

1 **Cross Cutting Pathways**

2 Through the development of the initial Climate Action Plan, several cross-cutting pathways were
3 identified as essential to supporting climate action. These pathways included Environmental
4 Justice, State Government Community and Capacity, Building Codes, Transportation, Workforce
5 Development, Education, and Compact Settlement. Since the adoption of the initial Climate
6 Action Plan, there has been a completion of Cross-Cutting recommendations and
7 acknowledgment from the Climate Council that some of the pathways would be best served by
8 Subcommittees with expertise of the Pathway. For instance, the Environmental Justice pathway,
9 which recommended the creation of an environmental justice policy, was completed with the
10 passage of the Environmental Justice Law in 2022. Additionally, the establishment of the
11 Climate Action Office fulfilled the State Government, Community, and Partner Capacity
12 pathway. Furthermore, Building Code and Transportation Pathways were moved to Cross Sector
13 Mitigation, as expertise on building codes and transportation reside in the Cross Sector
14 Mitigation subcommittee.

15 As a result of the completion of pathways and reassignment to specific Subcommittees outlined
16 above, the update of Cross-Cutting Pathways in the Climate Action Plan now focuses on the
17 following three key cross-cutting pathways: Workforce Development, Education, and Compact
18 Settlement. These pathways have been identified as strongly positioned to drive climate action
19 across various sectors. To support this work, the Climate Action Office staff worked closely with
20 Vermont Climate Council Subcommittee representatives from Cross-Sector Mitigation, Rural
21 Resilience and Adaptation, and Agriculture and Ecosystems to refine these pathways and build
22 upon actionable recommendations in the update of the Plan. This collaborative effort involved
23 public meetings to gather feedback and finalize recommendations, ensuring that the Cross-
24 Cutting Pathways are comprehensive and forward-looking.

25 **Compact Settlement**

26 Compact settlement, often referred to as "smart growth," is a cornerstone strategy for addressing
27 climate change and has long been integral to Vermont's land use goals. This approach is
28 embodied in Vermont's city, town, and village centers, which are characterized by their density
29 and mix of uses, as outlined in Vermont planning law (24 V.S.A. §4302). The law underscores

30 the importance of maintaining the historic settlement pattern of compact village and urban
31 centers separated by rural countryside. Compact settlement offers a multitude of benefits,
32 including economic growth, improved public health, enhanced quality of life, and significant
33 environmental advantages. When thoughtfully planned, compact settlement supports the State's
34 climate objectives, such as increasing energy efficiency, reducing greenhouse gas emissions,
35 bolstering community climate resilience, and preserving the resilience and sequestration benefits
36 provided by healthy natural and working lands. As an alternative to sprawl, compact settlements
37 facilitate more efficient mobility options, such as walking and bicycling, by situating common
38 destinations closer together. This proximity reduces reliance on vehicles, thereby lowering
39 greenhouse gas emissions. Compact settlements also create the necessary densities for providing
40 reliable transit options and developing resilient energy supply systems, such as district heating
41 and cooling and microgrids. They enable the establishment of shared networks of electric vehicle
42 charging stations and support the development of housing that meets the needs of current and
43 future Vermonters, including energy-efficient multi-family housing options. Furthermore,
44 compact settlements protect and conserve natural and working lands, which are critical to
45 ecosystem and public health, natural and community resilience, and Vermont's economy. They
46 also create opportunities to retain and expand commercial and social services, reduce social
47 isolation, and foster community cohesion by providing more opportunities for neighbors to
48 congregate. The update to the Compact Settlement pathway emphasizes the importance of
49 fostering development patterns that reduce greenhouse gas emissions, enhance community
50 resilience, and conserve natural lands. Among the recommendations, several priorities stand out
51 due to their potential impact to cut across sectors and advance climate action. First, increasing
52 investment in municipal infrastructure, such as drinking water, wastewater, and stormwater
53 systems, is a priority for supporting compact development. Additionally, expanding capacity for
54 multimodal transportation planning in downtown and designated areas is another priority, with a
55 focus on making village centers eligible for the downtown transportation fund. This would
56 facilitate infrastructure improvements that promote walking, biking, and transit. Lastly, the
57 ongoing implementation of Act 181, which aims to streamline and support compact settlements,
58 is being monitored for progress. These priorities outlined are essential to strengthening compact
59 settlement, as they address critical infrastructure, and transportation needs while aligning with
60 broader climate and resilience goals. Without continued investments in compact settlement,

61 Vermont risks rural sprawl, forest fragmentation, increased vehicle emissions, and a decline in
62 community connection.

63 **Education**

64 Education and understanding are a vital part of solving the climate crisis. The education of
65 Vermonters around the state about the actions to slow climate change as well as an enabling set
66 of actions that will allow for creating capacity for the future is critical to all ages, but especially
67 for intergenerational equity. The Education Cross-Cutting Pathway encompasses several
68 strategies aimed at equipping Vermonters with the knowledge and skills necessary to take
69 climate action. The update to the Education pathway emphasizes the importance of creating
70 accessible, equitable research, partnerships, and education. Among these, a key priority is to
71 sustain the Energy Navigator Program, which plays a vital role in educating Vermonters about
72 their energy choices and available funding options to increase energy efficiency in residential
73 homes. To accomplish this priority, it is critical that the State maintains funding for this program. The
74 Energy Navigators Program plays a key role in ensuring that residents have the guidance and
75 resources needed to make informed energy decisions, ultimately contributing to reduced energy
76 consumption and emissions. Additionally, there is a focus on creating an online Vermont climate
77 curriculum for educators, which would be interdisciplinary, open-source, and accessible,
78 building on existing resources. This accessible curriculum will provide educators with the tools
79 needed to teach climate change effectively. In order to achieve this priority, it is recommended
80 that the State seeks grant funding to provide the capacity and structure to build and maintain the
81 curriculum. Furthermore, amending the Vermont State Board of Education's Education Quality
82 Standards to incorporate environmental and climate change education at all grade levels is
83 recommended to ensure that climate education becomes a fundamental part of the educational
84 experience. Lastly, supporting educational programs that strengthen the workforce pipeline, with
85 a focus on accessible postsecondary educational models like apprenticeships and stackable
86 credentials, is essential. This requires seeking sustained funding sources to maintain or
87 strengthen Career and Technical Education Centers that support fields such as construction,
88 energy, agriculture, and renewable energy. Additional Education Cross-Cutting Pathways that
89 were not identified as priority but are critical components to advancing Education in the Climate
90 Action Plan includes developing accessible educational materials that communicate climate

91 science and local impacts, technical assistance for landowners, integrating climate education
92 across all levels, and promoting equitable language use across state agencies. The collective
93 priorities outlined in the Education Cross-Cutting Pathway supports Vermonters with the
94 foundational knowledge to build a just energy transition and meet climate goals.

95 **Workforce Development**

96 Since the initial Climate Action Plan, the Climate Council continues to identify the need for
97 expanded training and resources for workforce development in sectors that cross GHG
98 mitigation, climate adaptation, resilience, and carbon sequestration work. Actions focused on
99 workforce development can be tied directly to measurable GHG emissions reduction, and
100 resilience, adaptation, and sequestration work, and are nonetheless essential to supporting
101 climate change solutions. As such, this has been identified as a cross-cutting pathway in the
102 update to the Climate Action Plan. The Workforce Development pathway is critical to equip
103 Vermont's workforce to meet the demands of a climate-resilient economy. Among the
104 recommendations, several priorities have been identified to enhance workforce capacity and
105 productivity. One key priority is increasing the capacity and productivity of the current
106 contractor network to accelerate the adoption of cost and energy-saving technologies. This
107 involves creating new avenues for businesses to access equipment and make investments that
108 boost their operational capacity, which is currently advancing. This strategy is also critical for
109 lowering housing costs and improving worker productivity. Another priority focuses on targeting
110 outreach and training for existing Vermont residents to enter and remain in climate careers, such
111 as those in farm and forestry, clean energy, and resilience sectors. By supporting Vermont
112 workers to join these trades and providing resources for readiness and retention, this works to
113 build and maintain a climate ready workforce. Additionally, creating clear career pathways in
114 climate-related fields is essential. Actionable steps include increasing the number of students
115 supported in Career and Tech Ed programs and expanding registered apprenticeships,
116 particularly in plumbing, HVAC, electrical, agriculture and forestry, and weatherization.
117 Supporting programs for individuals to start and build their own businesses in the climate field is
118 also a priority, with initiatives advancing through partnerships with organizations such as
119 Vermont Small Business Development Center (SBDC) and the Vermont Sustainable Jobs Fund

120 (VSJF). These efforts collectively aim to build a robust workforce capable of driving climate
121 action and supporting Vermont's transition to a sustainable and equitable future.

122 **Conclusion**

123 The update to the Climate Action Plan's Cross-Cutting Pathways—Compact Settlement,
124 Education, and Workforce Development—are pivotal in advancing Vermont's climate goals.
125 Each pathway addresses critical aspects of climate action, from fostering sustainable
126 development patterns and enhancing educational initiatives to strengthening the workforce
127 needed for a climate-resilient economy. Compact Settlement focuses on creating dense, efficient
128 communities that reduce emissions and enhance climate resilience, while Education emphasizes
129 equipping Vermonters with the knowledge and skills necessary to engage in climate action.
130 Workforce Development ensures that Vermont's labor force is prepared to meet the demands of a
131 sustainable future, with targeted training and career pathways in climate-related fields. Together,
132 these pathways form a comprehensive approach that cuts across sectors and Vermont Climate
133 Council Subcommittees, ensuring that Vermont not only meets its current climate objectives but
134 also builds a foundation for long-term sustainability and resilience.