

This document has been prepared as part of the implementation project of Legal Pathways to Deep Decarbonization (Michael B. Gerrard and John C. Dernbach, eds. Environmental Law Institute [2019]) (LPDD). For background information on the project, see <https://lpdd.org>

Executive Order No. _____ [State/City, etc.] of

AN EXECUTIVE ORDER DIRECTING [STATE/MUNICIPAL] DEPARTMENTS TO PURCHASE MINIMUM AMOUNT OF ENERGY PRODUCED VIA CARBON CAPTURE AND SEQUESTRATION AND OTHER CLEAN ENERGY

WHEREAS [*Name of Governmental Entity*] is committed to protecting public health, doing its part to reduce greenhouse gas emissions that endanger the public welfare of current and future generations, reducing fossil fuel consumption and promoting the use of clean energy in [*State/municipal*] operations; and

WHEREAS emissions from operation of buildings of state agencies and the state government increase air pollution in and around the [*State/City, etc.*] and thereby contribute to the incidence of respiratory and other diseases, with consequent impacts to public health and welfare; and

WHEREAS emissions from the buildings of state agencies and the state government in the [*State/City, etc.*] account for [*a substantial percentage*] [*approximately __percent*]¹ of greenhouse gas emissions in the [*State/City, etc.*], which are the primary driver of climate change; and

WHEREAS the Department of _____ or Agency named _____ (the “**Entity**”) is responsible for procuring [*state/municipal*] buildings and the fuel and electricity for maintaining the operation of such buildings; and²

WHEREAS the [*State/City, etc.*] devotes substantial resources to the operation and maintenance of the buildings of agencies, expending more than \$_____ in fuel and electricity costs and in maintenance costs devoted to keeping the [*State’s/City’s, etc.*] buildings running and in a state of good repair; and

WHEREAS carbon capture and sequestration (“**CCS**”) has been used commercially and deployed around the world, and it continues to be improved and explored as one of the most promising options to prevent carbon dioxide (CO₂) from being released from point sources into the atmosphere and to support the energy transition now underway; and

WHEREAS recognizing concerns that CCS technology may not alleviate harmful criteria or

¹ If the state/municipality has engaged in climate planning, it may know, and should insert, the percentage contribution of the state government in the use of agency buildings and the percentage contribution of the statement government generally.

² This paragraph (and subsequent paragraphs referring to the “Department”) will be tailored to meet circumstances of the particular jurisdiction (i.e., where multiple agencies are responsible for construction and maintenance of buildings).

hazardous air pollutants in certain circumstances; that burning additional fossil fuels needed to power the CCS process may lead to increased emissions of such harmful pollutants on-site; that CCS technology may increase the upstream impacts of fossil fuel production and refining in proportion to the additional energy consumed; and that development and deployment of CCS technology may raise environmental justice concerns which needed to be addressed;

WHEREAS the transition in state government buildings from the use of fossil fuel for heating (and other uses) to the use of clean energy, including electric energy from plants equipped with CCS technology, can be expected to reduce the amount of fossil fuel consumed in the operation of the state government and thus reduce the state's emission of greenhouse gases; and

WHEREAS the captured CO₂ can also be used for wide industrial use such as feedstock, combining it with hydrogen to create synthetic fuels and enhanced oil recovery, which makes CCS energy more financially viable and sustainable; and

WHEREAS widespread utilization of energy generated by CCS-equipped facilities has not occurred for several major reasons, including high cost of capturing and compressing CO₂ at power plants (which in part is due to the lack of economies of scale) and inadequate policy signals; and

WHEREAS it is in the public interest for the state government to incentivize actions for CO₂ emission reduction and increase investment in CCS and consumption of its generated electricity. As such, it is considered necessary to rely on a stable legal framework to prescribe the minimum consumption of CCS energy sources by municipal and state entities, to support large scale production of CCS energy, and eventually making it more affordable and attractive for widespread consumption across the public and private sectors.

THEREFORE, by the power vested in me as the [*Governor/Mayor*] of the [*State/City, etc.*] of _____, it is hereby ordered that:

1. The [*State/City entity*] shall prepare and implement a "Minimum CCS Energy Consumption Plan" (the "**Plan**") for mandating the minimum share of (i) CCS energy consumption by designated agencies and departments in government buildings, in accordance with the milestone dates set forth in the Section 2 herein below and (ii) more generally, the purchase for use of Clean Energy in accordance with the milestone dates set forth in Section 3 below.³
2. **Order 1:** The Plan shall direct agencies and departments to purchase a minimum amount of CCS energy for use in buildings according to a roadmap such that:
 - (a) at least 10 percent of the Total energy for use in Government buildings shall be CCS energy by January 1, 2030;

³ Where multiple agencies are responsible for procurement, this paragraph will be tailored by language such as "Each department shall prepare and implement a "*Minimum CCS Energy Consumption Plan*" for transforming the current government procurement to a procurement plan requiring a minimum amount of CCS energy in accordance with the milestone dates set forth in Section 2 hereinbelow." Subsequent paragraphs will be modified accordingly.

- (b) at least 25 percent of the Total energy for use in Government buildings shall be CCS energy by January 1, 2035; and
- (c) at least 50 percent of the Total energy for use in Government buildings shall be CCS energy by 2040.

The Plan shall include additional interim milestone goals set at the discretion of the [State/City entity] to ensure the targets as set out above are met. The minimum purchase amount of CCS energy under *Order 1* shall be subject to the availability of CCS energy to the [State/City entity].

3. **Order 2:** In addition to the minimum purchase of CCS energy specified in Order 1, the Plan shall direct agencies and departments to significantly raise the minimum total amount of Clean Energy to be purchased by the [State/City entity] for use in Government buildings by 2050. Specifically, at least 10 percent of the Total energy the [State/City entity] purchases for use in Government buildings shall be Clean Energy by no later than the year 2030, and at least 80 percent of the Total energy the [State/City entity] purchases for use in Government buildings shall be Clean Energy by no later than 2050. The Plan shall include additional interim milestone goals set at the discretion of the state government to ensure the targets as set out above are met.
4. For purposes of this Order:
 - (a) “**Clean Energy**” means electrical energy generated by marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and fossil-fueled plants operating CCS;
 - (b) “**CCS energy**” means electrical energy generation from fossil resources to the extent there is active capture and storage of CO₂ emissions that meets Environmental Protection Agency requirements.
 - (c) “**Government buildings**” means buildings, or a majority of the office space within a building being governmentally owned, rented or leased by the executive branch of State government or its direct or indirect contractors.
 - (d) “**Total energy**” means all energy generated by any means including electrical energy or thermal energy from fossil fuels.
5. The Plan required in Sections 2 and 3 shall be prepared by the state government or municipality in consultation with *[include the Energy Department, the Construction Department, the Department of Public Works, other affected agencies and the electric utility serving the area.]*⁴
 - (a) The Plan required in Sections 2 and 3 shall include, among other things in the state

⁴ This paragraph will be deleted where each department creates its own plan.

government's discretion:

- (i) a schedule of the procurement of CCS energy, which schedule shall meet or exceed the requirements of the Section 2;
- (ii) a draft model form power purchase agreement of CCS energy for the procurement;
- (iii) a "CCS spatial plan" that build upon and improve existing state and agencies and departments decision making and planning processes in determining zones that may be available for CCS. The term "CCS spatial plan" means a comprehensive, adaptive, integrated and transparent spatial planning process, based on sound science, for analyzing current and anticipated uses of land that are suitable for CCS. CCS spatial planning identifies areas most suitable for CCS in order to reduce conflicts among uses, reduce environmental impacts, facilitate compatible uses, and preserve critical ecosystem services to meet economic, environmental, security and social objectives. In practical terms, CCS spatial planning provides a public policy process for society to better determine how existing land are sustainably used and protected – now and for future generations;
- (iv) a process for the procurement of CCS energy, which process shall adhere to lawful procedures, and which may, in the Department's discretion, include participation in the collective procurement of CCS energy with other governmental entities;
- (v) provision for the establishment of specifications for the procurement of CCS energy that accounts for use in Government buildings;
- (vi) a plan that assures the procurement of CCS energy that meets the functional needs of the affected agencies and departments;
- (vii) a plan for promoting the usage of captured CO₂ in the private sector, such as encouraging the use of it for feedstock, combining it with hydrogen to create synthetic fuels and enhanced oil recovery;
- (viii) a schedule of the procurement of Clean Energy, which schedule shall meet or exceed the requirements of the Section 3;
- (ix) a draft model form power purchase agreement of Clean Energy for procurement;
- (x) a process for the procurement of Clean Energy, whose process shall adhere to lawful procedures, and which may, in the governmental entities' discretion, include participation in the collective procurement of Clean Energy with other governmental entities;

- (xi) provision for the establishment of specifications for the procurement of Clean Energy that accounts for use in buildings; and
 - (xii) a plan that assures the procurement of Clean Energy that meets the functional needs of the affected agencies.
- (b) The Plan also shall provide for the procurement of the infrastructure (if needed) to be acquired in accordance with such Plan.
 - (c) The Department shall consult with State or Federal officials to identify and secure such financial incentives as may be available to support the [City, Town etc.] in its implementation of the Plan.
 - (d) The Department shall also consult with electric utilities or companies in the energy sector to identify opportunities for CCS energy in conjunction with electric grid operation.
6. The Plan shall be completed by no later than _____ and shall be updated and adjusted as necessary on an [annual] basis. Such updates shall include a report addressing: (i) the progress made, and problems encountered, in achieving the goals set forth in the Sections 2 and 3, (ii) an assessment of the financial impacts of the Plan during the reporting period, taking into account, among other things in the discretion of the Department, fuel savings achieved in the use of CCS energy or Clean Energy, a monetization of related environmental and health improvements, any financial advantage that may have been secured, the costs incurred by the [State/City, etc.] in purchasing, leasing and operating the related necessary infrastructure, as well as outstanding costs incurred to the environmental and health impacts of CCS energy, and (iii) an assessment of the socio-ecological impacts of the Plan, including environmental justice considerations or concerns from environmental justice communities.
7. All department heads are directed to cooperate with the entity, including departments and agencies, in the implementation of this order.
8. This order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the [State/City, etc.] of _____, its agencies, departments, entities, officers, employees or any other person.
9. This order shall take effect immediately.

Dated the _____ day of _____, 2023

Governor/Mayor, [State/City, etc.] of _____