1	1 BY AUTHORITY		
2	2 ORDINANCE NO	COUNCIL BILL NO. CB19-0805	
3	3 SERIES OF 2019	COMMITTEE OF REFERENCE:	
4	4	Finance & Governance Committee	
5	5		
6	6 <u>A BILL</u>		
7	7		
8	8 For an ordinance establishing the Office of	Climate Action, Sustainability, and	
9	9 Resiliency.		
0	0		
1	BE IT ENACTED BY THE COUNCIL OF THE CITY AND COUNTY OF DENVER:		
2	2		
3	Section 1. The D.R.M.C. is amended by the	addition of a new Chapter 11.5, to read as	
4	4 follows:		
5	5		
6	6 Chapter 11.5 - CLIMATE ACTION, SUSTAINABILITY,	AND RESILIENCY	
7	7		
8	ARTICLE I IN GENERAL		
9	Sec. 11.5-1 Definitions.		
20	As used in this chapter, the following words and	terms have the following meanings:	
21	(a) "Benchmarking" means Measuring a covere	ed building's energy performance using	
22	the ENERGY STAR portfolio manager.		
23	(b) "Covered building" means an individual bu	•	
24	with a gross floor area of twenty-five thousand square feet or larger except the following:		
	(1) A building that was not occupied and did i		
26	temporary certificate of occupancy for all twelve months of the calendar year for which		
27	benchmarking is required;		
	(2) A building that was not occupied, due to re	enovation, for all twelve months of the	
		calendar year for which benchmarking is required;	
	(3) A building for which a demolition permit for	<b>G</b>	
31	and for which demolition work has commenced on or before the date the benchmarking report		
	32 is due;		
₹3	(4) A building that is presently experiencing gui	alitying financial distress, as defined by	

any of the following:

- 2 a. The building is the subject of a qualified tax lien sale or public auction due to 3 property tax arrearages;
  - b. The buildings is controlled by a court appointed receiver; or
  - c. The building has been acquired by a deed in lieu of foreclosure;
  - (5) A building that had an average physical occupancy of less than sixty percent throughout the calendar year for which benchmarking is required;
    - (6) A building that is used primarily for industrial or agricultural processes; and
  - (7) A building for which the owner can demonstrate that its energy performance is a confidential business practice that includes trade secrets, privileged, or confidential commercial information. To qualify for this exemption, the owner must specifically identify the information the owner believes is confidential and provide a written statement describing the manner in which public disclosure would cause substantial harm to the owner's competitive position. Inefficient energy usage alone is not confidential commercial information.
  - (c) "Covered municipal building" means a covered building that is owned or operated by the City and County of Denver.
  - (d) "Energy efficiency program" means the administrative program implemented by the department requiring the benchmarking and reporting of energy consumption in commercial and multifamily buildings that are twenty-five thousand gross square feet or larger within the City and County of Denver.
  - (e) "ENERGY STAR portfolio manager" means the online tool created by the U.S. environmental protection agency used to measure and track a building's energy use, water consumption, and greenhouse gas emissions.
  - (f) "Environmental justice" means the fair treatment and meaningful involvement of all people, regardless of race, ethnicity, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
  - (g) "Equity" means delivering the needed services, benefits, and protections to anyone, giving special consideration to vulnerable populations, resulting in equitable opportunities and outcomes where race can no longer be used to predict life outcomes, and outcomes for all groups are improved.
  - (h) "Vulnerable population" means a population of people in Denver who may be affected disproportionately by climate change because of their physical location, socio-economic status, race, ethnicity, national origin, gender, age, physical or mental ability, or living

conditions. "Vulnerable population" includes, but is not limited to: people of color, low income people or people in financial hardship, the unhoused, those who work outdoors, the elderly, the young, pregnant people, people with disabilities, those in low-lying areas, those near heat islands, and those already suffering from illness.

## ARTICLE II. - OFFICE OF CLIMATE ACTION, SUSTAINABILITY, AND RESILIENCY

#### Sec. 11.5-2. - Created - Executive director.

There is hereby created the office of climate action, sustainability, and resiliency as a staff agency under the mayor. The office consists of the executive director to be appointed by the Mayor, and the appropriate staff. To be eligible for appointment, the executive director must have documented experience in leading climate action, sustainability, and resiliency programs.

#### Sec. 11.5-3. - Mission.

The office of climate action, sustainability, and resiliency's mission is to ensure urgent and proactive climate mitigation efforts while preparing for the effects of climate change, and creating a local, skilled workforce to carry out these actions. The office will ensure that Denver meets or exceeds all science-based targets for greenhouse gas emissions reductions following the recommendations of the Intergovernmental Panel on Climate Change. The office will focus efforts on building out low-income energy efficiency and solar programs, prioritize investments in neighborhoods with higher-than-average energy burden, prioritize small and minority-owned businesses and low-income households, and prioritize resiliency efforts to protect vulnerable populations first.

#### Sec. 11.5-4. - Powers and duties.

- (a) The powers and duties of the agency are:
- (1) To promulgate rules furthering environmental justice principles and strategies.
- (2) To promulgate rules adopting greenhouse gas emissions standards that may be more stringent than state or federal emissions standards.
- (3) To administer and promulgate rules for the energy efficiency in commercial and multifamily buildings program created in accordance article II of this chapter.
- (4) To assist in developing and transitioning a local skilled workforce to implement energy efficiency, electrification, smart building, renewable power, and other low carbon or zero carbon solutions as required. This workforce must prioritize job skills and transition training, apprenticeships, and other opportunities to engage, recruit, and retain economically

- disadvantaged workers, including people of color, women, persons with disabilities, and the chronically underemployed.
- (5) To administer and promulgate rules for the green buildings program created in article III of this chapter.
- (6) To develop and conduct programs for the Denver community to address climate mitigation and adaptation needs.
- (7) To develop and conduct programs for city agencies and employees that will improve their understanding of climate change, the operational and financial impacts to the city, and the opportunities to improve environmental, social, and economic outcomes by implementing climate change solutions.
- (8) To work to ensure all programs and initiatives developed by the office are based on equity and give preference to low-income communities while working with, but not limited to, the following commissions, or any successor commissions:
  - a. African American Commission;
  - b. American Indian Commission;
  - c. Asian American Pacific Islander Commission;
- d. Commission on Aging;

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- e. Commission for People with Disabilities;
  - f. Commission for Strategic Partnerships;
- g. Immigrant and Refugee Commission;
- 21 h. Latino Commission;
  - LGBTQ Commission; and
- j. Women's Commission.
  - (9) To promulgate any rules necessary to create a hardship exemption application process that allows small businesses, energy intensive industrial manufacturing, and other organizations to apply for and receive a rebate for a portion or all the tax paid, based on hardship experience.
  - (10) To promulgate rules necessary to create a tax rebate program for not-for-profit entities.
  - (11) To promulgate rules to create a tax rebate program for any customer enrolled in a renewable electricity program offered by Xcel Energy, including but not limited to WindSource, Renewable Connect, Solar Rewards, or equivalent programs as may be approved by the office. The renewable electricity program must cover seventy percent of the customer's annual electricity demand.

- (b) The executive director is the city's chief climate action, sustainability, and resiliency officer responsible for all new office functions as well as the functions specified for the office of sustainability under executive order 123, or any successor executive order, including coordinating the implementation of the city's internal goal-setting and plan implementation.
- (c) The office must initially include all climate action team staff currently residing in the environmental quality division of the Denver department of public health and environment, all office of sustainability staff, and all associated budgets, contracts, and grants.
- (12) To promulgate rules necessary to create a rebate program for electric vehicle charging station site hosts for the annual electricity demand for fuel of electric vehicles.

## Sec. 11.5-5. - Advisory boards - Created.

- (a) The following boards are hereby created:
- (1) The climate action and resiliency science advisory board ("science advisory board").
  - a. The science advisory board has nine members to be comprised of atmospheric and climate scientists, as well as energy, built-environment or transportation professionals.
  - b. The science advisory board must be made up of diverse and representative individuals that reflect the demographic and socioeconomic makeup of Denver, including youth leaders.
- (2) The climate action and resiliency community advisory board ("community advisory board").
- a. The community advisory board has fifteen members from vulnerable populations including but not limited to nonprofit, faith, neighborhood groups, workers, and other advocacy groups. The community advisory board shall consist of community members drawn from diverse sectors, whose input and support are critical to combating climate change and ensuring vulnerable populations are not adversely affected.
- b. The community advisory board must be made up of diverse and representative individuals that reflect the demographic and socioeconomic makeup of Denver, including youth leaders.

## Sec. 11.5-6. - Appointments.

Each appointment to the two advisory boards must be made alternately first by the city council appointee, then by the Mayoral appointee, then by the joint appointee in succession until all positions on both boards are filled.

## Sec. 11.5-7. - Advisory Boards - Powers and duties - Terms.

- (a) The science advisory board will advise the executive director on goals and strategies for greenhouse gas emissions.
- (b) The community advisory board will oversee the grant funds, including grants for city buildings or initiatives, and rebate programs and make recommendations for how the grants, rebates, and workforce funds are distributed, and will advise the executive director on goals and policy of the office.
- (c) The members of both boards may receive compensation of \$90 per meeting and may be reimbursed for expenses incurred in connection with the work of the advisory board and as approved by the executive director.
  - (e) The terms of the members of both boards is three (3) years.
- (f) The terms must be staggered so that one-third of the members are appointed each year. In the event of the death or resignation of any member, a successor must be appointed to serve for the unexpired portion of the term for which such member has been appointed.
- (g) Each advisory board shall nominate a member to serve as chairperson who upon acceptance of the nomination, confirmation by the executive director, and subject to the charter, article II of this chapter, and the advisory board's bylaws, shall serve as chair for a period of one year. No advisory board member elected chairperson may serve more than two consecutive terms as chairperson.
  - (h) The advisory boards must:

- (1) Advise the executive director on special or emerging issues or opportunities that may affect constituent groups.
- (2) Provide input to the Executive Director regarding annual agency goals, priorities, and objectives.
- (3) Create sub-committees, as needed, to research an emerging issue or situation for a time period determined by the advisory board and recommend necessary procedures, programs, legislation, or administrative action in a final report submitted to the executive director.
- (4) Meet at least six times a year and may hold special meetings as the chairperson deems necessary.
- (5) Develop and adopt bylaws concerning governance and operation of the board. All bylaws, including amendments thereto, are subject to the executive director's approval.
- Sec. 11.5-8. Permitted uses of climate action, sustainability, and resiliency fund.
  - (a) All monies derived from future electricity and natural gas excise taxes in the

climate action, sustainability, and resiliency fund must be expended solely on the following, while also engaging and valuing the community voice to fully understand the impacts of changes made on every Denver community, paying special attention to low-income and vulnerable populations:

- (1) Workforce development, implemented with an equity lens, to build comprehensive plans for programs and projects that prioritize job skills, transition training, department of labor registered apprenticeships, and other opportunities that engage, recruit, and retain economically disadvantaged workers, including people of color, women, people with disabilities, and the chronically underemployed. Priority must be given to programs and projects that both reduce greenhouse gases and promote economic, social, and environmental benefits.
- (2) Residential climate action efforts, including but not limited to planning, programs, and incentives to increase adoption of energy and water efficiency, electrification of space and water heating, installation of solar panels and battery storage, offsite solar, ecological restoration, natural carbon sequestration, and elimination of greenhouse gas emissions from homes and multifamily buildings.
- (3) Commercial and industrial climate action efforts, including but not limited to planning, programs, and incentives to increase energy and water efficiency, electrification, installation of solar panels and battery storage, ecological restoration, natural carbon sequestration, and elimination of greenhouse gas emissions from buildings and manufacturing processes, including city buildings and city initiatives.
- (4) Transportation greenhouse gas emission elimination efforts, including but not limited to planning, programs, and incentives for electric vehicles, charging infrastructure, reduction in total vehicle miles traveled, other clean mobility, and mode shift education and outreach.
- (5) Environmental justice, adaptation, resiliency, and greenhouse gas emissions elimination efforts that help Denver prepare for and respond to a changing climate.
- (b) All monies in the fund must be spent toward the above uses through the following means:
- (1) *Grants.* The grant program must be designed to minimize greenhouse gas emissions while ensuring that everyone, especially low-income households and people of color are prioritized in the transition to clean energy.
- (2) Rebates and market incentives. Develop rebate and market incentive programs to accelerate adoption of renewable energy, energy efficiency, water efficiency, and transportation projects to minimize greenhouse gas emissions.

- (3) Workforce development. Programs and projects to train, transition, and create a local workforce through, but not limited to, training facilities, department of labor registered apprenticeships, scholarships, and other educational incentives.
  - (4) Staffing. Staff responsibilities must include, but are not limited to:
- 5 a. Reducing greenhouse gas emissions from the building and transportation sectors.
  - b. Planning and implementation for equity in all climate programs and policies.
- 7 c. Accounting for greenhouse gas, data analytics, and program evaluation.
- 8 d. Policy and planning, including updating goals based on new scientifically informed 9 targets.
  - e. Hiring and overseeing contractors.

- f. Administration and finance, including:
- 1. Communication, outreach and education.
  - 2. Addressing agency needs including, but not limited to, professional services, travel and training, equipment, and financial services.
  - (c) Fund earnings. Any interest earned on the balance of the fund accrues to the fund.
    - (d) *Permanency.* If the monies in the fund are not expended at the end of the fiscal year, such monies must remain in the fund to be expended in subsequent fiscal years.
    - (e) Rulemaking. The executive director may promulgate rules necessary for the administration of this section.
    - (f) Reporting. A report of fund expenditures must be submitted publicly and annually to the mayor, city council, auditor, and the advisory boards created in sec. 11.5-5, D.R.M.C.
    - (g) Planning. Within one (1) year of the adoption of this chapter 11.5, and every three years thereafter, the executive director, must hold no less than one (1) public hearing and submit a three-year plan for the approval by City Council on the planned revenue uses in the climate action, sustainability, and resiliency fund. The public hearing must seek input from community stakeholders, equity stakeholders, and labor stakeholders.

**Section 2.** That article V of chapter 4 of the D.R.M.C. is repealed in its entirety and relocated with conforming amendments to article II of chapter 11.5 to read as follows:

# ARTICLE II. - ENERGY EFFICIENCY IN COMMERCIAL AND MULTIFAMILY BUILDINGS

#### Sec. 11.5-9. - Purpose.

The purpose of this article is to establish an energy efficiency program that requires covered building owners to benchmark building energy performance and makes such energy performance information publicly available in order to raise awareness and drive action.

# Sec. 11.5-10. - Applicability.

The energy efficiency program applies to all commercial and multifamily buildings within the City and County of Denver with a gross floor area of twenty-five thousand (25,000) square feet or larger.

# Sec. 11.5-11. - Benchmarking and reporting.

- (1) Each owner of a covered building must benchmark the building's energy usage annually using the ENERGY STAR Portfolio Manager tool, and by June 1 each year, must accurately report energy performance information to the department office of climate action, sustainability, and resiliency for the previous calendar year.
  - (a) Each owner of a covered municipal building shall must begin reporting by June 1, 2017.
- (b) Each owner of a covered building, other than a covered municipal building, with a gross floor area greater than fifty thousand (50,000) square feet shall must begin reporting by June 1, 2017.
- (c) Each owner of a covered building with a gross floor area between twenty-five thousand (25,000) and fifty thousand (50,000) square feet shall must begin reporting by June 1, 2018.
- (2) The energy performance information that shall <u>must</u> be reported to the <u>department office</u> <u>of climate action</u>, <u>sustainability</u>, <u>and resiliency</u> must include, at a minimum, a covered building's annual energy use intensity, ENERGY STAR Portfolio Manager score if eligible for a score, greenhouse gas emissions, and any other data fields needed to calculate the ENERGY STAR Portfolio Manager score for auditing and verification purposes. Owners of covered buildings <u>shall not be are not</u> required to report monthly energy bill data.
- (3) Owners of covered buildings shall <u>must</u> keep records of monthly energy consumption for a minimum of twenty-four (24) months. The records shall <u>must</u> be made available for the <del>department's</del> office of climate action, sustainability, and resiliency 's inspection upon request.

#### Sec. 11.5-12. - Office to promulgate rules.

The department office of climate action, sustainability, and resiliency may promulgate rules for the energy efficiency program.

#### **Sec. 11.5-13. - Enforcement.**

The manager, or the manager's designee, executive director or his or her designee is empowered to enforce the provisions of this article and any rules and regulations adopted by the

- 1 board pursuant to this article.
- 2 Secs. 11.5-14--11.5-17. Reserved.

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**Section 3.** That article XIII of chapter 4 of the D.R.M.C. is repealed in its entirety and relocated with conforming amendments to article III of chapter 11.5 to read as follows:

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ARTICLE III. - GREEN BUILDINGS.

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## **DIVISION 1. - GREEN BUILDING REQUIREMENTS**

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#### Sec. 11.5-18. - Definitions.

- The following words and phrases, as used in this article XIII article III, have the following meanings:
  - (a) Addition for purposes of this article XIII article III means an extension or increase in gross floor area or height of a building or structure. A connecting element of limited width as required by the International Building Code for a pedestrian walkway does not create an addition to a building.
    - (b) Available roof space means the total roof area of a building excluding the following:
- 17 (1) Private terraces no greater in area than the gross floor area of the abutting unit at the roof level;
- 19 (2) Outdoor amenity spaces of buildings, including, but not limited to, areas for recreational or 20 social use;
  - (3) Areas of rooftop mechanical, electrical or other equipment, including cell towers or other equipment leasing space on the roof, and all required clearances around these areas;
    - (4) Areas covered by skylights;
    - (5) Areas consisting of glass-covered atriums;
    - (6) Areas covered with glazing (windows); and
- 26 (7) Areas for renewable energy devices.
  - (c) Building for the purposes of this article XIII article III means any structure used or intended for supporting or sheltering any use or occupancy. The boundary of any single building is defined by its surrounding exterior walls. Party walls as constructed in accordance with the International Building Code shall create separate buildings.
  - (d) Building official means the person authorized and directed to act on behalf of the building permitting and inspections services in the interpretation and enforcement of the Building Code of the City and County of Denver and appointed by the executive director of community planning and

development.

- (e) Campus means a tract of contiguous property with one (1) or more owners; that contains or will contain more than one (1) building; and that is planned, developed and operated as an integrated facility for a number of individual uses with special attention to coordinated circulation, parking, utility needs, aesthetics and compatibility. For purposes of this definition, the presence of public rights-of-way shall may not destroy contiguity of land area. A campus may contain only existing buildings, existing buildings and proposed new buildings, or only proposed new buildings.
- (f) Character defining roof means a visible roof where the roofs relationship to the overall shape of the building, as well as the roofs distinctive materials, craftsmanship, or decorative details are important to the overall visual character of the building; a change of materials, color, or shape to a character defining roof would significantly impact the visual character of the building.
- (g) Cool roof means a roof, or portion of a roof, containing roof covering materials meeting certain solar reflectance values that mitigate or assist in reducing urban heat island effect.
  - (h) Denver Building and Fire Code has the same meaning as in Section 10-16, D.R.M.C.
- (i) Executive director of CPD means the executive director of the department of community planning and development ("CPD"), or his/her designee.
- (j) Executive director of DDPHE the office of climate action, sustainability, and resiliency means the executive director of the department of public health and environment ("DDPHE") the office of climate action, sustainability, and resiliency, or his or her designee.
- (k) *Green space* means any area that is proposed to contain trees, groundcover, shrubs, urban agriculture, natural grass/turf, or vegetated roofs.
- (I) Greenhouse means a structure or a thermally isolated area of a building that maintains a specialized sunlit environment exclusively used for, and essential to, the cultivation, protection or maintenance of plants, that sells its commodities for a profit, or on behalf of a non-profit, and is constructed or planned to be constructed as either an F-1 or U occupancy.
- (m) Gross floor area means the gross floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, ramps, closets, the thickness of interior walls, columns or other features. The gross floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area of a building shall not include shafts with no openings, interior courts, or areas used exclusively for the storage or parking of vehicles.
- (n) *Individual roof section* means a portion of roof bounded on all sides by one (1) or more of the following features: a wall or parapet; the roof edge; an expansion joint; or a roof divider.

(o) Net zero energy building means an energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy.

- (p) *Owner* means any person, agent, operator, entity, firm, or corporation having any legal or equitable interest in the building or property; or any person authorized to act on the owner's behalf.
- (q) Renewable energy device means a device that obtains energy derived from solar radiation, wind, landfill gas, biomass, the internal heat of the earth, or another source with the approval of CPD.
- (r) Residential building means a building where more than sixty (60) percent of the gross floor area of the building is used, designed or intended to be used for a household living use type as defined in the Denver Zoning Code, including accessory residential uses; however, a residential building shall not include a nursing home or hospice use, a residence for older adults use, or a lodging accommodation use, all as defined in the Denver Zoning Code.
- (s) Roof means the overhead structural component of a building or a part of a building supported by walls or columns and which functions primarily to shelter the interior of the building from the effects of weather and the infiltration of water.
- (t) Roof recover means the process of installing an additional layer of roof covering over a prepared existing roof covering without removing the existing roof covering.
- (u) Roof replacement means the process of removing the existing roof covering, repairing any damaged substrate, and installing a new roof; or the reconstruction or renewal of any part of an existing roof for the purposes of its maintenance.
- (v) Total roof area means the square footage of all roofs and roof sections located on a building. A roof covering a story or stories below grade, as determined in accordance with the International Building Code as adopted in the Denver Building and Fire Code, shall not be included in the calculation of total roof area of a building.
- (w) Vegetated roof means an assembly of interacting components designed to waterproof and normally insulate a building's top surface that includes, by design, vegetation and related landscape elements.
- (x) Visible roof means an individual roof section that is at least partially visible from a person of average height in a public vantage point such as a park, public street, campus grounds, or private street with public easement.

# Sec. 11.5-19. - Green building requirements for new buildings.

(a) In general. Except as provided in subsection 10-301(c) subsection 11.5-19 (c) below, an owner constructing a building containing twenty-five thousand (25,000) square feet or greater of gross

- floor area who has not submitted a formal site development plan application with payment of all applicable fees by 4:30 pm on November 2, 2018, must provide the following green building requirements:
- 4 (1) A cool roof; and

- (2) One (1) of the following options:
- a. Green space covering an area in one (1) of the following amounts, whichever is least:
- 7 1. Ten (10) percent of the gross floor area of the building;
  - 2. Sixty (60) percent of the total roof area on the building; or
    - 3. The available roof space on the building.
  - b. On-site solar panels covering an area anywhere on the building or zone lot equal to seventy (70) percent of the total roof area or an area equal to an amount required to provide one hundred (100) percent of estimated annual average electricity used at the building. Other renewable energy devices may be used in place of on-site solar panels so long as the owner provides evidence of similar generation capacity. Any net zero energy building complies with this subsection 10-301(a)(2)b subsection 11.5-19 (a)(2)b.
    - c. Off-site renewable energy purchase with the following requirements:
  - 1. The off-site renewable energy purchase must be met through a minimum five (5) year contract for a subscription, lease, or purchase of a share in a voluntary renewable energy program offered by Xcel Energy or a community solar project for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is built for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription;
  - 2. The term of purchase must be renewed a minimum of every five (5) years for the life of the building; and
  - 3. The off-site renewable energy purchase must cover the equivalent energy production of either (i) the estimated one hundred (100) percent of electricity the building will use, or (ii) the amount that would have been provided with required on-site solar panels and demonstration of decreased energy consumption measured as estimated cost savings of a minimum six (6) percent above requirements in the applicable Denver Building and Fire Code.
  - d. Demonstration of decreased energy consumption measured as estimated cost savings of at least twelve (12) percent above requirements in the applicable Denver Building and Fire Code.
  - e. Building certification of LEED Gold, Enterprise Green Communities, the National Green Building Standard ICC/ASHRAE 700, or an equivalent certification approved by the building official.
  - f. A combination of green space, and renewable energy device(s) with the following required coverages:

- 1. Green space covering an area in one (1) of the following amounts, whichever is least:
- 2 (i) Three (3) percent of the gross floor area of the building;
- 3 (ii) Eighteen (18) percent of the total roof area on the building; or
- 4 (iii) Thirty (30) percent of the available roof space on the building; and either section 10-5 301(a)(2) f. 2 or 3 below section 11.5-19 (a) (2) f. 2 or 3 below.
- 2. On-site solar panels located anywhere on the subject zone lot covering an area in one of the following amounts, whichever is least:
  - (i) Seven (7) percent of the gross floor area of the building,
  - (ii) Forty-two (42) percent of the total roof area on the building; or
  - (iii) Seventy (70) percent of the available roof space on the building.

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- 3. Renewable energy devices, other than solar panels, so long as the renewable energy devices achieve equivalent total energy production to the required amount of on-site solar panels in subsection 10-302(2)f.2 subsection 11.5-19 (2) f. 2 above; or
- 4. Alternative coverages of green space and on-site solar panels may be approved by the building official so long as the combination covers an area in one (1) of the following amounts, whichever is least:
  - (i) Ten (10) percent of the gross floor area of the building;
  - (ii) Sixty (60) percent of total roof area on the building; or
  - (iii) The available roof space on the building.
- g. A combination of green space and off-site renewable energy purchase, with the following requirements:
  - 1. Green space covering an area in one (1) of the following amounts, whichever is least:
  - (i) Three (3) percent of the gross floor area of the building;
  - (ii) Eighteen (18) percent, of total roof area on the building; or
  - (iii) Available roof space on the building.
- 2. The off-site renewable energy purchase must be met through a minimum five (5) year contract for a subscription, lease, or purchase of a share in a voluntary renewable energy program offered by Xcel Energy or a community solar project for which a dedicated renewable energy resource located in Public Service Company of Colorado territory is built for that customer program, and which has dedicated customer capacity or energy to fulfill that customer's subscription. The term of purchase must be renewed a minimum of every five (5) years after initial purchase.
- 3. The off-site renewable energy purchase must cover the amount that required on-site solar panels would have provided and demonstration of decreased energy consumption measured as estimated cost savings of a minimum two and a half (2.5) percent above requirements in the Denver

1 Building and Fire Code.

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- h. A combination of green space and decreased energy consumption with the following requirements:
  - 1. Green space covering an area in one (1) of the following amounts, whichever is least:
- 5 (i) Three (3) percent of the gross floor area of the building;
  - (ii) Eighteen (18) percent of total roof area on the building; or
  - (iii) The available roof space on the building.
  - 2. Demonstration of decreased energy consumption measured as estimated cost savings of a minimum five (5) percent above requirements in the applicable Denver Building and Fire Code during plan review.
    - (b) Payment into the green building fund.
  - (1) Instead of providing required green space, an owner may pay an amount to the green building fund, defined in division 3 below, of fifty dollars (\$50.00) per square foot of all green space coverage required in subsections 10-301(a)(2)a, f, g, or h, subsections 11.5-19 (a)(2)a, f, g, or h, but not provided.
  - (2) In cases where an owner chooses to provide green space as required in subsections 10-301(a)(2)a, f, g, or h, subsections 11.5-19 (a)(2)a, f, g, or h, but is unable to provide the entirety required green space coverage, the owner may pay fifty dollar (\$50.00) per square foot for no more than twenty-five (25) percent of the green space required, but not provided, and must provide at least seventy-five (75) percent of the required green space coverage.
    - (c) Exceptions.
    - (1) Subsection 10-301(a) shall Subsection 11.5-19 (a) does not apply to the following:
  - a. One- and two-family dwellings constructed under the provisions of the International Residential Code;
  - b. Dwelling units constructed in a group of three (3) or more attached units in which each unit extends from foundation to roof and is not more than three (3) stories above grade plane; or
    - c. Temporary structures, air supported structures, and greenhouses.
    - (2) Subsection 10-301(a) shall Subsection 11.5-19 (a) does not apply to the following:
      - a. Portions of a proposed roof that include the following:
  - 1. Photovoltaic systems or components;
    - 2. Solar-, air-, or water-heating systems or components;
- 32 3. Vegetated roofs;
- 4. Above-roof decks or walkways; or
  - HVAC systems and components, and other opaque objects mounted above the roof.

- b. Portions of a proposed roof shaded during the peak sun angle on the summer solstice by neighboring buildings or other portions of the same building;
- c. Portions of a proposed roof that are ballasted with a minimum stone ballast of fifteen (15) pounds per square foot;
- d. Twenty-five (25) percent of an individual roof section, when the remaining seventy-five (75) percent of the proposed individual roof section contains a cool roof;
- e. An individual roof section containing less than twenty-five (25) percent of roofing materials;

  8 or
  - f. Visible roofs for no more than ten (10) percent of the total roof area.
  - (3) Subsection 10-301(a) shall Subsection 11.5-19 (a) (2) does not apply to residential buildings five (5) stories or fewer, less than sixty-two and one-half (62.5) feet in height, and with twenty-five thousand (25,000) square feet or more of gross floor area.
  - (d) Character defining roof. When a proposed roof is determined to be a character defining roof, the building official may allow roof materials that do not meet the requirements for a cool roof.
  - (e) Continuing compliance. An owner of a building subject to the requirements of section <del>10-301(a)</del> section 11.5-19 (a) must provide a cool roof and one (1) of the options of <del>10-301(a)(2)</del> section 11.5-19 (a) (2) for the duration of the building's existence.

# Sec. 11.5-20. - Green building requirements for existing buildings.

- (a) In general. Except as provided in subsection 10-302(d) subsection 11.5-20(d) below, any owner of a building that has received a certificate of occupancy prior to November 2, 2018 and whose building contains twenty-five thousand (25,000) square feet or greater of gross floor area, must provide the following green building requirements upon a roof replacement for more than five (5) percent of either the total roof area or individual roof section(s), as applicable, in any calendar year:
  - (1) A cool roof; and

- (2) One (1) of the following options:
- a. Green space covering an area in one (1) of the following amounts, whichever is least:
- 1. For total roof area replacement: two (2) percent of the gross floor area of the building; for individual roof section replacement: two (2) percent of the gross floor area of the building, multiplied by the area of individual roof section(s) being replaced, divided by the total roof area of the building;
- 2. For total roof area replacement: eighteen (18) percent of the total roof area on the building; for individual roof section replacement: eighteen (18) percent of the individual roof section(s) being replaced; or
- 3. Available roof space on the total roof area of the building, or the individual roof section(s) being replaced, as applicable.

- b. On-site solar panels located anywhere on the building or zone lot and covering an area in the least of the following:
- 1. For total roof area replacement: five (5) percent of the gross floor area of the building; for individual roof section replacement: five (5) percent of the gross floor area of the building, multiplied by the area of roof section(s) being replaced, divided by the total roof area of the building;
- 2. For total roof area replacement: forty-two (42) percent of the total roof area on the building; for individual roof section replacement: forty-two (42) percent of the individual roof section(s) being replaced; or
- 3. An area equal to an amount required to provide one hundred (100) percent of estimated annual average electricity used at the building.
- c. Building certification of LEED Silver, Enterprise Green Communities, the National Green Building Standard ICC/ASHRAE 700, or an equivalent certification approved by the building official.
  - d. Enrollment in the energy program described in section 10-304 section 11.5-22 below.
  - (b) Payment into the green building fund.
- (1) Instead of providing required green space, an owner may pay an amount to the green building fund, defined in division 3 below, of fifty dollars (\$50.00) per square foot of all green space coverage required in subsection 10-302(a)(2)a, subsection 11.5-20(a)(2)a, but not provided.
- (2) In cases where an owner chooses to provide green space as required in subsection 10-302(a)(2)a, subsection 11.5-20(a)(2)a, but is unable to provide the entirety of green space coverage required, the owner may pay fifty dollars (\$50.00) per square foot for no more than twenty-five (25) percent of the green space required, but not provided, and must provide at least seventy-five (75) percent of the required green space coverage.
- (c) Individual roof section replacements. Any excess coverage requirements provided on an individual roof section replacement may be applied to later roof replacements of individual roof sections of the building.
  - (d) Exceptions.

- (1) Subsection 10-302(a) shall Subsection 11.5-20 (a) does not apply to the following:
- a. One- and two-family dwellings constructed under the provisions of the International Residential Code;
- b. Dwelling units constructed in a group of three (3) or more attached units in which each unit extends from foundation to roof and is not more than three (3) stories above grade plane;
  - c. Temporary structures, air supported structures, and greenhouses; or
- d. Buildings that have complied with section 10-301(a).
  - (2) Subsection 10-302(a)(1) shall Subsection 11.5-20 (a) (1) does not apply to the following:

- a. Portions of a roof that include or are covered by the following:
- Photovoltaic systems or components;
- 3 2. Solar-, air-, or water-heating systems or components;
- 4 3. Vegetated roofs;

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- 4. Above-roof decks or walkways; or
- 6 5. HVAC systems and components, and other opaque objects mounted above the roof.
- b. Portions of a roof shaded during the peak sun angle on the summer solstice by neighboring buildings or other portions of the same building;
  - c. Portions of a roof that are ballasted with a minimum stone ballast of fifteen pounds per square foot, or, in the case of an existing ballasted roof, the weight of ballast for which the roof was originally designed;
  - d. Twenty-five (25) percent of an individual roof section, when the remaining seventy-five (75) percent of the individual roof section contains a cool roof;
- e. An individual roof section containing less than twenty-five (25) percent of roofing materials;
  or
  - f. Visible roofs for no more than ten (10) percent of the total roof area.
  - (3) Subsection 10-302(a)(2) shall Subsection 11.5-20 (a) (2) does not apply to the following:
  - a. Residential buildings five (5) stories or fewer, or less than sixty-two and one-half (62.5) feet in height and with twenty-five thousand (25,000) square feet or more of gross floor area;
  - b. A building that must replace its roof due to an emergency, including, but not limited to, fire or wind damage to be determined by the building official;
  - c. A building that must replace its roof due to hail damage in the first year November 2, 2018, when the building owner can demonstrate a gap in insurance coverage. Such gap exists where the building owner has insurance coverage that includes the cost of meeting any new code requirements, but had a cost limit on that coverage that is insufficient to meet the additional costs of this ordinance, and the insurance policy is not yet due for renewal; or
  - d. A building that contained a vegetative roof prior to before January 1, 2018, so long as the vegetative roof is replaced upon any roof replacement.
  - (e) Compliance with new building requirements. Any owner who submits a building permit for a roof replacement or construction including roof replacement, and has complied with subsection section 10-302(a) section 11.5-20 (a), does not have to comply with the requirements of section 10-302(a) section 11.5-20 (a), but shall maintain compliance with the selected option from section 10-302(a)(2) section 11.5-20 (a) (2) or demonstrate compliance with another option from section 10-302(a)(2) section 11.5-20 (a) (2) upon completion of any roof replacement which must be submitted

and approved by the building official.

- (f) Character defining roof. When a proposed or existing roof is determined to be a character defining roof, the building official may allow roof materials that do not meet the requirements for a cool roof.
- (g) Roof recover. Any owner proposing a roof recover of more than five (5) percent of either the total roof area or individual roof section in any calendar year, and whose building contains 25,000 square feet or greater of gross floor area must comply with section 10-302(a)(1) section 11.5-20 (a) (1) for that portion of roof being recovered, but need not comply with the requirements of section 10-302(a)(2) section 11.5-20 (a) (2). When an analysis of any individual roof section prior to a roof recover determines that application of a cool roof will result in condensation, then an owner may choose not to provide a cool roof.
- (h) Continuing compliance. An owner of a building subject to the requirements of section 10-302(a) section 11.5-20 (a) must provide a cool roof and one (1) of the options of section 10-302(a)(2) section 11.5-20 (a) (2) for the duration of the building's existence.

#### Sec. 11.5-21. - Additions.

- (a) Large additions. Any owner proposing an addition of fifty thousand (50,000) square feet of gross floor area or greater to a building shall comply with section 10-301 section 11.5-19 for that addition.
- (b) *Small additions.* Any owner proposing an addition of twenty-five (25,000) or more and less than fifty thousand (50,000) square feet of gross floor area to a building shall provide a cool roof, as applicable, and comply with any of the following:
- (1) Any of the requirements of section 10-302(a)(2)a-c section 11.5-20 (a) (2) a-c for that addition;
  - (2) The requirements of section 10-302(b) section 11.5-20 (b) for that addition; or
- (3) Estimated energy cost savings of at least four (4) percent above requirements in the Denver Building and Fire Code for that addition.

## Sec. 11.5-22. - Energy Program.

- (a) *Purpose.* The purpose of this section is to establish an energy program that provides an owner various options designed to reduce cumulative emissions city-wide in an amount equivalent to section 10-302(a)(2)(b) section 11.5-20 (a) (2) b.
- (b) Applicability. An owner subject to the requirements of section 10-302(a) section 11.5-20

  (a) may enroll in the energy program at or before the time of roof replacement.
- (c) *Options.* The requirements of the energy program shall provide for compliance options, including, but not limited to, the following: building certification; on-site solar panels; off-site renewable

energy purchase; energy efficiency improvements; reductions in energy use intensity; and differentiation of requirements for buildings over and under fifty thousand (50,000) square feet of gross floor area.

# Sec. 11.5-23. - Campus compliance with green building requirements.

- (a) Compliance. Owners of buildings within a campus may comply with the green building requirements of sections 10-301(a)(2)a, b, or f, and 10-302(a)(2)a or b, sections 11.5-19 (a)(2)a, b, or f, and 11.5-20 (a)(2)a or b, through application of the requirements at a campus-wide level instead of complying with each individual building in the campus or each zone lot. Owners of buildings within a campus must comply with any applicable cool roof requirements for each individual building within a campus.
- (b) *Documentation.* CPD shall require owners who choose to comply at the campus level to submit a plan documenting compliance with section 10-301(a) or section 10-302(a). section 11.5-19 (a) or section 11.5-20 (a). Such plan may include, but is not limited to, a general development plan (or successor type of plan), infrastructure master plan, site development plan, or development agreement. A site development plan will be required for any new buildings or green space.
- (c) Energy master plan. Owners choosing to comply with section 10-301(a)(2)b or f or section 10-302(a)(2)b section 11.5-19 (a)(2)b or f or section 11.5-20 (a)(2)b must submit an energy master plan to CPD.

# Sec. 11.5-24. - Authority to adopt rules and regulations.

The executive director of CPD and the board of public health and environment shall have the authority to adopt cooperatively rules and regulations for the implementation and administration of this article XIII article III.

#### Sec. 11.5-25. - Enforcement.

- (a) It shall be unlawful to violate any provision of this article XIII article III, or any rules and regulations adopted pursuant to this article XIII article III.
- (b) The executive directors of CPD and the DDPHE, or their designees, have the office of climate action, sustainability, and resiliency have the authority to enforce the provisions of article XIII article III.
- (c) This article applies to all agents, successors and assigns of an owner. A building permit shall not be issued, and a site development plan shall not be approved unless the owner meets the requirements of this article and rules and regulations adopted under this article. The building official may deny, suspend or revoke any building or occupancy permit for a site when he/she finds a violation of article XIII article III or adopted rules and regulations.
  - (d) CPD and the DDPHE the office of climate action, sustainability, and resiliency are

- authorized to issue notices or orders for violations of this article. Any person who violates any provision of this article XIII article III, including any rules and regulations adopted under this article, shall be subject to a civil penalty in an amount up to fifty dollars (\$50.00) times sixty (60) percent of the total roof area, to be deposited into the green building fund, defined below.
- (e) In the event an owner subject to the civil penalty above fails to pay the required amount within one hundred eighty (180) days, the civil penalty shall be considered a debt to the city until paid in full. This debt shall be a perpetual lien on the property, and shall be superior and prior to all other liens, regardless of their dates of recordation, except for liens for general taxes and prior special assessments, until the civil penalty owed, delinquent interest, and recording fees have been paid in full. In addition to the remedies set forth in this section, an action or other process provided by law may be maintained by the city to recover or collect any amounts, including interest, owing under this section. Interest shall be calculated in the same manner and same amount as delinquent property taxes. The executive director of the department of public health and environment shall office of climate action, sustainability, and resiliency must record the lien with the clerk and recorder.
- (f) In addition to any other available remedy, the executive director of community planning and development or the executive director of the department of public health and environment may take legal action to require an owner to construct a cool roof upon discovery of any unpermitted roof recover or replacement.

## Sec. 11.5-26. - Appeals.

- (a) Any person aggrieved by a denial, suspension, or revocation of a building permit or occupancy permit, or a determination of the applicability of this article, may appeal to the board of appeals; however, the board of appeals is not authorized to grant variances to the requirements of this article.
- (b) Any person aggrieved by a final administrative action or decision by the executive director of CPD or DDPHE the office of climate action, sustainability, and resiliency concerning issuance of a civil penalty as allowed in section 10-307(d) section 11.5-25 (d), may appeal in accordance with the process described in Article I, Section 24, D.R.M.C., except that no request for a variance shall be granted by the board of public health and environment. The decision of the board of public health and environment may be appealed to district court in accordance with the Colorado Rules of Civil Procedure Rule 106(a)(4).

## **DIVISION 2. - GREEN BUILDING TECHNICAL ADVISORY COMMITTEE**

## Sec. 11.5-27. - Creation and composition - terms - officers.

- (a) Creation and composition. There is hereby created a green building technical advisory committee. The committee shall consist of thirteen (13) members, all appointed by the mayor, except for the members in subsection (1) below, as follows:
- (1) A representative from the department of community planning and development's building permitting and inspections services agency, a representative from the department of community planning and development department's landmark preservation staff, a representative from the department of public health and environment the office of climate action, sustainability, and resiliency, and a representative from the department of public works, each of whom shall be are appointed by their respective executive directors;
  - (2) Representative(s) of the design sector;
  - (3) Representative(s) of material and component manufacturers and suppliers sector;
  - (4) Representative(s) of the construction sector;
- (5) Representative(s) of the research sector including, but not limited to, persons involved in green roof research and testing, water quality/capture research and testing or building energy efficiency in a professional academic institution, school of engineering or architecture;
  - (6) Representative(s) of the green roof industry sector;
  - (7) Representative(s) of the renewable energy industry sector;
  - (8) Representative(s) of the energy efficiency industry sector; and
  - (9) Water quality/capture requirements expert(s).
  - (b) Terms.

- (1) Committee members shall serve for a period of three (3) years, with terms to be staggered by initially appointing three of the mayoral appointed members for three-year terms, another three of the mayoral appointed members for two years, and the remaining mayoral appointees for one year. Initial terms shall be set by the mayor.
  - (2) Committee members may be re-appointed for successive terms.
- (3) The committee members from subsection (a)(1) above shall not be subject to the term requirements of this subsection (b).
- (c) Officers. The mayor shall appoint a chairperson among the committee members to preside over the committee for a three (3) year term.

#### Sec. 11.5-28. - Meetings.

The committee shall meet at the call of the executive directors of CPD or DDPHE, or their designees the office of climate action, sustainability, and resiliency, and the meeting shall consider the matters set out in an agenda prepared by the executive directors, or their designees.

# Sec. 11.5-29. - Powers and duties

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The general purpose of the committee is to render advice and recommendations to the executive directors of CPD or DDPHE the office of climate action, sustainability, and resiliency regarding green building standards. The specific powers and duties of the committee shall be:

- (a) Reviewing technical issues relating to the implementation of vegetative roof construction standard contained in the rules and regulations;
  - (b) Considering possible amendments to any vegetative roof construction standards;
- (c) Reviewing the consistency of the vegetative roof standards with objectives in the Denver Building and Fire Code;
  - (d) Periodically reviewing rules and regulations;
  - (e) Reviewing annual reports of the energy program; and
- (f) Reviewing projects that request to use an equivalent certification program as allowed in section 10-301(a)(2)e or 10-302(a)(2)c, section 11.5-19 (a)(2)e or 11.5-20 (a)(2)c and making a recommendation to the building official.

# Sec. 11.5-30. - Staffing and administrative support.

Staffing and administrative support for the committee shall be provided by CPD.

### **DIVISION 3. - FEES**

## Sec. 11.5-31. - Green building fund.

- (a) Dedicated revenues. The green building fund is created for the exclusive purpose of receiving and accounting for all revenues derived from the payments of amounts for required, but not provided, green space in this article XIII article III.
- (b) Permitted uses of revenue in the green building fund. Revenue received in the green building fund shall be used exclusively for the following purposes:
  - (1) For the acquisition of green space within the city;
  - (2) For improvements to existing green space;
  - (3) For water quality improvements and green infrastructure;
  - (4) For urban forest protection and expansion;
    - (5) For green roof creation; and
- 31 (6) For solar adoption and energy efficiency projects in areas of low-income and affordable 32 housing populations.
- 33 (c) Cap on administrative costs. Monies in the green building fund may be expended to pay

- the costs incurred by the city associated directly with the administration of this fund; provided, however, in no event shall the amount expended from the green building fund for such administrative expenses in any year exceed five (5) percent of the amount of revenue received in that year.
- (d) Fund earnings. Any interest on any balance in the green building fund shall accrue to this fund.
- (e) Administration of fund. The green building fund shall be administered by the executive director of the department of public health and environment the office of climate action, sustainability, and resiliency, or its successor city agency or department. The executive director may promulgate rules and regulations consistent with this article XIII governing the procedures and requirements for expenditures from the funds.
- (f) Review of fund. The department of public health and environment shall conduct a policy review of the fund created in this article XIII article III, hold a public hearing to gather input for the review, and report the findings and any recommendations to the city council. The first public hearing shall be held no later than March of 2020, and subsequent public hearings and reviews of the fund shall occur every two (2) years after this date.
  - (g) Annual inflation adjustment.
- (1) On July 1, 2020, and on each July 1 thereafter, the fees set forth in sections 10-301(b) and 10-302(b) sections 11.5-19 (b) and 11.5-20 (b) shall be adjusted in an amount equal to the percentage change from the previous year in the Mortenson Construction Cost Index for the Denver metro area. The adjustments will be reflected in a fee schedule issued by the executive director of CPD and made publicly available in advance of the fees becoming effective. The annual inflation adjustment shall apply to any building permit on or after January of the year in which the adjustment is made, regardless of when the application for the building permit was made.
- (2) In the event that the Mortenson Construction Cost Index is substantially changed, renamed, or abandoned, then in its place shall be substituted an index that resembles the Mortenson Construction Cost Index, to be determined by the executive director of CPD.

#### **DIVISON 4. - EVALUATION**

#### Sec. 11.5-32. - Evaluation of article.

Every twelve (12) months, CPD and DDPHE the office of climate action, sustainability, and resiliency shall prepare a written report of the activities related to, and an assessment of outcomes of, this article, and report their findings and any recommendations to the city council.

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2	COMMITTEE APPROVAL DATE: August 13, 2019	
3	MAYOR-COUNCIL DATE: N/A	
4	PASSED BY THE COUNCIL	
5		PRESIDENT
6	APPROVED:	MAYOR
7 8 9 10		CLERK AND RECORDER, EX-OFFICIO CLERK OF THE CITY AND COUNTY OF DENVER
11	NOTICE PUBLISHED IN THE DAILY JOURNAL	
12		
13	PREPARED BY: Troy Bratton, Deputy Legislative Co	ounsel DATE: August 14, 2019
14		
15 16 17 18 19	Pursuant to section 13-12, D.R.M.C., this proposed ordinance has been reviewed by the office of the City Attorney. We find no irregularity as to form and have no legal objection to the proposed ordinance. The proposed ordinance <b>is not</b> submitted to the City Council for approval pursuant to § 3.2.6 of the Charter.	
20	Kristin M. Bronson, Denver City Attorney	
21	BY: Kuoten J Country Attorney	DATE: Aug 14, 2019
22		
23		
24		