

Chittenden County Regional Energy Plan: Work Plan and Schedule

PROJECT OUTCOME

Development of high-quality, detailed, and practical energy plans for Chittenden County Regional Planning Commission (CCRPC), Northeastern VT Development Association (NVDA), Addison County Regional Planning Commission (ACRPC), and Windham Regional Commission (WPC), based on the best practices for energy and transportation planning as articulated by the American Planners Association, that advance the State's energy and climate goals while being consistent with local and regional needs and concerns. Document work done and lessons learned for future application to all Vermont Regional Planning Commissions.

ACTIVITIES

1. Draft Regional Energy Plan Development

- a. Coordination and Project Start-Up
 - i. Introduction of project, CEP background, LEAP model to RPC commissioners
 - ii. Project kick-off meeting with RPC staff, Department of Public Service, and VEIC to review RPC pilot projects to date and data and resources available through the pilots.
- b. Regional Analysis and Scenario Development
 - i. Total Energy: The Comprehensive Energy Plan provides a policy framework for advancing statewide energy goals. Based on that framework, RPCs will work with the Department of Public Service and VEIC to develop scenarios directed at meeting the state's energy goals.
 1. As a first step, baseline data for energy usage across all sectors and existing sources of thermal and electric generation - for each region - will be identified.
 2. Working with the Department of Public Service and aligned with the 2016 Comprehensive Energy Plan (CEP) process, 2025 and 2035 milestones for moving toward energy conservation, efficiency, fuel-switching, and renewable energy supply goals for each region will be established.
 - ii. Thermal Efficiency and Alternative Heating Systems: Regional analysis based on state framework and LEAP analysis milestones to understand level of energy conservation, efficiency, and conversion to alternative heating fuels/systems needed to meet goals by region.
 - iii. Transportation System Changes and Land Use Strategies: RPCs review existing land use and transportation plans and LEAP analysis in the context of achieving regional energy milestones and state energy goals.

- iv. Conserving Electricity and Improving Efficiency of Delivery and End Use: Regional analysis based on state framework and LEAP analysis milestones to understand level of conservation and end use efficiency needed to meet goals by region.
 - v. Mapping Energy Generation Resources and Constraints: Regional analysis based on state framework and LEAP analysis milestones to understand the potential for renewable generation in each region. Identification of an appropriate number of annual MWh of renewable electric generation that might be expected from each region by 2025, 2035, and 2050 in order to maintain a trajectory toward CEP goals. In parallel with this analytical effort, RPC staff will be trained in the use of available GIS data and tools. The training will be designed to ensure consistent application of these tools in a way that will help inform decisions about the most appropriate locations for generation projects.
- c. State, Regional, and Local Coordination
- i. Total Energy: Ongoing coordination at the statewide level, through cooperation among all RPCs and the Department of Public Service, will be necessary to ensure that the collection of individual regional plans effectively addresses statewide goals. It is expected that this will be an iterative process at both the regional and state level as decisions are made concerning the relative levels of generation, conservation, and alternative fuels in each region.
 - ii. Thermal Efficiency and Alternative Heating Systems:
 - 1. State: Review relevant sections of the 2016 Comprehensive Energy Plan and findings from the RPC pilot projects, and reach out to state stakeholders as needed (such as Efficiency Vermont, electric and natural gas utilities, Department of Public Service, Weatherization Assistance Program service providers, NeighborWorks organizations, and others) in order to identify existing resources and develop strategies for public education, delivery of weatherization services, and expanded use of alternative heating systems.
 - 2. Regional and Local: Regional and sub-regional meetings with local energy committees, housing organizations, business groups, and other interested parties to plan specific education and outreach efforts, identify most effective implementation programs and activities, and identify local policies that could be implemented to help reach milestones. (To include identification of locations with suitable density and thermal energy demand for the potential use of biomass or biogas district heating systems, with or without CHP capability.)
 - iii. Transportation System Changes and Land Use Strategies
 - 1. State: Review relevant sections of the 2016 Comprehensive Energy Plan and findings from the RPC pilot projects, and reach out to state

stakeholders as needed (such as Department of Public Service, Vermont Agency of Transportation, and Agency of Commerce and Community Development) to identify and discuss actions needed to transform vehicle fleet, expand public transportation and rail service, and focus new development into concentrated mixed use areas; identification of required local/regional actions in the context of expected or proposed state and federal actions.

2. Regional and Local: Regional meetings with towns, transportation agencies and interests, downtown and village center organizations to identify specific local actions that can be taken to provide effective public education and outreach and to begin development of infrastructure necessary to achieve transportation and land use objectives that will support achievement of state energy goals.

iv. Conserving Electricity and Improving Efficiency of Delivery and End Use

1. State: Review relevant sections of the 2016 Comprehensive Energy Plan and findings from the RPC pilot projects, and reach out to state stakeholders as needed (such as Efficiency Vermont and Department of Public Service) to determine appropriate strategies for driving residential, commercial, public sector, and industrial electricity conservation.
2. Regional and Local: Meeting to identify actions above and beyond those within the purview of the statewide EEU's (i.e., conservation, behavioral change, etc.) and to understand interplay of statewide efficiency actions with local total thermal and transportation options.

v. Mapping Energy Generation Resources and Constraints

1. State, Round 1: A training session led by BCRC and run by relevant staff from the pilot RPCs will be held for CCRPC, NVDA, ACRPC, and WRC and any additional RPCs who may wish to attend. Invitations will be extended to the Agency of Natural Resources, the Department of Public Service, Department of Health, Agency of Agriculture, Agency of Commerce and Community Development, Vermont Center for Geographic Information, Vermont Sustainable Jobs Fund, utilities, and VELCO to assist in identification of resources and constraints available on a statewide basis to include in the analysis that may have changed since the initial mapping was done in the pilots.
2. Regional and Local, Round 1: meetings of participating RPCs and outreach to identify additional energy resource areas and/or constraints (e.g., municipally owned land that a town would like to see used for energy development, historic areas, residential neighborhoods, critical scenic resources, etc.).

3. State, Round 2: A second round of meetings of participating RPCs with the Department of Public Service to check on compatibility of regional maps (below) and identify any issues that need to be addressed prior to production of final renewable generation resource maps.
4. Regional and Local, Round 2: Regional meetings to review maps with municipalities, provision of maps for each town.

d. Writing Draft Plans

- i. Thermal Efficiency and Alternative Heating Systems: RPCs prepare regional energy plan elements that include specific actions for education, outreach, policy, and collaboration with local and state groups to implement weatherization, fuel-switching, and heating system initiatives.
- ii. Transportation System Changes and Land Use Strategies: RPCs prepare regional plan elements related to transportation system and attainment of regional and state energy goals.
- iii. Conserving Electricity and Improving Efficiency of Delivery and End Use: RPCs prepare regional energy plan elements that include specific actions for education, outreach, and policy on conservation measures and programs in order to encourage people and businesses to utilize existing programs and incentives.
- iv. Mapping Energy Generation Resources and Constraints: Maps will be produced by each RPC showing areas of high potential, based on resource availability, infrastructure, and known constraints, for various types of renewable generation facilities: wind, solar, hydro, and biogas/biomass/CHP. This effort will produce dynamic information and mapping that will continue to evolve over time.
 1. Coordinated review among RPCs, agencies and departments – agreement on final protocols and map templates.
 2. RPCs produce final draft of siting potential maps (that will then be refined).
 3. Production of final regional generation maps showing areas of high potential for energy development (by technology/resource).

2. Mid-Project Report

- a. Summarize activities to date, making sure to address each of the performance measures above.
- b. Provide a summary of “lessons learned” to date that would be useful for other RPCs developing energy plans.

3. Final Regional Energy Plan Development

- a. RPCs merge space heating, transportation/land use, electricity conservation, and appropriate results from mapping/facility siting sections into draft regional energy plans.
- b. RPCs distribute draft plans to the Department of Public Service, towns, and other interest groups for review.
- c. Regional meetings on the draft plans – comments and suggestions received.
- d. RPCs make revisions to the draft plans, prepare final draft regional energy plans and distribute to towns, interest groups, and state agencies and departments.
- e. RPCs receive comments from towns, agencies and departments, and other interests and schedule/hold public hearings.
- f. RPCs make any final changes to the plans, hold hearings on the final regional energy plans.
- g. RPCs advance final regional energy plans to a vote of the full RPCs and distribute any adopted plans (and final plans, as appropriate) to municipalities and state agencies and departments, including the Department of Public Service.

4. Final Project Report

- a. Summarize contract activities, making sure to address each of the performance measures above (and appending the summary addressing performance measures from the mid-term report).
- b. Provide a summary of “lessons learned” for the entire project/contract term that would be useful for other RPCs developing energy plans.

Schedule of Task

Task/Deliverable	Start Date	Due Date ↑
Meeting with GMP		
Vermont Electric Coop Meeting		7/11/2016
Public Service Department and RPC Kick-off		7/12/2016
Burlington Electric Department Meeting		7/13/2016
Informational Email to Planners	7/20/2016	7/22/2016
Develop Resources for PCs (PPT,Maps)	7/15/2016	8/25/2016
Energy Sub-Committee First Meeting	9/21/2016	9/21/2016
Regional Energy Planning Discussed at PC Meetings	9/1/2016	9/30/2016
LEAP Modeling Results Received from VEIC		10/3/2016
Report on Current Energy Use Due to DPS	7/20/2016	10/3/2016
Local Constraints Due to CCRPC		10/7/2016
DPS Energy Plan Standards Available		11/1/2016
1st Draft Energy Resource Maps Due to DPS		12/1/2016
Develop Regional Energy Resource Maps	10/3/2016	12/15/2016
Draft Energy Targets and Resource Maps Presentation to PAC		1/11/2017
Review draft Maps and LEAP-Targets with Municipalities	1/1/2017	3/31/2017
First Draft of Energy Plan Due to DPS		5/31/2017
LRPC Energy Sub-Committee	9/1/2016	12/31/2017
CCRPC Approves Regional Energy Plan	2/1/2018	2/1/2018