# STATE OF NEW YORK

5557

2017-2018 Regular Sessions

# IN SENATE

April 12, 2017

Introduced by Sen. LATIMER -- read twice and ordered printed, and when printed to be committed to the Committee on Environmental Conservation

AN ACT to amend the environmental conservation law and the community risk and resiliency act, in relation to establishing the New York state climate responsibility act

**The People of the State of New York, represented in Senate and Assembly, do enact as follows:**

Section 1. This act shall be known and may be cited as the "New York state climate responsibility act".

§ 2. Legislative findings. The legislature hereby finds and declares that:

1. Climate change threatens mankind and the planet. Its negative effects have already been felt in New York with abnormally high temperatures and extreme storms like Hurricane Sandy, which resulted in 65 billion dollars of damage. Future threats to the planet and the state include sea level rise, more frequent and extreme storms, flooding of coastal areas including New York City, heat waves, drought, loss of agricultural production, loss of species and ecosystems, and the increased spread of infectious diseases. These impacts threaten state, national, and world economies, endanger life and property, and jeopardize public health and safety. They also place increased strain on existing infrastructure, hinder the delivery of critical services, and foster political instability.

2. According to the Intergovernmental Panel on Climate Change and U.S. Global Change Research Program, substantial reductions in greenhouse gas emissions are required by mid-century to limit global warming to no more than 2 degrees Celsius and ideally to no more than 1.5 degrees Celsius compared to pre-industrial levels, and thus avoid the most severe impacts of climate change. Specifically, by 2050 industrialized countries must reduce their greenhouse gas emissions by at least 80 percent below 1990 levels to stay within 2 degrees Celsius. Tackling the climate

EXPLANATION--Matter in *italics* (underscored) is new; matter in brackets [-] is old law to be omitted.

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crisis requires attention to all greenhouse gases. This includes carbon dioxide produced during the combustion of fossil fuels, as well as methane from natural gas systems that leak or vent to the atmosphere. According to the Intergovernmental Panel on Climate Change, methane is 86 times more potent than carbon dioxide as a driver of climate change over a 20 year period.

3. Due to the state's continued dependence on fossil fuels, New York is not on track to meet its greenhouse gas reduction goals. Despite growth in wind and solar technology, expansion of electricity generation from natural gas, measured in watt-hours, continues to outpace renewables. Furthermore, fossil fuels continue to be the overwhelmingly dominant source of energy for end-user purposes, including transportation and heating.

4. In 2016, the New York state public service commission adopted a clean energy standard which seeks to ensure that 50 percent of the state's electricity comes from renewable sources by 2030. However, electricity generation is responsible for only about a quarter of New York's combustion emissions and, if fully implemented, the clean energy standard would reduce those emissions from the electricity sector by only about a quarter of what they are today. This fraction of a fraction represents a small piece of New York's carbon footprint. Furthermore, the clean energy standard program is based on an analysis of future demand that does not account for the necessary conversion of end-use systems. In order to meet statewide greenhouse gas reduction goals, most vehicles and other forms of transportation that burn fossil fuels today must be replaced with those that use electricity. Likewise, millions of heating systems that burn oil or gas will have to be replaced with high-efficiency electric heat pumps. Transportation and onsite uses like heating, together comprise approximately three-quarters of New York's carbon footprint from combustion, so the conversion of these systems will require far more electricity than anticipated by the clean energy standard, likely twice as much or more, to meet the state's "80 percent by 2050" goal. To date, no effort has been made to quantify or plan for this additional generation of electricity, which will also have to be carbon-free.

5. In order for New York to meet its greenhouse gas reduction goals, a comprehensive statewide strategy involving the dedicated support of state agencies, the governor, legislature, and private sector is essential--a "Marshall Plan" for climate action. Required is the synchronization of two very complex processes: (1) the scheduled phasing out of fossil fuel power plants and end-user systems, including vehicles, heating systems, and industrial equipment that burn fossil fuels; and (2) the scheduled siting, deployment, and installation of renewables, zero-emission end-user technology, and efficiency improvements at scale and on time to ensure that greenhouse gas reductions occur while meeting demand and maintaining services. Success requires a careful analysis of technological changes that must occur, including both energy supply and demand components, and the development of a timeline for key actions that must take place. Setting goals or emission limits without preparing this kind of plan will not bring about the comprehensive transformation required.

6. The New York state climate responsibility act is designed to ensure that state greenhouse gas reduction goals are achieved by establishing a climate action council, made up of relevant state agencies and experts. The primary purpose of the council is to prepare a comprehensive and coherent statewide greenhouse gas reduction plan to serve as the founda-

tion for the coordinated development of rules, regulations, programs, and policies by various agencies. A critical component of this is the planning and scheduling of key actions relating to the phasing out of fossil fuels, including natural gas, and phasing in of carbon-free alternatives. In addition, this act requires that the council prepare an annual status report and update the plan every four years. The intent of this act is to promote inter-agency cooperation and results-oriented action.

7. Actions of the council and its member agencies shall be based on adherence to greenhouse gas emission limits established by the department of environmental conservation in four-year intervals, and consistent with meeting greenhouse gas reduction targets for 2030 and 2050, as set forth in this act. Total statewide and sector-based emission limits shall be set for each type of greenhouse gas.

8. To measure progress accurately and provide for timely adjustments to policy, this act also requires that the department of environmental conservation prepare an annual report on total statewide greenhouse gas emissions. The department's report shall be a comprehensive inventory and assessment, using the best available science and informed by a variety of data on fuel consumption, emission rates from actual sources, peer-reviewed research, and field measurements as appropriate. Unbiased and consistent methodologies shall be used to ensure that findings are valid and reductions are real. The report shall also account for emissions associated with imported electricity. Production of a credible, up-to-date greenhouse gas emissions report is critical for New York to meet its climate goals.

9. Developing a plan to ensure that New York will deliver on its promises of dramatic and consistent greenhouse gas reduction over time will not only benefit the climate and set an example to the world of genuine climate leadership; it will have tremendous environmental, health, economic, and societal benefits.

10. Environmental justice communities are often harmed by the siting of energy infrastructure, with children and the elderly in those communities suffering the most. By phasing out fossil fuel power plants (large and small), pipelines, compressor stations, gas storage facilities, and equipment at industrial facilities that burn fossil fuels, this act particularly benefits environmental justice communities since exposure to the co-pollutants of greenhouse gas emissions would be eliminated. This act also specifically requires that the trading of greenhouse gas or pollutant allowances not disproportionately impact economically disadvantaged communities or communities of color, and it prioritizes measures to reduce co-pollutants in communities with greatest exposure. By focusing on the attainment of greenhouse gas reduction goals, this act seeks to protect all people, regardless of race, nationality, or socioeconomic status. Additionally, by dramatically cutting New York's demand for fossil fuels, this act can help to reduce adverse air and water quality impacts to communities in other states where hydraulic fracturing and other forms of fossil fuel extraction occur.

11. According to the World Health Organization, climate change is expected to cause approximately 250,000 deaths every year between 2030 and 2050, including 38,000 from heat exposure in elderly people, 48,000 from diarrhea, 60,000 from malaria, and 95,000 from childhood malnutrition. The National Institute of Environmental Health Sciences predicts that climate change will cause or exacerbate respiratory and cardiovascular diseases, heat-related morbidity and mortality, stress-related and neurological disorders, developmental delay, foodborne and waterborne

diseases, malnutrition, and disease from vectors or pathogens. The Mount Sinai School of Medicine found that the direct and indirect costs of environmentally mediated illness in New York state total $4.35 billion annually. By substantially reducing greenhouse gas emissions, New York can help to reduce the severity of these impacts, not only within the state, but globally.

12. The World Health Organization reports that three million people die prematurely every year from airborne pollution. A study by the Massachusetts Institute of Technology found that within the United States, 200,000 premature deaths occur from air pollution annually, 53,000 from vehicle emissions and 52,000 from power generation emissions. In New York City alone, pollution is responsible for 2,300 premature deaths, 4,800 emergency room visits for asthma, and 1,500 hospitalizations annually. In fact, in 2013, deaths from air pollution in New York City exceeded homicides by a factor of eight. Clearly eliminating fossil fuels that are responsible for air pollution, especially within urban areas, is one of the single-most effective ways of saving lives.

13. The economic benefits of achieving energy independence with renewables in New York, rather than relying on fossil fuels from out of state, are tremendous. According to a report published by the University of Massachusetts, for every million dollars spent on energy in the United States, the oil and gas industry creates only 3.7 direct and indirect jobs, while similar investments in wind and solar energy create 9.5 and 9.8 jobs, respectively. In fact, if New York were to switch entirely to renewables for energy, it has been estimated that more than 269,000 permanent jobs could be created. Labor stands to gain significantly from a greenhouse gas reduction plan that is capable of meeting its goals. In order to maximize economic benefits to New Yorkers and encourage the most efficient provision of resources, this act additionally requires that at least 80 percent of the state's electricity, including from renewables, be generated in New York. This act also calls for programs to encourage the manufacture and assembly of renewable energy components in-state.

§ 3. The environmental conservation law is amended by adding a new article 50 to read as follows:

**ARTICLE 50**

**CLIMATE CHANGE**



**§ 50-0101. Definitions.**

**As used in this article the following terms shall have the following meanings:**

**1. "Carbon dioxide equivalent" means the amount of carbon dioxide by mass that would produce the same global warming impact as a given mass of another greenhouse gas over an integrated twenty year time frame after emission, based on the best available science.**

**2. "Carbon-free source" means a source of energy that, unlike coal, oil, gas, biomass, or garbage incineration, does not produce carbon dioxide emissions.**

**3. "Co-pollutants" means hazardous air pollutants produced by greenhouse gas emissions sources.**

4. "Climate action council" or "council" means the New York state climate action council established pursuant to section 50-0103 of this article.

5. "End-user" means the final consumer of energy in a process of energy production and delivery. End-user systems include equipment such as internal-combustion vehicles that burn gasoline and home furnaces that burn oil or natural gas.

6. "Energy storage" means the storage of energy for future use, typically from intermittent sources of electricity such as renewables. Types of storage include, but are not limited to, batteries, flywheels, compressed air storage, and hydroelectric pumped storage.

7. "Greenhouse gas" means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and any other substance emitted into the air that contributes to climate change.

8. "Greenhouse gas emissions from the energy sector" means the total emissions of greenhouse gases produced within the state from electricity generation, industry, transportation, and buildings, in addition to greenhouse gas emissions produced outside of the state that are associated with the generation of electricity imported into the state. Greenhouse gas emissions from the energy sector shall not include agricultural emissions from livestock or waste decomposition.

9. "Key actions" means the coordinated set of activities relating to the phase-out of fossil fuels and synchronous deployment of renewables and zero-emission technology, necessary to meet greenhouse gas reduction goals.

10. "Renewable energy" means energy produced from renewable sources such as wind, water, and sunlight.

11. "Statewide greenhouse gas emissions" means the total annual emissions of greenhouse gases produced within the state from anthropogenic sources and greenhouse gas emissions produced outside of the state that are associated with the generation of electricity imported into the state.

12. "Statewide greenhouse gas emission limit" means the maximum allowable level of statewide greenhouse gas emissions in a specified year, as determined by the department pursuant to this article.

13. "Zero-emission technology" means technology for electricity generation, transportation, heating, or other purposes that does not produce direct greenhouse gas emissions during the production or consumption of energy. Zero-emission technology includes devices such as solar panels, electric vehicles, electric heat pumps, machinery powered electricity instead of fossil fuels and induction stoves.

§ 50-0103. New York state climate action council.

1. There is hereby established within the department the New York state climate action council, structured as follows:

(a) The council shall consist of the following twenty-eight members or their designees: the commissioners of the department of transportation, the department of health, the department of economic development, the department of agriculture and markets, the department of housing and community renewal, the department of general services, the department of labor, the department of environmental conservation, and the department of homeland security and emergency services; the chairs of the public service commission and the metropolitan transportation authority; the presidents of the New York state energy research and development authority, the New York power authority, the Long Island power authority; the dormitory authority of the state of New York; the secretary of state; the director of the budget; the superintendent of financial services;

the director of state operations; the counsel to the governor; and two at large members appointed by the governor, two at large members appointed by the temporary president of the senate, two at large members appointed by the speaker of the assembly, one at large member appointed by the minority leader of the senate, and one at large member appointed by the minority leader of the assembly.

(b) The at large members shall, at all times, include individuals with expertise in climate change, renewable energy and zero-emission technology, energy efficiency, public health, environmental justice, labor, budget and finance, and industry regulation.

(c) Members of the council shall receive no compensation for their services but shall be reimbursed for actual and necessary expenses incurred in the performance of their duties.

(d) The chairperson of the council shall be the commissioner of the department or his or her designee.

(e) A majority of the members of the council shall constitute a quorum.

(f) Any vacancies on the council shall be filled in the manner provided for in the initial appointment.

2. (a) The council shall be authorized to convene advisory panels which, at a minimum, shall include a science advisory panel to assist or advise the council in areas requiring special expertise or knowledge.

(b) The council shall be authorized to convene subcommittees of member agencies to consider issues and actions affecting sectors of common interest or jurisdiction.

3. The department shall provide the council with such facilities, assistance and data as will enable the council to carry out its powers and duties. Additionally, all other agencies of the state or subdivisions thereof shall provide the council with such facilities, assistance, and data as will enable the council to carry out its powers and duties.

4. The council shall consult with federal and state agencies and advisory groups as necessary to carry out its duties.

5. Meetings of the council, subcommittees, and advisory groups shall be conducted in a transparent fashion and shall be open to the public.

6. Members of the council, subcommittees, and advisory groups shall be required to disclose conflicts of interest. Any member who may financially or materially benefit from an award, contract, or other specific action of the council shall recuse himself or herself from voting on such action.

7. The council shall have the following powers and duties:

(a) To develop a statewide greenhouse gas reduction plan, including subsequent updates and status reports pursuant to section 50-0107 of this article;

(b) To advise the department on the development of statewide greenhouse gas emission limits;

(c) To analyze and propose schedules for the coordinated phasing out of energy systems that require fossil fuels, synchronous with the timely deployment of carbon-free alternatives including renewables, zero-emission technology, and efficiency;

(d) To evaluate and propose a comprehensive and cohesive set of rules, regulations, programs, and policies for adoption by state agencies to achieve greenhouse gas reduction targets, comply with greenhouse gas emission limits, and achieve the widespread conversion of energy systems; and

(e) To make recommendations to the governor, legislature, local governments, institutions, businesses, and the general public regarding action to support efforts of the council and reduce greenhouse gas emissions.

8. The council shall appoint an independent and impartial ombudsman to facilitate transparent and effective operations of the council and to function as a citizen advocate. The ombudsman shall have demonstrated experience in mediation, conflict resolution and public relations and be selected to avoid conflict of interest. The ombudsman shall assist the council, subcommittees, and advisory panels, but shall not be a member of the council, a subcommittee, or an advisory panel and shall have no vote. The ombudsman shall be appointed, and may be replaced, by majority vote of the council.

§ 50-0105. Statewide greenhouse gas emissions report.

1. No later than one year after the effective date of this article, and each year thereafter, the department shall issue a report on statewide greenhouse gas emissions, expressed in tons of carbon dioxide equivalents, from all anthropogenic sources in the state, including the relative contribution of each type of greenhouse gas and each type of source to the statewide total.

2. The statewide greenhouse gas emissions report shall be a comprehensive evaluation, informed by a variety of data, including but not limited to:

(a) information relating to the use of fossil fuels by sector, including for electricity generation, transportation, heating, and other combustion purposes;

(b) information relating to fugitive and vented emissions from systems associated with the production, processing, transport, distribution, storage, and consumption of fossil fuels, including natural gas;

(c) information relating to emissions from non-fossil fuel sources, including, but not limited to, garbage incinerators, biomass combustion, landfills and landfill gas generators, and anaerobic digesters;

(d) information relating to emissions associated with manufacturing, chemical production, cement plants, and other processes that produce non-combustion emissions;

(e) information relating to emissions from agricultural operations and livestock; and

(f) information from sources that may be required to participate in the registration and reporting system pursuant to subdivision four of this section.

3. The statewide greenhouse gas emissions report shall also include an estimate of greenhouse gas emissions associated with the generation of imported electricity which shall be counted as part of the statewide total.

4. Within one year after the effective date of this article, the department shall consider establishing a mandatory registry and reporting system from individual sources to obtain data on greenhouse gas emissions exceeding a particular threshold. If established, such registry and reporting system shall apply a consistent reporting threshold to ensure the unbiased collection of data.

5. The statewide greenhouse gas emissions report shall utilize best available science and methods of analysis, including the comparison and reconciliation of emission estimates from all sources (both above and below reporting thresholds), fuel consumption, field data, and peer-reviewed research.

6. The statewide greenhouse gas emissions report shall clearly explain the methodology and analysis used in the department's determination of greenhouse gas emissions. In order to ensure that greenhouse gas emission reductions are real, any changes to such methodology or analysis shall be explained in the report and adjustments made to prior estimates, as needed, to establish a scientifically credible account of change.

7. The department shall seek public input regarding the methodology and analysis used in the determination of statewide greenhouse gas emissions. Meaningful opportunity for public comment on such methodology and analysis shall be provided no later than one year after the effective date of this article, periodically thereafter, and when changes to such methodology and analysis are proposed.

§ 50-0107. Statewide greenhouse gas reduction plan.

1. The New York state climate action council established pursuant to section 50-0103 of this article shall prepare a statewide greenhouse gas reduction plan to ensure that the state meets the following targets:

(a) by two thousand thirty, reduction of annual statewide greenhouse gas emissions from the energy sector by forty percent compared to nineteen hundred ninety levels;

(b) by two thousand fifty, reduction of annual statewide greenhouse gas emissions from all sectors by eighty percent compared to nineteen hundred ninety levels; and

(c) by two thousand fifty, elimination, to the greatest extent feasible, of all greenhouse gas emissions from the energy sector.

2. The purpose of the plan shall be to provide a comprehensive, executable strategy for action by the state and a solid foundation for the coordinated adoption and implementation of rules, regulations, programs, and policies by state agencies to achieve the systematic transformation in energy generation, end-user technology, and efficiency necessary for success.

3. The greenhouse gas reduction plan shall be developed by the council, with coordination by the department, as follows:

(a) the council shall prepare a draft greenhouse gas reduction plan no later than one year after the effective date of this article. The council shall provide meaningful opportunity for public comment on the draft plan and hold at least six public hearings to solicit public comments;

(b) the council shall adopt a final greenhouse gas reduction plan within eighteen months of the effective date of this article;

(c) the council shall update the greenhouse gas reduction plan at least once every four years and shall provide meaningful opportunity for public comment prior to adoption of plan updates; and

(d) the department shall submit the final greenhouse gas reduction plan and updates to the governor, the temporary president of the senate, and the speaker of the assembly and shall post the plan and updates on the department's website.

4. In preparation of the plan, the council shall:

(a) seek the professional input of climate scientists, engineers, economists, and health professionals, in addition to input from the New York Independent System Operator, regulated industry, labor, the environmental justice community, and other stakeholders;

(b) examine and utilize the best available science and economic analysis to evaluate impacts, risks, costs, and benefits of potential action and to determine the best strategy for implementation;

(c) consider all relevant data, studies, and other information, including, but not limited to: (i) the climate action plan interim

report dated November ninth, two thousand ten, produced by the climate action council created pursuant to executive order number twenty-four of two thousand nine;

(ii) data regarding statewide greenhouse gas emissions and energy consumption within the state by sector and subsector;

(iii) studies regarding the global warming potential of methane relative to carbon dioxide, leakage rates, and lifecycle emissions of natural gas;

(iv) studies regarding the environmental, economic, health, and societal impacts of climate change and the consequences of continued dependency on fossil fuels, including impacts to vulnerable populations;

(v) studies regarding the social costs of carbon, the adverse impacts of co-pollutants associated with fossil fuel use, and the job-creation benefits of renewables;

(vi) information regarding carbon-free sources of energy, including, but not limited to: renewables; energy efficiency and conservation; energy storage; and zero-emission technology for transportation, heating, and other end-user purposes;

(vii) information on land use, agriculture, and forestry practices to reduce greenhouse gas emissions; and

(viii) information on regulatory, financial, and economic techniques to reduce greenhouse gas emissions, including, but not limited to: incentive programs; rebates; tax deductions; the purchase of renewable energy credits; cap-and-trade programs; and carbon fee/dividend programs.

5. To ensure that greenhouse gas reduction targets and emission limits are achievable the council shall quantitatively analyze and propose schedules for key actions that must take place at scale and on time to substantially reduce greenhouse gas emissions from the largest contributing sectors. The greenhouse gas reduction plan shall analyze and propose schedules for:

(a) the widespread conversion of end-user systems that rely on fossil fuels to zero-emission technology for purposes including, but not limited to, transportation, heating and industry;

(b) the deployment of additional electricity from carbon-free sources necessary to support the widespread conversion of end-user systems that rely on fossil fuels and eliminate fossil fuels as a source of electricity generation. The plan shall include an analysis of additional electricity measured in gigawatt-hours annually that will be required from carbon-free sources, with attention to the necessary distribution and diversification of generators. Taking the need for additional electricity into account, the plan shall also include an analysis of changes needed to the New York state clean energy standard to ensure that the statewide greenhouse gas reduction targets and emission limits can be met;

(c) the widespread incorporation of expanded efficiency measures in new construction, existing buildings, and industrial processes;

(d) necessary improvements to the electrical grid and related infrastructure, including energy storage, to support the widespread deployment of renewables and increased demand for electricity; and

(e) the phase-out of existing power plants and other facilities that produce greenhouse gas emissions, synchronous with other key actions.

6. To support the creation of in-state jobs in renewable energy, promote locally-produced power, and provide for the most efficient transmission of electricity, the council shall, in its analysis and development of schedules pursuant to subdivision five of this section, ensure

that at least eighty percent of electricity consumed in the state annually is produced in-state.

7. The greenhouse gas reduction plan shall evaluate and propose rules, regulations, programs, and policies for state agencies to meet the greenhouse gas reduction targets identified in subdivision one of this section and the greenhouse gas emission limits established by the department pursuant to section 50-0109 of this article. In considering potential actions, the council shall:

(a) prioritize activities requiring a high level of planning and interagency coordination, including key actions and schedules identified in subdivision five of this section;

(b) prioritize measures to maximize net reduction of greenhouse gas emissions statewide and reduce co-pollutants to communities with greatest exposure;

(c) evaluate the feasibility, logistics, and costs of implementing all greenhouse gas reduction measures, and the amount of reductions anticipated to result;

(d) evaluate both regulatory and programmatic approaches, including, but not limited to, performance standards or market-based programs that involve the procurement of energy or emission credits, cap-and-trade programs, and carbon fee/dividend programs;

(e) evaluate foreseeable technical, economic, legal, and regulatory challenges or barriers to the elimination of greenhouse gas emissions from specific sectors or subsectors, including potential impacts to greenhouse gas reduction targets;

(f) identify funding and resource needs; and

(g) ensure that actions are equitable, cost-effective, and encouraging of early action.

8. The greenhouse gas reduction plan shall identify and target for elimination existing programs and policies that hinder the reduction of greenhouse gas emissions, encourage the consumption of fossil fuels, or facilitate the expansion of fossil fuel infrastructure.

9. The council shall carefully consider the short- and long-term impacts and financial burdens that may be placed on economically disadvantaged individuals and communities by implementation of the greenhouse gas reduction plan. The council shall ensure that proposed rules, regulations, programs, and policies include provisions to limit or offset such impacts, such as financial assistance or other forms of support. The council also shall ensure that the implementation of all programs involving the purchase or exchange of emission and pollutant allowances are equitable and do not disproportionately adversely affect economically disadvantaged communities, the elderly, children, or communities of color.

10. In considering rules, regulations, programs, and policies, the department and members of the council with authority or expertise in energy production and delivery, including the New York state energy research and development authority, the public service commission, the New York power authority, and the Long Island power authority, shall evaluate and propose:

(a) modifications of the New York State clean energy standard to ensure the procurement of sufficient electricity from carbon-free sources, consistent with the greenhouse gas reduction schedule adopted by the department pursuant to section 50-0109 of this article for all sectors, and taking into account the increased demand for electricity caused by the electrification of end-user systems;

(b) additional or expanded programs necessary to facilitate the development of sufficient electricity from carbon-free sources, improvements to the electrical grid, and energy storage to support the widespread deployment of renewables;

(c) policies to restrict the approval of new sources of electricity generation from fossil fuels and the combustion of materials which produce greenhouse gas emissions;

(d) policies to provide for the orderly phase-out of existing fossil fuel power plants; and

(e) policies to limit the expansion of fossil fuel infrastructure to the extent possible by federal and state law, and provide for the phasing-out of existing fossil fuel infrastructure.

11. In considering rules, regulations, programs, and policies, the department and members of the council with authority or expertise in residential, commercial, and industrial sectors, including, but not limited to, the New York state energy research and development authority, department of state, and division of housing and community renewal, shall evaluate, and as appropriate, propose:

(a) development of and revision to building codes, including the state energy construction code, to require higher standards for energy efficiency and the installation of zero-emission technology, such as electric heat pumps, electric heat pump water heaters, and electric or induction stoves for new construction and redevelopment;

(b) restrictions on the future sale and use of heating systems and appliances that require fossil fuels or produce greenhouse gas emissions, and requirements for the purchase of heating systems and appliances that produce zero emissions;

(c) requirements for the retrofit of existing buildings to improve energy efficiency and conversion of existing systems to zero-emission technology, such as a condition of sale, purchase, or financing;

(d) requirements for the use of or conversion to zero-emission equipment and machinery in industrial applications; and

(e) monetary incentives and disincentives affecting energy use in buildings and industrial applications, including, but not limited to, purchase fees for equipment and appliances that produce greenhouse gas emissions and rebates or tax deductions for the purchase of zero-emission equipment and appliances. The department and members of the council shall evaluate and propose such incentives or disincentives in coordination with agencies having financial and budgetary expertise including, but not limited to, the department of financial services and the department of taxation and finance.

12. In considering rules, regulations, programs, and policies, the department and members of the council with authority or expertise in the transportation sector, including, but not limited to, the department of transportation, shall evaluate and, as appropriate, propose:

(a) development of more stringent emission standards for vehicles and other modes of transportation;

(b) restrictions on the future sale and/or use of vehicles by class and emission level to ensure that greenhouse gas emission limits are achieved and provide for the phased-in conversion of existing modes of transportation to zero-emission technology;

(c) monetary incentives and disincentives regarding vehicular use, including, but not limited to sales fees for vehicles that produce greenhouse gas emissions, rebates or tax deductions for the purchase of zero-emission vehicles, and a higher sales tax on motor vehicle fuels. The department and members of the council shall evaluate and propose

incentives or disincentives in coordination with agencies having financial and budgetary expertise such as the department of financial services and the department of taxation and finance;

(d) requirements for the phased-in use of zero-emission vehicles for all government vehicle fleets and public transportation;

(e) programs to further encourage the use of mass transit in cooperation with public transit providers;

(f) programs to facilitate the timely conversion of transportation infrastructure, including the development of recharging and refueling stations for zero-emission vehicles, with consideration given to the type, location, and number of facilities;

(g) requirements to ensure that hydrogen fueling and distribution stations do not offer hydrogen that is derived from natural gas or other fossil fuels;

(h) programs for the electrification of railway transportation; and

(i) programs to require or encourage the research, development, and use of synthetic fuels and biofuels for aircraft if shown to reduce total greenhouse gas emissions.

13. In considering rules, regulations, programs, and policies, the department, in coordination with the department of agriculture and markets, shall evaluate and propose:

(a) meaningful limits on the use of fertilizer, including, but not limited to, synthetically produced nitrogen and meaningful limits on the use of petroleum-based pesticides;

(b) implementation of improved soil rotation and tilling practices;

(c) requirements or incentives for reducing methane emissions from livestock, such as with dietary improvements;

(d) improvement of waste management practices and use of anaerobic digestion to capture methane for energy generation if shown to reduce total greenhouse gas emissions;

(e) programs to encourage the shared use of agricultural lands for the on-site production of electricity from solar or wind energy; and

(f) forestry best management practices and programs to encourage reforestation to sequester carbon.

14. The council also shall reduce greenhouse gas emissions and co-pollutants from existing sources to the greatest extent possible prior to their elimination. As part of the greenhouse gas reduction plan, the department, in coordination with the New York state research and development authority, public service commission, and other agencies shall evaluate and propose rules, regulations, programs and policies to:

(a) identify sources of natural gas leakage and inferior design practices that allow leakage or intentional venting of natural gas systems, including, but not limited to: pipelines; power plants; compressor stations; metering stations; gas storage facilities; and distribution networks;

(b) require the use of best available technology, including, but not limited to: vapor recovery; oxidation catalysts; zero-emission dehydrators; and blowdown prevention;

(c) prioritize sources of leakage within natural gas systems for modification, repair, replacement, or removal; and

(d) implement a comprehensive leakage monitoring program and consider additional fines and penalties to reduce incidents of leakage.

15. The council shall evaluate the adverse impacts of energy production associated with the combustion of non-fossil fuel materials, including, but not limited to, biomass and solid waste. Such evaluation shall consider factors including, but not limited to, the production of

greenhouse gas emissions and hazardous pollutants, the energy density of materials, time periods of carbon combustion and recapture, public health, land use, and ecological impacts. As part of the greenhouse gas reduction plan, the council shall propose changes, as necessary, to rules, regulations, programs, and policies affecting such fuel sources to ensure compliance with greenhouse gas emission limits, protection of public health, and protection of the environment.

16. The greenhouse gas reduction plan shall protect and improve access by residents, businesses, institutions, and municipalities to behind-the-meter and off-grid generation of electricity from renewables. The greenhouse gas reduction plan shall:

(a) investigate trends and proposed changes in regulatory policies and utility practices that limit net metering and discourage access to and expansion of behind-the-meter electricity generation;

(b) evaluate the effect that reduced incentives, including the phasing-out of rebates and tax deductions, have had on the deployment of renewables by residents, businesses, and municipalities within the state; and

(c) propose rules, regulations, programs and policies that encourage and accelerate the development of behind-the-meter and off-grid generation of electricity from renewables.

17. The greenhouse gas reduction plan shall examine barriers and opportunities for access to renewable energy and energy efficiency resources by economically disadvantaged individuals and communities. The council, as part of the plan, shall evaluate and propose ways of improving ownership and access to services and commodities, including, but not limited to:

(a) distributed renewable energy generation;

(b) energy efficiency and weatherization investments;

(c) zero-emission and low-emission transportation, including mass transit;

(d) adaptation measures to improve the resilience of homes and local infrastructure to the impacts of climate change; and

(e) other services and infrastructure that can reduce the risks of and exposure to climate-related hazards.

18. The council, in coordination with the department of economic development, the department of labor, and other agencies, as part of the greenhouse gas reduction plan, shall examine and propose strategies for the creation of businesses and jobs in renewable energy, energy efficiency, and zero-emission technologies including, but not limited to:

(a) examination and implementation of incentives for companies involved in the manufacturing, installation, and maintenance of renewables, energy efficiency, and zero-emission technology to locate in the state, particularly those involved in the manufacture and assembly of system components;

(b) development of partnerships with universities and colleges, such as expansion of the START-UP New York program, to support entrepreneurship and research in renewables, energy efficiency, and zero-emission technology;

(c) support for apprenticeship programs and other forms of on-site training; and

(d) support for retraining of workers employed in the fossil fuel industry for future work with renewables, energy efficiency, and zero-emission technology.

19. The council, in coordination with the department and other agencies, as part of the greenhouse gas reduction plan, shall develop crea-

tive strategies for educating the public about the significance of climate change and the importance of swift, meaningful action to reduce greenhouse gas emissions from all sectors. Such strategies shall include a focus on fostering necessary support and cooperation by local governments, businesses, and the general public for major changes that will be necessary to substantially reduce greenhouse gas emissions, including the widespread deployment of renewables and the elimination of fossil fuels for purposes such as transportation and heating.

20. The greenhouse gas reduction plan and council shall:

(a) recommend specific actions by the governor and legislature, such as additional legislation, authorizations, and funding, to support efforts of the council, reduce greenhouse gas emissions, and pursue carbon-free alternatives, consistent with greenhouse gas emission limits adopted pursuant to this article; and

(b) recommend actions that can be taken by local governments, institutions, businesses, and the general public to reduce greenhouse gas emissions and pursue carbon-free alternatives.

21. The council, in coordination with the department, shall publish an annual status report regarding implementation of the greenhouse gas reduction plan. At a minimum, the status report shall:

(a) compare changes in greenhouse gas emissions statewide and by sector from the department's annual greenhouse gas emissions report to greenhouse gas emission limits established pursuant to section 50-0109 of this article to determine whether emission limits have been achieved or are likely to be achieved on time;

(b) compare the status of key actions identified in subdivision five of this section to schedules identified in the greenhouse gas reduction plan to determine if such key actions have been achieved or are likely to be achieved on time;

(c) assess progress made by the department and other agencies toward the implementation of rules, regulations, programs and policies pursuant to section 50-0111 of this article and section four of the chapter of the laws of two thousand seventeen which added this article;

(d) evaluate costs of compliance to regulated entities, the public, and state agencies;

(e) assess whether predicted environmental, economic, public health, and social benefits of actions taken are being realized;

(f) evaluate whether regulations or other greenhouse gas reduction measures undertaken are equitable, minimize costs, maximize benefits, and encourage early action;

(g) assess efforts to improve access to renewable energy and energy efficiency resources by economically disadvantaged communities; and

(h) recommend as necessary, additional actions to comply with greenhouse gas emission limits, corrective actions to address aspects of the greenhouse gas reduction plan that are not on schedule, and revisions to the plan as appropriate.

22. The department shall submit the annual status report required by subdivision twenty-one of this section to the governor, the temporary president of the senate, and the speaker of the assembly, and shall post the annual status report on the department's website.

§ 50-0109. Statewide greenhouse gas emission limits.

1. (a) No later than eighteen months after the effective date of this article, the department shall establish a schedule for the reduction of statewide greenhouse gas emissions to meet the targets identified in section 50-0107 of this article.

(b) The department shall adopt specific statewide greenhouse gas emission limits for two thousand twenty-two, two thousand twenty-six, two thousand thirty, two thousand thirty-four, two thousand thirty-eight, two thousand forty-two, two thousand forty-six, and two thousand fifty;

(c) Greenhouse gas emission limits shall be measured in units of carbon dioxide equivalents and identified for each individual type of greenhouse gas, including, at a minimum, carbon dioxide, methane, and nitrous oxide;

(d) The schedule adopted by the department shall ensure that for every four-year period, the limit established for each greenhouse gas is successively smaller than the previous four-year period and smaller than the level reported by the department in the greenhouse gas emissions report for the year two thousand twenty.

2. The department shall base its determination of greenhouse gas emission limits on findings of the council, including the feasibility of key actions contained in the statewide greenhouse gas reduction plan identified in subdivision five of section 50-0107 of this article.

3. The department, in consultation with the council, shall adopt greenhouse gas emission limits for specific sectors or subsectors, as appropriate. The department, in consultation with the council, shall ensure that for each type of greenhouse gas, the combination of emission limits for all sectors or subsectors in each four-year period does not exceed the total statewide emission limit for the same four-year period.

4. The emission limits established by the department shall serve as the basis for developing the greenhouse gas reduction plan adopted by the council and for rules, regulations, programs, and policies adopted by the department and other state agencies.

§ 50-0111. Greenhouse gas reduction action by the department.

1. No later than two years after the effective date of this article, and as necessary thereafter, the department, after public workshops and at least two opportunities for public comment and hearing, shall promulgate rules, regulations, programs and policies to meet the greenhouse gas reduction targets set forth in section 50-0107 of this article and to ensure compliance with greenhouse gas emission limits adopted by the department pursuant to section 50-0109 of this article. The department shall also modify or repeal programs or policies that hinder the reduction of greenhouse gas emissions, encourage the consumption of fossil fuels, or facilitate the expansion of fossil fuel infrastructure.

2. The provisions of this section shall be broadly interpreted to provide for the adoption and enforcement of measures necessary to meet greenhouse gas reduction targets and greenhouse gas emission limits without limitation by existing state implementation plans, other agreements pertaining to the regulation and permitting of emissions, or conditions set forth in permits issued by the department.

3. The department shall ensure that rules, regulations, programs, and policies promulgated pursuant to this article are substantially consistent with recommendations and proposals of the greenhouse gas reduction plan adopted by the council pursuant to section 50-0107 of this article.

4. The department, in coordination with the council, shall ensure that rules, regulations, programs, and policies promulgated by the department pursuant to this section harmonize with actions taken by other agencies pursuant to section four of the chapter of the laws of two thousand seventeen which added this article. The department shall ensure that the achievement of greenhouse gas emissions reductions are real, permanent, quantifiable, verifiable, and enforceable.

**5. Rules, regulations, programs, and policies adopted pursuant to this section shall be reviewed annually and updated as necessary, based on revisions to the greenhouse gas reduction plan and annual status reports prepared by the council.**

§ 4. Greenhouse gas reduction action by other state agencies. 1. The New York state energy research and development authority, the department of environmental conservation, the department of health, the department of transportation, the department of state, the department of economic development, the department of agriculture and markets, the department of financial services, the department of public service, the office of general services, the division of housing and community renewal, the public utility authorities established pursuant to titles 1, 1-A, 1-B, 11, 11-A, 11-B, 11-C and 11-D of article 5 of the public authorities law, and any other state agency may promulgate rules, regulations, programs, and policies to achieve statewide greenhouse gas emission limits and implement the greenhouse gas reduction plan described in article 50 of the environmental conservation law, provided that no such action shall limit the authority of the department of environmental conservation to regulate and control greenhouse gas emissions pursuant to article 50 of the environmental conservation law.

2. No later than two years after the effective date of the chapter of the laws of two thousand seventeen which added this section, and as necessary thereafter, agencies with representation on the climate action council established pursuant to section 50-0103 of the environmental conservation law, after at least two opportunities for public comment and hearing, shall promulgate rules, regulations, programs, and policies as appropriate to meet greenhouse gas reduction targets and ensure compliance with greenhouse gas emission limits adopted by the department of environmental conservation pursuant to article 50 of the environmental conservation law. Such agencies shall also modify or repeal programs or policies that hinder the reduction of greenhouse gas emissions, encourage the consumption of fossil fuels, or facilitate the expansion of fossil fuel infrastructure.

3. Agencies shall ensure that rules, regulations, programs, and policies promulgated pursuant to this section are substantially consistent with recommendations and proposals of the greenhouse gas reduction plan adopted by the climate action council pursuant to section 50-0107 of the environmental conservation law.

4. In coordination with the climate action council, established pursuant to section 50-0103 of the environmental conservation law, agencies shall ensure that rules, regulations, programs, and policies promulgated pursuant to this section harmonize with actions taken by the department of environmental conservation pursuant to section 50-0111 of the environmental conservation law and actions taken by other agencies pursuant to this section. Agencies shall ensure that the achievement of greenhouse gas emission reductions are real, permanent, quantifiable, verifiable, and enforceable.

5. Rules, regulations, programs, and policies adopted pursuant to this section shall be reviewed annually and updated as necessary based on revisions to the greenhouse gas reduction plan and annual status reports prepared by the climate action council established by article 50 of the environmental conservation law.

§ 5. Administrative decisions relating to climate change by state agencies. 1. All state agencies shall assess and implement strategies to reduce their greenhouse gas emissions.

2. In considering and issuing permits, licenses, and other administrative approvals and decisions, state agencies, offices, authorities, and divisions shall ensure that such approvals and decisions support the attainment of statewide greenhouse gas emission limits established pursuant to article 50 of the environmental conservation law and are consistent with the greenhouse gas reduction plan prepared by the climate action council pursuant to such article.

3. In considering and issuing permits, licenses, and other administrative approvals and decisions, state agencies, offices, authorities, and divisions shall not disproportionately impact communities that are economically disadvantaged or bear higher burdens of negative public health, environmental pollution, or impacts of climate change.

§ 6. Chapter 355 of the laws of 2014 constituting the community risk and resiliency act is amended by adding two new sections 17-a and 17-b to read as follows:

**§ 17-a. The department of environmental conservation shall take actions to promote climate change adaptation and resilience, including:**

**1. Actions to help state agencies and other entities assess the reasonably foreseeable risks of climate change on any proposed projects, taking into account issues such as sea level rise, tropical and extra-tropical cyclones, storm surges, flooding, wind, changes in average and peak temperatures, changes in average and peak precipitation, public health impacts, and impacts on species and other natural resources;**

**2. Assessing significant climate-related risks, taking into account the probability of occurrence, the magnitude of the potential harm, and the uncertainty of risk;**

**3. Measures that could mitigate significant climate-related risks, as well as a cost-benefit analysis and implementation of such measures.**

**§ 17-b. Permits for the regulatory programs of subdivision 3 of section 50-0107 of the environmental conservation law shall require applicants to demonstrate that future physical climate risk has been considered and that proposed activities do not interfere with the attainment of greenhouse gas emission limits established pursuant to article 50 of the environmental conservation law and implementation of the greenhouse gas reduction plan adopted by the climate action council pursuant to such article. In reviewing such information the department of environmental conservation may require the applicant to mitigate significant risks to public infrastructure and/or services, private property not owned by the applicant, adverse impacts on communities, and/or natural resources in the vicinity of the project.**

§ 7. Nothing in this act shall limit the existing authority of a state entity to adopt and implement greenhouse gas emissions reduction measures.

§ 8. Nothing in this act shall relieve any person, entity, or public agency of compliance with other applicable federal, state, or local laws or regulations, including state air and water quality requirements, and other requirements for protecting public health or the environment.

§ 9. Severability. If any word, phrase, clause, sentence, paragraph, section, or part of this act shall be adjudged by any court of competent jurisdiction to be invalid, such judgment shall not affect, impair, or invalidate the remainder thereof, but shall be confined in its operation to the word, phrase, clause, sentence, paragraph, section, or part thereof directly involved in the controversy in which such judgment shall have been rendered.

§ 10. This act shall take effect immediately.