

## **CLIMATE, BUILDINGS, and INFRASTRUCTURE**

- 1. Comprehensive Energy Strategy – Achieving GHG reductions consistent with the Global Warming Solutions Act.** DEEP shall include in its next Comprehensive Energy Strategy developed pursuant to Section 16a-3d of the Connecticut General Statutes, an identification of strategies to provide for more affordable heating and cooling for Connecticut residents and businesses, achieve reductions in greenhouse gas emissions from residential and commercial buildings and industrial processes as needed to enable the state to meet the economy-wide greenhouse gas reduction target for 2030 and 2050 required by the Global Warming Solutions Act, and to identify strategies to improve the resilience of the state’s energy sector to extreme weather events, fuel commodity price spikes, and other disruptions.
  
- 2. Energy efficient and climate resilient building codes.**
  - A. Governor Malloy’s EO53, issued April 22, 2016, is repealed and superseded in its entirety by this order.
  - B. The State Building Inspector shall prepare and present to the Codes and Standards Committee for adoption pursuant to Section 29-252 of the Connecticut General Statutes by October 1, 2022 the most recent International Building Code, International Existing Building Code, International Plumbing Code, International Mechanical Code, International Energy Conservation Code and International Residential Code of the International Code Council, Inc. and the NFPA 70 National Electrical Code of the National Fire Protection Association Inc., or their successor codes.
  - C. The State Building Inspector shall develop a plan to incorporate the reduction of greenhouse gas emissions as a core consideration when adopting the State Building Code given the health implications of continued greenhouse gas emissions.
  - D. During the State Building Code amendment process, the State Building Inspector and the Codes and Standards Committee shall:
    - i. consider changes needed to increase the resilience of structures to flood and wind hazards and impacts of climate change reasonably expected during the lifespan of the structure, including as applicable a sea level change scenario of up to 0.5 m (1 foot 8 inches) of sea level rise over the national tidal datum of Long Island Sound by 2050 adopted under subsection (b) of Section 25-68o of the Connecticut General Statutes and projected climate impacts by 2050 included in the January 2021 report of the GC3;
    - ii. solicit testimony from members of the GC3 and other experts regarding resilience to assist the Committee in its development of the State Building Code;
    - iii. consider resiliency standards based on best available science such as the Insurance Institute of Business & Home Safety’s FORTIFIED standards, including those endorsed, promulgated, or otherwise supported by the United States Department of Energy, Federal Emergency Management Agency (“FEMA”) and other federal agencies.

- E. DAS shall, pursuant to Section 29-251c of the Connecticut General Statutes, incorporate into existing training and educational programs for code officials and candidates, information and standards relating to construction techniques that maximize energy efficiency and minimize greenhouse gas emissions and provide improved resilience to flood and wind hazards, including the impacts of climate change.
  - F. In appointing members to the Codes and Standards Committee pursuant to Section 29-251 of the Connecticut General Statutes, DAS shall continue to recruit and appoint individuals who have training or certification in energy efficiency or construction techniques that minimize greenhouse gas emissions or increase resilience to natural hazards and the impacts of climate change.
  - G. DEEP, in consultation with DAS, shall recommend the adoption of the most current edition of the International Green Construction Code as its High Performance Building Standards as the nationally recognized model for sustainable construction codes to be adopted by reference pursuant to section 16a-38k of the Connecticut General Statutes.
- 3. Strengthening interim targets for GreenerGov CT Lead By Example.** The state shall commit to implementing the following interim targets in order to meet the state government 45% GHG emissions reduction by 2030 goal under EO1:
- A. By 2024, all executive branch agency facilities, to the extent practicable, shall implement an organics and food waste diversion program.
  - B. By 2030, all electricity purchased and generated by the Executive Branch will be 100% zero carbon.
  - C. By 2030, all newly leased light duty state vehicles shall be zero emission vehicles.
  - D. By 2023, DEEP and DAS shall develop a plan to retrofit existing fossil fuel-based heating and cooling systems at state buildings to systems capable of being operated without carbon emitting fuels.
  - E. By 2023, DEEP and DAS shall develop a plan and a budget to achieve zero-GHG emissions for all new construction and major renovations funded by the state or in facilities owned/operated by the Executive Branch, targeting construction beginning in fiscal year 2024 and after.
  - F. By 2024, the state shall divest 1% of all Executive Branch building square footage, and an additional 2% by 2028.
  - G. The state shall deploy an average of 10,000 kWDC of new solar capacity annually for the next 10 years, primarily sited new projects sited on state buildings or property.
  - H. The state shall commit to reducing executive branch building GHG emissions by at least 1% annually.
- 4. Appliance standards.** DEEP shall promulgate regulations for increased and additional appliance and product efficiency standards, pursuant to Section 16a-48 of the Connecticut General Statutes, to promote energy conservation and efficiency, provided that the subject appliances remain cost-effective for consumers who purchase and use them. New product categories or updates to existing product standards shall be selected based on the following criteria for each product category:

- A. there is an existing EPA ENERGY STAR standard or other state standard;
  - B. there is an existing test procedure;
  - C. there are multiple manufacturers producing at that standard;
  - D. sufficient data for measurement and verification exists; and
  - E. products manufactured to the standard are cost-effective for consumers.
- 5. Resilient state buildings.** All buildings designed and constructed with state funding for the use by a state agency shall, to the extent feasible and in consideration of the Insurance Institute of Business & Home Safety’s FORTIFIED standards and in accordance with advice from DAS pursuant to Section 4b-54 of the Connecticut General Statutes, be capable of withstanding wind and flood risks reasonably expected during the lifespan of the structure.
- 6. Solar arrays on DAS and Department of Transportation (“DOT”) state properties.** DAS and DOT shall, to the extent feasible and pursuant to, as applicable, Sections 4b-30, 4b-35, 4b-38, 13a-80, or 13a-80a of the Connecticut General Statutes, use their property, facilities, and rights-of-way to construct or provide for the hosting of solar power arrays. By the end of 2023, each state agency shall, in consultation with DEEP, analyze appropriate locations for solar arrays consistent with the factors set forth in section 16a-4e of the Connecticut General Statutes.

## CLEAN TRANSPORTATION

- 7. Statewide battery electric bus fleet by 2035.** The DOT shall cease purchasing or providing state funding to third parties for the purchase of diesel buses by the end of 2023. DOT shall create an implementation plan which identifies any barriers to full bus fleet electrification.
- 8. 2030 vehicle miles traveled reduction target.** DOT shall set a 2030 vehicle miles traveled reduction target and develop a plan of investments to contribute to and encourage the achievement of such targeted reductions.

## COMMUNITY CLIMATE RESILIENCE

- 9. Connecticut Community Climate Resilience Program.** DEEP shall establish a Connecticut Community Climate Resilience program, to provide funds in accordance with Section 16-243y of the Connecticut General Statutes for climate adaptation and resilience planning and project development. Funding for this program should be allocated to ensure that at least 40% of resources for municipalities are targeted to municipalities where vulnerable populations, as defined in Section 16-243y, reside and where plans are developed specifically to address the needs of identified vulnerable populations.
- A. The program may be funded by grant or loan funds provided pursuant to Section 16-243y and associated authorized bond funds pursuant to Public Act 21-111 or as may otherwise be authorized by the General Assembly.
  - B. Funding under this program shall be prioritized for project planning and design purposes, but may also be made available for construction.

- C. Funding shall be made available for design of nature-based solutions (which for purposes of this order shall include but not be limited to green infrastructure as defined by the Clean Water Act (33 U.S.C. §1362(27)), natural infrastructure and nature-based infrastructure as defined by the National Oceanic and Atmospheric Administration (“NOAA”) in NAO 216-117, nature-based solutions as promulgated by FEMA in their Building Resilient Infrastructure in Communities program, and climate-smart agriculture and forestry strategies as promulgated by the U.S. Department of Agriculture (“USDA”) and for flood prevention, climate resilience and erosion control systems as defined by Public Act 21-115, gray infrastructure, and non-structural, project solutions.
- D. Projects shall, where feasible, be integrated into relevant state and local plans that ensure they are eligible for implementation through existing and new funding programs, in consultation with other mitigation and resilience partners and/or programs.

**10. Community resilience engagement and technical assistance.** DEEP shall work in cooperation with its partners, including the University of Connecticut, to advance community engagement and provide technical assistance to municipalities and Councils of Governments on implementing climate resilience actions across the state, including:

- A. providing assistance to municipalities with the creation, utilization, and operation of stormwater authorities and municipal flood prevention, climate resilience and erosion control boards pursuant to Public Act 21-115;
- B. prioritizing assistance to vulnerable populations;
- C. addressing both short-term and long-term impacts of climate change;
- D. integrating all relevant planning documents; and
- E. facilitating dialogue among vulnerable populations, state, regional and local stakeholders.

**11. State Vulnerability Assessment of state government assets and operations and climate resilience project pipeline.** The Secretary of OPM, the Commissioner of DAS, and the Commissioner of DEEP, through the interagency Steering Committee on State Sustainability established by EO1 and in cooperation with the Commissioner of the Department of Emergency Services and Public Protection (“DESPP”), shall conduct a State Vulnerability Assessment to assess the vulnerability of State government assets and operations to the impacts of climate change as described in the January 2021 GC3 report.

- A. Such Assessment may be funded by grant or loan funds provided pursuant to Section 16-243y of the Connecticut General Statutes and associated authorized bond funds pursuant to Public Act 21-111 or as may otherwise be authorized by the General Assembly.
- B. Such Assessment shall include an update of the statewide inventory of real property, including critical facilities and buildings and where vulnerable populations reside.
- C. Such Assessment shall include an evaluation of vulnerability to the loss in operations of public and private utility facilities critical to maintaining and restoring normal services to the state government.

- D. Such Assessment shall include, in consultation with each state agency, a list of priority assets and infrastructure for climate resilience projects for each state agency.
- E. Upon completion of the assessment, each state agency shall (1) as appropriate, incorporate the findings thereof into such state agency’s planning processes and (2) transmit the findings to DESPP, which shall include these findings, as appropriate, in the next update to the State Natural Hazard Mitigation plan.

**12. Resilient stormwater and drainage Systems.**

- A. DEEP shall update the design criteria for stormwater management systems in accordance with NOAA Atlas 14.
- B. DOT shall establish a culvert program with criteria to identify state-owned culverts in need of repair or replacement and develop a prioritized list to guide applications for competitive grant funding.

**13. Resilient critical facilities.** DESPP, in consultation with DEEP, DAS, OPM, and other appropriate partners shall maintain lists of state and local critical facilities, including but not limited to: all facilities deemed critical by the local, state, or federal governments; wastewater treatment plants; power generation facilities; data storage facilities; emergency shelters; and police and fire facilities. All state agencies and all state quasi-public agencies shall consider such lists in their capital and climate resilience planning and shall give special consideration in such planning to all such facilities located in a floodplain or a flood-prone area.

**CLIMATE, HEALTH, EQUITY & ENVIRONMENTAL JUSTICE**

**14. Community air quality monitoring.** DEEP, in consultation with DPH, shall develop a community-based air quality monitoring program, within available resources, to collect localized air quality data; increase access and transparency to air quality data; and inform citizens of the action steps they can take to reduce personal exposure and improve public health. Such data may also inform the development of local and state regulatory and mitigation activities that can reduce GHG emissions and improve localized air quality.

**15. Assess the need to adopt California Medium and Heavy-Duty (“MHD”) vehicle emissions standards.** DEEP shall assess the need to adopt the California Air Resources Board (“CARB”) standards for MHD vehicles as part of the state’s efforts to meet air quality and climate change goals. DEEP shall develop and publish the assessment no later than January 31, 2022. At the conclusion of the assessment process, DEEP shall determine if adoption of the CARB standards is necessary to attain health-based air quality standards and necessary to meet statutorily required emission reduction targets under the GWSA.

**16. DPH Office of Climate and Public Health.** DPH shall establish an Office of Climate and Public Health (“OCPH”) to address the intersection of climate change and health equity. The OCPH may:

- A. use the social vulnerability index (“SVI”) in climate change planning for vulnerable populations, including for use in targeting resources;

- B. establish guidance and policies, including recommending revisions to statutes and regulations, to reduce illness and death among Connecticut’s residents from climate-related disease and exposures with health equity as a consistent focus;
- C. implement actions identified in the Public Health & Safety section of the GC3 January 2021 report, including addressing extreme heat, urban heat islands, extreme weather, air quality, vector-borne diseases, resilient public and private drinking water systems and sources, water-related illnesses, food security, and needs of mental health populations in disaster response and recovery;
- D. develop plans to assist residents in high SVI locations for climate control in dwellings that are not equipped to mitigate sudden temperature change and other sudden extreme weather events, including planning for adequate shelters for warming and cooling while permanent mitigation plans are developed and implemented;
- E. apply lessons learned from the ongoing COVID19 pandemic response and recovery to address the impacts of climate change and recognize the underlying health disparities that contribute to vulnerability to climate change and COVID19;
- F. provide training and education for DPH staff and public health stakeholders on climate and incorporate climate change preparedness strategies into public health education;
- G. convene and form partnerships with climate and health stakeholders, including universities and non-profits focused on health and equity and the private sector; and
- H. The OCPH shall coordinate efforts to implement the above charge drawing upon the expertise within DPH and across state agencies.

**17. Connecticut Equity and Environmental Justice Advisory Council.** There is established within DEEP the Connecticut Equity and Environmental Justice Advisory Council (“CEEJAC”).

- A. The purpose and mission of the CEEJAC shall be to advise the Commissioner of DEEP on current and historic environmental injustice, pollution reduction, energy equity, climate change mitigation and resiliency, health disparities, and racial inequity, including but not limited to the following:
  - i. integrating environmental justice considerations into the programs, policies, and activities of DEEP to improve the health and environment of Environmental Justice Communities, in key areas including, but not limited to, (1) rulemaking, (2) permitting standards and processes, (3) compliance and enforcement, (4) science and data, and (5) equitable program delivery;
  - ii. providing mechanisms for Environmental Justice Communities to have a meaningful opportunity to participate in any decision to allow in such communities certain types of facilities which, by the nature of their activity, have the potential to increase environmental and public health stressors and where appropriate, to limit the further placement and expansion of such facilities in these communities;
  - iii. developing a model plan for community engagement and stakeholder outreach centered around meaningful participation; and

- iv. strengthening DEEP's partnerships with other governmental agencies, other states, tribal, local governments, and community leaders and organizations regarding environmental justice issues.
- B. The CEEJAC shall consist of the Commissioner of DEEP and the following members appointed by the Commissioner of DEEP:
- i. three (3) representatives of Environmental Justice Communities, which for purposes of this order shall be defined as members of communities of color, members or representatives of low-income communities, representatives of community-based organizations, or academics with knowledge about or experience in environmental justice, climate change, racial inequity, or any other area determined by the Commissioner to be of value to the CEEJAC;
  - ii. three (3) representatives of Connecticut-based environmental advocacy organizations;
  - iii. two (2) representatives of large and small business and industry;
  - iv. two (2) representatives from municipalities or regional Councils of Government established pursuant to Chapter 127 of the Connecticut General Statutes;
  - v. a representative from DPH;
  - vi. a representative from the Department of Economic and Community Development (“DECD”);
  - vii. a representative from the Department of Housing (“DOH”); and
  - viii. a representative from DOT.
- C. The Commissioner of DEEP shall appoint additional members to the CEEJAC as needed in furtherance of the purpose of the CEEJAC.
- D. The Commissioner of DEEP, and a representative of an Environmental Justice Community who is not a state agency employee, shall co-chair the CEEJAC. Membership on the CEEJAC for each representative who is an agency head shall run concurrent with their service as agency head. Each member of the CEEJAC who is not a public official shall serve a term of two years or until his or her successor is appointed. A member appointed to fill a vacancy shall serve the remainder of the term of the member they succeeded. The co-chairs shall convene the first meeting of the CEEJAC not later than three (3) months after the effective date of this section, with subsequent meetings occurring at least once per month thereafter.
- E. The Commissioner of DEEP may establish subcommittees or working groups of the CEEJAC to address specific topics, and such subcommittees and working groups may include participants who are not members of the CEEJAC.
- F. Staffing for the CEEJAC shall be performed, insofar as practicable, by DEEP personnel. The CEEJAC may request and shall receive from any state agency such assistance and data as will enable it to properly carry out its activities hereunder and effectuate the purposes set forth herein, within available resources.

## **CLIMATE, JOBS and ECONOMIC DEVELOPMENT**

### **18. Connecticut Clean Economy Council**

- A. There is established a Connecticut Clean Economy Council (“CCEC”) that shall advise on strategies and policies to strengthen our climate mitigation, clean energy, resilience, and sustainability programs, thereby lowering emissions and advancing the state of economic and environmental justice for our residents.
- B. The CCEC shall:
  - i. meet at least quarterly, at dates, times, and locations to be established by the co-chairpersons;
  - ii. identify opportunities to leverage state and federal funding to scale economic opportunities associated with clean energy, climate, and sustainability investments; and maximize local economic development benefits from investments needed to meet climate and sustainability goals;
  - iii. ensure Connecticut’s workforce is trained to deliver climate and sustainability solutions;
  - iv. support equitable and diverse participation in climate and sustainability economic development opportunities from both diverse employers and diverse job seekers; and
  - v. form working groups to address workforce development in specific sectors within the fields of clean energy and sustainability.
- C. The CCEC shall be comprised of the following people:
  - i. the Commissioner of DECD, or the Commissioner’s designee, who shall also serve as co-chairperson;
  - ii. the Commissioner of DEEP, or the Commissioner’s designee, who shall also serve as co-chairperson;
  - iii. the Secretary of OPM, or the Secretary’s designee;
  - iv. the Commissioner of DOT, or the Commissioner’s designee;
  - v. the Commissioner of the Office of Workforce Strategy, or the Commissioner’s designee;
  - vi. a representative from the Office of the Governor;
  - vii. the Chief Executive Officer of the Connecticut Green Bank, or the Chief Executive Officer’s designee;
  - viii. the Chief Executive Officer of Connecticut Innovations, or the Chief Executive Officer’s designee; and
  - ix. any other member so designated by the co-chairpersons.
- D. Membership on this Council for the heads of state agencies or quasi-public agencies shall run concurrently with their service as agency heads. Other members of the CCEC shall serve at the pleasure of the co-chairpersons.
- E. A majority of the members of the CCEC shall constitute a quorum.
- F. The CCEC shall report its findings and recommendations to the Governor, OPM, and the joint standing committees of the General Assembly having cognizance of matters relating to energy and commerce in accordance with Connecticut General Statutes by November 1, 2022, and annually thereafter.

**19. Climate resilient economic development.** DECD shall evaluate whether a project enhances community climate resilience or assists a community with adapting to the impacts of climate change as part of its considerations when determining which projects will



receive funding under the Municipal Brownfield Grant Program and the Connecticut Communities Challenge grants in the current and subsequent rounds.

- A. DECD shall give additional consideration to projects submitted for funding through the above programs that were planned and/or designed under the Connecticut Community Climate Resilience Program created pursuant to Section 9 of this order.

## **CLIMATE and NATURAL & WORKING LANDS**

**20. Forest climate resilience and mitigation potential.** DEEP shall engage with stakeholders to evaluate the feasibility, needed resources, and associated programs to ensure the resilience of Connecticut’s forests to a changing climate and to maximize our forested lands’ mitigation potential through carbon storage and sequestration.

- A. Consideration shall be given to the following actions as part of the stakeholder process: avoid forest conversion; conserve healthy, intact, and resilient forests; offset all planned or permitted forest losses; provide incentives for stewardship, forest retention, and forest resiliency; protect urban forests; build more parks; and plant more trees.
- B. DEEP shall evaluate the feasibility and reliability of monitoring and reporting on negative carbon emissions from Connecticut’s forests as part of the greenhouse gas inventory report required by the GWSA.

**21. Agriculture climate resilience and mitigation potential.** The Department of Agriculture shall engage with stakeholders to evaluate the feasibility, needed resources, and associated programs to ensure the resilience of Connecticut’s working lands and soils to a changing climate and to maximize mitigation potential through carbon storage and sequestration. This stakeholder engagement shall include, but is not limited to the following actions:

- A. Accelerate and streamline the process to protect working lands with a goal of closing on properties within two years and doubling the number of easements closed in four years. Evaluate program challenges needed to achieve these goals, while including equity, adaptation, mitigation, and resiliency elements.
- B. Enhance renewable energy and energy efficiency programs available to farms by identifying barriers, risk, and unexpected costs for farms seeking to implement on-farm energy projects.
- C. In partnership with state and federal agencies, improve soil health practices on working lands through technical assistance and training, education, and outreach, and leveraging of state and federal funding and programs.

**22. Climate resilience using nature-based solutions on state properties.** In order to improve the resilience of state properties to the impacts of climate change:

- A. DEEP and DAS shall develop guidance for state agencies on how to:
  - i. implement nature-based and/or nonstructural solutions to control flooding and erosion, improve water quality and manage stormwater on State properties;
  - ii. integrate consideration of coastal marsh migration in design and implementation of state projects, state-funded projects, and land acquisition in coastal areas to ensure continued ecosystem services from wetlands; and

- iii. employ techniques and materials for low impact development and design and green infrastructure for new state construction, redevelopment and state-funded construction or redevelopment to mitigate flooding and water quality degradation.
- B. All state agencies shall follow the above guidance in all capital project planning, to the extent feasible and consistent with other requirements, and report annually on the implementation of such efforts to the Steering Committee on State Sustainability established pursuant to EO1.
- C. All capital projects administered by state agencies shall, to the extent feasible and consistent with other requirements, be designed in conformity with the above guidance. Each administering agency shall annually report on compliance with such guidance to the Steering Committee on State Sustainability established pursuant to EO1.

## **GOVERNOR'S COUNCIL ON CLIMATE CHANGE**

**23. Continue Governor's Council on Climate Change.** Sections 4 and 5 of EO3, issued September 3, 2019, are amended to provide that the reports required therein shall be submitted by December 31, 2022 and on December 31 of each year thereafter.