Windham Regional Commission

Municipal Energy Data & Technical Assistance Package

For Act 174 Compliance

The following is an explanation of the information displayed in the Municipal Energy Data package from the Windham Regional Commission.

The intent of the Municipal Energy Data is to provide the municipality with the information required to ensure compliance with the requirements of Act 174 and “Enhanced Energy Planning” (24 V.S.A. 4352), should the town choose to develop an Act 174 compliant town plan energy element.\* The included spreadsheets contain estimates of current energy use and provide targets for future energy use across all sectors (transportation, heating, and electricity). It also sets targets for renewable energy generation within the municipality. Even if a town opts not to develop an Act 174-compliant town plan, this information should prove very helpful in developing the “standard” energy element that is required of town plans per 24 V.S.A. § 4302.

This data is meant to be a starting point for the municipality to begin planning its energy future and to talk about the changes that may need to occur within the municipality to ensure that local, regional and state energy goals are met. This includes the goal that 90% of all energy demand be met by renewable sources by 2050 (referred to as the “90x50 goal”). *The data is not intended to precisely show current energy use (it’s an estimation), regulate town performance, or impose unwanted development. Instead, the information is intended to enable towns with quantitative baselines from which to make informed planning decisions and write sound energy-related policies.* Overall, this process lays the groundwork for towns to plan for meeting ambitious energy goals, to have knowledgeable authority when energy initiatives are proposed, and to explore how land use relates to energy consumption as well as renewable energy generation.

There are some shortcomings and limitations associated the data used in this information package. For instance, assumptions used to create the LEAP analysis (a state-wide model used to help guide this planning initiative, see [www.energycommunity.org/LEAP/](http://www.energycommunity.org/LEAP/)) are slightly different than assumptions used to calculate current municipal energy use. Regardless, the targets established here show but one direction in which change can occur to meet local, regional and state energy goals. It is important to remember that the targets presented in this data *represent only one way to achieve energy goals*. There may be several other similar pathways that a municipality may choose to take in order to meet the 90x50 goal. The Windham Regional Commission encourages towns to explore which pathways and options may be best for them.

The spreadsheets included in this file package are intended to clearly display the municipal energy-related data. But the WRC is also sending the files in this Excel spreadsheet format so that town planners may choose to “go beneath the hood” and adjust formula inputs as appropriate for that community (therefore, the Excel files are not formatted for print). Town planners may tweak the calculations so that they more accurately reflect the town’s energy context – how you currently use energy, how it might be used differently, and how renewable energy might be generated in a way that is compatible with the town’s other land use goals and policies. The intent is to provide all municipalities with the tools necessary to create and take full ownership of an enhanced energy element.

There are a suite of maps included in this information package. The “Resource maps” illustrate, in broad brush strokes, where solar resources and wind resources exist based on GIS modeling of slope, azimuth, elevations, wind patterns, etc. The “Constraints” maps show state-level land constraints likely to hinder development. The “Energy Generation Potential” maps are a combination of these two maps, with the Constraints data layered on top of Resources to give a rough idea of the generation potential in the town. None of the maps include local constraints – those identified by your town plan policies or that you may arrive at through our energy planning deliberations. *The maps do not dictate where the siting of renewable energy will specifically occur. Rather, they should be used a reference to developing policies on preferred, suitable, and unsuitable sites.*

This depth of energy planning, and how it relates to land use and other facets of town planning, is new to most if not all of us. But it is also an aspect of planning that directly affects our local and global environment as we develop and consume energy resources, our quality of life in terms of how we heat and cool our homes and how we get from place to place, and our personal and household budgets as we pay for the energy we consume.

Whether or not your town chooses to develop an Act 174-compliant energy element, we hope this information will prove useful for multiple facets of town planning. If you have any questions, please contact Emily Davis at: 802-257-4547 x 116.

\* These links will take you to an overview of Act 174 and Act 174-compliant town plan energy elements, but are also included in the Data Package:

What is Act 174? <http://publicservice.vermont.gov/sites/dps/files/documents/Pubs_Plans_Reports/Act_174/Standards%20Overview.pdf>

Guideline for Municipal Enhanced Energy Planning Standards: <http://windhamregional.org/images/docs/energy/act-174/Guidance_Municipal.pdf>