY OF GOLDEN SUSTAINABILITY INITIATIVE

### ENERGY PROGRAMS

**Solar Incentives.** First in 2009-2010 and again in 2019-2020, the City has waived or will rebate all permit fees for residential solar systems. The City also achieved high designations as a Solar Friendly Community and a SolSmart Community for efforts to streamline the permitting process and reduce costs to homeowners and businesses.



**Community Solar.** In 2017, Golden residents voted 81% to construct a community solar project at the old Rooney Road landfill site. Over the past year, staff and CSAB have been conducting cost benefit analysis for feasibility, economic viability, and seeking to maximize the benefit for Golden subscribers. In parallel, an analysis for a second site is now underway with the hopes of diversifying a community renewable energy portfolio for Golden.

**High Performing Buildings.** Since 2010, Golden has adopted green building standards, beyond the standard base building codes, aimed at increasing the energy performance of new and existing buildings. These include:

- Adopting the latest versions of the International Building Codes, currently Golden uses the 2018 I-codes.
- The Sustainability Menu, which requires developers to choose from a variety of green building best practices in order to build in Golden.
- Mandatory electric vehicle charging stations in new commercial and multifamily construction (adopted January 2019).
- Mandatory solar photovoltaic rooftop systems in new commercial and multifamily construction (adopted January 2019).



**Hydroelectric.** In 2019, a feasibility study was completed to assess Golden's hydro potential. Our water comes from high mountain areas which produce opportunities to use gravity as a renewable resource to generate electricity. Of the City's 3 reservoirs, Lower Urad Reservoir has the most promising potential for a turbine. Next steps are to wait for favorable economic conditions to complete design and pursue a cost effective project.

**CPACE.** The Colorado Property Assessed Clean Energy program provides loans to businesses for making energy efficiency and renewable energy investments. Loans are paid off through annual property taxes, making the immediate improvements both simple and affordable.







**Energy Advisor Programs.** The City has tested out various initiatives since 2007, including subsidies for home energy audits, radon mitigation grants, promoting rebates for home energy projects, and a residential energy guide and handbook to net zero.

**Community Grants.** Over the past decade, Golden has offered funds for solar projects, energy efficiency efforts, installation of LED lighting, and electric vehicle charging stations for businesses. Golden also provides funding to improve energy efficiency of low income housing and partners with community nonprofits such as the Be A Tool and Habitat for Humanity organizations.



**Streetlight LED program.** Golden is the FIRST community to purchase the entire streetlight infrastructure from its utility provider, Xcel Energy. Public ownership of streetlights will help us control costs, upgrade fixtures to efficient LEDs and implement smart technology to meter and control lighting to avoid light pollution.

**Wind Energy.** While studies show that Golden is not situated for optimal large scale energy generation from wind turbines, the City has partnered with Colorado School of Mines and NREL to study the potential of small wind for businesses.



**Alternative Transportation.** Getting folks out of their cars is one way to reduce vehicle miles traveled. Transportation is also a large portion of our energy use, so Golden's latest goals aim to electrify all transportation by 2050. Golden's effort to date is significant and includes:

- RTD West Line Light Rail
- Golden Bike Library
- VIP Bike parking at Special Events
- Bike To Work Day
- The Green Bus, aka, RTD's Call & Ride bus around Golden.
- Electric Vehicle Charging Stations installed through State grant funds (20+ and counting)
- Walk and Bike path improvements



## WASTE PROGRAMS

**Pay-As-You-Throw Program.** After a two-year community outreach effort, Golden implemented a single hauler program for most residential areas with trash and recycling service. Average pricing for households went from \$22 to \$8.50. Over the years, Golden has worked to keep costs low while adding services such as compost and appliance recycling. Now, more than 80% of Golden's single family households participate and several homeowner association groups have voluntarily joined the program. In 2011, Golden's program was recognized as Outstanding Government Diversion Program by the Colorado Association for Recycling and Sustainability Champion for Medium Organizations by CDPHE and CORE.



**Community Pride Days.** An annual event held for more than 20 years, Golden's Community Pride Days accepts garbage, but aspires to divert recyclables that include electronics, tires, metal, mattresses, and paper shredding. More than 200,000 pounds of recyclables are kept out of the local Foothills Landfill each year through this two day event.

**Special Event Recycling & Compost.** Since 2009, the City has worked toward increasing waste diversion at large community events such as the 4<sup>th</sup> of July and Buffalo Bill Days. 2019 was the most successful year so far, with several events diverting food waste and using compostable products.



**Residential Compost Program.** Started in 2010, the City contracts with a waste hauler to provide waste, recycling, and compost services for most single family areas. Every five years, the program is rebid to keep prices low and the City continues to add valuable programs such as city-wide compost collection and appliance recycling. More than 550 households participate in this voluntary program.

**Asphalt & Concrete Recycling.** More than 3,000 tons of roads and sidewalks are crushed and reused annually in the City's replacement program. One of the only municipal road recycling programs in our region, this City program diverts a significant amount of waste away from the local landfill.







**Downtown Recycling.** Over several years, Golden has added solar-powered Big Belly trash and recycling bins, to increase capacity and keep downtown clean and to serve large numbers of visitors to downtown each year.

**Municipal Organization Recycling.** Single stream recycling is available throughout all City-owned buildings and offices and employees strive to divert waste associated with batteries, toner cartridges, and electronics.

**Rooney Road Household Hazardous Waste.** Located in Golden, the Rooney facility is a partnership of 9 cities in Jefferson County, and accepts hard to recycle materials for a fee which include household toxic chemicals, cleaners, poisons, used oils, batteries, paints, and electronics.



**Free Tours of Recycling & Organics Facilities.** Where does my recycling go? How is my organic waste composted? During spring and fall, Golden residents are invited to tour each of the facilities that our waste is diverted to for recycling or reuse.



## WATER PROGRAMS

**Smart Water Meters.** In 2017, the City retrofitted all water meters at homes and businesses with new smart meter technology which can provide greater and more timely details on water consumption.

**AquaHawk Alerting online system.** This free online website can show nearly real time data for water consumption at a home or business. Leak monitoring is a useful part of the program, but understanding water consumption for one's household is a first step toward greater water conservation.

Check Your  
Water Usage @



**Garden In A Box kits.** For more than ten years, Golden has offered discounts to residents who wish to plant water-wise xeric plants. These low water use perennials are picked by landscape professionals and are suited to Golden's arid climate.

**Grass To Garden turf replacement program.** A pilot program in 2019, three homeowners received professional help to replace turf areas with xeric perennial plants and drip irrigation. This project is measuring the impact of before and after and will offer videos and how-to guides for DIY homeowners.



**Commercial water audits.** A test pilot program for several years, this service provides a water audit of indoor fixtures to help businesses owners understand where to make investments and repairs.

**Slow The Flow Free Irrigation Audits.** Offered to all residential areas, single family and multi-family areas alike, the free irrigation audit program provides a professional audit of existing irrigation and a report to help owners make repairs and improvements to maximize water efficiency and provide a custom watering report for their landscape.



**A Partnership for Safe Drinking Water.** Golden strives to provide water that exceeds state and federal water quality standards and the Partnership is one way it demonstrates transparency through this goal.





**Community Gardens.** The Sustainability Initiative has provided seed funding (no pun intended!) for a variety of community-led neighborhood gardens, including the main Golden Community Garden, East Street Garden, Mitchell Elementary Garden, Shelton Elementary Garden, the Natural Grocers Community Garden and the Beverly Heights Community Garden.

**Graywater Reuse.** Another pilot program, this project will analyze the potential of graywater reuse for its ability to make progress toward Golden's water goals. The proposed Laundry To Landscape program would allow homeowners to install a valve behind their washing machine to divert wastewater outside toward landscaping beds, thereby conserving water for irrigation. City Council review is expected in October 2019.



**Pharmaceutical Roundups.** Diverting drug waste from the landfill might seem like a waste diversion program, but keeping drugs out of our local water supply is actually an important water quality effort. Golden accepts drugs year round at a drop off box at City Hall and collects more than 300 pounds annually.

**Free Drinking Water.** Golden is one of the first communities in Colorado to build portable drinking water stations for use at community events. This effort not only includes education on Golden's great quality municipal water, but also helps to reduce single use plastic bottles. In addition, permanent water bottle-filling stations are installed throughout downtown and along walking and biking trails.



**Watershed protection.** The City's water goals include efforts to protect ecosystem health, which incorporate annual Clear Creek cleanup events, habitat restoration along Clear Creek and Kinney Run ponds, erosion protection at Apex Park and along regional trails, periodic habitat and species assessments, and endangered species protection.



Guanella Reservoir: Golden's drinking water, Empire, CO

## WHAT IS GOLDEN'S CITY GOVERNMENT WORKING ON? SUSTAINABILITY IN ALL ACTIONS



**Energy Performance Improvements.** In 2007-2008, the City contracted for \$1.6M worth of energy improvements and upgrades, including a lighting retrofit, replacements of major HVAC units, air handling units, and variable frequency drives at the larger city buildings, including the Water Treatment Plant. This project also received a \$500,000 grant from the State, making a return on investment in six years.

**Municipal Solar.** In 2015, the City installed 680 kW of solar photovoltaic systems at 9 city facilities, including:

- City Maintenance Shops (260kW)\*
- Splash Water Park (154kW)\*
- Tony Grampas Gymnasium (70kW)\*
- Golden Community Center (55kW)
- Fire Station 24 (Heritage Road) (41kW)\*
- Fossil Trace Maintenance Shop (41kW)\*
- Public Works & Planning Office building (41kW)\*
- Fossil Trace Johnson Road Restrooms (9kW)
- Fossil Trace Illinois Street Restrooms (9kW)
- An additional solar thermal system at the Golden Community Center for pool heating



**LEED for City Buildings.** As a demonstration to the Golden community, the City adopted a LEED goal for new construction and major renovations. With recent updates to Golden's Sustainability Goals, the Board will make recommendations for higher targets for city buildings.

**Zero Waste in City Operations.** Golden's latest Sustainability goals, updated by City Council in 2019, include a target to strive for zero waste in municipal operations by 2030. To this end, the City will look to add compost collection in all city facilities, recycling in city parks, and make every effort to achieve zero waste at community events.



**Annual City of Golden Sustainability Awards.** For 11 years, the City has recognized students, businesses, community groups and individuals for their contributions toward making Golden more sustainable. Over the years, City Council and the Community Sustainability Advisory Board have presented awards to more than 45 recipients, chosen from hundreds of nominations.

**National and Global Climate Commitments.** Golden aims to remain at the forefront of taking action to address climate change and increase Golden’s resiliency. The City as an organization, City Council, and Mayor Marjorie Sloan belong to several organizations dedicated to addressing climate change or adopting goals. These include:

- The Paris Accord, aka, the United Nations Paris Agreement
- Sierra Club’s Ready For 100 – a target to achieve 100% renewable energy for communities
- Colorado Communities for Climate Action – a coalition of local governments advocating for stronger state and federal climate policy.
- The Compact of Colorado Communities – a statewide group of elected officials and staffs, dedicated to climate projects, trainings, and policies.
- Climate Mayors – a peer network of U.S. mayors demonstrating leadership and building political will for effective federal and global policy action.
- WaterNow Alliance – Western U.S. communities focused on sustainable water infrastructure and policies
- Cities for Climate Protection – a campaign by ICLEI Local Governments for Sustainability to adopt milestones including a greenhouse gas emissions inventory and action plan.



**Grants.** The City continues to look for funding opportunities and has secured several grants in the past few years:

- \$500,000 from the State of Colorado Department of Local Affairs for an energy retrofit of municipal buildings
- \$75,000 from the State for the installation of ten dual electric vehicle charging stations.
- \$25,000 from WaterNow to research and adopt a Graywater Reuse Program
- \$18,000 from the Colorado Department of Public Health & Environment for an Energy Advisor Program and Radon Mitigation Program
- In-kind technical assistance to perform an carbon footprint study with sustainable energy benchmarks for Golden from the university of Colorado Denver
- In-kind technical assistance from The Mayor Innovation Project in collaboration with the Harvard Kennedy School to test different marketing strategies to effect behavioral change to encourage water conservation.
- In-kind technical assistance from the Colorado School of Mines and the National Renewable Energy Laboratory to research and help solve a variety of Golden’s sustainability issues, including



LED Streetlight Conversion (2008)  
Industrial Ecology (diverting waste materials) (2011)  
Wind mapping of Golden (2013)  
Analyzing energy policies (2013)

Zero energy student housing (2014)  
Water education for local teachers (2015-2019)  
Community Solar project analysis (2016)  
Solar Decathlon teams (2016)  
Energy efficiency in tiny houses (2016)



**Partnerships.** Striving for sustainability requires local and regional partnerships and Golden seeks out experts who can provide technical and policy guidance for its programs. Golden works with many nonprofits, community organizations and civic groups, including:

Citizens Climate Lobby	Colorado Renewable Energy Society	Resource Central
Climate Mayors	GoFarm	Rocky Mountain Climate Network
Conservation Colorado	Golden Schools: Golden High School, Bell Middle School, Shelton Elementary, Mitchell Elementary and Montessori Institute for Environmental Solutions	Rooney Road Household
Colorado Communities for Climate Action	McKinstry Essention inc.	Hazardous Waste
Colorado Energy Office	Metro Denver Solar Home Tour	Regional Transportation District
Colorado Environmental Film Festival	National Renewable Energy Laboratory	Shop Local Committee
Colorado School of Mines	Natural Capitalism Solutions	Sierra Club
Colorado Solar Energy Industries Association	Recycle Colorado	Southwest Energy Efficiency Projects
Compact of Colorado Communities	Regional Air Quality Council	State of Colorado Climate Resilience Project
MillerCoors		State of Colorado Land Board
EcoCycle		U.S. Department of Energy
New Energy Colorado		U.S. Green Building Council
		WaterNow
		Western Resource Advocates

**Outreach and Citizen Participation.** Golden's Sustainability Initiative was formed and continues to be informed, by citizens. Whether it's student input from kindergarten to graduates, resident experts or those simply interested, Golden offers continuous opportunities to help shape sustainability policies, be informed, and stay involved:

- Sustainability Task Forces (seven groups, seated in 2007)
- Walkability (2007)
- Bikeability/Bike Master Plan (2007)
- Let's Talk Trash Open House (2009) and booth at Golden Vision 2030 block parties (2009-2010)
- Local Living Economy Workshop (2011)
- Renewable Energy Technical Advisory Committee (2012)
- Economic Health Summit (2012)
- Golden Farmer's Market Sustainability Booth (summer 2013)
- Golden Sustainability Night (2016)
- Golden's Climate Commitment Celebration (2017)
- Renewable Energy Updates in Jeffco (2017)
- Investment Forum Task Force (2017)
- Community Solar Ballot Campaign (2017)
- Golden Sustainability Night Out (2018)
- All Things Recycling (2019)



## Appendix D: Glossary and Acronyms

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COG	City of Golden
EUI	Energy Use Intensity
Microgrid	A small network of electricity users able to function independently from the larger grid. Microgrids can be powered by batteries, fuel cells or renewable sources like solar.
Microplastics	Extremely small pieces of plastic debris in the environment resulting from the disposal and breakdown of consumer products and industrial waste.
CC4CA	Colorado Communities for Climate Action
CSAB	Community Sustainability Advisory Board
Paris Accord	Also known as The Paris Agreement, it is an international treaty that seeks to reduce the emission of greenhouse gases. The agreement is sponsored by the United Nations Framework Convention on Climate Change (UNFCCC) and went into effect November 4, 2016. The agreement seeks to limit temperature increases in the 21st century to below 2 degrees Celsius and encourage initiatives that bring the increase down to 1.5 degrees Celsius or lower.
CSAB	Community Sustainability Advisory Board. CSAB meets the fourth Wednesday of each month and invites members of the public to attend and provide comments. For more information on Golden's sustainability programs and meeting dates and times, please visit <a href="http://www.cityofgolden.net/sustainability">www.cityofgolden.net/sustainability</a> .

## Appendix D - 2022 CSAB Work Plan



## Council Memorandum

**To:** The Honorable Mayor and City Council  
**From:** Theresa Worsham, Sustainability Manager  
**Through:** Jason Slowinski, City Manager  
**Date:** February 28, 2022  
**Re:** Community Sustainability Advisory Board (CSAB) 2022 Work Plan

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**Mission of CSAB:** To assist the City of Golden in defining and achieving its sustainability goals and to empower the community to live in a way that assures a high quality of life for current and future generations.

**2021 Accomplishments:** CSAB had a very active planning year that started with community participation in prioritizing projects and concluded with implementation of several key programs. Accomplishments include:

- Rebid of the City's Pay-As-You-Throw program contract for services with expansion of the program to include organics and large item pickups for all customers. The City was also awarded a State grant of \$170,000 toward the purchase of the new organics collection carts.
- New rebate programs for residents and businesses for a variety of sustainable practices, including matching rebates for Xcel Energy rebates for electrified equipment (heat pumps, insulation, high efficiency furnaces), smart irrigation controllers and rain sensors, and compostable takeout containers for restaurants.
- Completion of a Greenhouse Gas Emissions Inventory update. An executive summary and the final report will be added to the City's website.
- A successful weekend of garden tours in summer, featuring local gardeners and their successful examples of xeric, composting, bee keeping and organic gardening best practices.
- A new electric vehicle charging station installed at the Golden Community Center and work toward a municipal electric vehicle master plan for the City's fleet.

**2022 Goals:** CSAB discussed near-term and ongoing initiatives at their December 11<sup>th</sup> annual retreat and January 26<sup>th</sup> regular meeting and offers the following 2022 CSAB Work Plan for Council's consideration.

The Board's priorities for 2022 are divided into three categories: water, waste, and energy strategies. The 2022 initiatives are summarized in a table following this memo.

The Board included consideration for how these projects could be SMARTIE goals (Strategic Measurable, Ambitious, Realistic, Time-bound, Inclusive and Equitable), success factor for how they may fit into Council's latest Strategic Plan, and identified potential community partners to emphasize the Board's practice of cooperation and collaboration.

**Recommendations for 2022 Appointments:** Terms of four seats are scheduled to end in March 2022 with an additional remaining seat vacated by a previous board member (scheduled to end in 2024), so Council will be asked to appoint or reappoint residents for five terms this spring. As part of its charter through Ordinance No. 1789, this Board requires members to represent specific positions including three at-large representatives, one sustainability industry professional, one education professional, one small or medium business owner, and one public research facility representative. Positions needing action for the 2022 appointments are highlighted below in yellow:

<b>Ordinance No. 1789 representation</b>	<b>Current CSAB member</b>	<b>Seat Terms</b>	<b>Action Needed</b>
Community at-large	vacant	2020-2024	Appoint new to finish term (2 yrs.)
Community at-large	Tanja Rauch-Williams	2020-2024	None
Community at-large	Ken Jacobs	2022-2026	Reappoint or appoint new
Sustainability industry professional	Micah Allen	2022-2026	Appoint new
Public research facility representative	Jill Engel-Cox	2020-2024	None
Education professional	Alison Schwabe	2022-2026	Reappoint incumbent or appoint new
Small business owner or representative of a medium-to-large business	Bill Lucas-Brown	2022-2026	Appoint new

The Board thanks Council for its consideration and looks forward to any input and feedback on the draft work plan.



## 2022 CSAB Goals

Initiative	Timeline	Description	Tie to which City Council Strategy?	CSAB Lead
Measure and Report Metrics	Q1-Q4	Compile sustainability metrics to publish for annual reporting and evaluation of existing programs.	<i>Respected and Relational Governance</i>	Alison Schwabe
<b>Energy</b>				
Engage community groups about net zero energy codes	Q1-Q2	Meet with key stakeholders to review code options that balance building performance, personal financial resources, and sustainability goals.	<i>Active, Connected &amp; Sustainable</i>  <i>Safe, Inclusive &amp; Engaged and Affordable &amp; Thriving</i>	Tanja Rauch-Williams Ken Jacobs
	Q3	Develop recommendations for new construction (short term) and create a roadmap to address existing buildings (long term).		
	Q4	Provide a joint policy recommendation to Council from CSAB and Planning Commission for a strategy to adopt new codes.		
Develop a proposal for a specific Community Solar Garden project	Q1	Issue Request for Proposals to solicit companies for potential partnership for a 10MW community solar project at the north site.	<i>Active, Connected &amp; Sustainable</i>	Jill Engle-Cox
	Q1	Obtain pricing for smaller, 100kW site at city property on Catamount Drive		
	Q2	Evaluate bids and create proposal for Council consideration		
	Q3	If approved by Council, submit project to Xcel Energy in open application period in September 2022		
Update the Greenhouse Gas Emissions Inventory	Q1	Finalize and publish the results of the report received by ICLEI in 2021.	<i>Active, Connected &amp; Sustainable</i>	Ken Jacobs Alison Schwabe
Adopt an Electric Vehicle Master Plan	Q1	Finalize a plan and decision-making matrix for submittal to City Council for consideration in early 2022.	<i>Respected and Relational Governance</i>	Ken Jacobs Jill Engle-Cox
<b>Waste</b>				
Address Single Use Plastics and Styrofoam	Q1	Present the Board's recommendations for Council consideration of a local limitation on single use plastics and Styrofoam.	<i>Active, Connected &amp; Sustainable</i>	Tanja Rauch-Williams Micah Allen
Create a zero-waste plan for City operations	Q2	With input from City staff, consolidate and formalize efforts including green purchasing policy, composting at special events and recycling and composting services throughout municipal buildings. Partners: event organizers, waste haulers.	<i>Respected and Relational Governance</i>	Micah Allen

Expand recycling and compost services to all multifamily and commercial areas	Q2	Solicit pricing and develop policy for recycling and/or organics services in downtown, creek corridor, parks, and municipal operations.	Active, Connected & Sustainable  Quality Services	Tanja Rauch-Williams
	Q3	Perform community outreach and send recommendation to Council		
Water				
Implement Graywater Program	Q1	Resolve legal issues currently limiting the pilot program with help of City Attorney's office.	Active, Connected & Sustainable  Quality Services	Tanja Rauch-Williams
	Q2	Construct three residential pilot projects, evaluate, and publish results		
	Q4	Collect data for recommendation to Council for potential expansion of the ordinance for all new construction.		
Adopt a water resiliency plan to prepare for potentially drier futures	Q1	Collaborate with water department to address water resiliency through existing drought management and water efficiency plans.	Active, Connected & Sustainable  Quality Services	Tanja Rauch-Williams

## Appendix E – City Attorney Memo Regarding Use Of Email

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**MEMORANDUM**

**TO:** City of Golden Boards, Commissions, and Task Forces

**FROM:** Dave Williamson & Mary Lynn Benham

**DATE:** August 20, 2008

**RE:** **ELECTRONIC COMMUNICATIONS/OPEN MEETINGS  
AND OPEN RECORDS**

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The Boulder Valley School District was just sued under the Colorado Open Meetings Act as a result of the e-mail practices of its members. Earlier this year, we provided City Council with a legal memorandum on this subject. In response to recent inquiries for an update regarding open meetings and electronic communications among City boards, commissions, and task forces, please be advised as follows:

**OPEN MEETINGS**

The Open Meetings Law, C.R.S. §§ 24-6-401 - 402, which purports to apply to home-rule municipalities, applies to all meetings of local public bodies. Golden, through its home-rule powers, has adopted an open meetings ordinance that mirrors state law. The purpose of the Open Meetings Law is to ensure that public policy formation and public business are not conducted in secret, and to allow public access to meetings at which public business is discussed by local public bodies.<sup>1</sup>

The statute defines "local public body" to include any board, committee, commission, authority, advisory body, policy-making body, rule-making body, or any body to which a local government or its official has delegated or appointed decision-making functions.<sup>2</sup> This broad definition includes all boards, commissions and task forces appointed by the Golden City Council.

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<sup>1</sup> C.R.S. § 24-6-401; *Bd. of County Comm'rs v. Costilla County Conservancy Dist.*, 88 P.3d 1188 (Colo. 2004).

<sup>2</sup> C.R.S. § 24-6-402(1) (a).

"Meetings" are defined by the statute as "any kind of gathering convened to discuss public business, in person, by telephone, *electronically*, or by other means of communication"<sup>3</sup> (emphasis added). All meetings of *three or more* members of local board, commission or task force at which *any public business is discussed or formal action is taken* are declared public meetings for which notice must be provided and, except for executive sessions authorized by law, the public is permitted to attend.<sup>4</sup> Case law holds that public "meetings" may occur even at impromptu gatherings and events other than regularly scheduled meetings. Moreover, the Open Meetings Law specifically provides that if board, commission, or task force members use electronic mail to "discuss pending legislation or other public business amongst themselves," the electronic mail may be treated as a public meeting.

One of the consequences of the Open Meetings Law is that minutes must be kept of any public meeting at which adoption of any proposed policy, rule, regulation or formal action occurs or could occur (e.g., any meeting of a board, commission or task force where a formal action may be made) and the minutes must be available for public inspection.

Any citizen who believes a board, commission or task force has not complied with the Open Meetings Law may seek injunctive relief from the court for an order requiring compliance. If the Court finds a violation, the citizen shall be awarded costs and reasonable attorneys' fees.

### OPEN RECORDS

It is the public policy of the state that all public records shall be open for inspection. Colorado Open Records Act (CORA), C.R.S. 24-72-201 et seq. Public records include all writings made, maintained or kept by the City "for use in the exercise of functions required or authorized by law or administrative rule or involving the receipt or expenditure of public funds". Importantly, note that public records also include "correspondence" (including electronic mail even if the message is not viewed upon receipt, but stored for later retrieval) of public officials.

Public records do *not* include: correspondence without a demonstrable connection to public business; communication from a citizen or elected official's response that clearly implies by its content the citizen expects confidentiality; work product (drafts of documents) or other records such as contents of real estate appraisals, details of security operations and personal financial information of public utility users otherwise protected by CORA.

With respect to correspondence between members of boards, commissions or task forces, such correspondence is a public record if it is through the City e-mail system or stored on the City's intranet, for example, and the subject matter is demonstrably connected to public business. Members of the City's boards, commissions and task forces should be aware that their electronic and other written communications regarding public business are likely to be considered public records even if transmitted over private computers and internet providers.

Any person may request to inspect public records; and, if denied access, may petition the Jefferson County District Court for release of the records. If the court finds denial of inspection improper, it shall award the person who has filed the action court costs and attorney's fees.

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<sup>3</sup> C.R.S. § 24-6-402(1) (b).

<sup>4</sup> C.R.S. § 24-6-402(2) (b).

### ANALYSIS/LEGAL OPINIONS/RECOMMENDATIONS

We understand that members of boards, commissions and task forces often communicate by electronic mail. As an initial point, absent one of the exceptions stated above, such communications, regardless of whether sent and received via a City or personal e-mail address, are public records.

When two or more members of a board, commission or task force respond to an e-mail from another member, a public meeting has occurred and the requirements of the Open Meetings Law (i.e., notice, opportunity for public attendance, etc.) are applicable. Minutes may or may not be required. If there is no response by a member to another member's e-mail, there is no public meeting, although the initial e-mail is a public record. Although neither state statute nor case law addresses the issue of whether the e-mail communications must be contemporaneous, as with instant messaging, chat rooms, e-mail to LISTSERV's, or other means of electronic communication, it is our opinion that the City's boards, commissions, and task forces should broadly interpret these legal requirements. Courts hold that the Open Meetings Law is to be interpreted to favor public participation and the state law specifically recognizes that meetings may occur by e-mail.<sup>5</sup> (On the other hand, the law specifically excludes from the open meeting requirements e-mails exchanged among elected officials that *do not relate to public business*.<sup>6</sup>)

It does not appear that proximity of *time* with respect to the exchange of e-mail messages is necessarily determinative to whether a public meeting has taken place. The determinative factor is simply whether three or more public officials or members of a board, commission or task force are participating in the e-mail exchange and that public business is *discussed* in the e-mail messages. In other words, it would be difficult to successfully argue that e-mail exchanges among three or more board members, for example, are outside of the open meeting requirements simply because the e-mails were exchanged over an extended period of time. This same analysis is likely to be applied to other types of electronic communications, such as blogging, instant messaging, chat room, LISTSERV, etc.

While there is no Colorado case law addressing these issues directly, courts in other states have considered e-mail communications as open meetings. For example, the Nevada Supreme Court held that a "public body using serial electronic communication to deliberate toward a decision or to make a decision on any matter over which the public body has supervision, control, jurisdiction or advisory power violates the Open Meeting Law." *Del Papa v. Board of Regents of University and Community College System of Nevada*, 956 P.2d 770, 778 (Nev. 1998). And, in Washington, the court of appeals made a distinction between the "passive receipt of information by e-mail" and the "active discussion of issues" by e-mail. *Wood v. Battle Ground School Dist.*, 27 P.3d 1208, 1217 (Wash. App. 2001). If Colorado follows the holding in the Washington case, a distribution by e-mail of information regarding public business to public officials from another public official is not a public meeting so long as it is only passively received. However, once there is a responsive e-mail sent to the other public officials, the

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<sup>5</sup> C.R.S. § 24-6-402(2)(d)(III) specifically provides as follows: "If elected officials use electronic mail to discuss pending legislation or other public business among themselves, the electronic mail shall be subject to the requirements of this section. Electronic mail communication among elected officials that does not relate to pending legislation or other public business shall not be considered a "meeting" within the meaning of this section."

<sup>6</sup> *Id.*

communication becomes a public meeting subject to the notice, citizen attendance, and minute's requirements of the Open Meetings Law.

This leads to the conclusion that if three or more members of a board, commission or task force exchange e-mails, correspond in a chat room or via instant messaging, or engage in some other method of electronic communication, concerning a topic of public business, such exchanges should be deemed a public meeting. Given the practical difficulties in providing the required notice, allowing for citizen participation, and keeping minutes in such situations, we recommend that the City's boards, commissions, and task forces refrain from engaging in this practice.

Instead, perhaps board, commission and task force members who desire to respond should either wait until the next meeting or just telephone the other member and speak with him/her one on one. Please note that if a conference call ensues involving three or more members, the call would be a public meeting subject to the Open Meetings Law notice, participation and minutes requirements.

In conclusion, to ensure compliance with the Open Meetings Law and CORA, we recommend that the City's boards, commissions and task forces consider their policies and procedures to ensure compliance with the laws as described above.

DSW:MLM

Copy to: Mayor and City Council, Management Team

## Appendix F - House Bill 19-1261 State of Colorado Greenhouse Gas Emission Goals



# An Act

HOUSE BILL 19-1261

BY REPRESENTATIVE(S) Becker and Jackson, Jaquez Lewis, Bird, Cutter, Duran, Froelich, Galindo, Hooton, Kennedy, Kipp, Melton, Roberts, Singer, Sirota, Snyder, Sullivan, Tipper, Titone, Valdez A., Weissman, Arndt, Benavidez, Buckner, Buentello, Caraveo, Exum, Gonzales-Gutierrez, Gray, Hansen, Lontine, McCluskie, Michaelson Jenet, Mullica, Esgar, Herod, McLachlan;  
also SENATOR(S) Winter and Williams A., Moreno, Bridges, Court, Danielson, Donovan, Fenberg, Fields, Foote, Ginal, Gonzales, Lee, Pettersen, Story, Todd, Zenzinger.

CONCERNING THE REDUCTION OF GREENHOUSE GAS POLLUTION, AND, IN CONNECTION THEREWITH, ESTABLISHING STATEWIDE GREENHOUSE GAS POLLUTION REDUCTION GOALS AND MAKING AN APPROPRIATION.

*Be it enacted by the General Assembly of the State of Colorado:*

**SECTION 1.** In Colorado Revised Statutes, **amend** 25-7-102 as follows:

**25-7-102. Legislative declaration.** (1) In order to foster the health, welfare, convenience, and comfort of the inhabitants of the state of Colorado and to facilitate the enjoyment and use of the scenic and natural

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*Capital letters or bold & italic numbers indicate new material added to existing law; dashes through words or numbers indicate deletions from existing law and such material is not part of the act.*

resources of the state, it is declared to be the policy of this state to achieve the maximum practical degree of air purity in every portion of the state, to attain and maintain the national ambient air quality standards, and to prevent the significant deterioration of air quality in those portions of the state where the air quality is better than the national ambient air quality standards. To that end, it is the purpose of this ~~article~~ ARTICLE 7 to require the use of all available practical methods which are technologically feasible and economically reasonable so as to reduce, prevent, and control air pollution throughout the state of Colorado; to require the development of an air quality control program in which the benefits of the air pollution control measures utilized bear a reasonable relationship to the economic, environmental, and energy impacts and other costs of such measures; and to maintain a cooperative program between the state and local units of government. It is further declared that the prevention, abatement, and control of air pollution in each portion of the state are matters of statewide concern and are affected with a public interest and that the provisions of this ~~article~~ ARTICLE 7 are enacted in the exercise of the police powers of this state for the purpose of protecting the health, peace, safety, and general welfare of the people of this state. The general assembly further recognizes that a current and accurate inventory of actual emissions of air pollutants from all sources is essential for the proper identification and designation of attainment and nonattainment areas, the determination of the most cost-effective regulatory strategy to reduce pollution, the targeting of regulatory efforts to achieve the greatest health and environmental benefits, and the achievement of a federally approved clean air program. In order to achieve the most accurate inventory of air pollution sources possible, this ~~article~~ ARTICLE 7 specifically provides incentives to achieve the most accurate and complete inventory possible and to provide for the most accurate enforcement program achievable based upon that inventory.

(2) IT IS FURTHER DECLARED THAT:

(a) CLIMATE CHANGE ADVERSELY AFFECTS COLORADO'S ECONOMY, AIR QUALITY AND PUBLIC HEALTH, ECOSYSTEMS, NATURAL RESOURCES, AND QUALITY OF LIFE;

(b) COLORADO IS ALREADY EXPERIENCING HARMFUL CLIMATE IMPACTS, INCLUDING DECLINING SNOWPACK, PROLONGED DROUGHT, MORE EXTREME HEAT, ELEVATED WILDFIRE RISK AND RISK TO FIRST RESPONDERS, WIDESPREAD BEETLE INFESTATION DECIMATING FORESTS, INCREASED RISK

OF VECTOR-BORNE DISEASES, MORE FREQUENT AND SEVERE FLOODING, MORE SEVERE GROUND-LEVEL OZONE POLLUTION CAUSING RESPIRATORY DAMAGE AND LOSS OF LIFE, DECREASED ECONOMIC ACTIVITY FROM OUTDOOR RECREATION AND AGRICULTURE, AND DIMINISHED QUALITY OF LIFE. MANY OF THESE IMPACTS DISPROPORTIONATELY AFFECT RURAL COMMUNITIES, COMMUNITIES OF COLOR, YOUTH AND THE ELDERLY, AND WORKING FAMILIES. REDUCING STATEWIDE GREENHOUSE GAS POLLUTION AS OUTLINED IN THIS SUBSECTION (2) WILL PROTECT THESE FRONTLINE COMMUNITIES, FIRST RESPONDERS, AND ALL COLORADO RESIDENTS FROM THESE AND OTHER CLIMATE IMPACTS.

(c) WE MUST WORK TOGETHER TO REDUCE STATEWIDE GREENHOUSE GAS POLLUTION IN ORDER TO LIMIT THE INCREASE IN THE GLOBAL AVERAGE TEMPERATURE TO ONE AND ONE-HALF DEGREES CELSIUS, WHICH SCIENTISTS AGREE WOULD PROVIDE A MORE STABLE AND HOSPITABLE CLIMATE FOR CURRENT AND FUTURE GENERATIONS AND MITIGATE THE RISK OF CATASTROPHIC CLIMATE IMPACTS IN COLORADO;

(d) BY REDUCING GREENHOUSE GAS POLLUTION, COLORADO WILL ALSO REDUCE OTHER HARMFUL AIR POLLUTANTS WHICH WILL, IN TURN, IMPROVE PUBLIC HEALTH, REDUCE HEALTH CARE COSTS, IMPROVE AIR QUALITY, AND HELP SUSTAIN THE ENVIRONMENT;

(e) REDUCING GREENHOUSE GAS POLLUTION WILL CREATE NEW MARKETS, SPUR INNOVATION, DRIVE INVESTMENTS IN LOW-CARBON TECHNOLOGIES, AND PUT COLORADO SQUARELY ON THE PATH TO A MODERN, RESILIENT, ONE-HUNDRED-PERCENT CLEAN ECONOMY. DELAY IN PURSUING AND SECURING GREENHOUSE GAS REDUCTIONS AS OUTLINED IN THIS SUBSECTION (2) WILL PREVENT COLORADO COMMUNITIES FROM CAPTURING THE BENEFITS OF THESE NEW JOBS AND MARKETS, IN ADDITION TO EXACERBATING THE CLIMATE IMPACTS THAT HARM COLORADANS. THE CLEAN ENERGY ECONOMY IS ALREADY BRINGING TENS OF THOUSANDS OF JOBS AND BILLIONS OF DOLLARS IN DIRECT INVESTMENT TO COUNTIES ACROSS THE STATE, BENEFITTING WORKERS, FAMILIES, AND COMMUNITIES. COLORADO CAN CONTINUE TO FACILITATE SUCH A TRANSITION TO A CLEAN ENERGY ECONOMY. FOOD AND FIBER PRODUCTION HAS MADE SIGNIFICANT ACHIEVEMENTS IN AREAS OF PRODUCTIVITY AND SUSTAINABILITY. MODERN TECHNOLOGY IN THIS SECTOR CONTRIBUTES TO REDUCTIONS IN GREENHOUSE GAS EMISSIONS BY SEQUESTERING CARBON IN THE SOIL AND ENHANCING SUSTAINABILITY THROUGH TECHNOLOGIES THAT REDUCE METHANE

EMISSIONS AND PRODUCE RENEWABLE ENERGY. CONTINUING TO ENCOURAGE THESE TYPES OF ACHIEVEMENTS IS BENEFICIAL.

(f) BY EXERCISING A LEADERSHIP ROLE, COLORADO WILL ALSO POSITION ITS ECONOMY, TECHNOLOGY CENTERS, FINANCIAL INSTITUTIONS, AND BUSINESSES TO BENEFIT FROM NATIONAL AND INTERNATIONAL EFFORTS TO REDUCE GREENHOUSE GASES;

(g) ACCORDINGLY, COLORADO SHALL STRIVE TO INCREASE RENEWABLE ENERGY GENERATION AND ELIMINATE STATEWIDE GREENHOUSE GAS POLLUTION BY THE MIDDLE OF THE TWENTY-FIRST CENTURY AND HAVE GOALS OF ACHIEVING, AT A MINIMUM, A TWENTY-SIX-PERCENT REDUCTION IN STATEWIDE GREENHOUSE GAS POLLUTION BY 2025, A FIFTY-PERCENT REDUCTION IN STATEWIDE GREENHOUSE GAS POLLUTION BY 2030, AND A NINETY-PERCENT REDUCTION IN STATEWIDE GREENHOUSE GAS POLLUTION BY 2050. THE REDUCTIONS IDENTIFIED IN THIS SUBSECTION (2)(g) ARE MEASURED RELATIVE TO 2005 STATEWIDE GREENHOUSE GAS POLLUTION LEVELS.

**SECTION 2.** In Colorado Revised Statutes, 25-7-103, **amend** the introductory portion; and **add** (22.5) as follows:

**25-7-103. Definitions.** As used in this ~~article~~ ARTICLE 7, unless the context otherwise requires:

(22.5) "STATEWIDE GREENHOUSE GAS POLLUTION" MEANS THE TOTAL NET STATEWIDE ANTHROPOGENIC EMISSIONS OF CARBON DIOXIDE, METHANE, NITROUS OXIDE, HYDROFLUOROCARBONS, PERFLUOROCARBONS, NITROGEN TRIFLUORIDE, AND SULFUR HEXAFLUORIDE, EXPRESSED AS CARBON DIOXIDE EQUIVALENT CALCULATED USING A METHODOLOGY AND DATA ON RADIATIVE FORCING AND ATMOSPHERIC PERSISTENCE DEEMED APPROPRIATE BY THE COMMISSION.

**SECTION 3.** In Colorado Revised Statutes, 25-7-105, **amend** (1) introductory portion; and **add** (1)(e) as follows:

**25-7-105. Duties of commission - rules - legislative declaration - definitions.** (1) Except as provided in sections 25-7-130 and 25-7-131, the commission shall promulgate such rules and regulations as are consistent with the legislative declaration set forth in section 25-7-102 and

necessary for the proper implementation and administration of this ~~article~~  
ARTICLE 7, including, but not limited to:

(e) (I) STATEWIDE GREENHOUSE GAS POLLUTION ABATEMENT.

(II) CONSISTENT WITH SECTION 25-7-102 (2)(g), THE COMMISSION SHALL TIMELY PROMULGATE IMPLEMENTING RULES AND REGULATIONS. THE IMPLEMENTING RULES MAY TAKE INTO ACCOUNT OTHER RELEVANT LAWS AND RULES, AS WELL AS VOLUNTARY ACTIONS TAKEN BY LOCAL COMMUNITIES AND THE PRIVATE SECTOR, TO ENHANCE EFFICIENCY AND COST-EFFECTIVENESS, AND SHALL BE REVISED AS NECESSARY OVER TIME TO ENSURE TIMELY PROGRESS TOWARD THE 2025, 2030, AND 2050 GOALS. THE IMPLEMENTING RULES SHALL PROVIDE FOR ONGOING TRACKING OF EMISSION SOURCES THAT ADVERSELY AFFECT DISPROPORTIONATELY IMPACTED COMMUNITIES AND ARE SUBJECT TO RULES IMPLEMENTED PURSUANT TO THIS SUBSECTION (1)(e) AND MUST INCLUDE STRATEGIES DESIGNED TO ACHIEVE REDUCTIONS IN HARMFUL AIR POLLUTION AFFECTING THOSE COMMUNITIES.

(III) THE COMMISSION WILL IDENTIFY DISPROPORTIONATELY IMPACTED COMMUNITIES. IN IDENTIFYING THESE COMMUNITIES, THE COMMISSION WILL CONSIDER: MINORITY, LOW-INCOME, TRIBAL, OR INDIGENOUS POPULATIONS IN THE STATE THAT POTENTIALLY EXPERIENCE DISPROPORTIONATE ENVIRONMENTAL HARMS AND RISKS. THIS DISPROPORTIONALITY CAN BE A RESULT OF INCREASED VULNERABILITY TO ENVIRONMENTAL DEGRADATION, LACK OF OPPORTUNITY FOR PUBLIC PARTICIPATION, OR OTHER FACTORS. INCREASED VULNERABILITY MAY BE ATTRIBUTABLE TO AN ACCUMULATION OF NEGATIVE OR LACK OF POSITIVE ENVIRONMENTAL, HEALTH, ECONOMIC, OR SOCIAL CONDITIONS WITHIN THESE POPULATIONS. "DISPROPORTIONATELY IMPACTED COMMUNITIES" DESCRIBES SITUATIONS WHERE MULTIPLE FACTORS, INCLUDING BOTH ENVIRONMENTAL AND SOCIO-ECONOMIC STRESSORS, MAY ACT CUMULATIVELY TO AFFECT HEALTH AND THE ENVIRONMENT AND CONTRIBUTE TO PERSISTENT ENVIRONMENTAL HEALTH DISPARITIES.

(IV) THE DIVISION, AT THE DIRECTION OF THE COMMISSION, SHALL SOLICIT INPUT FROM OTHER STATE AGENCIES, STAKEHOLDERS, AND THE PUBLIC ON THE ADVANTAGES OF DIFFERENT STATEWIDE GREENHOUSE GAS POLLUTION MITIGATION MEASURES, SPECIFICALLY SOLICITING INPUT FROM THOSE MOST IMPACTED BY CLIMATE CHANGE, INCLUDING DISPROPORTIONATELY IMPACTED COMMUNITIES; LARGE EMISSION SOURCES;

WORKERS IN RELEVANT INDUSTRIES, INCLUDING ADVANCED ENERGY AND FUEL DELIVERY; AND COMMUNITIES THAT ARE CURRENTLY ECONOMICALLY DEPENDENT ON INDUSTRIES WITH HIGH LEVELS OF GREENHOUSE GAS EMISSIONS.

(V) THE IMPLEMENTING RULES AND POLICIES MAY INCLUDE, IN ADDITION TO RENEWABLE ENERGY DEVELOPMENT STRATEGIES, REGULATORY STRATEGIES THAT HAVE BEEN DEPLOYED BY ANOTHER JURISDICTION TO REDUCE MULTI-SECTOR GREENHOUSE GAS EMISSIONS, THAT FACILITATE ADOPTION OF TECHNOLOGIES THAT HAVE VERY LOW OR ZERO EMISSIONS, AND THAT ENHANCE COST-EFFECTIVENESS, COMPLIANCE FLEXIBILITY, AND TRANSPARENCY AROUND COMPLIANCE COSTS, AMONG OTHER REGULATORY STRATEGIES. THE COMMISSION MAY COORDINATE WITH OTHER JURISDICTIONS IN SECURING EMISSION REDUCTIONS, INCLUDING IN SATISFYING FUTURE FEDERAL REGULATIONS. THE COMMISSION MAY ACCOUNT FOR REDUCTIONS IN NET GREENHOUSE GAS EMISSIONS THAT OCCUR UNDER COORDINATED JURISDICTIONS' PROGRAMS IF THE COMMISSION FINDS THAT THE IMPLEMENTING REGULATIONS OF EACH COORDINATED JURISDICTION ARE OF SUFFICIENT RIGOR TO ENSURE THE INTEGRITY OF THE REDUCTIONS IN GREENHOUSE GAS EMISSIONS TO THE ATMOSPHERE AND MAY ACCOUNT FOR CARBON DIOXIDE THAT ELECTRICITY CONSUMPTION IN THIS STATE CAUSES TO BE EMITTED ELSEWHERE.

(VI) IN CARRYING OUT ITS RESPONSIBILITIES UNDER THIS SUBSECTION (1)(e), THE COMMISSION SHALL CONSIDER: THE BENEFITS OF COMPLIANCE, INCLUDING HEALTH, ENVIRONMENTAL, AND AIR QUALITY; THE COSTS OF COMPLIANCE; ECONOMIC AND JOB IMPACTS AND OPPORTUNITIES; THE TIME NECESSARY FOR COMPLIANCE; THE RELATIVE CONTRIBUTION OF EACH SOURCE OR SOURCE CATEGORY TO STATEWIDE GREENHOUSE GAS POLLUTION BASED ON CURRENT DATA UPDATED AT REASONABLE INTERVALS AS DETERMINED BY THE COMMISSION; HARMONIZING EMISSION REPORTING REQUIREMENTS WITH EXISTING FEDERAL REQUIREMENTS, WHERE THE COMMISSION DEEMS APPROPRIATE; THE IMPORTANCE OF STRIVING TO EQUITABLY DISTRIBUTE THE BENEFITS OF COMPLIANCE, OPPORTUNITIES TO INCENTIVIZE RENEWABLE ENERGY RESOURCES AND POLLUTION ABATEMENT OPPORTUNITIES IN DISPROPORTIONATELY IMPACTED COMMUNITIES, OPPORTUNITIES TO ENCOURAGE CLEAN ENERGY IN TRANSITIONING COMMUNITIES; ISSUES RELATED TO THE BENEFICIAL USE OF ELECTRICITY TO REDUCE GREENHOUSE GAS EMISSIONS; WHETHER PROGRAM DESIGN COULD ENHANCE THE RELIABILITY OF ELECTRIC SERVICE; THE POTENTIAL TO

ENHANCE THE RESILIENCE OF COLORADO'S COMMUNITIES AND NATURAL RESOURCES TO CLIMATE IMPACTS; AND WHETHER GREATER OR MORE COST-EFFECTIVE EMISSION REDUCTIONS ARE AVAILABLE THROUGH PROGRAM DESIGN.

(VII) NOTWITHSTANDING SECTION 24-1-136 (1)(a)(I), THE DIVISION, AT THE DIRECTION OF THE COMMISSION, SHALL REPORT TO THE GENERAL ASSEMBLY EVERY ODD-NUMBERED YEAR AFTER THE EFFECTIVE DATE OF THIS SUBSECTION (1)(e) REGARDING: PROGRESS TOWARD THE GOALS SET FORTH IN SECTION 25-7-102 (2)(g); ANY NEWLY AVAILABLE, FINAL COST-BENEFIT OR REGULATORY ANALYSIS, DEVELOPED UNDER SECTION 24-4-103 (2.5) OR (4.5), FOR RULES ADOPTED TO ATTAIN THE GOALS; AND ANY RECOMMENDATIONS ON FUTURE LEGISLATIVE ACTION TO ADDRESS CLIMATE CHANGE, SUCH AS IMPLEMENTATION OF CLIMATE ADAPTATION POLICIES OR ACCELERATING DEPLOYMENT OF CLEANER TECHNOLOGIES.

(VIII) (A) IN CARRYING OUT ITS RESPONSIBILITIES UNDER THIS SUBSECTION (1)(e), THE COMMISSION SHALL CONSULT WITH THE PUBLIC UTILITIES COMMISSION, INCLUDING ON ISSUES OF COST OF ELECTRICITY, RELIABILITY OF ELECTRIC SERVICE, TECHNOLOGY DEVELOPMENTS IN ELECTRICITY PRODUCTION, AND BENEFICIAL ELECTRIFICATION, AND KEEP A RECORD OF ITS CONSULTATION.

(B) THE GENERAL ASSEMBLY HEREBY FINDS, DETERMINES, AND DECLARES THAT IT IS BENEFICIAL TO ENCOURAGE THE DEVELOPMENT OF CLEAN ENERGY PLANS THAT WILL REQUIRE GREENHOUSE GAS EMISSIONS CAUSED BY COLORADO RETAIL ELECTRICITY SALES TO DECREASE EIGHTY PERCENT BY 2030 RELATIVE TO 2005 LEVELS TO PROVIDE FOR THE COST-EFFECTIVE AND PROACTIVE DEPLOYMENT OF CLEAN ENERGY RESOURCES.

(C) IN DESIGNING, IMPLEMENTING, AND ENFORCING PROGRAMS AND REQUIREMENTS UNDER THIS SUBSECTION (1)(e), THE COMMISSION AND THE DIVISION SHALL TAKE INTO CONSIDERATION ANY CLEAN ENERGY PLAN AT THE PUBLIC UTILITIES COMMISSION THAT, AS FILED, WILL ACHIEVE AT LEAST AN EIGHTY-PERCENT REDUCTION IN GREENHOUSE GAS EMISSIONS CAUSED BY THE UTILITY'S COLORADO RETAIL ELECTRICITY SALES BY 2030 RELATIVE TO 2005 LEVELS, AS VERIFIED BY THE DIVISION. WHEN INCLUDING PUBLIC UTILITIES IN ITS PROGRAMS OR REQUIREMENTS UNDER THIS SUBSECTION

(1)(e), THE COMMISSION SHALL NOT MANDATE THAT A PUBLIC UTILITY REDUCE GREENHOUSE GAS EMISSIONS CAUSED BY THE UTILITY'S COLORADO RETAIL ELECTRICITY SALES BY 2030 MORE THAN IS REQUIRED UNDER SUCH AN APPROVED CLEAN ENERGY PLAN OR IMPOSE ANY DIRECT, NONADMINISTRATIVE COST ON THE PUBLIC UTILITY DIRECTLY ASSOCIATED WITH QUANTITIES OF GREENHOUSE GAS EMISSIONS CAUSED BY THE UTILITY'S COLORADO RETAIL ELECTRICITY SALES THAT REMAIN AFTER THE REDUCTIONS REQUIRED BY SUCH A CLEAN ENERGY PLAN THROUGH 2030 IF THOSE REDUCTIONS ARE ACHIEVED AND THE DIVISION HAS VERIFIED THAT THE APPROVED CLEAN ENERGY PLAN WILL ACHIEVE AT LEAST A SEVENTY-FIVE-PERCENT REDUCTION IN GREENHOUSE GAS EMISSIONS CAUSED BY THE UTILITY'S COLORADO RETAIL ELECTRICITY SALES BY 2030 RELATIVE TO 2005 LEVELS.

(D) IMPLEMENTING RULES DEVELOPED BY THE COMMISSION MUST NOT INCLUDE ANY REQUIREMENTS DICTATING THE MIX OF ELECTRIC GENERATING RESOURCES THAT ANY PUBLIC UTILITY SHALL USE TO MEET APPLICABLE POLLUTION LIMITS.

(E) IMPLEMENTING RULES DEVELOPED BY THE COMMISSION MUST CONSIDER ISSUES RELATING TO JOINT OWNERSHIP OF ELECTRIC GENERATING RESOURCES AS BETWEEN MULTIPLE PARTIES AND THE EXTENT TO WHICH THE PUBLIC UTILITY IS RELYING ON POWER PURCHASED FROM THIRD PARTIES IN MEETING ITS OBLIGATIONS UNDER SUCH A CLEAN ENERGY PLAN.

(F) A CLEAN ENERGY PLAN VOLUNTARILY FILED BY A COOPERATIVE ELECTRIC ASSOCIATION THAT HAS VOTED TO EXEMPT ITSELF FROM REGULATION BY THE PUBLIC UTILITIES COMMISSION PURSUANT TO ARTICLE 9.5 OF TITLE 40 OR BY A MUNICIPAL UTILITY SHALL BE DEEMED APPROVED BY THE PUBLIC UTILITIES COMMISSION AS FILED IF: THE DIVISION, IN CONSULTATION WITH THE PUBLIC UTILITIES COMMISSION, PUBLICLY VERIFIES THAT THE PLAN DEMONSTRATES THAT, BY 2030, THE COOPERATIVE ELECTRIC ASSOCIATION OR MUNICIPAL UTILITY WILL ACHIEVE AT LEAST AN EIGHTY PERCENT REDUCTION IN GREENHOUSE GAS EMISSIONS CAUSED BY THE ENTITY'S COLORADO RETAIL ELECTRICITY SALES RELATIVE TO 2005 LEVELS; AND THE CLEAN ENERGY PLAN HAS PREVIOUSLY BEEN APPROVED BY A VOTE OF THE ENTITY'S GOVERNING BODY. VOLUNTARY SUBMISSION OF A CLEAN ENERGY PLAN BY A COOPERATIVE ELECTRIC ASSOCIATION OR MUNICIPAL UTILITY DOES NOT ALTER THE ENTITY'S REGULATORY STATUS WITH RESPECT TO THE PUBLIC UTILITIES COMMISSION, INCLUDING UNDER ARTICLE 9.5 OF



TITLE 40.

(IX) (A) IN ADDRESSING GREENHOUSE GAS EMISSIONS FROM AN ENERGY-INTENSIVE, TRADE-EXPOSED MANUFACTURING SOURCE, THE COMMISSION SHALL REQUIRE THE SOURCE TO EXECUTE AN ENERGY AND EMISSION CONTROL AUDIT, ACCORDING TO CRITERIA ESTABLISHED BY THE COMMISSION, OF THE SOURCE'S OPERATIONS EVERY FIVE YEARS THROUGH AT LEAST 2035. A QUALIFIED THIRD PARTY, AS DETERMINED BY THE COMMISSION, SHALL CONDUCT THE AUDIT AND SUBMIT THE RESULTS TO THE COMMISSION. IF THE COMMISSION DETERMINES THAT THE SOURCE CURRENTLY EMPLOYS BEST AVAILABLE EMISSION CONTROL TECHNOLOGIES FOR GREENHOUSE GAS EMISSIONS AND BEST AVAILABLE ENERGY EFFICIENCY PRACTICES, THE COMMISSION SHALL NOT IMPOSE A DIRECT NONADMINISTRATIVE COST ON THE SOURCE DIRECTLY ASSOCIATED WITH AT LEAST NINETY-FIVE PERCENT OF THE SOURCE'S GREENHOUSE GAS EMISSIONS ATTRIBUTABLE TO MANUFACTURING A GOOD IN THIS STATE FOR A PERIOD OF FIVE YEARS, IF THE SOURCE'S EMISSIONS ARE NOT GREATER THAN THE EMISSIONS ASSOCIATED WITH USE OF THE BEST AVAILABLE EMISSION CONTROL TECHNOLOGIES AS DETERMINED BY THE COMMISSION. THE COMMISSION SHALL CONSIDER HOW PROGRAM DESIGN AS RELEVANT TO THOSE SOURCES CAN FURTHER MITIGATE THE COST OF REDUCING EMISSIONS FOR SUCH MANUFACTURERS WHILE PROVIDING AN INCENTIVE TO IMPROVE EFFICIENCY AND REDUCE EMISSIONS. SPECIFICALLY, THE COMMISSION SHALL DESIGN THE PROGRAM AS RELEVANT TO THOSE SOURCES SUCH THAT AS THE SOURCES ARE SUBJECT TO EMISSION REDUCTION REQUIREMENTS, THOSE SOURCES WILL HAVE, UNDER THE PROGRAM, A PATHWAY TO OBTAIN EQUIVALENT LOWER-COST EMISSION REDUCTIONS AT OTHER REGULATED SOURCES TO SATISFY THEIR COMPLIANCE OBLIGATIONS.

(B) AS USED IN THIS SUBSECTION (1)(e)(IX), "ENERGY-INTENSIVE, TRADE-EXPOSED MANUFACTURING SOURCE" MEANS AN ENTITY THAT PRINCIPALLY MANUFACTURES IRON, STEEL, ALUMINUM, PULP, PAPER, OR CEMENT AND THAT IS ENGAGED IN THE MANUFACTURE OF GOODS THROUGH ONE OR MORE EMISSIONS-INTENSIVE, TRADE-EXPOSED PROCESSES, AS DETERMINED BY THE COMMISSION.

(X) NOTHING IN THIS SUBSECTION (1)(e) DIMINISHES THE EXISTING AUTHORITY OF THE COMMISSION OR THE DIVISION. NOTHING IN THIS SUBSECTION (1)(e) ALTERS THE REGULATORY EXEMPTIONS PROVIDED IN SECTION 25-7-109 (8)(a). NOTHING AUTHORIZED IN THIS SUBSECTION (1)(e),

INCLUDING THE ASSIGNMENT OF EMISSION REDUCTION OBLIGATIONS OR EMISSION AUTHORIZATIONS AND EXCLUDING PROGRAM DEVELOPMENT AND ADMINISTRATIVE COSTS, IMPLICATES STATE FISCAL YEAR SPENDING AS DEFINED IN SECTION 24-77-102. NOTHING IN THIS SUBSECTION (1)(e) ALTERS ANY REQUIREMENT TO PREPARE A COST-BENEFIT ANALYSIS UNDER SECTION 24-4-103 (2.5) OR ANY REQUIREMENT TO ISSUE A REGULATORY ANALYSIS UNDER SECTION 24-4-103 (4.5). NOTHING IN THIS SUBSECTION (1)(e) DIMINISHES THE AUTHORITY OF THE PUBLIC UTILITIES COMMISSION UNDER THE PUBLIC UTILITIES LAW, INCLUDING SECTIONS 40-3-101 AND 40-3-102.

(XI) AS USED IN THIS SUBSECTION (1)(e):

(A) "COST-EFFECTIVE" OR "COST-EFFECTIVENESS" MEANS THE COST PER UNIT OF REDUCED EMISSIONS OF GREENHOUSE GASES EXPRESSED AS CARBON DIOXIDE EQUIVALENT.

(B) "GREENHOUSE GAS" INCLUDES CARBON DIOXIDE, METHANE, NITROUS OXIDE, HYDROFLUOROCARBONS, PERFLUOROCARBONS, NITROGEN TRIFLUORIDE, AND SULFUR HEXAFLUORIDE, EXPRESSED AS CARBON DIOXIDE EQUIVALENT.

(C) "RETAIL ELECTRICITY SALES" MEANS ELECTRIC ENERGY SOLD TO RETAIL END-USE ELECTRIC CONSUMERS.

**SECTION 4. Appropriation.** (1) For the 2019-20 state fiscal year, \$281,588 is appropriated to the department of public health and environment. This appropriation is from the general fund. To implement this act, the department may use this appropriation as follows:


(a) \$188,321 for use by the air pollution control division for program costs, which amount is based on an assumption that the division will require an additional 2.0 FTE; and

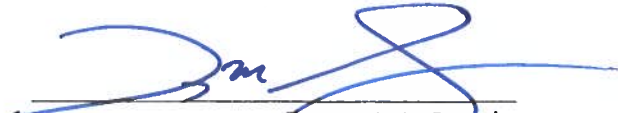
(b) \$93,267 for the purchase of legal services.


(2) For the 2019-20 state fiscal year, \$93,267 is appropriated to the department of law. This appropriation is from reappropriated funds received from the department of public health and environment under subsection (1)(b) of this section and is based on an assumption that the department of law will require an additional 0.5 FTE. To implement this act, the

department of law may use this appropriation to provide legal services for the department of public health and environment.

**SECTION 5. Safety clause.** The general assembly hereby finds, determines, and declares that this act is necessary for the immediate preservation of the public peace, health, and safety.

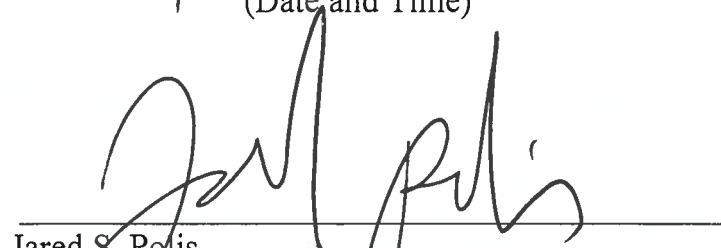
  
\_\_\_\_\_  
KC Becker  
SPEAKER OF THE HOUSE  
OF REPRESENTATIVES

  
\_\_\_\_\_  
Leroy M. Garcia  
PRESIDENT OF  
THE SENATE

  
\_\_\_\_\_  
Marilyn Eddins  
CHIEF CLERK OF THE HOUSE  
OF REPRESENTATIVES

  
\_\_\_\_\_  
Cindi L. Markwell  
SECRETARY OF  
THE SENATE

APPROVED May 30, 2019 at 9:40 am  
(Date and Time)

  
\_\_\_\_\_  
Jared S. Polis  
GOVERNOR OF THE STATE OF COLORADO

## Appendix G - Colorado Communities for Climate Action Policy Statement



## **CC4CA Policy Statement**

### **Effective July 1, 2021**

### **Adopted by the Board of Directors June 4, 2021**

Colorado Communities for Climate Action is a coalition of local governments advocating for stronger state and federal climate policy. CC4CA's policy positions reflect unanimous agreement among the coalition members on steps that should be taken at the state and federal level, often in partnership with local governments, to enable Colorado and its communities to lead in protecting the climate.

CC4CA generally focuses on legislative, regulatory, and administrative action, supporting efforts that advance the general policy principles and the detailed policy positions described below, and opposing efforts that would weaken or undermine these principles and positions.

### **General Policy Principles**

The following general principles guide Colorado Communities for Climate Action's specific policy positions. CC4CA supports:

- Collaboration between state and federal government agencies and Colorado's local governments to advance local climate protection and resilience.
- State and federal programs to reduce greenhouse gas pollution, including adequate and ongoing funding of those programs.
- Analyses, financial incentives, infrastructure, and enabling policies for the development and deployment of clean energy technologies.
- Locally driven and designed programs to support communities impacted by the clean energy transformation.
- Prioritizing policies that put equity at the center of decision-making by addressing systemic environmental and governance inequities based on race and socioeconomic status and by justly transitioning and growing the clean economy.

Adams County · Aspen · Avon · Basalt · Boulder · Boulder County · Breckenridge · Broomfield  
Carbondale · Clear Creek County · Crested Butte · Dillon · Eagle County · Edgewater · Erie · Fort Collins  
Frisco · Gilpin County · Glenwood Springs · Golden · Lafayette · Longmont · Louisville · Lyons · Mountain Village  
Nederland · Northglenn · Ouray County · Pitkin County · Ridgway · Salida · San Miguel County  
Snowmass Village · Summit County · Superior · Telluride · Vail · Westminster

## **Policy Positions**

Colorado Communities for Climate Action supports the following policy positions:

### *Statewide Climate Strategies*

- 1. Reduce statewide greenhouse gas emissions consistent with or greater than the State of Colorado's 2019 codified goals.**
- 2. Secure accurate, actionable useful, and regular state greenhouse gas inventories and forecasts for Colorado which are made accessible to local governments and incorporate alignment between state and local inventory data to the extent possible.**
- 3. Adopt a comprehensive market-based approach to reduce Colorado's greenhouse gas emissions that ensures the benefits accrue justly and equitably to impacted communities.**
- 4. Expand consideration of the environmental and health costs associated with the use of fossil fuels in making and implementing climate-related policy.**

### *Local Climate Strategies*

- 5. Remove barriers and promote opportunities that allow counties and municipalities to maximize deployment of local clean energy and climate-related strategies, including resilience-oriented strategies, while promoting affordable, accessible, and equitable delivery of reliable clean energy.**
- 6. Enable local governments to obtain the energy use and other data from utilities and state agencies that they need to effectively administer climate and clean energy programs.**
- 7. Support a comprehensive public process for evaluating retail and wholesale energy choice options for communities, informed by a broad variety of stakeholders.**
- 8. Provide for cost-effective and equitable policies, strategies, and practices that enable and accelerate energy efficiency in buildings, beneficial electrification, reducing GHG emissions, improving quality of life, and making the electric grid more robust and resilient.**

### *Energy Generation*

- 9. Accelerate retirement of existing fossil fuel generation facilities and their replacement with cost-effective and reliable clean energy supplies, through means that support utilities, consumers, and the communities where these facilities have been located.**

**10. Expand the ability of electric cooperatives and municipal electric utilities to independently purchase local renewable electricity and take other steps to reduce greenhouse gas pollution.**

**11. Modernize energy infrastructure to enhance community-based resilience and integrate distributed energy resources.**

### *Energy Efficiency*

**12. Expand demand side savings from efficiency and conservation for all energy types.**

**13. Support ongoing and sustainable funding for weatherization and renewable energy assistance to low-income households, including those in fossil fuel-dominated economies, so that all Coloradans have access to comfortable and affordable homes.**

**14. Support ongoing and sustainable funding for programs that assist communities in the transition from fossil fuel-dominated economies.**

**15. Provide counties and statutory cities and towns with the same authority held by home rule cities to implement local energy conservation policies and programs.**

### *Transportation*

**16. Ensure effective implementation of Colorado's vehicle emissions standards and other regulatory and programmatic activities designed to reduce greenhouse gas emissions from mobile sources.**

**17. Implement the 2020 Colorado Electric Vehicle Plan and other efforts to increase electrification of all motor vehicles.**

**18. Increase funding and policy incentives for multimodal transportation and multimodal-friendly development statewide.**

**19. Incentivize and select mobility alternatives, including movement of both people and goods, based on energy efficiency, and environmental costs and benefits.**

### *Fossil Fuel Extraction Activities*

**20. Expand monitoring and reduction of the full life cycle emissions from fossil fuel extractive industry activities.**

### *Waste*

**21. Grant CDPHE authority to implement a plan for meeting Colorado's statewide and regional solid waste diversion goals.**

**22. Reduce or eliminate use of disposable/single-use products and promote reuse of materials, including construction and demolition waste.**

**23. Foster circular economy policies like reuse, recycling, composting, and reducing the carbon intensiveness of materials and products.**

**24. Reduce greenhouse gas emissions from solid waste, water treatment, wastewater processing, and agricultural activities.**

*General*

**25. Encourage adoption of climate-positive innovations like telecommuting, drawing from the lessons learned during the coronavirus pandemic, to substantially reduce air and greenhouse gas pollution.**

**26. Promote proactive programs and efforts that improve the resilience and adaptability of Colorado communities in the face of natural disasters and other major challenges associated with climate change, including ensuring that disaster stabilization and recovery efforts result in reduced greenhouse gas pollution and improved resilience to future disasters.**

**27. Support exploration and deployment, when appropriate, of natural climate solutions (NCS) and of carbon capture and utilization/sequestration (CCUS).**

**28. Reduce greenhouse gas emissions and increase resilience associated with water management through water conservation, efficiency, reuse, adaptation and low impact development strategies.**

**29. Encourage investments that achieve climate-positive solutions, including policies that encourage entities investing public dollars to consider partial or full divestment as part of their investment strategies.**

**30. Maintain protections and authorities currently provided under environmental laws like the National Environmental Policy Act, Clean Air Act, and Clean Water Act, and ensure that these laws are fully implemented.**