

Health in All Policies: Energy

Current Practice and Future Opportunities

Health in All Policies recognizes that health is determined not only by genetics, health care, and individual behaviors but by a complex set of social, economic and environmental factors. This document highlights current action and potential future opportunities to integrate health and health equity into budgetary, programmatic, and policy decision-making in the energy sector.

Why This Matters

Energy is essential to health and well-being; it is necessary for cooking, heating, transportation, medical care, and many other fundamental aspects of the lives of people in Vermont. Energy efficiency programs such as weatherization of homes and the use of renewable energy sources are beneficial to the health of all people and their environment.

Sector: Energy

The Public Service Department serves all people of Vermont through public advocacy, planning, programs, and other actions that meet the public's need for least cost, environmentally sound, efficient, reliable, secure, sustainable, and safe energy, telecommunications, and regulated utility systems in the state for the short and long term.

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Budget

The Department's operations include Regulated Utility Planning, Efficiency & Energy Resources, Engineering, Telecommunications & Connectivity, Public Advocacy, and Consumer Affairs & Public Information. These are primarily supported by the gross receipts tax on utility bills. The Department houses the Clean Energy Development Fund with no current dedicated funding source.

Current Practice

- ▶ The Clean Energy Development Fund funds advanced wood heating systems for residential, commercial, and nonprofit institutional entities.
- ▶ The Department's Building Energy Standards, in both the residential and commercial sectors, set minimum efficiency requirements for new and renovated buildings. The standards are designed to provide more reductions in energy use and emissions over the life of a building when compared with a similar building constructed prior to the standards going into effect. They also can promote certain types of fuels that have an impact on building owners' health and comfort.
- ▶ Oversee the budgets and performance of the state's energy efficiency utilities, which are working to help weatherize existing homes and businesses, facilitate the deployment of highly efficient new structures, and decrease the use of electricity and fossil fuels. The energy efficiency utilities, along with the distribution utilities, also implement the Renewable Energy Standard which provides a variety of pathways to reduce greenhouse gas emissions by installing non-fossil fueled appliances, mechanical systems, and electricity generation technologies.
- ▶ Disburse funds to assist regions and municipalities with implementation of Act 174 enhanced energy planning, wherein regions and municipalities assess their energy use, set goals for reducing energy usage and increasing the share of energy provided by renewables, determine pathways to meet their goals, and map potential and unsuitable areas for clean and renewable energy projects.

Future Opportunities

- ▶ The Clean Energy Development Fund could offer additional grants, loans, and incentives to support renewable energy systems, including support to the popular wood stove changeout program which helps upgrade older wood stoves and boilers.
- ▶ Collaborate with the Department of Health to develop and implement health impact assessments for energy projects.

Policy

The Department advocates for policies by participating in proceedings before the Vermont Public Utility Commission regarding energy project proposals. The Department analyzes, recommends, and litigates in support of projects that reflect the state of the science and meet statutory criteria. Issues the Department examines in this context include safe blasting procedures, noise levels, and electromagnetic fields.

The Department's [2022 Comprehensive Energy Plan](#) balances the principles of energy adequacy, reliability, security, and affordability, which are all essential for a vibrant, resilient, and robust economy and for the health and well-being of Vermonters. The Plan contains economic, environmental, and health goals. It outlines policies developed in collaboration with the Department of Health to meet health goals and prioritize actions that positively affect all the goals.

Active Living

Current Practice

- ▶ Encourage active lifestyles and reduced energy use through compact development and by providing safe opportunities for walking, biking, and using public transit.

Future Opportunities

- ▶ Promote the development of complete streets and safe and efficient pedestrian, biking and transit networks to reduce energy used for transportation.

Air Quality

Current Practice

- ▶ Improve outdoor air quality by reducing emissions from transportation, home and business heating and energy usage, and energy production.
- ▶ Provide incentives and promote the use of cleaner energy sources (e.g., solar and wind) that reduce negative impacts on respiratory health.
- ▶ Improve energy efficiency, foster cleaner fuels, and shift to cleaner transportation technologies (e.g., electric/hybrid vehicles).

Future Opportunities

- ▶ Change behaviors and development patterns – reduce personal vehicular travel, increase transit/biking/pedestrian travel, support telecommuting – to ease air pollution and improve overall air quality.

Indoor Environment

Current Practice

- ▶ Improve building weatherization and the use of advanced wood heating and ventilation technologies to improve the health and comfort of the indoor environment and reduce energy bills.

Future Opportunities

- ▶ Promote the use of advanced wood heat systems and boilers to improve home-heating efficiency and reduce the detrimental impacts of burning wood on indoor and outdoor air quality.

Climate Change

Current Practice

- ▶ Consider the impacts of climate change on health when developing energy policies. Use the Agency of Natural Resources values for carbon mitigation, which includes an adder for improved public health outcomes.
- ▶ Improve the efficiency of heating and cooling systems and reduce the need for heating and cooling with appropriate building, landscape, and community design.
- ▶ Promote strategies that encourage active transportation (e.g., walking, biking, mass transit) and mitigate greenhouse gas emissions.
- ▶ The Department designed the Renewable Energy Standard for Vermont to meet greenhouse gas emissions reduction goals in the electric sector through several different pathways, including adding renewable generation to the grid, electrifying fossil fueled technologies in homes and businesses, and promoting energy savings behaviors and efficiency projects.

Future Opportunities

- ▶ Continue to support the Climate Council in developing recommendations to reduce greenhouse gas emissions across the thermal sector, which includes the aforementioned public health benefit adder.
- ▶ Further support and promote alternative clean energy through the Renewable Energy Standard.

Health Equity

Current Practice

- ▶ Assess the health impacts of the energy system to mitigate potential negative impacts, especially on vulnerable populations including older Vermonters, low-income households, and those with chronic or pre-existing health conditions.
- ▶ Ensure the continuity of energy services, particularly space heating and cooling, food refrigeration, and emergency services for the most vulnerable.

Future Opportunities

- ▶ Expand access to customer sited renewable generation and storage resources to improve locational reliability.

Program

The Department has limited direct involvement in program administration aside from oversight discussed in the Budget section above. It is more likely to support energy-related programs administered by others.

Air Quality

Future Opportunities

- ▶ Promote, coordinate and deliver wood stove change-out programs and guidance on healthy and efficient wood burning practices.

Indoor Environment

Future Opportunities

- ▶ Revive the Weatherization and Health Initiative, in collaboration with the Department of Health, to direct incentive money for weatherization and indoor air quality improvements for low-income families with children experiencing chronic respiratory issues.
- ▶ Promote services that improve energy efficiency and healthy housing in tandem, building on practices from low-income weatherization programs.
- ▶ Expand programs that address challenges related to improving energy efficiency in older buildings, including hazards from lead and vermiculite insulation.

Climate Change

Current Practice

- ▶ Weatherize homes using Regional Greenhouse Gas Initiative funding, which the state gets from selling GHG mitigation credits. This includes improving indoor environments and installing heat pump systems to transition customers off fossil fuel technologies.

Future Opportunities

- ▶ Prepare for increased energy demands due to the warming climate and extreme weather conditions through mitigation strategies such as modifying building design and energy system standards, promoting heat pump installs in lieu of air conditioners, and promoting urban heat island mitigation strategies.

Health Equity

Future Opportunities

- ▶ Consider the health impacts of energy usage when evaluating energy program benefits, particularly when programs are delivered to those most vulnerable.
- ▶ Collaborate with the Department of Health to develop measures to evaluate how energy policies and decisions are impacting health, especially for those most vulnerable.
- ▶ Collaborate with the Department of Health and Agency of Natural Resources to quantify and communicate the health benefits of clean energy technologies and programs.