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**STATE OF RHODE ISLAND**

**IN GENERAL ASSEMBLY**

**JANUARY SESSION, A.D. 2017**

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A N A C T

RELATING TO HEALTH AND SAFETY -- GEOENGINEERING

Introduced By: Representative Justin Price

Date Introduced: March 01, 2017

Referred To: House Environment and Natural Resources

It is enacted by the General Assembly as follows:

1           SECTION 1. The general assembly finds and declares as follows:

2           (1) Solar radiation management and climate geoengineering research is in an extremely  
3 early stage, but if unrestricted and unregulated, could have an economic impact on the state by  
4 potentially allowing increased amounts of air contaminants and air pollution throughout all areas  
5 of the state.

6           (2) Solar radiation management and climate geoengineering approaches could also have a  
7 negative impact on the state's economy, as well as environmental, soil, water, and air quality,  
8 posing unforeseen and potentially deleterious public health risks.

9           (3) Geoengineering could have a negative impact on the state by upsetting the complex  
10 natural balance in nature, because scientists do not fully understand the vast interconnections  
11 between various species and their environments which make life habitable on earth.

12           (4) Potential but foreseeable hazards of solar radiation management and climate  
13 geoengineering could include:

14           (i) Decreased precipitation and evaporation, including alteration of monsoon patterns, and  
15 potentially delayed recovery of the ozone hole;

16           (ii) Producing reductions in regional rainfall that could rival those of past major droughts,  
17 leading to winners and losers among the human population and possible conflicts over water  
18 along with unnatural storms, torrential rains, and flooding;

19           (iii) Reducing the total amount of direct sunlight reaching earth's surface, which could

1 reduce the effectiveness of solar energy systems;

2 (iv) Promoting an increase in toxic substances into the environment, changing acidity of  
3 soil and adversely affecting the ability of soil to support healthy plants, poisoning domestic and  
4 wild animals, adversely impacting human health, including impacts on forests, crops, built  
5 structures, and ocean ecosystems; and

6 (v) Numerous other potential consequences that would produce air pollution, air  
7 contaminants, and other as yet unforeseen environmental harms.

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

10 CHAPTER 23.8

11 THE CLIMATE GEOENGINEERING ACT OF 2017

12 **23-23.8-1. Short title.**

13 This chapter shall be known and may be cited as "The Climate Geoengineering Act of  
14 2017."

15 **23-23.8-2. Definitions.**

16 As used in this chapter, the following words and phrases shall have the following  
17 meanings:

18 (1) "Air contaminant" means soot, cinders, ashes, dust, fumes, gas, aerosol particles,  
19 including genetically modified particles, mist, or smoke, vapor, odor, toxic, or radioactive  
20 materials, particulate matter, or any combination of these.

21 (2) "Air pollution" means presence in the outdoor atmosphere of one or more air  
22 contaminants in sufficient quantities, which either alone or in connection with other emissions, by  
23 reason of their concentration and duration may be injurious to human, plant or animal life, or  
24 cause damage to property or which unreasonably interfere with the enjoyment of life and  
25 property. This threshold is set forth in §23-23.8-4.

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

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

31 (5) "Director" means the director of the department of environmental management or any  
32 subordinate or subordinates to whom the director has delegated the powers and duties vested in  
33 them by this chapter.

34 (6) "Climate geoengineering" means large-scale manipulation of the global environment

1 intended to manipulate the climate for any purpose. Such options may include, but are not limited  
2 to, the following:

3 (i) Attempts to reduce the overall temperature of the earth, for example, to offset  
4 supposed global warming;

5 (ii) Attempts to increase the overall temperature of the earth, for example, to melt polar  
6 ice caps; and

7 (iii) Attempts to alter the electrical conductivity of any portion of the atmosphere,  
8 whether by chemical, nuclear, or electromagnetic means, for example, to alter earth's natural  
9 processes by electromagnetic radiation.

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

15 **23-23.8-3. Declaration of solar radiation management climate geoengineering policy.**

16 (a) With respect to solar radiation management and climate geoengineering options as  
17 described in this chapter, the general assembly declares that while the potential use of solar  
18 radiation management climate geoengineering options is a topic worthy for both scientific and  
19 other public investigation and debate, research and potential deployment should be strictly  
20 regulated by both the state and the federal government. Such regulation should include  
21 environmental impact assessment for research or deployment above certain thresholds set forth in  
22 §23-23.8-4 and the opportunity for input and comment from the general public, as well as from  
23 the medical, environmental, and scientific communities.

24 (b) Assessments of the impact of solar radiation climate and geoengineering research  
25 and/or deployment must be performed on a continuous basis to ascertain potential impacts on the  
26 environment.

27 (c) All actions, debate, findings, data, operating records inputs and decisions should be  
28 transparent and open for public inspection.

29 **23-23.8-4. Limitations on solar radiation management and climate geoengineering.**

30 (a) Any person seeking to implement, conduct, or engage in any form of solar radiation  
31 management and climate geoengineering in any area of the state shall first file an application to  
32 do so with the director of the department of environmental management.

33 (b) The application should include all of the following information, as well as other  
34 information deemed pertinent by the director and set forth in regulations for climate

1 geoengineering approaches:

2 (1) A detailed description of the proposed project, including its purpose, scope, and  
3 methods to ensure transparency for reporting of results; and

4 (2) A description of the qualification of researchers and methods to ensure that potential  
5 impacts are minimized.

6 (c) Upon receipt of a proposal for solar radiation management and climate  
7 geoengineering research or deployment, the director will conduct an environmental impact  
8 statement conforming to the United States Environmental Protection Agency standards under the  
9 National Environmental Policy Act (NEPA) in all cases where the potential environmental impact  
10 is above that of common commercial activities, with an initial threshold  $\Delta \approx 10^{-6} \text{Wm}^{-2}$ . Upon  
11 receipt of such application, the director shall also convene a set of public hearings to review the  
12 proposal, which shall include a minimum of two (2) hearings where public comment on the  
13 application may take place.

14 (d) The director shall also solicit comment on the application proposal from the  
15 department of health, the coastal resources management council, and various divisions from the  
16 department of environmental management.

17 (e) After the conducting of the environmental impact statement, public hearings and  
18 soliciting agency comments, the director shall render a decision on whether to permit the  
19 proposed application for solar radiation management and climate geoengineering activities, and if  
20 permitted, what limitations and safeguards, if any, shall be placed upon the activity.

21 (f) Any person aggrieved by a decision of the director may pursue an appeal of such  
22 decision through chapter 35 of title 42 (administrative procedures act).

23 (g) In all cases where the application assesses the potential environmental impact to be  
24 below the threshold established in subsection (c) of this section, the proposal will not be subject  
25 to an environmental impact assessment; however, public hearings as set forth above, will still be  
26 conducted, as well as solicitation of comments from state agencies, set forth above.

27 **23-23.8-5. Penalty for violations.**

28 (a) Any person who knowingly engages in solar radiation management and climate  
29 geoengineering within any area of the state or who knowingly fails to comply with the decision of  
30 the director shall be punished by a fine of not more than five million dollars (\$5,000,000) or by  
31 imprisonment for not more than fifteen (15) years or by both fine and imprisonment, and every  
32 person shall be guilty of a separate and distinct offense for each day during which the act of solar  
33 radiation management and climate geoengineering shall be conducted, repeated, or continued.

34 (b) Any person who knowingly engages in solar radiation management and climate

1 geoengineering within any area of the state or who knowingly fails to comply with the decision of  
2 the director shall also be deemed to be in violation of the air pollution episode control act  
3 pursuant to chapter 23 of title 23, and shall be subject to the provisions of that chapter, including,  
4 but not limited to, the use of executive orders to limit and restrain the actions of the person in  
5 violation thereof.

6 **23-23.8-6. Rules and regulations.**

7 The director shall promulgate rules and regulations to implement the provisions of this  
8 chapter, including, but not limited to, rules and regulations governing the application process to  
9 implement solar radiation management and climate geoengineering, the contents of the  
10 application, and the standards to be applied in making determinations as to whether to approve,  
11 disallow, or modify the application.

12 SECTION 3. This act shall take effect upon passage.

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EXPLANATION  
BY THE LEGISLATIVE COUNCIL  
OF  
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1           This act would define and limit the use of solar radiation management and climate  
2           geoengineering in the state. The act would define geoengineering as activities specifically and  
3           deliberately designed to effect a change in the area climate for any purpose. That act would  
4           further provide that no person may implement solar radiation management and climate  
5           geoengineering in any area of the state without first obtaining the permission of the director of the  
6           department environmental management to do so. The process to obtain such permission would  
7           require an environmental impact statement for research or deployment with potential impacts  
8           above a minimum threshold, as well as a minimum of two (2) public hearings prior to any  
9           decision being issued.

10           This act would take effect upon passage.

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