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STATE OF RHODE ISLAND

IN GENERAL ASSEMBLY

JANUARY SESSION, A.D. 2014

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A N A C T

RELATING TO HEALTH AND SAFETY -- GEOENGINEERING

Introduced By: Representatives MacBeth, Dickinson, Ferri, and Messier

Date Introduced: February 27, 2014

Referred To: House Environment and Natural Resources

It is enacted by the General Assembly as follows:

1 SECTION 1. Title 23 of the General Laws entitled "HEALTH AND SAFETY" is hereby
2 amended by adding thereto the following chapter:

3 CHAPTER 23.8

4 THE GEOENGINEERING ACT OF 2014

5 **23-23.8-1. Short title.** -- This chapter shall be known and may be cited as "The
6 Geoengineering Act of 2014."

7 **23-23.8-2. Definitions.** -- The following words and phrases as used in this chapter have
8 the following meaning:

9 (1) "Air contaminant" means soot, cinders, ashes, any dust, fumes, gas, mist, smoke,
10 vapor, odor, toxic, or radioactive material, particulate matter, or any combination of these.

11 (2) "Air pollution" means presence in the outdoor atmosphere of one or more air
12 contaminants in sufficient quantities, which either alone or in connection with other emissions, by
13 reason of their concentration and duration may be injurious to human, plant or animal life, or
14 cause damage to property or which unreasonably interfere with the enjoyment of life and
15 property.

16 (3) "Area" means not only that portion or portions of the state as shall be described in the
17 air pollution episode declaration of the governor, but also to any other portion or portions of the
18 state where activities are carried on which contribute or may contribute to the air pollution
19 episode in the portion or portions of the state described in the governor's declaration.

1 (4) "Department" means the Rhode Island department of environmental management.

2 (5) "Director" means the director of the department of environmental management or any
3 subordinate or subordinates to whom the director has delegated the powers and duties vested in
4 him or her by this chapter.

5 (6) "Geoengineering" means activities specifically and deliberately designed to effect a
6 change in the area climate, with the intent or purpose of minimizing or masking anthropogenic
7 climate change, including global warming. Such actions may include, but are not limited to, the
8 following:

9 (i) Attempts to remove carbon dioxide from the atmosphere; and

10 (ii) Solar radiation management or cloud whitening, or similar process whereby aerosols,
11 particles, chemicals, gases, vapors, or other compounds are injected into the atmosphere to reflect
12 a portion of the sun's radiation back into space.

13 (7) "Person" means any individual, trust, firm, joint stock company, corporation
14 (including a quasi-governmental corporation), partnership, association, syndicate, municipality,
15 municipal or state agency, fire district, club, non-profit agency, or any subdivision, commission,
16 department, bureau, agency, or department of state or federal government (including quasi-
17 government corporation), or any interstate body.

18 **23-23.8-3. Findings of fact. --** The general assembly finds and declares as follows:

19 (1) Geoengineering or climate remediation is a process that is in the experimental stages
20 and, if unrestricted and unregulated, could have an economic impact on the state by potentially
21 allowing increased amounts of air contaminants and air pollution throughout all areas of the state.

22 (2) Geoengineering could also have a negative impact on economic, environmental, soil,
23 water, and air quality in the state.

24 (3) Geoengineering could have a negative impact on the state that it might be able to
25 mask some impacts of greenhouse gases on the climate system, while doing nothing to address
26 with the chemical consequences of increased carbon dioxide (CO₂) concentrations in the
27 atmosphere, including ocean acidification, a phenomenon that poses significant risks, particularly
28 for marine life.

29 (4) Potential but foreseeable hazards of geoengineering could include:

30 (i) Decreased precipitation and evaporation, altered monsoon rains and winds, and
31 perhaps delayed recovery of the ozone hole;

32 (ii) Producing reductions in regional rainfall that could rival those of past major droughts,
33 leading to winners and losers among the human population and possible conflicts over water;

34 (iii) Promoting rain or snow in one area to the detriment of another;

- 1 (iv) Reducing the total amount of direct sunlight reaching earth's surface;
2 (v) Increased air, water pollution, and acid rains which will have a deleterious effect on
3 the seafood industry;
4 (vi) Promoting an increase in acid rain from sulfur, aluminum oxide particles, gases or
5 other compounds, which would cause adverse impacts on highly sensitive forest ecosystems;
6 (vii) Allowing sulfate, aluminum oxide particles (gases), or other compounds used in
7 geoengineering schemes, to eventually fall from the stratosphere into the troposphere and “rain
8 out” onto the land and ocean, contributing to ocean acidification and could negatively impact
9 crop soils and built structures;
10 (viii) Decreasing the effectiveness of alternative forms of energy such as solar panels due
11 to reductions in direct sunlight or diffuse sunlight;
12 (ix) Increasing atmospheric water vapor, a greenhouse gas, and cirrus clouds which are
13 formed from aircraft engine exhaust and jet engine combustion often visible as persistent jet
14 contrails; and
15 (x) Numerous other potential consequences that would produce air pollution, air
16 contaminants, and other as yet unforeseen environmental harms.

17 **23-23.8-4. Declaration of geoengineering policy. --** (a) With respect to geoengineering
18 as described in this chapter, the general assembly declares that while the use of geoengineering to
19 address climate change and global warming is a topic worthy for both scientific and other public
20 investigation and debate, its implementation and use should be strictly regulated by the state at
21 this time. Such regulation must include the opportunity for input and comment from the general
22 public, as well as from the medical, environmental, and scientific communities.

23 (b) Air quality, air pollution, and the level of air contaminants, must be monitored to
24 ensure geoengineering programs are not implemented without public consent.

25 (c) Tests must be performed on a continuous basis to ascertain levels of proposed and
26 known chemicals, particles, gases, metals, other compounds, and materials to ensure that these
27 programs are not implemented without public consent.

28 **23-23.8-5. Limitations on geoengineering. --** (a) Any person seeking to implement,
29 conduct, or engage in any form of geoengineering in any area of the state shall first file an
30 application proposal to do so with the director of the department of environmental management.

31 (b) Upon receipt of such application, the director shall conduct a set of public hearings to
32 review the proposal, which shall include a minimum of two (2) hearings where public comment
33 on the application may take place.

34 (c) The director shall also solicit comment on the application proposal from the

1 department of health, the coastal resources management council, and various divisions from the
2 department of environmental management.

3 (d) After such hearing, the director shall render a decision on whether to permit the
4 proposed application for geoengineering, and if permitted, what limitations shall be placed upon
5 the activity.

6 (e) Any person aggrieved by a decision of the director may pursue an appeal of such
7 decision through the administrative procedures act, chapter 35 of title 42.

8 **23-23.8-6. Penalty for violations. --** (a) Any person who knowingly engages in
9 geoengineering within any area of the state or who knowingly fails to comply with the decision of
10 the director shall be punished by a fine of not more than five hundred dollars (\$500) or by
11 imprisonment for not more than ninety (90) days or by both fine and imprisonment, and every
12 person shall be guilty of a separate and distinct offense for each day during which the act of
13 geoengineering shall be conducted, repeated, or continued.

14 (b) Any person who knowingly engages in geoengineering within any area of the state or
15 who knowingly fails to comply with the decision of the director shall also be deemed to be a
16 violation of the air pollution episode control act pursuant to chapter 23 of title 23, and shall be
17 subject to the provisions of that chapter, including, but not limited to, the use of executive orders
18 to limit and restrain the actions of the person in violation thereof.

19 **23-23.8-7. Rules and regulations. --** The director shall promulgate rules and regulations
20 to implement the provisions of this chapter, including, but not limited to, rules and regulations
21 governing the application process to implement geoengineering, the contents of the application,
22 and the standards to be applied in making determinations as to whether to approve, disallow, or
23 modify the application.

24 SECTION 2. This act shall take effect upon passage.

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EXPLANATION
BY THE LEGISLATIVE COUNCIL
OF
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RELATING TO HEALTH AND SAFETY -- GEOENGINEERING

1 This act would define and limit the use of geoengineering in the state. The act would
2 define geoengineering as activities specifically and deliberately designed to effect a change in the
3 area climate. The act would further provide that no person would implement geoengineering in
4 any area of the state without first obtaining the permission of the director of the department of
5 environmental management to do so. The process to obtain such permission would require a
6 minimum of two (2) public hearings prior to any decision being issued.

7 This act would take effect upon passage.

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