

# CSM Priority Strategies & Actions

Vermont Climate Council Meeting

November 2, 2021

# Climate Council Considerations

- These recommendations reflect consensus from the Cross-Sector Subcommittee based on their GHG emissions reduction impact, technical feasibility, and co-benefits applied through an equity lens
- These recommendations reflect actions necessary to achieve emissions reductions based upon the current greenhouse gas emissions inventory protocols as called for in Act 153
- Equity considerations were built into each recommendation, but as specific policies and programs are developed, further work will need to be done to ensure a just transition
- The analytic support provided by Cadmus and EFG has been important in the development of pathways and strategies, but for some actions continued analysis will be needed to fully evaluate them
- Additional actions necessary to meet Act 153 greenhouse gas emission requirements will be included in the Appendix of the Climate Action Plan. The actions presented here are elevated for priority consideration.

# Building Thermal Pathways, Strategies & Actions

## Pathway 1: Reduce energy use in buildings by 25% through weatherization & enforceable energy codes

- **Strategy: Multi-year, statewide weatherization (Wx) Initiative**
  - **Action:** Adopt recommendations of Weatherization at Scale Working Group to weatherize 120K homes by 2030
  - **Action:** Incorporate implementation of Weatherization at Scale WG recommendations into implementation of the VT CAP
  - **Action:** Appoint executive administrator to coordinate Wx workforce development efforts
  - **Action:** Implement a plan for coordinating and enhancing financial navigation services
  - **Action:** Require electric and gas utilities to offer on-bill financing tariffs
- **Strategy: Rental Property Efficiency Standard (RPES)**
  - **Action:** Adopt efficiency standards for rental properties
- **Strategy: Improve Energy Performance of All New Buildings**
  - **Action:** Regularly update statewide residential building energy code, achieving a net zero building energy code by 2030
  - **Action:** Develop & fund a State-level Energy Code Circuit Rider that provides training and enforcement assistance to municipalities

# Buildings Thermal Pathways, Strategies & Actions

## Pathway 2: Reduce building-related carbon emissions by reducing the carbon content of the fuels used

- **Strategy: Implement a Clean Heat Standard**
  - **Action:** Authorize the PUC to administer a Clean Heat Standard
- **Strategy: Transition the water heater market to lower total costs and controllable models**
  - **Action:** Require electric water heaters for sale in VT to have a modular demand response communications port & coordinate with neighboring states to encourage adoption

# Transportation Pathways, Strategies & Actions

## Pathway 1: Light Duty Fleet Electrification

- **Strategy: Market-Driving Technology Forcing Regulatory Programs**
  - **Action:** Adopt the CA Advanced Clean Cars II regulations for light duty vehicles
- **Strategy: Vehicle Purchase Incentives**
  - **Action:** Expand & redesign point-of-sale purchase incentives for new and used electric vehicles (EVs), high efficiency vehicles and E-bikes.
  - **Action:** Implement a vehicle efficiency price adjustment policy with sensitivities for low-income and business use
  - **Action:** Continue to fund & expand Replace Your Ride and Mileage Smart programs
- **Strategy: Public Investment in EV Supply Equipment**
  - **Action:** Fund build out of charging infrastructure, prioritizing multi-family and workplace charging.
  - **Action:** Direct the Public Utilities Commission (PUC) to develop beneficial EV charging rates to incentivize EV adoption.
- **Strategy: Participate in Transportation Climate Initiative Program**
  - **Action:** Participate in the TCI-Program with complementary policies to ensure equity.
- **Strategy: Educate drivers on benefits of electrification and other options**
  - **Action:** Fund driver education about electric and high efficiency transportation.

# Transportation Pathways, Strategies & Actions

## Pathway 2: Heavy-Duty Vehicle Electrification

- **Strategy: Markey Driving, Technology-forcing Regulatory Programs**
  - **Action:** Adopt CA Advanced Clean Trucks, Low NOx Omnibus, and Greenhouse Gas Phase II rules.
- **Strategy: Electrify medium & heavy-duty vehicle auxiliary systems**
  - **Action:** Fund incentives for electric auxiliary systems and installation of electrified parking spaces.
- **Strategy: Participate in TCI program**
  - **Action:** Participate in the TCI-Program with complementary policies to ensure equity.

## Pathway 3: Reduce Vehicle Miles Traveled (VMT)

- **Strategy: Increase state, regional & local government capacity to plan for VMT reductions and sustainable transportation strategies**
  - **Action:** Require VTrans to create a State Sustainable Transportation Implementation Plan, expand investments in transportation choices and invest in Regional Planning Commissions, municipalities etc. to implement.

# Transportation Pathways, Strategies & Actions

## Pathway 4: Lower Carbon Intensity of Fuels

- ***Strategy and Action:*** Participate in the TCI-Program with complementary policies to ensure equity.

# Electricity Sector Priority Strategies and Actions

## Pathway 1: Further decrease GHG emissions from Electric Sector Purchases

- **Strategy: 100% Carbon-free or Renewable Energy Standard (RES) by 2050**
  - **Action:** Move from 75% RES to 100% Carbon-free or RES.

## Pathway 2: Enable all Vermonters to Choose Electrification

- **Strategy: Provide financial and technical assistance to Upgrade service and purchase and install equipment**
  - **Action:** Develop coordinated programs for implementation of 200-amp service upgrades and related services.

## Pathway 3: Load Management and Grid Optimization

- **Strategy: Expand on existing programs and policies for load management and grid optimization**
  - **Action:** Support direct utility load control programs.
  - **Action:** Encourage utilities to offer dynamic rates for customers.

# Other Non-Energy Emissions Pathways, Strategies & Actions

## Pathway 1: Reduce Emissions of High Global Warming Potential (HGW) Refrigerants

- **Strategy: Adopt a Refrigerant Management Program and related actions**
  - **Action:** Reduce HFCs emissions in industrial processes through adoption of a Refrigerants Management Plan
  - **Action:** Require and provide cost share for installation of permanent leak detection systems on refrigerant systems over a certain size
  - **Action:** Provide incentives to speed the transition from high GWP refrigerants to lower GWP alternatives

## Pathway 2: Reduce Process Emissions from Semiconductor Manufacturing

- **Strategy: Explore Efficiencies and Alternatives to High GWP gases in Semiconductor Manufacturing Process**
  - **Action:** Work with Global Foundries to implement technologies for the destruction of high GWP gases in the semiconductor manufacturing process as proposed by Global Foundries through the ongoing PUC proceeding, or in the absence of a PUC order that addresses emissions reductions, ANR should develop emissions limits for semi-conductor manufacturers under its existing rulemaking authority

## Pathway 3 : Reduce Fugitive Emission from Wastewater Treatment Facilities

- **Strategy & Action:** Ensure existing flares at wastewater treatment facilities are operational and maintained to reduce emissions of methane from the facilities