

1 (2) Executive Summary

2 Vermont is committed to moving forward actions that set the state on the path to building a
3 resilient and adaptive future that meets our statutory emission reduction requirements, as laid out
4 in the Global Warming Solutions Act (GWSA). The Vermont Legislature passed Act 153, also
5 known as the GWSA on September 22, 2020, creating the Vermont Climate Council (hereinafter
6 the Council) and set forth specific greenhouse gas (GHG) reduction requirements for the State to
7 achieve. The Act requires reductions in Vermont's GHG emissions tied to three time periods:
8 2025, 2030, and 2050. Vermont is required to reduce its GHG emissions by no less than 26%
9 below 2005 GHG emission levels by January 1, 2025; by no less than 40% below 1990 GHG
10 emission levels by January 1, 2030; and no less than 80% below 1990 GHG emission levels by
11 January 1, 2050.

12 The 23-member Council, comprised of eight administration officials and 15 appointments from
13 the legislature representing various sectors, is charged with:

- 14 • identification, analysis and evaluation of strategies and programs to reduce GHG
15 emissions, to achieve the State's GHG reduction requirements, and to prepare the State's
16 communities, infrastructure and economy to adapt to current and future effects of climate
17 change;
- 18 • adoption of the Vermont Climate Action Plan by December 1, 2021, to be updated at
19 least every 4 years, that sets forth specific initiative, programs and strategies that the State
20 will pursue to reduce GHG emissions, achieve the reduction requirements, and build
21 resilience in communities, infrastructure and the economy; and
- 22 • identification of accurate means to measure the state's GHG emissions and progress
23 towards meeting the reduction requirements; effectiveness of initiatives, programs and
24 strategies included in the Plan; the effect of climate change on wildlife, climate and
25 natural resources of the State, and the State's existing resilience and progress towards
26 improving resilience and adaptation.

27 To achieve the Council's mandate, the GWSA established four Subcommittees and charged them
28 to assist with preparing the Climate Action Plan and carry out other duties which are spelled out
29 in detail in their charges (See Appendix INSERT). The four Subcommittees specifically

30 identified in the GWSA are: Rural Resilience and Adaptation; Cross-Sector Mitigation; Just
31 Transitions; and Agriculture and Ecosystems. The GWSA also allowed the Council to create
32 additional Subcommittees to advise the Council. To address the technical complexity and data
33 needed for this effort, the Council also created a fifth Subcommittee: Science and Data.

34 The core function of the Subcommittees is to recommend draft initiatives, programs, and
35 strategies for the Council to review, refine and compile into Vermont's Climate Action Plan. As
36 outlined in the legislation, the Subcommittees collectively must further the following objectives:

- 37 • Prioritize the most cost-effective, technologically feasible, and equitable GHG
38 emissions reduction pathways, adaptation and preparedness strategies;
- 39 • Provide for GHG emissions reductions that reflect the relative contribution of
40 emissions from different sectors;
- 41 • Minimize negative impacts on marginalized and rural communities and individuals
42 with low and moderate incomes;
- 43 • Ensure that all regions of the state benefit from GHG emissions reductions;
- 44 • Support economic sectors and regions of the state that face the greatest barriers to
45 emissions reductions, especially rural and economically distressed regions and
46 industries;
- 47 • Support industries, technology, and training that will allow workers and businesses in
48 the state to benefit from GHG reduction solutions;
- 49 • Support the use of natural and working lands to reduce GHG, sequester carbon and
50 increase resilience; and
- 51 • Maximize the state's involvement in interstate and regional initiatives and programs
52 designed to reduce GHG emissions, and build upon state, national, and international
53 partnerships and programs.

54 To ensure the Subcommittees had the right composition to accomplish their charges, recruitment
55 focused on:

- 56 • Council members and some measure of balance across the three designations;

- 57 • Specific expertise necessary to create the work;
- 58 • Geographic balance;
- 59 • Sectorial balance; and
- 60 • Equity and representation of vulnerable populations.

61 The recommendations ultimately put forward in this Plan are the collective work of these
62 subcommittees. These recommendations were reviewed and adopted by the Council over the
63 period of several months and together represent the necessary actions needed to advance the
64 objectives of the GWSA. The recommendations are organized around five areas:

- 65 • Emissions reductions;
- 66 • Building resilience and adaptation in Vermont’s natural and working lands;
- 67 • Building resilience and adaptation in Vermont’s communities and built environment;
- 68 • Enhancing carbon sequestration and storage; and
- 69 • Cross-cutting pathways.

70 In conjunction with developing the recommendations found within, the Just Transitions
71 Subcommittee supported the work by ensuring that the strategies to reduce greenhouse gas
72 emissions and build resilience to climate change impacts will benefit and support all residents of
73 the State of Vermont fairly and equitably. The term “Just Transitions” encompasses both public
74 policy and business action that address the impacts of the transition away from greenhouse gas
75 emissions for jobs and livelihoods (the transition "out") and the generation of low or zero
76 greenhouse gas emission jobs and livelihoods of a sustainable society (the transition "in"). The
77 Just Transitions Subcommittee designed six key principles to guide the recommendations of the
78 Climate Council in development of the Climate Action Plan. These include:

- 79 I. Ensuring *Inclusive, Transparent, and Innovative Engagement* in the development of the
80 plan and associated policies and program.
- 81 II. Creating *Accountable and Restorative* recommendations that recognize inequality and
82 seek to resolve them using clearly identified strategies.

- 83 III. Moving at *The Speed of Trust* where candor and honesty are recognized as essential for
84 public trust and preparing Vermonters for transition to a sustainable climate future.
- 85 IV. Incorporating *Solidarity* to create inclusionary spaces for all traditions and cultures,
86 particularly for Indigenous communities, recognizing them as integral to a healthy and
87 vibrant Vermont.
- 88 V. Prioritizing *The Most Impacted First* through recommendations that address the needs of
89 impacted and frontline communities first, providing the greatest benefits of transitions to
90 these communities.
- 91 VI. Developing *Supports for Workers, Families, and Communities* that consider and plan for
92 potential impacts on workers, families and their communities based on the
93 implementation of Vermont’s Climate Action Plan

94 The Just Transitions Guiding Principles provide a framework for climate action to be utilized
95 during the continued development and ongoing implementation of the Climate Action Plan.
96 These principles set expectations for the Climate Council and its subcommittees to conduct their
97 work, what recommendations they make and how investments, implementation and oversight of
98 the plan must occur. The Guiding Principles have helped to shape the beginning of a process of
99 community engagement, co-creation, and the prioritization of recommendations that speak to
100 issues of equity and justice. The Climate Council has taken some important first steps, however,
101 the Council has heard significant frustration around the timeline which has prevented adequate
102 and inclusive engagement. Time and resource constraints have prevented a robust equity analysis
103 and public engagement process. Both are essential to move away from a status quo that
104 exacerbates inequities and places impacted communities at greater risk from climate change.

105 The Council acknowledges that to realize the transformative change that is needed, ongoing
106 engagement with Vermonters will be needed to consider solutions and understand the barriers to
107 implementation. This Fall, the Council engaged with a total of 1,602 Vermonters to discuss the
108 development of the Climate Action Plan. Public events were held over a few weeks, an online
109 survey was conducted, and public comments received through the online portal were
110 summarized. Through these forums, Vermonters engaged in formulating the actions for inclusion
111 in the Climate Action Plan, helping the Council consider how it will advance climate action in

112 Vermont. Despite the engagement, the Council was challenged due to both the timeline and the
113 ongoing pandemic. The velocity of the process influenced the participation level of groups that
114 are likely to be more highly impacted by climate change including low-income communities,
115 BIPOC communities, and disability advocacy groups in particular. The public engagement plan
116 outlined additional opportunities for broader partner outreach and support that were not fully
117 realized during this phase due to the lack of time to build trust and respectfully coordinate with
118 multiple partners.

119 Vermont's Climate Action Plan is a vital opportunity to build a stronger, healthier, more vibrant,
120 and resilient future for Vermont, but it is only the first step. The work of the Climate Council is
121 ongoing, and the Council has been clear that this is an initial plan. The timeline made it very
122 challenging to address all the objectives identified in the Global Warming Solutions Act
123 (GWSA) to the level of detail needed to advance them immediately. As such, there are several
124 pathways for further work beyond December 1.

125 While the legislature and the Agency of Natural Resources will work to advance numerous
126 actions put forward in this plan through legislative action and rulemaking, the Council will work
127 to further advance areas work in several key areas, including but not limited to:

- 128 • Funding and financing options, with a specific emphasis on prioritizing the expenditure
129 of the American Rescue Plan Act dollars to advance the implementation of this plan.
- 130 • Overseeing the rollout of the Climate Action Plan and a comprehensive public
131 engagement strategy.
- 132 • Furthering the implementation of the Guiding Principles and the Scoring Rubric in the
133 program design of priority actions.
- 134 • Organizing the subcommittees work to focus on next steps to further the resilience,
135 adaptation, and sequestration actions prioritized in this plan.
- 136 • Prioritizing future technical analyses to inform future iterations of this plan.
- 137 • Advancing the measuring and assessing action tool contemplated in this plan.

138 To make progress on all these fronts, the Council will need to determine what the necessary
139 organizational structure will be in the coming year. That said the work is imperative and
140 enduring. As such, we envision a robust engagement from the Council for the foreseeable future
141 to continue to work on behalf of Vermonters to realize the transformative change needed to meet
142 both the challenges and opportunities of climate change.

143 **Acknowledgements**

144 **Members of Council**

145 **Members of Subcommittees**

146 **State staff**

147 **Consultants**

148 **Using this Plan**

149 This Climate Action Plan outlines the steps Vermont needs to take to impact meaningful climate
150 action. This plan includes recommended actions for state, regional, local, private, and non-profit
151 sector partners. It also includes actions that individual Vermonters can take, highlighting the
152 request the Council heard many times for a set of implementable actions at all levels of society
153 and government.

154 This plan is organized around five areas:

- 155 • Emissions reductions;
- 156 • Building resilience and adaptation in Vermont’s natural and working lands;
- 157 • Building resilience and adaptation in Vermont’s communities and built environment;
- 158 • Enhancing carbon sequestration and storage; and
- 159 • Cross-cutting pathways.

160 These areas cover the broad scale change and shifts that are needed to reach the emissions
161 reduction requirements established in the Global Warming Solutions Action (GWSA), as well as
162 ensure that Vermont’s communities and landscapes are resilient to the impacts of climate change.
163 Each area identified above contains a set of pathways, strategies, and actions, that while not
164 exhaustive, meet the intent of the emissions reduction requirements, and adaptation, resilience,
165 and carbon sequestration goals of the GWSA.

166 Pathways are the high-level mean to achieving GHG emissions reduction or adaptation,
167 resilience, and sequestration goals. The pathways identified in this plan illustrate the framework
168 needed for climate action in Vermont. Under each pathway are a set of strategies that illustrate
169 how we are going to get to a particular pathway. Within each strategy are a set of actions.
170 Actions are the tasks that define the policy, program, project, initiative, and plans, that should be
171 undertaken to meet the pathways and strategies. Actions and strategies were organized under
172 pathways based on the prioritization process undertaken at a subcommittee level. See the graphic
173 below for details on how to read the strategy and action tables.

174 The pathways for emissions reduction identify steps that need to be taken together to meet the
175 GHG reduction requirements established in the GWSA. Achieving these requirements is a
176 significant undertaking, requiring aggressive immediate and sustained efforts, and the set of
177 actions included in that section must be taken as a whole to ensure Vermont both can meet its
178 2025 requirements, and be on the path to compliance with the 2030, and 2050 GHG reduction
179 requirements. The Climate Council has identified a lead implementor, and timeline for
180 implementation, to ensure a shared understanding of what will be needed to bring each
181 recommendation to fruition.

182 The pathways for adaptation, resilience, and carbon sequestration include specific actions for
183 implementors at the state, regional, and local level, but do not identify a lead implementor or
184 timeline to implement by action. Unlike emissions reductions, requirements and benchmarks for
185 progress related to resilience and adaptation were not as clearly laid out in the GWSA. A
186 requirement was set for carbon sequestration and storage which requires the state to be net zero
187 by 2050 but intermediate benchmarks to ensure we are on track to meet that requirement was not
188 identified. The Climate Council acknowledges more work needs to be done to identify clear
189 metrics and goals for those areas of work.

190 The release of this Climate Action Plan is a step in the Council's work to inform climate action
191 in Vermont. This plan includes a section on implementation that should be used by legislators,
192 state agencies, and other stakeholders to inform the work needed to fulfill the charge of the
193 GWSA. In parallel, the Council will continue to build out a framework for measuring and
194 assessing progress that government, non-profit, private sector, and municipal partners to track

195 the impact of their actions, as well as supporting the Council in periodically assessing progress
196 and recommending changes in approach that will be needed to fully implement the GWSA..

How to read an action or strategy table

Lead implementer who will be working on this action. This is not inclusive of all necessary partners, but names the lead government agency, legislative body, non-profit, private sector partner, etc. who will take the lead and coordinating on this action. A lead implementer is only identified for the actions under the Emissions Reduction Pathways. Acronyms have been used to save space and are listed under Definitions and Acronyms.

For Emissions Reduction pathways, **impact** is an assessment of the actions' contribution to achieving 2025, 2030, and 2050 emissions reduction requirements. For all other pathways, impact is an assessment of the action on adaptation, resilience, and carbon sequestration goals. Actions were ranked as high, medium, and low and all actions included in the body of this plan were ranked either as high, or as actions that are needed to support high priority actions (enabling actions). For all other pathways, impact was assessed at the action level, but the plan includes a summary assessment of all actions under a strategy.

An **equity assessment** was conducted at the action or strategy level using the Guiding Principles for Just Transition Scoring Rubric developed by the Just Transitions Subcommittee. The equity assessment and scoring rubric can be viewed under Attachments.

Lead Implementer

Action or Strategy
Details

Timeline to Implement

Impact

Equity

Cost-Effectiveness

Co-Benefits

Technical Feasibility

Each action describes the policy, program, or tool that is recommended to support the strategy and pathway. For Emissions Reduction Pathways, this is described for the action, for all other pathways, this is described at the strategy level for the group of actions under each strategy.

Actions under the Emissions Reduction Pathways include a detailed **timeline by which to implement**. Actions under other pathways do not include this as the assessment was done at the strategy level, and actions underneath may be implemented at different times.

For Emissions Reduction Pathways, **Cost-effectiveness** was assessed as the lifetime net cost per ton of GHG emissions avoided. For all other pathways, it refers to the relative lifetime net cost of the action compared to the desired outcome or impact.

Assessment of **co-benefits** at the action and strategy level included reviewing the impact on broader societal benefits as well as building resilience, adaptation, mitigation, and storing and sequestering carbon.

The assessment of **technical feasibility** speaks to the degree to which the required technologies are developed and reasonable available.