

Vermont Comprehensive Energy Plan – 2022 Update Process

**TJ Poor, Director of Efficiency & Energy
Resources
Vermont Public Service Department**

GWSA Climate Action Plan Update Process

**Jane Lazorchak, Director of GWSA
Agency of Natural Resources**

Vermont Energy Policy

Title 30, Section 202a:

- To ensure, to the greatest extent practicable, that Vermont can meet its energy service needs:
 - In a manner that is **adequate, reliable, secure, and sustainable**
 - Ensuring **affordability** and encouraging the state's **economic vitality**
 - Using energy resources **efficiently** and managing demands **cost effectively**
 - In a manner that will **achieve greenhouse gas reductions requirements**

Comprehensive Energy Plan - Two Plans

Comprehensive Energy Plan (30 V.S.A. § 202b)

- Comprehensive 20-year analysis and projections of the use, supply, cost, environmental effects all energy sources used in VT

Electric Plan (30 V.S.A. § 202)

- 20-yr assessment of *electric* demand, supply, strategies

- CEP Required Every 6 years – next due **January 2022**

Comprehensive Energy Plan - *Requirements*



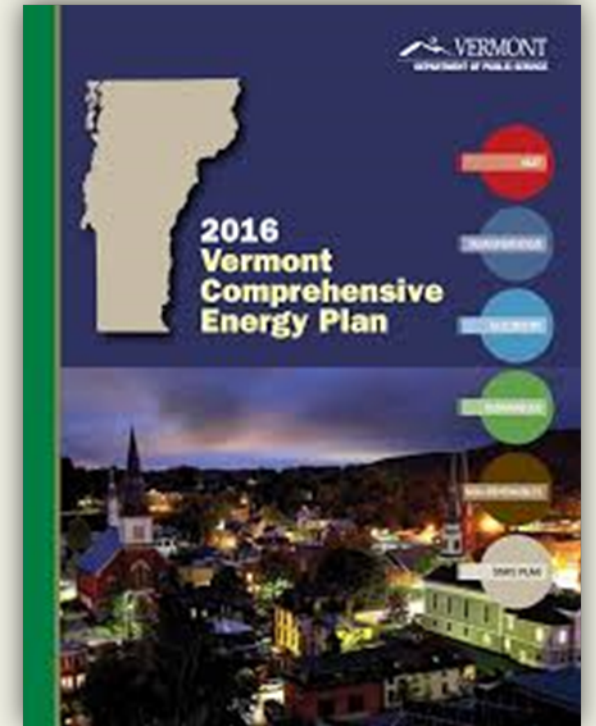
Must include standards and recommendations for Act 174 enhanced energy planning



Must be consistent with GHG reduction requirements, GWSA Climate Action Plan, relevant goals of Title 24, Section 4302

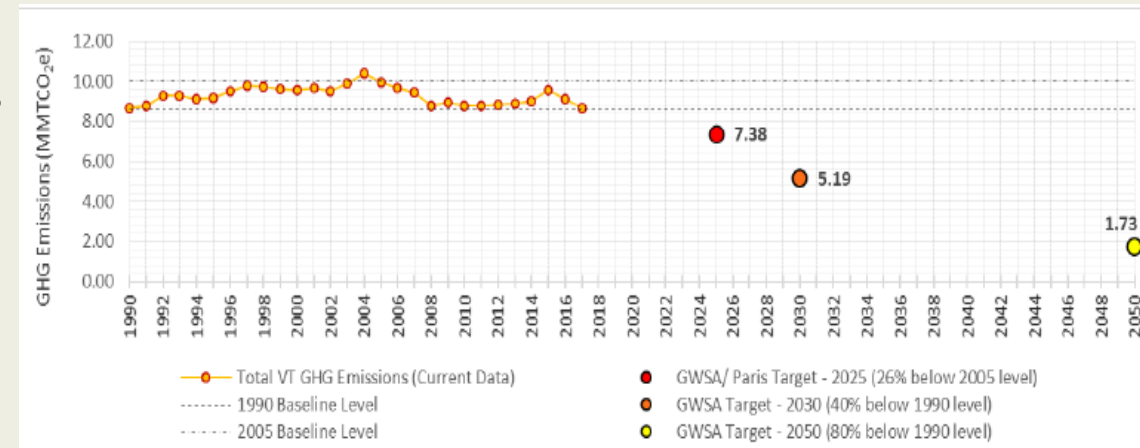
2016 Comprehensive Energy Plan

- Last CEP published in January 2016
- 90% renewable (all sectors) by 2050
- Over 300 recommendations



2022 CEP Starting Points

- 90% renewable by 2050 *as a starting point*
- 10 V.S.A. 578 Requirements – GHG Emissions reductions equal to:
 - Not less than 26% relative to 2005 emissions by 2025 (Paris Accord)
 - Not less than 40% from 1990 emissions by 2030 (2016 CEP)
 - Not less than 80% from 1990 emissions by 2050 (2016 CEP)



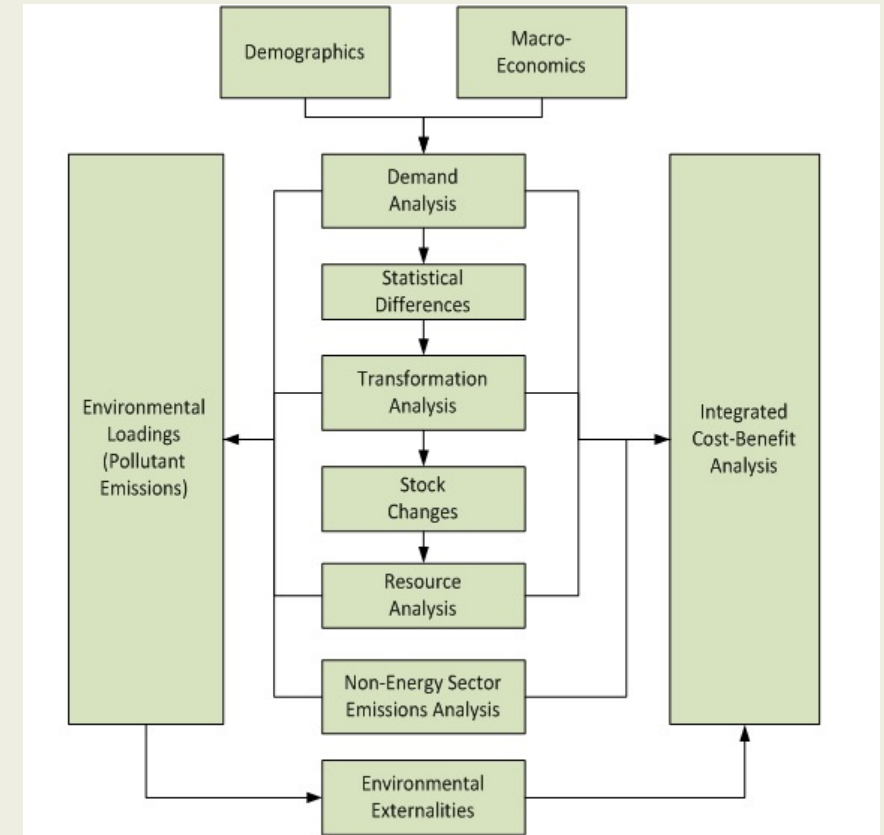
VT GHG Inventory. VT DEC AQCD May 2021

2022 CEP Vision

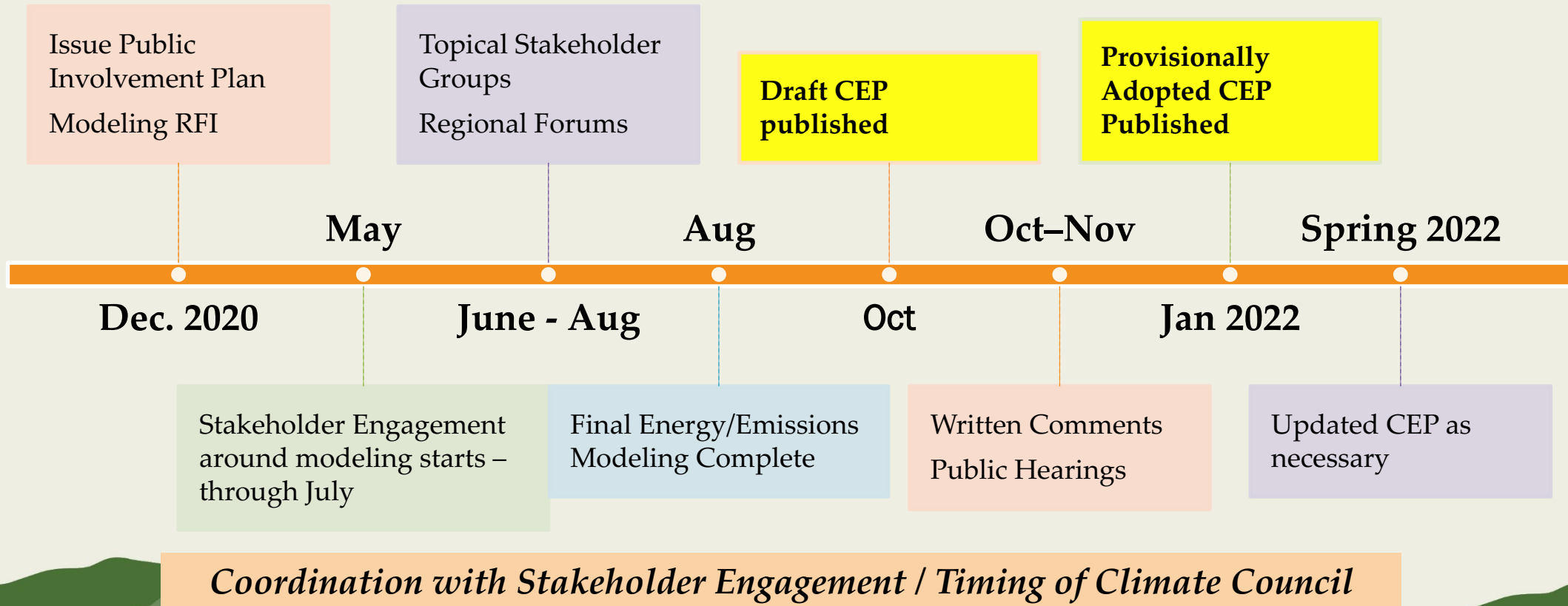
- Focus on a strategic plan that identifies
 - Tradeoffs among policies
 - Milestones for identifying success and need for modification in policies
 - Uncertainties that could affect policy success
- Includes
 - Act 174 standards & recommendations
 - Climate and Renewable Energy Pathways
 - Electric Plan
 - State Agency Energy Plan

2022 CEP Modeling

- Scenario analysis
 - Working with ANR, NESCAUM, Stockholm Environment Institute using Low Emissions Analysis Platform (LEAP)
 - Reference, “Do Nothing” case plus policy and technology scenarios
- Energy modeling for CEP, non-energy sectors already planned
 - LEAP is scenario-based modeling tool that can track consumption, production, and resources in all sectors
 - Plan to regionalize results after initial modeling effort is complete
 - Local and regional air pollutants in addition to GHG



2022 CEP Tentative Timeline (as of 6.10.21)



Global Warming Solutions Act – Key Dates

- General Assembly (GA) had 60 days from enactment (**Sept 23, 2020**) to make appointments
- Administration had 30 days from receiving final appointment (**Oct 23, 2020**) to convene first meeting of the Council
 - First meeting was held **November 20, 2020**
- Council's first annual progress report to GA – **Jan 15, 2021**
- Council adopts Initial Climate Action Plan – **Dec 1, 2021**

Vermont Climate Action Plan

The Plan shall include specific initiatives, programs, and strategies that will:

1. Reduce greenhouse gas emissions from the transportation, building, regulated utility, industrial, commercial, and agricultural sectors;
2. Encourage smart growth and related strategies;
3. Achieve long-term sequestration and storage of carbon and promote best management practices to achieve climate mitigation, adaptation, and resilience on natural working lands;

Vermont Climate Action Plan

Requirements (cont.)

4. Achieve net zero emissions by 2050 across all sectors;
5. Reduce energy burdens for rural and marginalized communities;
6. Limit the use of chemicals, substances, or products that contribute to climate change; and
7. Build and encourage climate adaptation and resilience of Vermont communities and natural systems.

Vermont Climate Council

Steering Committee

Subcommittees (in Statute)

- Rural Resilience and Adaptation Subcommittee
- Cross-Sector Mitigation Subcommittee
- Just Transitions Subcommittee
- Agriculture and Ecosystems Subcommittee
- Any other Subcommittees identified by the Council
 - Science and Data Subcommittee

Sequence of Work

1. Inventory existing programs to reduce GHG emissions
2. Identify, analyze and evaluate new strategies/programs needed to meet GHG targets
 - Evaluate cost effectiveness
3. Develop financing strategies
4. Inventory existing programs to build resilience
5. Identify, analyze and evaluate new strategies/programs needed to improve resilience

Sequence of Work (cont.)

6. Develop monitoring strategy for assessing:
 - GHG emissions
 - Program effectiveness
 - Impacts of climate change on Vermont's climate, wildlife and natural resources
 - Community resilience
7. Identify rules to be adopted (by ANR) and necessary
8. Adopt the Vermont Climate Action Plan by Dec 1, 2021, and update the Plan every four years thereafter.

CAP Development Timeline

February

- Subcommittees Formed

July-August

- Strategies and Recommendations Developed

September - October

- Strategies and Recommendations Revised
- Draft components of CAP

November

- Full Draft CAP Reviewed by Council

December

- CAP Adopted by Council, focus on 2025 requirements

On-Going Efforts

- Receive and incorporate public input on implementation
- Update CAP to address 2030 and 2050 requirements
- Engage Legislature

Public Engagement

Framing the Issues Plan Developed | Discussion of Initial Strategies and Recs | Synthesizing and Incorporating Feedback | Discussion of CAP | Public Engagement

Technical Analysis

Analyze Pathways and Scenarios

Review GHG Emissions Inventory

Complete Carbon Budget

Final Economic Modeling

Complete Monitoring and Assessment Framework

Final Technical Reports

All meetings have public comment; web comment form live; subcommittees have diverse membership

Energy Plan & Climate Plan

Overlap

Climate Action Plan

- Climate Adaptation
- Non-Energy GHG Emissions: Agriculture, Waste, etc.
- Sequestration
- GHG Inventory Review

- Cost-effective GHG Reduction Targets
- Energy Sector Analysis incl. policy & technology scenarios & pathways
- Public Engagement Efforts
- Equity

Comprehensive Energy Plan

- Renewable Energy Development
- Electric Plan including Reliability
- Energy System Planning: Adequacy, security, sustainability, Affordability, Economic vitality
- Standards for Local Planning (Act 174)

CAP Public Engagement

- **Co-Creation**
 - A collaborative approach to innovation, design and implementation
 - With the Climate Council via partnership with CBI, With the Sub-Committees through collaborative design and 3 touch points along the process With the Vermont Public
- **Phase 1** – Community Engagement and Audience Analysis (Currently Underway)
- **Phase 2** - PRE-DRAFT INPUT (July 2021-December 2021)
 - Including Stakeholder Engagement in Coordination with PSD
- **Phase 3** – Initial Plan Outreach (December 2021 – March 2022)
- **Phase 4** – Final Plan Rollout (March 2022)

Thank You!