

1 H.328

2 Introduced by Representatives Campbell of St. Johnsbury, Bos-Lun of  
3 Westminster, Chesnut-Tangerman of Middletown Springs,  
4 Headrick of Burlington, Logan of Burlington, Masland of  
5 Thetford, Patt of Worcester, Stebbins of Burlington, and  
6 Troiano of Stannard

7 Referred to Committee on

8 Date:

9 Subject: State buildings; energy; renewable heating system

10 Statement of purpose of bill as introduced: This bill proposes to require the  
11 Department of Buildings and General Services; the Department of Forests,  
12 Parks and Recreation; and the Agency of Transportation to install non-fossil-  
13 fuel space and water heating equipment when replacing or installing new  
14 systems in any building owned or controlled by the State unless an exemption  
15 applies.

16 An act relating to heating and cooling systems owned or controlled by the  
17 State

18 It is hereby enacted by the General Assembly of the State of Vermont:

19 Sec. 1. FINDINGS

20 The General Assembly finds:

1           (1) Local fossil-fuel consumers and suppliers are vulnerable to price  
2           fluctuations driven by a global commodities market and that end-user prices  
3           have historically been unstable, and are likely to be more unstable, as world  
4           and national economies transition away from substantial reliance on fossil  
5           fuels.

6           (2) The State has options to use nonfossil fuels for space and water  
7           heating in buildings that are owned or controlled by the State that provide  
8           equivalent or better performance. In the State of Vermont, non-fossil-fuel  
9           heating options include air- and water-source (geothermal) heat pumps and  
10          wood fuels, such as cord wood, wood chips, and wood pellets.

11          (3) Nonfossil fuels are inherently more price-stable than fossil fuels, as  
12          they are either regulated by the State, in the case of electric, or depend on local  
13          labor and fabrication, in the case of wood fuels, making them less subject to  
14          price spikes in the global market.

15          (4) Fossil fuels are 100 percent imported and costly to the State, with  
16          less than 35 percent of spending on fossil fuels recirculating in the economy.  
17          On the other hand, it is estimated that 70 to 80 percent of spending on  
18          electricity and wood fuels is returned to the economy, supporting jobs and  
19          local businesses.

20          (5) Support for the State's forest products industry is particularly needed  
21          due to the slump in the demand for low-grade wood in the Northeast.

1           (6) The installation of non-fossil-fuel space and water heating systems  
2           will help to meet the State’s renewable energy goals and greenhouse gas  
3           reduction requirements, as required by 10 V.S.A. § 578 and 30 V.S.A. § 202b.

4           (7) The State’s Climate Action Plan incentivizes homes and businesses  
5           to install non-fossil-fuel space- and water-heating equipment when replacing or  
6           installing new systems, and the State should lead by example with the  
7           buildings it owns or controls.

8           Sec. 2. DEFINITIONS

9           As used in this act:

10           (1) “Financially impracticable” means that the estimated life-cycle cost  
11           of the non-fossil-fuel equipment exceeds the life-cycle cost of fossil fuel  
12           equipment, using methodology described in, or substantially the same as, the  
13           National Institute of Standards and Technology’s Handbook 135, “Life Cycle  
14           Costing Manual for the Federal Energy Management Program,” as most  
15           recently updated and incorporating the relevant discount rate and value for the  
16           “social cost of greenhouse gases.” For purposes of calculating the life-cycle  
17           cost of heat pump space conditioning equipment as a heating source,  
18           calculations shall include displacement of conventional cooling-only  
19           equipment wherever feasible.

20           (2) “Fossil fuel equipment” means equipment that derives heating  
21           energy from a fossil fuel, including oil, propane, natural gas, kerosene, or coal.

1           (3) “Non-fossil-fuel equipment” means equipment that derives heating  
2           energy from non-fossil-fuel sources, including biomass or electric-powered air-  
3           source or geothermal heat pumps, district heating, or other systems derived  
4           from nonfossil fuels.

5           Sec. 3. FISCAL YEAR 2025; DEPARTMENT OF BUILDINGS AND  
6                   GENERAL SERVICES; HEATING SYSTEMS;  
7                   REPLACEMENT SCHEDULE; BACKUP POWER

8           (a) Heating systems. Notwithstanding 3 V.S.A. § 2291, and except as  
9           provided in subsections (b) and (c) of this section, beginning in fiscal year  
10           2025, the Department of Buildings and General Services shall only install non-  
11           fossil-fuel equipment as the primary space and water heating systems in  
12           buildings owned or controlled by the Department. When installing or  
13           replacing a system, the State shall give preference to systems using locally  
14           sourced materials wherever feasible.

15           (b) Exemption. The Commissioner may provide a written exemption to the  
16           replacement required in subsection (a) of this section if the Commissioner  
17           determines that it is financially impracticable to install non-fossil-fuel  
18           equipment as the primary space or water heating system.

19           (c) Secondary or backup systems. Notwithstanding subsection (a) of this  
20           section, where non-fossil-fuel equipment is installed as a primary heating  
21           system to replace or supplement existing fossil fuel equipment, the

1 Commissioner may retain the existing fossil fuel equipment as a secondary or  
2 backup system.

3 (d) Report. Beginning on January 15, 2025, and annually thereafter, the  
4 Commissioner shall submit a report to the House Committees on Corrections  
5 and Institutions and on Environment and Energy and the Senate Committees  
6 on Institutions and on Natural Resources and Energy with the basis of each  
7 exemption provided pursuant to subsection (b) of this section, and any fossil  
8 fuel and non-fossil-fuel equipment installed, in the previous calendar year.

9 The report shall also include a table showing fossil and nonfossil fuels used or  
10 delivered annually for space and water heating in the previous three years, the  
11 number of units of each fuel, and the cost of each fuel, which may include an  
12 estimate for electricity data if it is not metered separately. The provisions of  
13 2 V.S.A. § 20(d) (expiration of required reports) shall not apply to the report to  
14 be made under this subsection.

15 Sec. 4. FISCAL YEAR 2025; AGENCY OF TRANSPORTATION;

16 HEATING SYSTEMS; REPLACEMENT

17 SCHEDULE; BACKUP HEATING

18 (a) Heating systems. Notwithstanding 3 V.S.A. § 2291, and except as  
19 provided in subsections (b) and (c) of this section, beginning in fiscal year  
20 2025, the Agency of Transportation shall only install non-fossil-fuel equipment  
21 as the primary space and water heating systems in buildings owned or

1 controlled by the Agency. When installing or replacing a system, the State  
2 shall give preference to systems using locally sourced materials wherever  
3 feasible.

4 (b) Exemption. The Secretary may provide a written exemption to the  
5 replacement required in subsection (a) of this section if the Secretary  
6 determines that it is financially impracticable to install non-fossil-fuel  
7 equipment as the primary space or water heating system.

8 (c) Secondary or backup systems. Notwithstanding subsection (a) of this  
9 section, where non-fossil fuel-equipment is installed as a primary heating  
10 system to replace or supplement existing fossil fuel equipment, the Secretary  
11 may retain the existing fossil fuel equipment as a secondary or backup system.

12 (d) Report. Beginning on January 15, 2025, and annually thereafter, the  
13 Secretary shall submit a report to the House Committees on Corrections and  
14 Institutions and on Environment and Energy and the Senate Committees on  
15 Institutions and on Natural Resources and Energy with the basis of each  
16 exemption provided pursuant to subsection (b) of this section, and any fossil  
17 fuel and non-fossil-fuel equipment installed, in the previous calendar year.  
18 The report shall also include a table showing fossil and nonfossil fuels used or  
19 delivered annually for space and water heating in the previous three years, the  
20 number of units of each fuel, and the cost of each fuel, which may include an  
21 estimate for electricity data if it is not metered separately. The provisions of

1 2 V.S.A. § 20(d) (expiration of required reports) shall not apply to the report to  
2 be made under this subsection.

3 Sec. 5. FISCAL YEAR 2025; DEPARTMENT OF FORESTS, PARKS AND  
4 RECREATION; HEATING SYSTEMS;  
5 REPLACEMENT SCHEDULE; BACKUP HEATING

6 (a) Heating systems. Notwithstanding 3 V.S.A. § 2291, and except as  
7 provided in subsections (b) and (c) of this section, beginning in fiscal year  
8 2025, the Department of Forests, Parks and Recreation shall only install non-  
9 fossil-fuel equipment as the primary space and water heating systems in  
10 buildings owned or controlled by the Department. When installing or  
11 replacing a system, the State shall give preference to systems using locally  
12 sourced materials wherever feasible.

13 (b) Exemption. The Commissioner may provide a written exemption to the  
14 replacement required in subsection (a) of this section if the Commissioner  
15 determines that it is financially impracticable to install non-fossil-fuel  
16 equipment as the primary space or water heating system.

17 (c) Secondary or backup systems. Notwithstanding subsection (a) of this  
18 section, where non-fossil-fuel equipment is installed as a primary heating  
19 system to replace or supplement existing fossil fuel equipment, the  
20 Commissioner may retain the existing fossil fuel equipment as a secondary or  
21 backup system.

1       (d) Report. Beginning on January 15, 2025, and annually thereafter, the  
2       Commissioner shall submit a report to the House Committees on Corrections  
3       and Institutions and on Environment and Energy and the Senate Committee on  
4       Institutions and on Natural Resources and Energy with the basis of each  
5       exemption provided pursuant to subsection (b) of this section, and any fossil  
6       fuel and non-fossil-fuel equipment installed, in the previous calendar year.  
7       The report shall also include a table showing fossil and nonfossil fuels used or  
8       delivered annually for space and water heating in the previous three years, the  
9       number of units of each fuel, and the cost of each fuel, which may include an  
10       estimate for electricity data if it is not metered separately. The provisions of  
11       2 V.S.A. § 20(d) (expiration of required reports) shall not apply to the report to  
12       be made under this subsection.

13       Sec. 6. STATE BUILDINGS; CONSTRUCTION AND RENOVATION;

14               USE OF CARBON-STORING MATERIALS

15       Beginning on January 1, 2026, the Agency of Transportation, the  
16       Department of Buildings and General Services, and the Department of Forests,  
17       Parks and Recreation shall require design and material specifications for new  
18       construction and renovations in State buildings to give preference to carbon-  
19       storing materials. If carbon-storing materials are not available, an assessment  
20       shall be made of the embodied-carbon characteristics of conventional materials



1     and preference given to the lowest embodied-carbon materials wherever  
2     feasible.

3     Sec. 7. EFFECTIVE DATE

4     This act shall take effect on passage.