

STATE OF VERMONT

VERMONT SUPERIOR COURT
WASHINGTON

CIVIL DIVISION
DOCKET No. _____

CONSERVATION LAW FOUNDATION, INC.

Plaintiff

v.

JULIA S. MOORE, in an official capacity as
SECRETARY OF NATURAL RESOURCES,

Defendant.

COMPLAINT

Introduction and Nature of Action

1. In September 2020, the Vermont General Assembly found that “[a]ccording to the Intergovernmental Panel on Climate Change (IPCC), the climate crisis is both caused and exacerbated by greenhouse gas emissions [(i.e., air pollution)] that result from human activity [and that the] IPCC has determined that industrialized countries must cut their emissions to net zero by 2050, which is necessary to achieve the Paris Agreement’s goal of keeping the increase in global average temperature to below 2°C. A climate emergency threatens our communities, State, and region and poses a significant threat to human health and safety, infrastructure, biodiversity, our common environment, and our economy.” 2020 Acts and Resolves No. 153, Sec. 2(1).

2. Since September 2020 this threat has been dramatically realized. Catastrophic and historically anomalous weather in Vermont, especially over the last two years, has damaged property, claimed lives and livelihoods, and imposed severe economic harms to Vermont citizens.

3. To address this climate emergency, the General Assembly enacted the Global Warming Solutions Act (the GWSA) (amending 10 V.S.A. § 578 and codifying 10 V.S.A. chapter 24), which refashioned aspirational greenhouse gas emissions reduction goals that were never achieved to become mandatory greenhouse gas emissions reduction requirements. *Id.*, Sec. 3. Specifically, the State must now reduce its greenhouse gas emissions by:

- not less than 26 percent from 2005 greenhouse gas emissions levels by January 1, 2025 (2025 Reduction Requirement);
- not less than 40 percent from 1990 greenhouse gas emissions levels by January 1, 2030 (2030 Reduction Requirement); and
- not less than 80 percent from 1990 greenhouse gas emissions levels by January 1, 2050 (2050 Reduction Requirement).

10 V.S.A. § 578(a).

4. Vermont was not alone in recognizing the climate crisis and acting upon it, and approximately 20 other U.S. states and multiple countries have enacted climate laws like the GWSA, *see* Center for Climate and Energy Solutions, State Climate Policy Maps (available at: <https://www.c2es.org/content/state-climate-policy/>), and approximately 20 other U.S. governors have “committed to reducing greenhouse gas emissions consistent with the goals of the Paris Agreement” as part of the U.S. Climate Alliance. 2020 Acts and Resolves No. 153, Sec. 2(2); *see also* United States Climate Alliance, Members (available at: <https://usclimatealliance.org/members/>).

5. To aid in the achievement of these greenhouse gas emissions reduction requirements, the General Assembly required the Secretary of Natural Resources (the Secretary) to conduct regular reviews, by specific dates and at set frequencies, and, if necessary based on

those reviews, adopt or amend, or both (hereinafter, collectively or singularly, “adopt”), one or more rules to ensure that the State achieves the statutory greenhouse gas emissions reduction requirements. *See* 10 V.S.A. § 593(d), (f), and (h).

6. Most recently, Defendant, Secretary of Natural Resources Julia S. Moore, was required, “on or before July 1, 2024, [to] review and, if necessary, update” “rules consistent with the specific initiatives, programs, and strategies set forth in the [Climate Action] Plan [(CAP)] and [that] achieve the 2025 greenhouse gas emissions reduction requirement pursuant to [10 V.S.A. § 578 (2025 Reduction Requirement)].” *Id.* § 593(b) and (d).

7. The Secretary wrote to the Vermont Climate Council on July 1, 2024, “to inform [the Vermont Climate Council] of [the Agency of Natural Resources’ (the Agency)] determination[,] under 10 V.S.A. § 593(d) of the Global Warming Solutions Act (GWSA)[,] . . . that it is not necessary to update rules adopted consistent with the Initial CAP by today’s date.” Letter from J. Moore to Vermont Climate Council, July 1, 2024, at p. 1 (Enclosure 1 to Letter from A. Dexter-Cooper and E. Mihaly to J. Moore, July 23, 2024 (attached as Exhibit A)).

8. That determination was based on a review that the Secretary knew or should have known was technically and mathematically insufficient and that fell short of the statutory requirements for the review. *See* 10 V.S.A. § 593(d).

9. Even if the review had been properly conducted, it made a prediction of a razor-thin margin of compliance that fails the statutory requirement that rules be adopted or amended to **ensure** that the State achieves the 2025 Reduction Requirement. The Secretary’s own conclusion necessitated the adoption of one or more rules, as required under statute.

10. Use of technically and mathematically sufficient modeling shows that Vermont is **not**, and by a significant margin, on track to achieve the 2025 Reduction Requirement.

11. To hold State government accountable to its obligations under the GWSA, the General Assembly included a citizen suit provision in the GWSA, *see* 10 V.S.A. § 594, and Plaintiff, Conservation Law Foundation, Inc. (CLF), brings this action to ensure that the Secretary meets the Secretary’s statutory duties.

12. CLF and CLF members have been harmed by the Secretary’s failure to comply with these statutory duties. Accordingly, CLF seeks, among other requests, an order directing the Secretary to (1) conduct a review that meets the requirements of 10 V.S.A. § 593(d) by a date certain and (2) adopt one or more rules necessary to ensure that the 2025 Reduction Requirement is achieved by a date certain.

Parties

Plaintiff

13. Plaintiff, CLF, is a non-profit, member-supported corporation organized under the laws of Massachusetts and operating in Vermont and throughout New England, with the Vermont office located at 15 East State Street, Montpelier, VT 05602.

14. CLF is “a person” as that term is defined in 1 V.S.A. § 128 and used in 10 V.S.A. § 594(a).

15. Founded in 1966, CLF is a regional environmental organization working to conserve natural resources, protect public health, and promote thriving communities, with a mission that includes safeguarding the health and quality of life of New England communities facing the adverse effects of air pollution.

16. CLF advocates for the interests of its more than 5,000 regional members, with approximately 450 members in Vermont.

17. CLF’s deep experience in environmental litigation in Vermont and throughout

New England, and its long history of using the law, science, and policy to work on behalf of CLF members to reduce harmful air emissions from all sectors of the economy, gives it a vested interest in, and experience appropriate to effectively prosecute litigation concerning, the reduction of greenhouse gas emissions in accordance with the GWSA.

18. Since 2020, CLF has, in Vermont, advocated for the enactment of the GWSA, participated in the legislative process concerning the passage of the Affordable Heat Act (AHA)—legislation to effectuate a key policy to reduce Vermont’s thermal sector emissions suggested in the Initial Vermont Climate Action Plan (Initial CAP)—over two bienniums, and is actively participating in the Vermont Public Utility Commission’s proceedings, subsequent to and required by the passage of the AHA, to design the State’s Clean Heat Standard Program. *See* 2023 Acts and Resolves No. 18; Initial CAP at pp.98 and 99 (available at: <https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Initial%20Climate%20Action%20Plan%20-%20Final%20-%2012-1-21.pdf#page=106>).

19. CLF has brought litigation on behalf of itself and its members in Massachusetts and Maine to enforce climate laws that are generally analogous to the GWSA.

Defendant

20. Defendant, Secretary of Natural Resources Julia S. Moore (the Secretary), is the head of the Agency and, in that capacity, responsible for “coordinat[ing] the activities of the various departments and divisions of the Agency for the proper . . . preservation of Vermont’s natural resources,” 3 V.S.A. § 2825; “establish[ing] emission control requirements, by rule, as . . . may be necessary to prevent, abate, or control air pollution[,]” 10 V.S.A. § 558; “adopt[ing] rules . . . consistent with the [CAP,]” *id.* § 593(a); and, “on or before July 1, 2024, review[ing] and, if necessary, updat[ing] the rules required by [10 V.S.A. § 593(b)] in order to ensure that the

2025 [Reduction Requirement] is achieved.” *Id.* § 593(d).

21. “The Vermont Climate Action Office (CAO)[,]” “a division within the Agency[,]” “coordinates and provides significant expertise and capacity on [S]tate-led climate initiatives, as well as the monitoring, assessment and tracking of climate adaptation, mitigation, and resilience activities necessary to evaluate progress over time in achieving the requirements of the [GWSA] through implementation of the [P]lan.” Vermont Climate Action Office Website (available at: <https://climatechange.vermont.gov/climateactionoffice>).

22. The CAO is also “focused on . . . [c]ommunity and [s]takeholder [e]ngagement[.]” *Id.*

23. The State must reduce its greenhouse gas emissions; the Agency must adopt rules consistent with the CAP; and the State will, at least in part, reduce its greenhouse gas emissions if the Agency adopts rules consistent with the CAP. *See* 10 V.S.A. §§ 578(a) and 593(a); Initial CAP at p. 3 (“The recommendations set forth [in the CAP] aim to make real and lasting progress toward the significant greenhouse gas emissions reductions required by the GWSA . . .”).

Jurisdiction and Venue

24. The Vermont Constitution provides that officers of Vermont’s Executive Branch are to be “at all times, in a legal way, accountable to” Vermont citizens. Vt. Const. ch. I, art. 6.

25. The Vermont Constitution obligates this Court to hear civil actions authorized by the General Assembly. *See id.* ch. II, § 31 (“[T]he jurisdiction [of this Court] shall be as provided by law or by judicial rules not inconsistent with law.”).

26. The General Assembly provided by law that any person may commence an action seeking specified relief for the failure of the Secretary to adopt one or more rules as required under 10 V.S.A. § 593. *See* 10 V.S.A. § 594(a) (prospective citizen suit, in advance of the State’s

failure to meet the 2025, 2030, or 2050 Reduction Requirement).

27. This Court has jurisdiction of this action pursuant to Vt. Const. ch. I, art. 6 and ch. II, art. 31, 10 V.S.A. § 594(a), and V.R.C.P. 75.

28. CLF notified the Secretary of the Secretary's alleged violations on July 23, 2024, alleging that the Secretary had failed to conduct a statutorily sufficient review and to adopt one or more rules pursuant to 10 V.S.A. § 593(d) by the July 1, 2024, deadline. *See* Letter from A. Dexter-Cooper and E. Mihaly to J. Moore, July 23, 2024 (attached as Exhibit A).

29. This complaint is timely because more than 60 days have passed since CLF provided notice of alleged violations to the Secretary and the action is filed within one year after July 1, 2024. *See* 10 V.S.A. § 594(a)(2) (The cause of action must be “filed within one year after” July 1, 2024, and commenced “at least 60 days after providing notice of the alleged violation to the Secretary.”).

30. Venue is proper in Washington County, Civil Division pursuant to 10 V.S.A. § 594(a)(1).

Harms to Plaintiff and Plaintiff's Members

31. The Vermont General Assembly made a finding in the GWSA that, “[a]ccording to the Vermont Agency of Natural Resources, the adverse impacts of climate change in Vermont include an increase in the severity and frequency of extreme weather events, a rise in vector-borne diseases including Lyme disease, more frequent cyanobacteria blooms, adverse impacts to forest and agricultural soils, forest and crop damage, shorter and irregular sugaring seasons, a reduction in seasonal snow cover, and variable and rising average temperatures that result in uncertain and less snowfall.” 2020 Acts and Resolves No. 153, Sec. 2(6); *see also* Initial CAP at pp.18–28.

32. The Vermont Climate Council, which was created by the GWSA to, among other duties, adopt and update the State's CAP, included in the Initial CAP that "there are three categories of economic damage where the impacts [of climate change in Vermont] are clear. These are structural damage, human health impacts and the disruption to production and supply chain within the business sector." Initial CAP at p.28.

33. CLF and CLF members have been harmed, and continue to be harmed, by the Secretary's failure to follow the procedural requirements of 10 V.S.A. § 593(c) and (d).

34. Without limitation, the procedural harms sustained by CLF and CLF members include not having access to a statutorily compliant review of the State's progress towards achieving the 2025 Reduction Requirement, not being given an opportunity to participate in public hearings concerning the review, and the Secretary's failure to adopt rules to ensure the achievement of the 2025 Reduction Requirement.

35. The substantive harms sustained by CLF members have included the categories of economic harm over which the General Assembly expressed concern in the legislative findings of the GWSA and the categories of economic damage that the Vermont Climate Council found attributable to the impacts of climate change. *See* 2020 Acts and Resolves No. 153, Sec. 2; Initial CAP at p.28.

36. Particularized harms experienced by CLF members include, without limitation:

a. Personal and real property damage caused by the extreme weather events that have occurred over just the last 14 months—including the flooding in July 2023 and July 2024 and the windstorms in December 2023, January 2024, and August 2024—causing, among other harms, repair expenses, loss of income, inconvenience, stress, fear, and forced isolation.

b. An increase in the population of ticks and vector-borne diseases carried by

ticks, such as Lyme disease and anaplasmosis, in Vermont and a shifting in the seasonality of when ticks are most abundant in Vermont. CLF members routinely have to remove ticks from themselves, family members, and pets and have been treated for vector-borne diseases carried by ticks. These experiences, rational fear over ticks and vector-borne diseases carried by ticks, and the need for caution based on that fear have limited CLF members' use and enjoyment of real and personal property and State lands and other personal enjoyment.

c. Shortened and negatively impacted growing, water-sport recreation, and snow-sport recreation seasons, which have limited the use of property and recreational enjoyment; forced a change in business practices and infrastructure needs, both at significant costs; and caused other financial harm.

37. CLF members are also harmed by reasonable fears that the harm experienced by CLF members to date will continue and be exacerbated by the Secretary's failure to adopt necessary rules.

38. Because "the climate crisis is both caused and exacerbated by greenhouse gas emissions that result from human activity[.]" 2020 Acts and Resolves No. 153, Sec. 2(1), CLF members have a reasonable expectation, sanctioned by the General Assembly, that the adverse impacts of climate change in Vermont will continue unless and until greenhouse gas emissions are reduced in accordance with "the Paris Agreement's goal of keeping the increase in global average temperature to below 2°C." Id.

39. "If the [C]ourt finds that the Secretary has failed to adopt or update rules pursuant to the deadlines in [10 V.S.A. § 593], the [C]ourt shall enter an order directing the Secretary to adopt or update rules[.]" 10 V.S.A. § 594(a)(3), which would, in the future, redress the adverse impacts that CLF members are experiencing due to climate change.

General Allegations

Legal Framework

Enactment of the GWSA and Statutory Greenhouse Gas Emissions Reduction Requirements

40. Vermont enacted the GWSA in 2020. *See* 2020 Acts and Resolves No. 153.

41. The GWSA amended 10 V.S.A. § 578 to refashion overall, non-sector specific, aspirational and historically ineffectual greenhouse gas emissions reduction **goals** to overall, non-sector specific greenhouse gas emissions reduction **requirements** that the State must achieve. *See id.*, Sec. 3; 10 V.S.A. § 578.

42. The law now requires that the State reduce the level of its greenhouse gas emissions by: “(1) not less than 26 percent from 2005 greenhouse gas emissions by January 1, 2025 . . . ; (2) not less than 40 percent from 1990 greenhouse gas emissions by January 1, 2030 . . . ; and (3) not less than 80 percent from 1990 greenhouse gas emissions by January 1, 2050” 10 V.S.A. § 578(a).

43. The stringency of the statutory greenhouse gas emissions reduction requirements ramps up in two ways: (1) by increasing the required reduction over time—from not less than 26 percent, to not less than 40 percent, to not less than 80 percent—and (2) by lowering the baseline emissions level against which the reduction is measured over time—from 2005, a historic high for greenhouse gas emissions, to 1990, a historic low for greenhouse gas emissions. *Id.*

44. The State’s failure to achieve the 2025 Reduction Requirement by January 1, 2025, will compound the challenge of achieving the 2030 Reduction Requirement by January 1, 2030, by requiring a more dramatic reduction of greenhouse gas emissions over the five-year period between January 1, 2025, and January 1, 2030.

45. The critical importance of the State achieving the 2025 Reduction Requirement

can be shown by converting the 2025 Reduction Requirement, the 2030 Reduction Requirement, and the 2050 Reduction Requirement to their allowed annual greenhouse gas emissions levels expressed in million metric tons of carbon dioxide (CO₂) equivalent (MMTCO₂e) and analyzing how much the State needs to reduce annual greenhouse gas emissions each calendar year to linearly keep pace with the statutory greenhouse gas emissions reduction requirements.

	Allowed Annual Greenhouse Gas Emissions	Total Reduction in Annual Greenhouse Gas Emissions from Prior Reduction Requirement	Required Reduction in Annual Greenhouse Gas Emissions if Linear Annual Reduction
2025 Reduction Requirement (based on calendar year (CY) 2024)	7.27 MMTCO ₂ e	1.52 MMTCO ₂ e (8.79 MMTCO ₂ e* – 7.27 MMTCO ₂ e)	0.30 MMTCO ₂ e less per year over CYs 2020–2024 (1.52 MMTCO ₂ e / 5)
2030 Reduction Requirement (based on CY 2029)	5.17 MMTCO ₂ e	2.10 MMTCO ₂ e (7.27 MMTCO ₂ e – 5.17 MMTCO ₂ e)	0.42 MMTCO ₂ e less per year over CYs 2025–2029 (2.10 MMTCO ₂ e / 5)
2050 Reduction Requirement (based on CY 2049)	1.72 MMTCO ₂ e	3.45 MMTCO ₂ e (5.17 MMTCO ₂ e – 1.72 MMTCO ₂ e)	0.17 MMTCO ₂ e less per year over CYs 2026–2049 (3.45 MMTCO ₂ e / 20)

* Total reduction in annual greenhouse gas emission from CY 2019 (the calendar year before passage of the GWSA, since there was no prior requirement).

See 1990–2020 Greenhouse Gas Inventory and Forecast at pp. 7 and 29 (available at: https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/_Vermont_Greenhouse_Gas_Emissions_Inventory_Update_1990-2020_Final.pdf#page=8).

46. Based on this analysis, the State must reduce greenhouse gas emissions over calendar years 2025 through 2029 by approximately 0.1 MMTCO₂e more each year than it did in the preceding five years (calendar years 2020 through 2024), and that required level of greenhouse gas emissions reduction over calendar years 2025 through 2029 increases if the 2025

Reduction Requirement is not met by January 1, 2025.

47. The consequences of a “miss” in achieving the 2025 Reduction Requirement will be even more significant given that the State has not established “programs, policies, [or] rules . . . that are sufficient to meet the reduction requirements of the Global Warming Solutions Act,’ [according to the Secretary,]” E. Cotton, *Will Vermont meet its 2025 climate emissions requirements? Experts clash over the data*, VTDIGGER, Jan. 11, 2024 (available at: <https://vtdigger.org/2024/01/11/will-vermont-meet-its-2025-climate-emissions-requirement-experts-clash-over-the-data/>), and it “‘will be hard pressed if not impossible to get to 2030 without additional rules and regulations,’ [also according to the Secretary.]” A. Giles, *Is Vermont on track to meet its 2025 climate commitments? Not everyone agrees*, VERMONT PUBLIC, Jan. 11, 2024 (available at: <https://www.vermontpublic.org/local-news/2024-01-11/is-vermont-on-track-to-meet-its-2025-climate-commitments-not-everyone-agrees>).

48. The General Assembly affirmatively authorized prospective citizen suits, to be prosecuted in advance of the dates by which the State must achieve greenhouse gas emissions reductions, to hold the State accountable to its greenhouse gas emissions reduction obligations and to provide an opportunity for course correction in advance of the State failing to achieve the 2025, 2030, or 2050 Reduction Requirement, for which the State is subject to a retrospective citizen suit pursuant to 10 V.S.A. § 594(b).

Vermont Climate Council, Citizen Suit Provision, and Regular Reviews

49. The GWSA established the Vermont Climate Council; required the creation and regular updating of the CAP; set a timeline for the regular adoption of rules and review, by the Secretary, of the State’s progress towards achieving the statutory greenhouse gas emissions reduction requirements and, if necessary, the adoption of rules by the Secretary; and created a

citizen suit provision. *See* 2020 Acts and Resolves No. 153, Sec. 4 (enacting 10 V.S.A. chapter 24); 10 V.S.A. chapter 24.

50. The rules required by 10 V.S.A. § 593(b) are “rules consistent with the specific initiatives, programs, and strategies set forth in the Plan and [that] achieve the 2025 [Reduction Requirement].” 10 V.S.A. § 593(b); *see also id.* § 578(a)(1).

51. “[T]o ensure that the 2025 [Reduction Requirement] is achieved[,]” statute requires the Secretary, “on or before July 1, 2024, [to] review and, if necessary, update the rules required by [10 V.S.A. § 593(b)] . . .” *Id.* § 593(d).

52. “In performing [that] review and update, the Secretary” was required to “conduct public hearings across the State . . . [and to] conduct a portion of [the] hearings in areas and communities that have the most significant exposure to the impacts of climate change, including disadvantaged, low-income, and rural communities and areas.” *Id.* § 593(c) and (d).

Factual Background

53. After passage of the GWSA in 2020 and the creation of the Vermont Climate Council, members of the Vermont Climate Council were appointed in accordance with statute and began working on the Initial CAP.

54. The Initial CAP was adopted, as required under statute, in December 2021.

55. The Initial CAP contains approximately 50 unique, prioritized, and specific initiatives, programs, and strategies intended to directly reduce greenhouse gas emissions. *See* Initial CAP at. pp. 68–135.

56. Consistent with the Initial CAP, the Agency adopted the Vermont Low Emission Vehicle and Zero Emission Vehicle Rules in December 2022; and, based on this adoption date and 42 U.S.C. § 7507(2), the mandatory phaseout of the sale of internal combustion engine

vehicles in Vermont will not be applicable until model year 2026. *See* Vermont Low Emission Vehicle and Zero Emission Vehicle Rules, Code of Vt. Rules 12-030-039 (available at: https://dec.vermont.gov/sites/dec/files/aqc/laws-regs/documents/Chapter_40_LEV_ZEV_rule_adopted.pdf).

57. In 2023, the Agency retained Energy Futures Group, Inc. (EFG) to study one aspect of greenhouse gas emissions reductions, specifically to “compare[] building sector policy options designed to meet the emissions reduction requirements for energy use in the residential, commercial, and industrial (RCI) building sectors.” *The Analysis of Buildings / Thermal Energy Sector Emissions Reduction Policies for Vermont*, Nov. 2023 (the EFG Report) at p. 9 (available at: https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/VT%20Thermal%20Analysis%20Final%20Report%2011_28%20revisions.pdf#page=9).

58. Based upon information and belief, the Agency did not retain EFG to analyze whether the State would be able to ensure the achievement of the 2025 Reduction Requirement and there was no reference in the EFG Report to the Agency retaining EFG to do such an analysis.

59. Based upon information and belief, EFG only performed the contracted work.

60. In performing the contracted work, EFG utilized the Low Emissions Analysis Platform (LEAP), which is a modeling tool for energy policy analysis and climate change mitigation assessment, to update an existing model of the State’s greenhouse gas emissions and predict emissions from RCI building sectors under different policy options.

61. The model updated by EFG is known as Pathways 3.27. *See id.* at p. 72.

62. According to the EFG Report, EFG’s updates to the existing model of the State’s greenhouse gas emissions were limited and not intended to align the existing model with the

State's historic greenhouse gas emissions data, as reported under the State's official Greenhouse Gas Inventory and Forecast (the GHG Inventory), or with the methodology used in the GHG Inventory. *See id.* at pp. 9, 25, 31, and 32.

63. Because Pathways 3.27 is not aligned to historic greenhouse gas emissions or the methodology used in the GHG Inventory, it cannot reliably predict future greenhouse gas emissions.

64. EFG issued the EFG Report, after relying upon Pathways 3.27, in November 2023. *See id.* at pp. 1 and 72.

65. The EFG Report did not assess whether the State would be able to ensure achievement of the 2025 Reduction Requirement without the adoption of one or more rules. *See Comparison of LEAP Model and Inventory Indicators of Progress to 2025 GWSA Requirements*, Jan. 17, 2024, at slide 2 (Enclosure 2 to Letter from A. Dexter-Cooper and E. Mihaly to J. Moore, July 23, 2024 (attached as Exhibit A)) (“Scope and use of [the EFG Report] not meant to document attainment of requirements[.]”).

66. The EFG Report states: “The modeled economy-wide emissions for the GWSA compliance years of 2025, 2030 and 2050 presented in this report **should not be viewed as indicative of the [S]tate’s likelihood of achieving those emission levels in those years.**” The EFG Report at pp. 35 and 36 (emphasis added).

67. Based upon information and belief, the Agency did not retain any other person, as that term is defined in 1 V.S.A. § 128, to assess whether the State would be able to ensure achievement of the 2025 Reduction Requirement without the adoption of one or more rules.

68. As early as December 2023, the Secretary relied on the EFG report and the underlying Pathways 3.27 modeling to assert to the Speaker of the Vermont House of

Representatives and the President Pro Tempore of the Vermont Senate that the State was narrowly on track to achieve the 2025 Reduction Requirement and would not need to adopt any new rules or amend any existing rules in accordance with 10 V.S.A. § 593(d). *See* Letter from J. Moore to P. Baruth and J. Krowinski, Dec. 18, 2023, at p. 3 (“The [EFG R]eport, which was received in November, found the cumulative impact of recent [S]tate and federal funding initiatives ‘ . . . narrows the gap between emissions reductions projected under current conditions and those required by the GWSA . . . ’ relative to both the 2025 and 2030 climate pollution reduction requirements. . . . ANR’s Climate Action Office estimates that **Vermont is on track to meet the 2025 climate pollution reduction requirement mandated by the GWSA.**” (emphasis and some modifications in original)) (attached as Exhibit B).

69. The Secretary continued to rely on the EFG Report and underlying Pathways 3.27 modeling to claim that the State was narrowly on track to achieve the 2025 Reduction Requirement in multiple presentations—first, in separate presentations, to the Senate Committee on Natural Resources and Energy and the Vermont Climate Council in January 2024, and then to the Cross Sector Mitigation Subcommittee of the Vermont Climate Council in June 2024. *See* Climate Action Office: Senate Natural Resources and Energy, Jan. 10, 2024, at slide 9 (available at: <https://legislature.vermont.gov/Documents/2024/WorkGroups/Senate%20Natural%20Resources/Climate%20Action/W~Jane%20Lazorchak~Climate%20Action%20Office~1-10-2024.pdf#page=9>); Updated Vermont Pathways Baseline Emissions, Jan. 29, 2024, at slide 11 (available at: https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/2024_0129_climate_council_pathways.pdf#page=8); Updated Vermont Pathways Baseline Emissions, June 13, 2024, at slide 11 (available at: [16](https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Cross-Sector_Mitigation_Subcommittee/Documents/06-</p></div><div data-bbox=)

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70. For each of the Secretary's assertions that the State was on track to achieve the 2025 Reduction Requirement, the Secretary did not cite or refer to any modeling or other source apart from the EFG Report and underlying Pathways 3.27 modeling.

71. As early as January 10, 2024, the Agency was publicly criticized in the Senate Committee on Natural Resources and Energy and the Vermont Climate Council for not properly aligning the Pathways 3.27 model to the GHG Inventory methodology and historic greenhouse gas emissions data and therefore predicting, with Pathways 3.27, annual greenhouse gas emissions that were much lower than actual, known greenhouse gas emissions for calendar years that had already closed. *See, e.g.*, Testimony to Senate Natural Resources & Energy Committee, Jan. 10, 2024 (available at: <https://legislature.vermont.gov/Documents/2024/WorkGroups/Senate%20Natural%20Resources/Climate%20Action/W~Jared%20Duval~Testimony%20and%20further%20slides~1-10-2024.pdf>).

72. Based upon information and belief, the Agency did not itself, or with the assistance of any consultant or other person, as defined in 1 V.S.A. § 128, align Pathways 3.27 to the GHG Inventory methodology and historic greenhouse gas emissions between January 10, 2024, and June 13, 2024.

73. On June 13, 2024, the Agency, through the Climate Action Office (CAO), presented to the Cross Sector Mitigation Subcommittee of the Vermont Climate Council and advised that, according to Pathways 3.27, the State's greenhouse gas emissions for calendar year 2024 would be 13 thousand metric tons of carbon dioxide equivalent emissions (kMTCO_{2e}) below the 2025 Reduction Requirement. Updated Vermont Pathways Baseline Emissions, June 13, 2024, at slide 11.

74. A margin of 13 kMTCO₂e is less than one percent of the total annual greenhouse gas emissions reductions required between calendar years 2020 and 2024 to achieve the 2025 Reduction Requirement (1.52 MMTCO₂e) and less than 0.2 percent of the allowed annual greenhouse gas emissions if the State were to achieve the 2025 Reduction Requirement (7.27 MMTCO₂e).

75. Even if the EFG Report had been an analysis of whether the State would be able to ensure achievement of the 2025 Reduction Requirement without the adoption of one or more rules, a prediction of being 13 kMTCO₂e below the 2025 Reduction Requirement is too small a margin of compliance to ensure that the 2025 Reduction Requirement would be achieved.

76. An employee of the Agency, within the CAO, has admitted that “[e]ven when that difference between the Pathways [3.27] 2025 number and the [2025 Reduction Requirement] was larger—130 [kMTCO₂e], 150 [kMTCO₂e], you know— . . . [the employee] certainly always looked at it as it’s going to be very close and [the employee] couldn’t tell you one way or another [whether the 2025 Reduction Requirement would be achieved].”). Vermont Climate Council Cross Sector Mitigation Subcommittee, June 13, 2024, at 24:25 (available at: <https://youtu.be/mlP4jYzhQyw?si=KNAaimeY-pRYRXHF&t=1465>).

77. The Secretary notified the Vermont Climate Council on July 1, 2024, that, based on the EFG Report, the State was narrowly on track to achieve the 2025 Reduction Requirement. *See* Letter from J. Moore to Vermont Climate Council, July 1, 2024 (Secretary’s July 2024 Letter), at p. 1 (Enclosure 1 to Letter from A. Dexter-Cooper and E. Mihaly to J. Moore, July 23, 2024 (attached as Exhibit A)).

78. Since July 1, 2024, another employee of the Agency, within the CAO, has admitted that Pathways 3.27 “[w]as [not] intended to say that [the State is] meeting the [2025

Reduction Requirement]” but “[w]as [] intended to be a guidepost to say, directionally, [whether the State is] doing the right work[.]” E. Cotton, *New data shows Vermont’s emissions trending slightly downward*, VTDIGGER, July 25, 2024 (available at: <https://vtdigger.org/2024/07/25/new-data-shows-vermonts-emissions-trending-slightly-downward/>).

79. CLF retained Synapse Energy Economics, Inc. (Synapse) to calculate the undercounting of annual greenhouse gas emissions under Pathways 3.27, and Synapse approximates that Pathways 3.27 is undercounting annual greenhouse gas emissions by approximately 320 kMTCO_{2e}.

80. Based upon Synapse’s approximation, Synapse predicts that the State is on track to have a calendar year 2024 greenhouse gas emissions level, which is what is required to be **under** the 2025 Reduction Requirement, that is approximately 307 kMTCO_{2e} **over** the 2025 Reduction Requirement.

81. The State being 307 kMTCO_{2e} over the 2025 Reduction Requirement is equivalent to the greenhouse gas emissions generated by Vermonters driving more than 785,000,000 miles in gasoline-powered passenger vehicles over the course of calendar year 2024. See U.S. Environmental Protection Agency, Greenhouse Gas Equivalencies Calculator (available at: <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>).

82. A miss of that magnitude would represent an achievement of only approximately 80 percent of the total annual greenhouse gas emissions reductions required over calendar years 2020 to 2024 to achieve the 2025 Reduction Requirement (1.52 MMTCO_{2e}).

83. As of July 1, 2024, and to date, the Agency has not adopted any rules consistent with the CAP since the adoption of Vermont Low Emission Vehicle and Zero Emission Vehicle Rules in December 2022 and has therefore not adopted any rules since December 2022 to ensure

achievement of the 2025 Reduction Requirement.

84. Based upon information and belief, as of July 1, 2024, and to date, the Agency has not conducted any public hearings on anything that has been held out by the Agency as the review required under 10 V.S.A. § 593(d), including the Secretary's July 2024 Letter.

85. As a result of the Agency not conducting any public hearings on the required review, CLF and CLF members were unable to participate in any public hearings on anything that has been held out by the Agency as the review required under 10 V.S.A. § 593(d).

Claims for Relief

Count I – Failure to Conduct a Review as Required Under 10 V.S.A. § 593(d)

86. CLF hereby repeats and realleges paragraphs 1 to 85 as if fully set forth herein.

87. As enacted by the GWSA, 10 V.S.A. § 593 sets out a timeline for the Secretary, with the assistance of the Agency and the Vermont Climate Council, to ensure that the State achieves the greenhouse gas emissions reduction requirements by January 1, 2025, 2030, and 2050. *See* 10 V.S.A. § 593.

88. The most recent step in that timeline was for the Secretary to, by July 1, 2024, conduct a review and, if necessary, adopt one or more rules consistent with the CAP to ensure the State achieves the 2025 Reduction Requirement. *See id.* § 593(d).

89. The Secretary knew or should have known that the Pathways 3.27 modeling relied on in the Secretary's July 2024 Letter was technically and mathematically insufficient to reliably predict achievement of the 2025 Reduction Requirement and was not intended for that use, and therefore the Secretary failed to comply with the statutory requirements for the review required under 10 V.S.A. § 593(d).

**Count II –
Failure to Adopt or Amend Rules as Required Under 10 V.S.A. § 593(d)
Based on Modeling from Pathways 3.27**

90. CLF hereby repeats and realleges paragraphs 1 to 85 as if fully set forth herein.

91. Based upon information, belief, and the June 13, 2024, presentation from the CAO to the Cross Sector Mitigation Subcommittee of the Vermont Climate Council, the Agency considers the Pathways 3.27 model relied on in the Secretary's July 2024 Letter to meet the statutory requirements for the review required under 10 V.S.A. § 593(d), despite its creator, EFG, expressly disclaiming to the contrary.

92. Based upon information, belief, and the June 13, 2024, presentation from the CAO to the Cross Sector Mitigation Subcommittee of the Vermont Climate Council, the Agency predicted that the State's greenhouse gas emissions for calendar year 2024 would be 13 kMTCO_{2e} under the 2025 Reduction Requirement.

93. Under 10 V.S.A. § 593(d), the trigger for requiring the adoption of one or more rules is if the Secretary's review indicates that the adoption of one or more rules is necessary to **ensure** that the 2025 Reduction Requirement is achieved.

94. Even if the Pathways 3.27 model meets the statutory requirements for the review required under 10 V.S.A. § 593(d), despite its creator, EFG, expressly disclaiming to the contrary, the Pathways 3.27 prediction of being 13 kMTCO_{2e} under the 2025 Reduction Requirement cannot ensure that the 2025 Reduction Requirement will be achieved.

95. Based on the results of the Pathways 3.27 modeling, the Secretary needed to adopt one or more rules to ensure that the 2025 Reduction Requirement would be met.

96. Even if the Pathways 3.27 model meets the statutory requirements for the review required under 10 V.S.A. § 593(d), despite its creator, EFG, expressly disclaiming to the contrary, then the Secretary has failed to comply with 10 V.S.A. § 593(d) because the Secretary did not

adopt one or more rules by July 1, 2024, to ensure that the State achieves the 2025 Reduction Requirement.

**Count III –
Failure to Conduct Public Hearings as Required Under 10 V.S.A. § 593(c) and (d)**

97. CLF hereby repeats and realleges paragraphs 1 to 85 as if fully set forth herein.

98. The statute that required the Secretary to conduct a review by July 1, 2024, explicitly includes the requirement that “[i]n performing th[e] review and update, the Secretary shall observe the requirements of [10 V.S.A. § 593(c)].” *Id.* § 593(d).

99. The General Assembly chose not to limit the observance of 10 V.S.A. § 593(c) to instances where the Secretary’s review indicated that it is necessary to adopt one or more rules. *See id.* § 593(d) (“In performing this review and update, the Secretary shall observe the requirements of [10 V.S.A. § 593(c)].”).

100. The requirements of 10 V.S.A. § 593(c) include: “conduct[ing] public hearings across the State . . .” and “conduct[ing] a portion of these hearings in areas and communities that have the most significant exposure to the impacts of climate change, including disadvantaged, low-income, and rural communities and areas.” *Id.* § 593(c).

101. Based upon information and belief, the Secretary has not conducted any public hearings on anything that has been held out by the Agency as the review required under 10 V.S.A. § 593(d), including the Secretary’s July 2024 Letter.

102. The Secretary has, in failing to conduct public hearings as part of the required review, failed to comply with the procedural requirements of 10 V.S.A. §§ 593(c) and (d).

Request for Relief

WHEREFORE, Plaintiff, Conservation Law Foundation, Inc., respectfully requests that judgment be entered in Plaintiff’s favor and that the Court provide the following relief:

- a. Find that Defendant, the Vermont Secretary of Natural Resources, has not conducted a review that meets the requirements of 10 V.S.A. § 593(d);
- b. Find that Defendant has failed to adopt or update, or both, rules by July 1, 2024, to ensure that the greenhouse gas emissions reduction requirement in 10 V.S.A. § 578(a)(1) (2025 Reduction Requirement) is achieved, as required by 10 V.S.A. § 593(d);
- c. Find that Defendant did not conduct public hearings as required under 10 V.S.A. § 593(c) and (d);
- d. Enter an order directing Defendant to conduct a review that meets the requirements of 10 V.S.A. § 593(d) and the requirements of 10 V.S.A. § 593(c), as applicable, by a date certain;
- e. Enter an order directing Defendant to adopt or update, or both, one or more rules, in accordance with 10 V.S.A. § 594(a)(3), by a date certain to ensure that the 2025 Reduction Requirement is achieved by a date certain;
- f. Award CLF its reasonable costs and attorney's fees pursuant to 10 V.S.A. § 594(c)(1);
and
- g. Grant such other and further relief that the Court deems equitable and just.

Respectfully submitted this 24th day of September, 2024,

CONSERVATION LAW FOUNDATION, INC.

By its attorneys,

/s/ Elena Mihaly_____

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EXHIBIT A



July 23, 2024

Via email only

Secretary Julia S. Moore, P.E.
Agency of Natural Resources
1 National Drive, Davis 2
Montpelier, VT 05620-3901
Julie.Moore@vermont.gov

Re: Notice of Alleged Violation of 10 V.S.A. § 593(d)

Dear Secretary Moore:

This letter will serve as a notice of alleged violation of 10 V.S.A. § 593(d) (failure to review and, if necessary, update rules on or before July 1, 2024) sent pursuant to 10 V.S.A. § 594(a) on behalf of Conservation Law Foundation (CLF) and its affected members.

Specifically, CLF notifies the Agency of Natural Resources (ANR) that, in violation of 10 V.S.A. § 593, the Secretary of Natural Resources (the Secretary) has failed:

1. Contrary to subsection (d), to, “on or before July 1, 2024,” conduct a statutorily sufficient review of whether the State was on track to “achieve the 2025 greenhouse gas emissions reduction requirement pursuant to [10 V.S.A. § 578 (2025 Reduction Requirement)].”¹
2. Contrary to subsection (d), to, “on or before July 1, 2024,” if necessary, adopt one or more new rules and/or amend one or more existing rules “in order to ensure that the 2025 [Reduction Requirement] is achieved.”²
3. Contrary to subsections (c) and (d), to, as part of the most recent “review and update”³ “conduct public hearings across the State . . . [and to] conduct a portion of [the] hearings in areas and communities that have the most significant exposure to the impacts of climate change, including disadvantaged, low-income, and rural communities and areas.”⁴

CLF sets out the circumstances of these violations in this notice of alleged violation.

¹ 10 V.S.A. § [593\(d\)](#).

² [Id.](#)

³ [Id.](#)

⁴ 10 V.S.A. § [593\(c\)](#).

BACKGROUND

The Global Warming Solutions Act (GWSA) amended 10 V.S.A. § 582 in 2020 to change overall, not sector specific, aspirational greenhouse gas emissions reduction goals to greenhouse gas emissions reduction requirements that the State must achieve by each of January 1, 2025, January 1, 2030, and January 1, 2050.⁵ The GWSA also established the Vermont Climate Council, required the creation and regular updating of the Climate Action Plan (CAP), set a timeline for the regular adoption and/or amendment of rules and review of the State’s progress towards achieving the statutory greenhouse gas emissions reduction requirements by the Secretary, and created a citizen suit provision.⁶

Under this statutory framework, the Secretary is and will, in the future, be obligated to conduct certain reviews, and carry out rulemaking activity incident to those reviews, that must ensure that the State reduces its greenhouse gas emissions below specific limits as of specific deadlines. The work underlying and stemming from these reviews is imperative if Vermont is going to achieve its statutory greenhouse gas emissions reduction requirements and do its part in aiding industrialized countries to “cut their [greenhouse gas] emissions to net zero by 2050, which is necessary to achieve the Paris Agreement’s goal of keeping the increase in global average temperature to below 2°C.”⁷ As the Vermont General Assembly found in 2020: “A climate emergency threatens our communities, State, and region and poses a significant threat to human health and safety, infrastructure, biodiversity, our common environment, and our economy.”⁸ This climate emergency affects us all.

Specific to the most recent required review, the Secretary was required to, “on or before July 1, 2024, review and, if necessary, update the rules required by [10 V.S.A. § 593(b)] in order to ensure that the 2025 [Reduction Requirement] is achieved[,]”⁹ where the rules required by 10 V.S.A. § 593(b) are “rules consistent with the specific initiatives, programs, and strategies set forth in the [Climate Action] Plan and achieve the 2025 [Reduction Requirement].”¹⁰ “In performing [that] review and update, the Secretary”¹¹ is required to “conduct public hearings across the State . . . [and to] conduct a portion of [the] hearings in areas and communities that have the most significant exposure to the impacts of climate change, including disadvantaged, low-income, and rural communities and areas.”¹²

⁵ [2020 Acts and Resolves No. 153, Sec. 3](#) (amending 10 V.S.A. § 578).

⁶ [Id., Sec. 4](#) (codifying 10 V.S.A. chapter 24).

⁷ [Id., Sec. 2\(1\)](#) (legislative findings).

⁸ [Id.](#)

⁹ 10 V.S.A. § [593\(d\)](#); *see also* 10 V.S.A. § [578\(a\)\(1\)](#).

¹⁰ 10 V.S.A. § [593\(b\)](#); *see also* 10 V.S.A. § [578\(a\)\(1\)](#). While the Vermont Climate Council shall “[p]rovide guidance to the Secretary of Natural Resources concerning the form, content, and subject matter of rules to be adopted pursuant to [10 V.S.A. § 593,]” 10 V.S.A. § [591\(b\)\(4\)](#), that subdivision should not be read as modifying the Secretary’s statutory obligations, but as requiring something of the Vermont Climate Council.

¹¹ 10 V.S.A. § [593\(d\)](#).

¹² 10 V.S.A. § [593\(c\)](#).

OVERVIEW OF ALLEGATIONS

Based on the Secretary’s July 1, 2024, letter to the Vermont Climate Council (ANR’s Official Review),¹³ CLF is aware that the Secretary relied on the modeling conducted by Energy Futures Group, Inc. (EFG) in preparing *The Analysis of Buildings / Thermal Energy Sector Emissions Reduction Policies for Vermont, Nov. 2023* (EFG Report)¹⁴ to determine that the State will narrowly achieve the 2025 Reduction Requirement. Reliance on that modeling to determine whether the State would achieve the 2025 Reduction Requirement was technically and mathematically insufficient and therefore does not meet the statutory requirements for the review.

That modeling (1) was not intended to analyze or document anticipated achievement of the State’s greenhouse gas emissions reduction requirements, including the 2025 Reduction Requirement, (2) utilized a model that was not properly aligned with the State’s Greenhouse Gas Inventory and Forecast (GHG Inventory) methodology¹⁵ and the State’s historic greenhouse gas emissions data,¹⁶ and (3) even so, predicted such a narrow margin of achievement of the 2025 Reduction Requirement that the modeled result cannot support the statutory review requirement, which is that the State **will** achieve the 2025 Reduction Requirement without further action.¹⁷ A sufficient review, based on a proper model, fairly interpreted, could only conclude that the State was **not** on track to achieve the 2025 Reduction Requirement, which, pursuant to statute, should prompt the swift adoption of one or more new rules and/or amendment of one or more existing rules.¹⁸

¹³ See Letter from J. Moore to Vermont Climate Council (July 1, 2024) (ANR’s Official Review) (Enclosure 1).

¹⁴ See [The Analysis of Buildings / Thermal Energy Sector Emissions Reduction Policies for Vermont, Nov. 2023](#) (EFG Report).

¹⁵ As will be discussed in more detail in note 43, *infra*, any Low Emissions Analysis Platform (LEAP) model results (LEAP Model) alignment with GHG Inventory methodology and the State’s historic greenhouse gas emissions data should be based on the GHG Inventory methodology that ANR is currently using because ANR frequently changes the GHG Inventory methodology to better track actual greenhouse gas emissions based on available data.

¹⁶ CLF retained Synapse Energy Economics, Inc. (Synapse) to analyze the LEAP Model that EFG prepared as part of the EFG Report and to identify any deficiencies in the inputs of the LEAP Model as it relates to the State’s current GHG Inventory. As will be discussed in Sec. 1.D, *infra*, Synapse has determined that there are significant deficiencies in the inputs of the LEAP Model.

¹⁷ CLF also retained Synapse to calculate the calendar year 2024 greenhouse gas emissions that the LEAP Model would have forecasted if the inputs of the LEAP Model were properly aligned with the State’s GHG Inventory methodology and the State’s historic greenhouse gas emissions data. As will be discussed in Sec. 1.D, *infra*, Synapse has determined that the State is not expected to achieve the 2025 Reduction Requirement.

¹⁸ While CLF supports “ANR regularly review[ing] and updat[ing] the LEV/ZEV rule to maintain consistency with program adjustments made by the California Air Resources Board and to comply with the ‘identity’ requirement of the Clean Air Act[.]” none of that review and update is in response to any review of Vermont’s progress towards achieving the 2025 Reduction Requirement. See ANR’s Official Review at note 1. Further, 10 V.S.A. § 593(b) requires the adoption and implementation of “rules **consistent with** the specific initiatives, programs, and strategies set forth in the [Climate Action] Plan **and** achieve the 2025 [Reduction Requirement].” 10 V.S.A. § [593\(b\)](#) (emphasis added). Reading this only to require the adoption of the one rule that was

And, in terms of the public hearings required under 10 V.S.A. § 593(c) and (d), as of July 1, 2024, and to date, ANR has not conducted any public hearings on anything that has been held out by ANR as the review required under 10 V.S.A. § 593(d).

In light of the Secretary’s failure to conduct a review that meets the statutory requirements, adopt one or more new and/or amend one or more existing rules, and engage in public hearings, CLF notifies the Secretary that CLF, on behalf of itself and its affected members, may commence litigation pursuant to 10 V.S.A. § 594(a) after the expiration of the 60-day notice period.

SPECIFIC ACTIONS ALLEGED TO BE VIOLATIONS OF 10 V.S.A. § 593(d)

1. The Secretary of Natural Resources’ Review Does Not Meet Statutory Requirements Because the Review Relied on Inadequate Modeling and Incorrectly Determined that the State Would Achieve the 2025 Reduction Requirement

A. The LEAP Model Prepared for the EFG Report (Pathways 3.27) Was Not Intended to Predict Greenhouse Gas Emissions for Purposes of Achieving the 2025 Reduction Requirement

The core problem with the Low Emissions Analysis Platform (LEAP) Model prepared for the EFG Report (Pathways 3.27) is that, as EFG has itself stated, Pathways 3.27 was not “meant to document attainment of requirements[.]”¹⁹ Pathways 2.01 and 2.11 were developed in 2021 as part of the State’s work related to the CAP, also using the LEAP Model; then, as part of the development of the EFG Report, EFG made some updates to the LEAP Model to create Pathways 3.27 in 2023.²⁰ The updates to the business as usual scenario within the LEAP Model were not done to align the LEAP Model to GHG Inventory methodology and the State’s historic greenhouse gas emissions data, but rather to add assumptions to aid in predicting changes in future emissions if the State pursued certain policies.²¹ But EFG did not assess whether the LEAP Model had, in the first place, been properly aligned to GHG Inventory methodology and the State’s historic greenhouse gas emissions data. In ANR and EFG’s own words, Pathways 3.27 was intended to be used to “compar[e] policies for reducing emissions in [the thermal] sector[.]”²² not “to document attainment requirements[.]”²³ And EFG was careful to

specifically identified in the Climate Action Plan is too narrow given the plain meaning and use of the emphasized words—“consistent with” and “and”—and the significance of the breadth of work done by the Vermont Climate Council in preparing the Climate Action Plan.

¹⁹ Comparison of LEAP Model and Inventory Indicators of Progress to 2025 GWSA Requirements, Jan. 17, 2024 (EFG Slides) at slide 2 (Enclosure 2)

²⁰ See [Climate Action Office: Senate Natural Resources and Energy, Jan. 10, 2024 \(ANR Slides, Jan. 10, 2024\), at slide 5](#); [Updated Vermont Pathways Baseline Emissions, Jan. 29, 2024 \(ANR Slides, Jan. 29, 2024\), at slide 6](#); [Updated Vermont Pathways Baseline Emissions, June 13, 2024 \(ANR Slides, June 13, 2024\), at slide 6](#).

²¹ See [Analysis of Buildings / Thermal Energy Sector Emissions Reduction Policies for Vermont, Presentation to the Cross-Sector Mitigation Subcommittee, Nov. 30, 2023, at slide 38](#); EFG Report at pp. [25](#) and [31 and 32](#).

²² [ANR Slides, Jan. 10, 2024, at slide 5](#).

²³ EFG Slides at slide 2.

acknowledge that its work would not allow ANR to predict attainment by including the following disclaimer in the EFG Report: “The modeled economy-wide emissions for the GWSA compliance years of 2025, 2030 and 2050 presented in this report should not be viewed as indicative of the [S]tate’s likelihood of achieving those emission levels in those years.”²⁴

EFG also noted to ANR that the “[i]nventory and LEAP methods are different[,]”²⁵ and the scope of work for the EFG Report was predominately focused on the thermal sector and policy analysis for strategies to achieve the by January 1, 2030, and by January 1, 2050, greenhouse gas emissions reduction requirements.²⁶

Given the purpose of the EFG Report and Pathways 3.27 and EFG’s disclaimer about the greenhouse gas emissions predicted by Pathways 3.27 not being viewed as indicative of the State’s likelihood of achieving those greenhouse gas emissions levels, ANR’s reliance on Pathways 3.27 could **never** meet the statutory obligation that the review “ensure” that the 2025 Reduction Requirement would be achieved.

EFG provided ANR with clear advice about the limitations of EFG’s work as it relates to fulfillment of the Secretary’s duties under 10 V.S.A. § 593. ANR cannot, therefore, credibly point to EFG’s modeling work as representing compliance with the Secretary’s obligations to do a review that meets statutory requirements.

And, while outside the scope of this notice of alleged violation, CLF is concerned that ANR is now using Pathways 3.27, without any explanation of further alignment to GHG Inventory methodology and the State’s historic greenhouse gas emissions data, in lieu of the traditional forecast component of the GHG Inventory.²⁷ While ANR is correct that not “having two differing sets of projected values[,]” from the traditional forecast component of the GHG Inventory and the LEAP Model, “will help to maintain consistency and [] avoid confusion[,]”²⁸ Pathways 3.27, given its intended purpose, should be aligned to the GHG Inventory methodology and the State’s historic greenhouse gas emissions data, not the other way around.²⁹ Comparing the calendar year 2025 greenhouse gas emissions forecast of 8.55 million metric tons of carbon dioxide equivalent emissions (MMTCO_{2e}) from Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2020, Apr. 2023³⁰ to the calendar year 2026 greenhouse gas emissions forecast of 7.21 MMTCO_{2e} from Vermont Greenhouse Gas Emissions Inventory and Forecast 1990–2021, July 2024³¹ shows just how significant using Pathways 3.27 for the forecast

²⁴ [EFG Report at pp. 35 and 36.](#)

²⁵ EFG Slides at slide 2.

²⁶ [EFG Report at pp. 20 and 21](#) (objectives).

²⁷ *See* Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2021, July 2024 at pp. [6](#) and [26 and 27](#).

²⁸ *Id.* at p. [6](#).

²⁹ *See* Sec. 1.D, *infra*.

³⁰ [Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2020, Apr. 2023 at p. 7.](#)

³¹ [Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2021, July 2024 at p. 27](#) (ANR acknowledges that “2021 emissions from [Pathways 3.27] are approximately [six percent] below the 2021

component of the GHG Inventory is. This is a more than 1.3 MMTCO_{2e} difference, the equivalent of more than 15 percent of annual greenhouse gas emissions.³²

B. The Secretary of Natural Resources Did Not Modify Pathways 3.27 After Receiving Criticism on How Pathways 3.27 Was Used to Show That the State Was on Track to Achieve the 2025 Reduction Requirement

After the EFG Report, Pathways 3.27, and how ANR was using Pathways 3.27 to show that the State was on track to achieve the 2025 Reduction Requirement were made public, there was criticism of the lack of alignment³³ with GHG Inventory methodology and the State’s historic greenhouse gas emissions data made on or around January 10, 2024.³⁴ Following that criticism, EFG explained to ANR, on or around January 17, 2024, that it was possible to “[h]armoniz[e] and validat[e] LEAP to [the GHG I]nventory [through] additional careful analysis[,]”³⁵ which ANR appears not to have done and, subsequent to that criticism and explanation from EFG, once again represented, on January 29, 2024, this time to the entire Vermont Climate Council, that the State was on track to achieve the 2025 Reduction Requirement.³⁶ ANR’s Official Review also appears to inaccurately explain the timing of a correction to increase greenhouse gas emissions from the agriculture sector in Pathways 3.27 in such a way that makes it appear like the correction was made after the public criticism, when, in fact, the correction was indicated in ANR’s presentation that preceded the criticism.³⁷

C. Initial Presentation of Results from Pathways 3.27 Was for Calendar Year 2025 Greenhouse Gas Emissions, not Calendar Year 2024 Greenhouse Gas Emissions

ANR initially presented, on January 10, 2024, calendar year 2025 greenhouse gas emissions data

[GHG I]nventory emissions . . .[.]” showing that there is a known gap between Pathways 3.27 modeled greenhouse gas emissions and the State’s historic greenhouse gas emissions according to the GHG Inventory.).

³² Calculated by dividing approximately 1.3 MMTCO_{2e} by approximately 8.0 MMTCO_{2e}.

³³ Alignment will be discussed in further detail in Sec. 1.D, *infra*.

³⁴ See generally [Senate Committee on Natural Resources and Energy, Jan. 10, 2024, at 2:10:30](#); J. Duval Testimony to Senate Natural Resources & Energy Committee, Jan. 10, 2024, at slides [10](#) and [12–17](#); [E. Cotton, Will Vermont meet its 2025 climate emissions requirements? Experts clash over the data, VTDigger \(Jan. 11, 2024\)](#) (Secretary of Natural Resources acknowledges that “whether the [greenhouse gas emissions] data could still be used to determine that the [S]tate is on track for the 2025 deadline” is “an open question following the discussion” in the Senate Committee on Natural Resources and Energy on January 10, 2024.); [A. Giles, Is Vermont on track to meet its 2025 climate commitments? Not everyone agrees, Vermont Public \(Jan. 11, 2024\)](#).

³⁵ EFG Slides at slide 2.

³⁶ See [ANR Slides, Jan. 29, 2024, at slide 11](#).

³⁷ It appears to be accurate that EFG built in an assumption that reduced the greenhouse gas emissions from the agriculture sector by 50 percent, but that assumption was modified before the January 10, 2024, presentation to the Senate Committee on Natural Resources and Energy. See [ANR Slides, Jan. 10, 2024, at slides 7 and 8](#). That this assumption had already been modified by January 10, 2024, does not align with ANR’s Official Review, which indicates that it was “[a]fter concerns were raised by several Climate Councilors about the updated analysis presented in the EFG report, [that] staff reviewed model assumptions with the contractors who carried out the analysis and confirmed that, [there needed to be] an adjustment to emissions in one sector (agriculture) . . .” ANR’s Official Review at p. 2.

as predicted by Pathways 3.27 to show that the State was on track to be more than 100 thousand metric tons of carbon dioxide equivalent emissions (kMT or kMTCO_{2e}) under the 2025 Reduction Requirement.³⁸ This was an obvious error as 10 V.S.A. § 578(a)(1) requires that the 2025 Reduction Requirement be achieved “**by** January 1, 2025” (emphasis added), which means that the correct calendar year to analyze is calendar year 2024, not calendar year 2025. ANR eventually, in a presentation on June 13, 2024, presented calendar year 2024 greenhouse gas emissions data as predicted by Pathways 3.27 to show that the State was on track to be just 13 kMT under the 2025 Reduction Requirement—a razor-thin margin of compliance.³⁹

CLF is troubled by the timing of the modification and its disclosure on June 13, 2024, mere weeks before the July 1, 2024, deadline and more than five months after the first presentation to the Senate Committee on Natural Resources and Energy.⁴⁰ This timeline⁴¹ for presenting ANR’s corrected interpretation of Pathways 3.27 significantly limited the opportunity for the General Assembly and its committees, the Vermont Climate Council and its subcommittees, and the public to question the modeling eventually underlying ANR’s Official Review in a way that might have allowed course correction through rulemaking before July 1, 2024.

D. The Assumptions in Pathways 3.27 Were Not Aligned to GHG Inventory Methodology and the State’s Historic Greenhouse Gas Emissions

In short, although ANR has asserted a predicted 13 kMT clearance under the 2025 Reduction Requirement based on predictions from Pathways 3.27, it has done so despite its consultant advising, in plain words, that the modeling in Pathways 3.27 was not “meant to document attainment of requirements[.]”⁴² Partly for that reason, CLF retained Synapse to review Pathways 3.27 and the underlying LEAP Model and assess, based on available data, whether Pathways 3.27 undercounts or overcounts projected greenhouse gas emissions in light of GHG Inventory methodology and the State’s historic greenhouse gas emissions.

The following table shows the approximate extent to which Synapse estimates greenhouse gas emissions for calendar year 2024 as predicted by Pathways 3.27 will deviate from greenhouse

³⁸ [ANR Slides, Jan. 10, 2024, at slide 9](#) (“Pathways 3.27 2025”).

³⁹ [ANR Slides, June 13, 2024, at slide 11](#) (“Pathways 3.27 2025 (CY 2024)”).

⁴⁰ See [ANR Slides, Jan. 10, 2024, at slide 9](#); [ANR Slides, June 13, 2024, at slide 11](#).

⁴¹ The Administration, including ANR, has, in recent months, shifted away from an earlier argument that the State has all of calendar year 2025 to achieve the 2025 Reduction Requirement. Compare [Senate Committee on Natural Resources and Energy, Jan. 10, 2024, at 2:53:45](#) (“[I]f you read the GWSA, [] that clause goes on to allude to reduction requirements in line with the U.S. Climate Alliance and Paris Climate Agreement, which actually gives you all of 2025 . . . [I]t does [likely matter] when we’re talking about how close we are here for 2025 and [] that’s something that our legal counsel at ANR has engaged the [Attorney General’s Office] around looking at what year of an inventory is [] what will really count for legal action around the GWSA.”), with [Vermont Climate Council Cross Sector Mitigation Subcommittee, June 13, 2024, at 8:50](#) (“I have updated this. . . We’ve been talking about 2025 and 2030, but because those dates in the Act are January 1, it’s actually calendar year 2024 and 2029 emissions. . . . It’s important to note that it is actually calendar year 2029.”); see also [Clean Heat Standard Technical Advisory Group Subgroup on Pacing, May 8, 2024, at 25:00](#).

⁴² EFG Slides at slide 2.

gas emissions for calendar year 2024 as measured under the GHG Inventory⁴³:

Source	Approximate Under (+)/Over (-) Counting of Projected Emissions (per Synapse Analysis)
Electric	-40 kMT
Thermal	+100 kMT
Transportation	0 kMT
Fossil Fuel Transmission and Distribution	0 kMT
Industrial Process	+90 kMT
Waste Management	+30 kMT
Agriculture	+200 kMT
Necessary Change to Pathways 3.27	+380 kMT
Corrected Pathways 3.27 Comparison to 2025 Reduction Requirement	Approximately 367 kMT OVER 2025 Reduction Requirement

⁴³ This analysis is based on Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2020, Apr. 2023, as that is the GHG Inventory that was publicly available when Pathways 3.27 was prepared and when ANR presented to the Senate Committee on Natural Resources and Energy and the Vermont Climate Council in January 2024, when ANR presented to the Cross Sector Mitigation Subcommittee of the Vermont Climate Council in June 2024, and when the Secretary sent ANR’s Official Review on July 1, 2024. However, ANR released the Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2021, July 2024 on July 19, 2024, and the GHG Inventory methodology has changed slightly from the methodology that was used to prepare the Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2020, Apr. 2023. *See, e.g., Vermont Greenhouse Gas Emissions Inventory and Forecast Methodologies, July 2024 at p. 9* (“In previous versions of the GHG Inventory onroad diesel estimates were taken from [Energy Information Administration State Energy Data System (SEDS)], however, in the 1990–2021 iteration of the GHG Inventory diesel sales data from [the Joint Fiscal Office] have been incorporated into the inventory to capture the use of onroad diesel after being adjusted to remove the estimated biodiesel component of the fuel, which is still taken from SEDS.”). This change in GHG Inventory methodology also yielded a small change in the 2025 Reduction Requirement because the 2025 Reduction Requirement is statutorily based on 1990 greenhouse gas emissions levels and all the historic emissions levels change whenever the GHG Inventory methodology changes. *See id. at p. 8* (“It is important to note that each additional year of the Vermont GHG Inventory updates all of the historical values as appropriate, due to updates in historical federal datasets, methodology updates or refinements, or the incorporation and backward projection of the impacts of more accurate and/or Vermont specific datasets.”); *compare Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2020, Apr. 2023 at p. 29* (Greenhouse gas emissions level in calendar year 2005 was 9.83 MMTCO_{2e}.), *with Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2021, July 2024 at p. 28* (Greenhouse gas emissions level in calendar year 2005 was 9.86 MMTCO_{2e}.). It is imperative that any update to the State’s use of the LEAP Model to align it with GHG Inventory methodology and the State’s historic greenhouse gas emissions be aligned with **current** GHG Inventory methodology, whatever that is, and the State’s historic greenhouse gas emissions as measured under current GHG Inventory methodology. Failure to align with current GHG Inventory methodology will only perpetuate problems caused by misalignment. CLF is encouraged to see that ANR has made some modifications to the LEAP Model beyond Pathways 3.27 in the analysis underlying the forecast component to Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2021, July 2024, but this interpretation is based on data that CLF received in response to a public records request, *see LEAP_2026_2031* (Enclosure 3), and there is no public explanation for the modifications. Of note in this modified LEAP Model data is that it now predicts that the State will **not** achieve the 2025 Reduction Requirement. *Compare* 2024 Forecast from *LEAP_2026_2031* (Enclosure 3) (7.4 MMTCO_{2e}), *with* 2025 Reduction Requirement from *Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2021, July 2024 at p. 28* (7.3 MMTCO_{2e}, calculated by taking 74 percent of the 2005 greenhouse gas emissions of 9.86 MMTCO_{2e}).

In sum, CLF believes that if Pathways 3.27 was properly aligned to GHG Inventory methodology and the State’s historic greenhouse gas emissions, it would show that the State is on course to be approximately 367 kMT **over** the 2025 Reduction Requirement. Put another way, a proper model would predict, between calendar year 2020 and calendar year 2024, a reduction in greenhouse gas emissions that is less than half of what the Secretary is required to ensure.⁴⁴

It is important to emphasize that CLF is not, in this notice, notifying ANR of a disagreement between experts concerning which assumptions should be applied to a predictive model. EFG has made clear to ANR that Pathways 3.27 is not meant to predict whether the State will achieve the 2025 Reduction Requirement. The only expert analysis that does utilize a LEAP Model aligned with GHG Inventory methodology and the State’s historic greenhouse gas emissions data to predict whether the State will achieve the 2025 Reduction Requirement (of which CLF is aware) is that of Synapse, which shows the State is on course for material failure, which should have triggered the Secretary to adopt one or more rules and/or amend one or more rules in order to ensure that the State would achieve the 2025 Reduction Requirement.

E. The Results from Pathways 3.27 for Calendar Year 2024 Greenhouse Gas Emissions Do Not Ensure That the State will Achieve the 2025 Reduction Requirement

The Pathways 3.27 prediction of a 13 kMT margin of compliance, even if it were correct, does not meet the Secretary’s statutory obligation to “ensure” that the State will achieve the 2025 Reduction Requirement. That predicted margin of compliance (13 kMT) represents less—substantially less—than one percent of the statutory limit for the 2025 Reduction Requirement (7.275 MMTCO_{2e}).⁴⁵ It is, in fact, a margin of under 0.2 percent, which does not “ensure” that the State will achieve the 2025 Reduction Requirement. As EFG advised ANR in mid-January 2024, “modeled reductions are significant **but do not meet the 26 [percent] requirement**.”⁴⁶

As far as CLF is aware, ANR never disclosed that advisement from EFG to the public, as part of a public hearing or otherwise, although there was an admission from the Director of the Vermont Climate Office that “[the EFG Report] does not ensure that [the State is] on track to meet [the 2025 Reduction Requirement, but is] a strong signal that the work that [the State is] doing currently has a good chance and a good opportunity for [the State] to [achieve the 2025 Reduction Requirement].”⁴⁷

⁴⁴ Greenhouse gas emissions from calendar year 2020 are 7.99 MMTCO_{2e}, see [Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990–2020, Apr. 2023 at p. 7](#), and the 2025 Reduction Requirement is 7.275 MMTCO_{2e}, see [ANR Slides, June 13, 2024, at slide 11](#), for a total required reduction of 715 kMT between calendar year 2020 and calendar year 2024. Based on Synapse’s analysis, the total greenhouse gas emissions for calendar year 2024 will be approximately 7.64 MMTCO_{2e}, or an overall approximate reduction of 350 kMT from calendar year 2020 (7.99 MMTCO_{2e} less 7.64 MMTCO_{2e}), and 350 kMT is less than 50 percent of 715 kMT.

⁴⁵ [ANR Slides, June 13, 2024, at slide 11](#).

⁴⁶ EFG Slides at slide 2 (emphasis added).

⁴⁷ [A. Giles, Is Vermont on track to meet its 2025 climate commitments? Not everyone agrees, Vermont Public \(Jan. 11, 2024\)](#).

As is noted in ANR’s Official Review, the Secretary’s statutory obligation is to “‘on or before July 1, 2024, review and, if necessary, update’ [ANR’s] rules adopted consistent with the Initial Climate Action Plan (CAP), ‘in order to ensure that the 2025 [Reduction Requirement] is achieved.’”⁴⁸ It is not, as is claimed in ANR’s Official Review, sufficient for the Secretary to find that the State is “generally on track to meet the 2025 [Reduction Requirement.]”⁴⁹ Predicting that the State will be 13 kMT under the 2025 Reduction Requirement may be “generally on track,” but “being generally on track” is not the same as “ensuring achievement.”⁵⁰

2. The Secretary of Natural Resources Failed to Conduct Public Hearings as Statutorily Required

One of the statutes enacted by the GWSA obligated the Secretary, in performing the first of regular “review[s] and update[s] to observe the requirements of [10 V.S.A. § 593(c)].”⁵¹ That subsection (c) requires the Secretary to “conduct public hearings across the State . . . [and] conduct a portion of th[o]se hearings in areas and communities that have the most significant exposure to the impacts of climate change, including disadvantaged, low-income, and rural communities and areas.”⁵² The General Assembly specifically required public hearings as part of every review—not just those reviews resulting in the adoption or amendment of one or more rules.⁵³

Based on records that CLF has received and reviewed in response to a public records request, a monitoring of ANR’s website, a recent review of ANR’s website and the State’s public meetings calendar for the first six months of 2024,⁵⁴ and ANR’s Official Review, CLF is not aware of any public hearing that ANR conducted on anything that has been held out as related to the review of whether the State is on track to achieve the 2025 Reduction Requirement, including on the EFG Report and/or ANR’s Official Review.⁵⁵

⁴⁸ ANR’s Official Review at p. 1 (quoting 10 V.S.A. § 593(d)).

⁴⁹ ANR’s Official Review at p. 2.

⁵⁰ An ANR employee has also indicated that: “Even when that difference between the Pathways 2025 number and the GWSA number was larger—130, 150, you know— . . . [the ANR employee] certainly always looked at it as it’s going to be very close and [the ANR employee] couldn’t tell you one way or another [whether the 2025 Reduction Requirement would be achieved].” [Vermont Climate Council Cross Sector Mitigation Subcommittee, June 13, 2024, at 24:25.](#)

⁵¹ 10 V.S.A. § [593\(d\)](#).

⁵² 10 V.S.A. § [593\(c\)](#).

⁵³ 10 V.S.A. § [593\(d\)](#). In terms of future reviews and updates, 10 V.S.A. § 593(f) and (h) obligate the Secretary to conduct hearings as described in 10 V.S.A. § 593(c) at a minimum of every two years between 2026 and 2030 and between 2040 and 2050, also without regard to whether rules are being adopted or amended. 10 V.S.A. § [593\(f\) and \(h\)](#).

⁵⁴ See [Public Meeting Calendar for State Agencies](#).

⁵⁵ While ANR presented on the EFG Report before the Senate Committee on Natural Resources and Energy (January 10, 2024), the Vermont Climate Council (January 29, 2024), and the Cross Sector Mitigation Subcommittee of the Vermont Climate Council (June 13, 2024), none of those presentations was a public hearing. Nor were any of those presentations “in areas and communities that have the most significant exposure to the impacts of climate change,” 10 V.S.A. § [593\(c\)](#), nor were they held out as anything other than an update.

CLF’S REQUESTED REMEDIES

All the data, as analyzed by EFG and Synapse, shows that the Secretary cannot ensure that the State is on track to achieve the 2025 Reduction Requirement, and is therefore not in compliance with statute. Given the much more challenging timeline for the by January 1, 2030, and by January 1, 2050, greenhouse gas emissions reduction requirements, the State’s ability to achieve those requirements absent significant efforts, including through rulemaking, continues to be in serious doubt given all available evidence and ANR’s own admissions.⁵⁶ For that reason, CLF and its members reserve the right to seek a judicial remedy as is allowed under 10 V.S.A. § 594.

However, during this 60-day notice period, CLF is willing to discuss effective remedies for the violations noted in this notice of alleged violation that may avoid the necessity of protracted litigation. Such remedies would require prompt discussions and, at a minimum, include: ANR updating the State’s use of the LEAP Model to align with current⁵⁷ GHG Inventory methodology and the State’s historic greenhouse gas emissions and consistently using that updated model for all greenhouse gas emissions forecasting;⁵⁸ ANR issuing a revised Official Review that relies on that updated LEAP Model; discussions around the role of public hearings in those reviews; and a plan for expeditious and impactful rulemaking if the updated review indicates, as CLF believes it will, that the State is not on track to achieve the 2025 Reduction Requirement.

CONCLUSION

CLF looks forward to discussing this time-sensitive matter, which impacts all Vermonters, with ANR as soon as possible. If ANR wants to pursue such discussions, please have ANR’s attorney

See [ANR Slides, Jan. 10, 2024, at slide 1](#) (Slide deck title: “Climate Action Office: Senate Natural Resources and Energy”); [ANR Slides, Jan. 29, 2024, at slide 1](#) (Slide deck title: “Updated Vermont Pathways Baseline Emissions”); and [ANR Slides, June 13, 2024, at slide 1](#) (Slide deck title: “Updated Vermont Pathways Baseline Emissions”). And ANR’s Official Review does not appear to have been made available to the public, including on the Climate Change in Vermont website, see <https://climatechange.vermont.gov> (last checked by CLF on July 23, 2024), but rather just sent to the Vermont Climate Council.

⁵⁶ [A. Giles, Is Vermont on track to meet its 2025 climate commitments? Not everyone agrees, Vermont Public \(Jan. 11, 2024\)](#) (“‘I think we will be hard pressed if not impossible to get to 2030 without additional rules and regulations,’ Moore said.”).

⁵⁷ See note 43, *supra* (discussion on the importance of aligning to current GHG Inventory methodology).

⁵⁸ CLF believes that ANR agrees that this update is necessary based on representations that ANR made to the Vermont Climate Council Cross Sector Mitigation Subcommittee on June 13, 2024, see [Vermont Climate Council Cross Sector Mitigation Subcommittee, June 13, 2024, at 17:05](#) (“[G]oing forward, [we’re] working with [] SEI directly, the people that built the [LEAP] Model and are the owners of the [] LEAP software[.] We’re going to engage them in[.], probably[,] a four year contract . . . [W]e also want to have them on board to be able to [] help us with updating the [LEAP] Model with [] more recent information that’s available . . .”), and that the Secretary made in ANR’s Official Review. See ANR’s Official Review at pp. 2 and 3 (“ANR plans to have an updated baseline scenario available by January 2025 that will incorporate data and forecasts that have been produced since the release of the EFG [R]eport in November 2023 and refine elements of the model to better reflect near-term historical emissions.”). It is also consistent with the Secretary’s statement that: “Absolutely we want to make sure we are making decisions based on the best available information and fully utilizing datasets that exist[.]” [A. Giles, Is Vermont on track to meet its 2025 climate commitments? Not everyone agrees, Vermont Public \(Jan. 11, 2024\)](#).

contact Anthea Dexter-Cooper as soon as possible so that negotiations may be completed before the end of the 60-day notice period. We do not intend to delay the filing of a complaint in court if discussions are continuing at the conclusion of the 60 days.

Thank you for ANR's attention to this urgent matter.

Sincerely,

/s/ Anthea Dexter-Cooper
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Enclosures

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Senate Committee on Natural Resources and Energy
Vermont Climate Council

ENCLOSURE 1

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July 1, 2024

To the Vermont Climate Council:

The Agency of Natural Resources (ANR) is writing to inform you of its determination under 10 V.S.A. § 593(d) of the Global Warming Solutions Act (GWSA). Specifically, 10 V.S.A. § 593(d) states that ANR must, “on or before July 1, 2024, review and, if necessary, update” its rules adopted consistent with the Initial Climate Action Plan (CAP), “in order to ensure that the 2025 greenhouse gas emissions reduction requirement is achieved.”

As explained in greater detail below, ANR has determined that it is not necessary to update rules adopted consistent with the Initial CAP by today’s date. Specifically, ANR has reviewed the rules called for in the CAP – known collectively as the Low Emissions Vehicle and Zero Emissions Vehicle Rule – that were adopted in December 2022 and has made program adjustments as needed to ensure the success of this program.¹ As recognized in the Plan, these rules represent a critical step to meeting Vermont’s GHG emissions reduction requirements for the transportation sector.²

In addition, since the enactment of the GWSA in September 2020, staff and leadership throughout many agencies of state government, along with countless volunteers and dozens of expert consultants, have worked to meet the intent of the legislation and address climate change and its impacts on Vermont. Together, we have invested thousands of hours of time and effort designing, improving and implementing programs, developing models and tracking tools, preparing reports, offering testimony, soliciting and responding to public comments, and participating in regional and national level working groups.

¹ See, e.g., *Final Proposed Rule Amendments, Low Emissions Vehicle and Zero Emissions Vehicle (LEV/ZEV) Rule*, Rule No. 23P043, <https://secure.vermont.gov/SOS/rules/results.php> (ANR regularly reviews and updates the LEV/ZEV rule to maintain consistency with program adjustments made by the California Air Resources Board and to comply with the “identity” requirement of the Clean Air Act).

² A summary of ANR’s rules adopted Dec. 2022 pursuant to the Plan can be found here, https://dec.vermont.gov/sites/dec/files/aqc/laws-regs/documents/Regulation_Summary_Document_LCAR.pdf; see also Initial Climate Action Plan, at 72 (Dec. 2021) (assigning to ANR the task of adopting California’s Advanced Clean Cars II, Advanced Clean Trucks, Low NOx Heavy-Duty Omnibus, and the Phase 2 Greenhouse Gas Rules), <https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Initial%20Climate%20Action%20Plan%20-%20Final%20-%202012-1-21.pdf>.



The net result of this work, and tens of millions of dollars' worth of investment, shows that we are generally on track to meet the 2025 greenhouse gas emissions (GHG) reduction requirements of the GWSA. While actual compliance will be determined when the 2025 *Vermont Greenhouse Gas Inventory and Forecast* is published, ANR technical staff and contractors have reassessed and updated models to project anticipated reductions in GHG emissions resulting from significant state and federal investments in climate action that are underway in Vermont. This analysis was summarized in a report prepared by Energy Futures Group, Stockholm Environment Institute, and Cadmus Group (“the EFG Report”).³

After concerns were raised by several Climate Councilors about the updated analysis presented in the EFG report, staff reviewed model assumptions with the contractors who carried out the analysis and confirmed that, with an adjustment to emissions in one sector (agriculture), the baseline scenario fully considers the available data and relies on a set of model inputs consistent with similar modeling done to support both the Initial Climate Action Plan and the State’s Comprehensive Energy Plan. Updated baseline scenario model results (also referred to as “business as usual” or “BAU”) presented in the EFG report demonstrated that the state is generally on track to meet the 2025 GHG target reductions.

Further, ANR recognizes that significant, on-going investments in climate action will be needed to meet the GHG emission reduction requirements of the GWSA. In 2023, ANR secured a \$3 million planning grant from the Environmental Protection Agency’s (EPA) Climate Pollution Reduction Grants (CPRG) program.⁴ This grant funded the design of priority action plans for funding in six key sectors (electricity generation industry, transportation, buildings, agriculture/natural and working lands, and waste management). Consistent with the CPRG program, in March of 2024, ANR prepared a Priority Climate Action Plan (PCAP) and will develop a Comprehensive Climate Action Plan in mid-2025. These strategic projects prioritize climate actions that are designed to achieve maximum reductions in GHG emissions by investing in existing programs with the capacity to implement GHG reduction projects over the next several years. Such projects will provide significant benefits to Vermont citizens and communities.⁵

Relatedly, ANR has also applied for a CPRG implementation grant from EPA to support key actions identified in the PCAP. ANR is still awaiting information about this grant award, but based on conversations with EPA, we anticipate receiving a grant award of \$50-100 million later this year.

Throughout, ANR has and will continue to carefully monitor progress toward GHG emission reductions and regularly share this information with the Climate Council and Legislature. To this end, ANR plans to have an updated baseline scenario available by January 2025 that will incorporate data and forecasts that have been produced since the release of the EFG report in

³ *The Analysis of Buildings / Thermal Energy Sector Emissions Reduction Policies for Vermont*, Nov. 2023, https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/VT%20Thermal%20Analysis%20Final%20Report%2011_28%20revisions.pdf.

⁴ Climate Pollution Reduction Grant Planning, <https://climatechange.vermont.gov/cprg>.

⁵ Priority Climate Action Plan, https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/Vermont_CPRG_Priority%20Climate%20Action%20Plan.pdf (describing community benefits associated with each measure proposed to reduce GHG emissions).



November 2023 and refine elements of the model to better reflect near-term historical emissions. This work will be used to inform development of the forthcoming update to the Climate Action Plan (due July 1, 2025) and identify projects and actions needed to meet the 2030 GHG emissions reduction requirements of the GWSA.

Please do not hesitate to reach out to us with questions regarding this determination.

Sincerely,



Julia S. Moore, P.E.
Secretary



ENCLOSURE 2



energyfuturesgroup.com

Comparison of LEAP Model and Inventory Indicators of Progress to 2025 GWSA Requirements

1/17/24



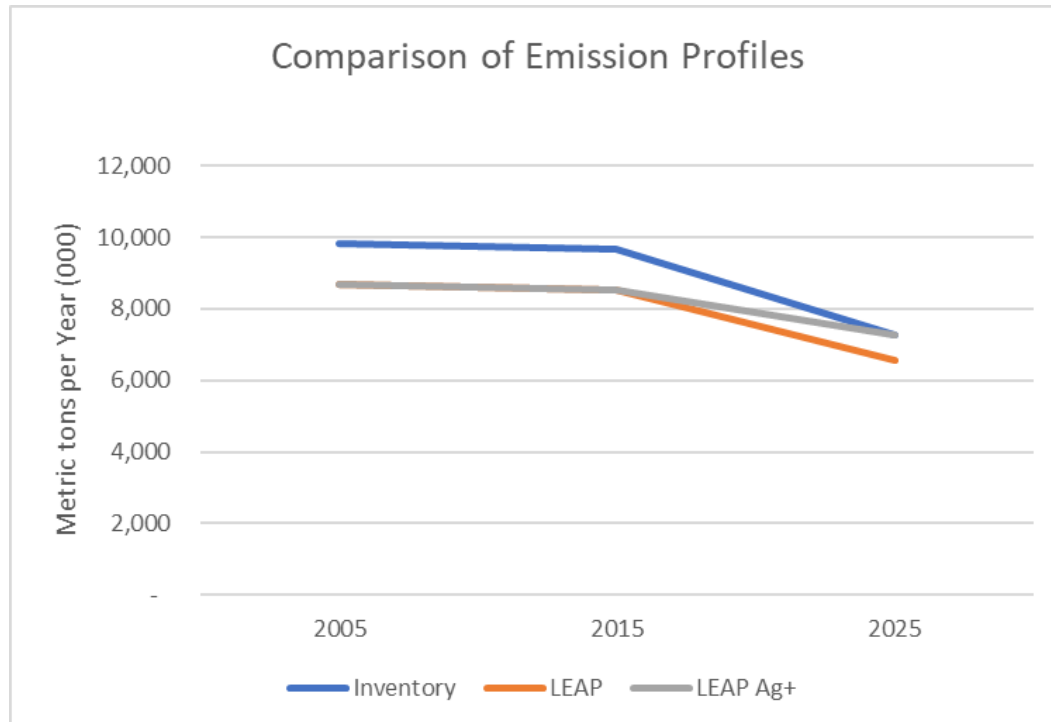
Context – Key Points

1. Scope and use of thermal study not meant to document attainment of requirements
2. Inventory and LEAP methods are different
3. Can extrapolate LEAP back to 2005 using either 2015 or 2020 as basis
4. Can examine adjusting ag sector emissions back up, and reductions based on carbon budget report
5. Modeled reductions are significant but do not meet 26% requirement
6. Harmonizing and validating LEAP to inventory requires additional careful analysis



Graphic and Tabular Review

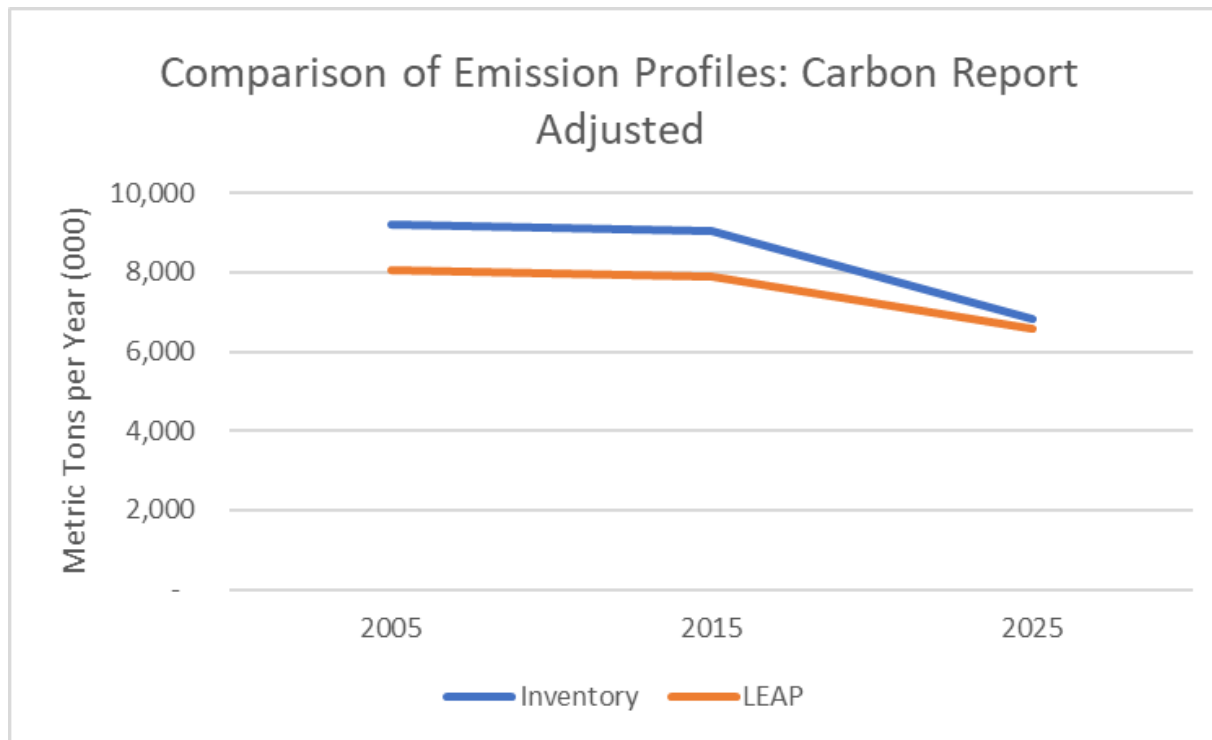
	Emissions (Million Metric Tons)				Estimated % Reductions				Implied %	
	2005	2015	2020	2025	2005-2015	2005-2020	2015-2025	2020-2025	2015	2020
VT Inventory	9.83	9.66	7.99	n.a.	1.7%	18.7%	n.a.	n.a.		
LEAP	n.a.	8.53	7.66	7.24	n.a.	n.a.	15.1%	5.5%	16.6%	23.2%
									64%	89%



Note: Results reflect adjustments to Ag Sector but do not include differences between LEAP and Inventory for other sectors.

Graphic and Tabular Review

	Emissions (Million Metric Tons)				Estimated % Reductions				Implied %	
	2005	2015	2020	2025	2005-2015	2005-2020	2015-2025	2020-2025	2015	2020
VT Inventory	9.20	9.03	7.99	n.a.	1.8%	13.2%	n.a.	n.a.		
LEAP	n.a.	7.90	7.66	6.56	n.a.	n.a.	17.0%	14.4%	18.5%	25.7%
									71%	99%



Note: Results reflect adjustments to Ag Sector but do not include differences between LEAP and Inventory for other sectors.

ENCLOSURE 3

Sector	2026	2031
Agriculture	1,327.25	1,344.00
Electricity generation	179.05	133.49
Transmission and distribution	23.93	21.98
Transportation	2,856.23	2,368.86
Industrial Processes	571.67	586.36
Residential	876.54	622.32
Commercial	828.55	742.97
Industrial	406.01	407.62
Waste	138.80	140.06
Total	7,208.03	6,367.67

Sector	2026	2031
Agriculture	1.33	1.34
Electricity generation	0.20	0.16
Transportation	2.86	2.37
Industrial Processes	0.57	0.59
Residential/Commercial/Industrial Fuel Use (RCI)	2.11	1.77
Waste	0.14	0.14
LEAP Model Total	7.21	6.37

Branch	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2040	2050
Agriculture	1,310.0	1,306.1	1,308.2	1,312.9	1,317.8	1,322.6	1,327.2	1,331.3	1,334.9	1,338.0	1,341.2	1,344.0	1,346.4	1,348.4	1,349.8	1,351.0	1,352.1	1,353.2	1,370.1
Commerci	867.1	893.6	884.1	872.4	858.9	844.5	828.6	811.7	794.5	776.2	757.4	743.0	728.7	714.9	702.3	693.0	686.0	661.8	654.9
Electricity	177.7	163.6	135.6	112.3	120.2	135.4	179.0	177.4	129.8	163.9	134.3	133.5	183.5	158.2	147.5	196.7	216.5	310.0	516.9
Heat Prod	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industrial	481.7	418.3	406.7	406.2	406.1	406.0	406.0	406.1	406.2	406.3	406.5	407.6	408.7	409.9	411.0	412.2	414.3	422.8	445.7
Industrial F	555.3	556.6	559.1	562.2	565.4	568.5	571.7	574.7	577.7	580.6	583.5	586.4	589.2	591.9	594.5	597.1	599.7	609.5	638.2
Residentia	1,420.2	1,286.9	1,201.8	1,120.1	1,028.1	950.7	876.5	810.0	755.4	712.3	665.9	622.3	599.9	560.7	536.7	517.4	498.7	445.9	405.3
Transmissi	26.2	25.9	25.6	25.2	24.8	24.4	23.9	23.5	23.1	22.8	22.4	22.0	21.7	21.3	21.0	20.8	20.6	20.2	20.6
Transporta	2,827.8	3,020.7	3,004.1	2,980.7	2,946.7	2,905.0	2,856.2	2,795.2	2,721.1	2,618.6	2,502.9	2,368.9	2,232.9	2,095.5	1,957.5	1,818.3	1,690.8	1,282.6	827.7
Waste	137.4	137.0	137.1	137.6	138.0	138.4	138.8	139.1	139.4	139.6	139.9	140.1	140.2	140.3	140.3	140.3	140.3	139.9	140.0
Total	7,803.52	7,808.61	7,662.22	7,529.62	7,405.98	7,295.49	7,208.03	7,069.14	6,882.12	6,758.42	6,553.92	6,367.67	6,251.26	6,041.14	5,860.64	5,746.80	5,619.04	5,245.83	5,019.39

EXHIBIT B



State of Vermont
Office of the Secretary
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Agency of Natural Resources

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December 18, 2023

Senator Phil Baruth
Senate President Pro Tempore

Representative Jill Krowinski
Speaker of the House

State of Vermont General Assembly
115 State Street
Montpelier, VT 05633-5201

Dear Senator Baruth and Speaker Krowinski:

Thank you for your December 4, 2023 letter regarding the emission reduction timelines set forth in the Global Warming Solutions Act (GWSA). I appreciate the opportunity to respond, as the letter appears to rely on incorrect information about the federal funding Vermont may receive as part of the Environmental Protection Agency's (EPA) Climate Pollution Reduction Grants (CPRG) program, as well as Vermont's progress toward meeting the climate pollution reduction requirements of the GWSA.

It is essential that the Administration and the Legislature have a shared and accurate – scientifically-based and mathematically verifiable – understanding of the GWSA targets, as well as what is required to attain them.

Please recall that across Vermont there will need to be more than 27,000 EVs on the road; 69,000 homes weatherized; upwards of 100,000 heat pumps installed; and tens of millions of dollars invested in grid upgrades to support accelerated electrification – just to meet the 2025 goals. It is imperative that the significant implementation effort required to achieve these targets – including how to responsibly and equitably fund them – remain at the forefront of this discussion.

You correctly note the Agency of Natural Resources (ANR) secured a \$3 million planning grant from EPA's CPRG program earlier this year. We are required to use the funding to design climate action plans in six key sectors (electricity generation, industry, transportation, buildings, agriculture/natural and working lands, and waste management) and submit two deliverables – a Priority Climate Action Plan (PCAP) in March 2024 and a





Comprehensive Climate Action Plan in mid-2025. We look forward to sharing the results of this work with the Legislature.

We will apply in spring 2024 for a CPRG implementation grant to support key actions identified in the PCAP. EPA has established five tiers of awards for the implementation grants and our federal counterparts have said our application will be most competitive in “Tier C” where awards will range from \$50-\$100 million. While this amount of federal funding will certainly be helpful, it is well-shy of the \$500 million figure referenced in your letter.

With respect to compliance with the GWSA climate pollution reduction requirements, your letter states “...the State has not taken sufficient actions to meet the 2025 climate pollution reduction requirements.” In light of this assumption, you request responses regarding a presumed 2024 rulemaking.

I am happy to update you on some positive developments in this regard. In making your assertion, I assume you are relying on either the *Vermont Greenhouse Gas Emissions Inventory and Forecast*¹ released in April 2023 or the *Annual Progress Report for Vermont 2023*² prepared by the Energy Action Network (EAN). If you have another source of information, we would be eager to review it. Nevertheless, these reports relied on greenhouse gas (GHG) modeling values calculated in the *Pathways Analysis*³ developed in late-2021. This timing is important because climate action is complex, energy innovation is fast-changing and federal funding opportunities surged to historic levels in 2022 and 2023. As a direct result, these modeled values are now out of date.

When the CAP was completed, the Governor’s proposed investments of American Rescue Plan Act (ARPA) funding in climate action were still being finalized, the Infrastructure Investment and Jobs Act (IIJA) had only just been signed into law by President Biden, and the Inflation Reduction Act (IRA) was still being developed in Congress. As a result, the *Pathways Analysis* could not account for the impact these federal funding programs would have on GHG emissions in Vermont and, therefore, no longer accurately reflects the best available information regarding the direction and pace of emissions reductions now expected to occur.

Earlier this year, ANR engaged a contractor to reassess and update the projections of Vermont’s progress in reducing climate pollution consistent with the requirements of the GWSA. The updated modeling incorporates an improved understanding of the

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https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/_Vermont_Greenhouse_Gas_Emissions_Inventory_Update_1990-2020_Final.pdf

² <https://eanvt.org/wp-content/uploads/2023/09/EAN-APR-2023-web.pdf>

³ https://climatechange.vermont.gov/sites/climatecouncilsandbox/files/2022-03/Pathways%20Analysis%20Report_Version%202.0.pdf





state and federal funding and initiatives under ARPA, IJJA and IRA and the impact these efforts will have on reducing emissions⁴.

The final report, which was received in November, found the cumulative impact of recent state and federal funding and initiatives "...narrows the gap between emissions reductions projected under current conditions and those required by the GWSA..." relative to both the 2025 and 2030 climate pollution reduction requirements.

Based on the updated modeling, which now includes President Biden's suite of historic federal funding initiatives, ANR's Climate Action Office estimates that **Vermont is on track to meet the 2025 climate pollution reduction requirement mandated by the GWSA**. For this reason, the Agency does not need to promulgate any additional rules before the July 1, 2024 deadline. As you know, actual compliance will be determined when the state produces the *2025 Vermont Greenhouse Gas Emissions Inventory and Forecast*.

In closing, going forward, if we are to find ourselves in a position of needing to impose new regulations on Vermonters to meet the emissions reduction requirements of the GWSA, we believe it is a constitutional imperative for the Legislature to specifically direct and empower the Agency to take particular action(s). As the Vermont Supreme Court once noted: "legislative accountability is cornerstone of democratic process that justifies general assembly's role as lawmaker and restricts administrative rule-making to placing general assembly's policy into effect."⁵

I hope this response addresses the key concern in your letter. Appreciating this is a highly technical body of work, with large, complex, and expanding funding streams, I would be happy to provide a briefing for you and other interested legislators on the updated analysis.

Sincerely,

A handwritten signature in cursive script, appearing to read "Julia S. Moore".

Julia S. Moore, P.E.

Secretary, Agency of Natural Resources

cc: Kristin Clouser, Secretary, Agency of Administration and Climate Council Chair

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https://outside.vermont.gov/agency/anr/climatecouncil/Shared%20Documents/VT%20Thermal%20Analysis%20Final%20Report%2011_28%20revisions.pdf

⁵ *Martin v. State*, 175 Vt. 80 at ¶16 (2003) (internal citations omitted).

