

Exh. Petitioner DP-6

*South Street Extension***Scenic Resources**

Important to residents' and visitors' perceptions of Middlebury is its striking visual character. This is established by a number of particularly important vistas. For Middlebury Village these include views of the Congregational Church seen down the corridor of Main Street and set against the green backdrop of Chipman Hill; the falls and Otter Creek seen from the Battell Bridge, Frog Hollow, and the Marble Works; the iconic skyline of the College with the distinctive silhouettes of Old Stone Row and Chapel Row visible from Route 7 South, Route 125 west, and South Main Street; and the view up Merchants' Row to the soldier's monument, Town Hall Theater, and Painter House.

For the town there are the important broad vistas of the countryside. Middlebury sits in an enviably open working Champlain Valley landscape with views both to the nearby Green Mountains and to the distant Adirondacks. These vistas open dramatically as one moves outward from the compact fabric of the village along the radial roads. Particularly striking are the views afforded by Route 125 West, Route 30 South, South Street Extension, Route 7 South, Quarry Road, and Painter Road. Also of scenic importance are views of countryside along the face of the Green Mountains on Munger and Case Streets, in the Seeley District, and northbound on Route 7. Sweeping views of the Adirondacks from Route 7 North and South are also significant.

Our setting and vistas are also important to the quality and character of our recreational resources, which include the Otter Creek, Wright Park, Means and Battell Woods, the Trail Around Middlebury, and the Ralph Myhre Golf Course.

The Town continues its program of reducing stormwater infiltration, which has caused sewer overflows and problems for operation of the plant. The Town has completed several major sewer stormwater separation projects in older developments and adjacent older portions of the village. In 2010 with an ARRA grant/loan, the Town completed a \$1.23 million project at the main pumping station (former wastewater plant site) including screen building improvements, grit remover and new wet well with increased capacity to lessen/eliminate overflows to Otter Creek which occur when large storm events infiltrate the sanitary sewer system. Continued vigilance is needed to ensure that property owners direct sump pumps, roof gutters and foundation drains to storm drainage lines and drainage ways and not to the sanitary sewer system.

Recycling and Solid Waste

The Addison County Solid Waste Management District's transfer station has been operating successfully thanks to a major improvement plan endorsed by District voters in 2004. There is a household hazardous waste drop-off located at the transfer station.

Through zoning and other laws, the Town also needs to continue its efforts to clean up the few remaining small, private dumps/junkyards in Middlebury. The Town should maintain and strengthen its ordinances to support this objective.

Electricity

Green Mountain Power supplies electricity to Middlebury through the grid, which is owned by National Grid. Most of the power comes from out-of-state sources, including Hydro-Quebec, and some comes from in-state sources such as wind and solar projects, hydro, landfill gas, and methane from manure digesters ("cow power"). Local generation in Middlebury has increased markedly in recent years as solar arrays have become common on open fields and rooftops. Virtually all of this renewable power is fed into the grid. Middlebury also has a small hydropower generator on the east side of the Pulp Mill Bridge.

Power generation at Middlebury Falls has been considered at various times over the past several decades. The potential for micro hydro development or other new technologies that do not disturb natural functions of the Middlebury River should be explored.

Electric Transmission Corridors

The existing Vermont Electric Power Company (VELCO) 115/345 kV transmission corridor runs through Middlebury with a major substation on Quarry Road. This corridor has a 350' right of way width through most of Middlebury.

In the Region, the grid consists of transmission infrastructure feeding or passing through the Region, electric distribution infrastructure providing service to businesses and residents and a variety of local generation facilities, most of which are described in the sub-chapter dealing with generation.

Electricity Transmission Infrastructure

1. Transmission Lines

The Vermont Electric Power Company (VELCO), a private corporation, owns most of the bulk power transmission system in the Region and the State of Vermont. VELCO currently has a 345kV and a 115-kV electric transmission line in the Region that runs on a north-south route through the towns of Leicester, Salisbury, Middlebury and New Haven. The 345KV line ends at the New Haven substation. North of the New Haven Substation, the line divides into two 115kV lines: one travelling through New Haven and Monkton on its way to the Williston Substation and one travelling through New Haven, Waltham, Vergennes and Ferrisburgh on its way to the South Burlington sub-station. There are additional regional level transmission lines that serve parts of the Region. Generally, those lines feed power generated at the region's hydro-plants into the transmission grid or link substations with transmission lines.

Additionally, merchant power companies interested in shipping renewable power from the north, primarily carrying power from hydro or wind facilities in New York and Quebec or other Canadian provinces, have promulgated plans to build transmission lines within the Region. These lines are proposed to be built largely underwater in Lake Champlain and exit the Lake either in or South of the Region to feed into the grid. While this Plan conditionally supports those projects, it demands that they pay their fair share of local property taxes, compensate towns and citizens for the rights of way and services that they use and the impacts they create. They must demonstrate benefits to the Region beyond local property tax and minimal construction jobs, and compensation should be appropriate to the magnitude of the impacts they create. Finally, they must be built to the requirements contained later in this Plan in the sub-chapter addressing requirements for sub-stations, generation facilities and transmission corridors.

Power lines, electrical wiring and appliances all produce electric and magnetic fields. Electric and magnetic fields have different properties. Electric fields are produced by voltage and are easily shielded by conducting objects. Any appliance that is plugged in produces electric fields. Magnetic fields are produced by current and are not easily shielded. An appliance must be turned on and using power to produce a magnetic field. Electric fields reduce in strength logarithmically with increasing distance from the source.

Experts have long debated and researched the potential impacts of electric and magnetic fields on human health. Due to their greater strength, the debate has largely focused on the fields generated by transmission lines. In 2007, the World Health Organization (WHO) compiled research on the potential human health effects associated with electric and magnetic



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- Developers are encouraged to increase setbacks away from public roads to reduce the views of the infrastructure;
- Use the existing topography, development or vegetation to screen and/or break the mass of the transmission facility;
- In the absence of existing natural vegetation, the commercial development must be screened by native plantings beneficial to wildlife and pollinators that will grow to a sufficient height and depth to provide effective screening within a period of 5 years. Partial screening to break the mass of the site and to protect public and private views of the project may be appropriate;
- Use black or earth tone materials that blend into the landscape instead of metallic or other brighter colors.

SUBSTATIONS

A. Siting:

Where a project is placed in the landscape constitutes the most critical element in the aesthetic siting of a project. Poor siting cannot be adequately mitigated. Accordingly, all energy generation and transmission projects proposed in the Region must evaluate and address the proposed site's aesthetic impact on the surrounding landscape.

Good sites have one or more of the following characteristics:

- Systems located in close proximity to existing larger scale, commercial, industrial or agricultural buildings;
- Proximity to existing hedgerows or other topographical features that naturally screen the proposed array from view from at least two sides;
- Reuse of former impacted property or brownfields that have qualified for and are listed in the State of Vermont Brownfield program;

Poor Sites have one or more of the following characteristics:

- No natural screening;
- Topography that causes the sub-station to be visible against the skyline from common vantage points like roads or neighborhoods;
- A location in proximity to and interfering with a significant viewshed. The Addison County Regional Plan has chosen not to include any viewsheds at the Regional level. However, it recognizes that many of its member municipalities have defined locally significant viewsheds. Where that has occurred, this Plan should be read to incorporate those significant local viewsheds;
- The removal of productive agricultural land from agricultural use;
- Mass and Scale: The historical working landscape that defines the Region is dominated by viewsheds across open fields to wooded hillsides and eventually the Green Mountains or Lake Champlain and the Adirondacks. Rural structures like barns fit into the landscape because their scale and mass generally do not impact

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large tracts of otherwise open land. Industrial scale substations may need to be limited in mass and scale, and/or have their mass and scale broken by screening to fit in with the landscape in any given municipality.

B. Mitigation methods:

In addition to properly siting a project, substation developers must take appropriate measures from the list below to reduce the visual of the project:

- Locate the structures on the site to keep them from being “skylined” above the horizon from public and private vantage points;
- Shorter structures may be more appropriate in certain spaces than taller structures to keep the project lower on the landscape;
- Developers shall meet setbacks equal to those listed in the Municipal Zoning Regulations within the Zoning District in which it lies;
- Use the existing topography, development or vegetation on the site to screen and/or break the mass of the substation;
- In the absence of existing natural vegetation, the substation must be screened by native plantings beneficial to wildlife and pollinators that will grow to a sufficient height and depth to provide effective screening within a period of 5 years. Partial screening to break the mass of the site and to protect public and private views of the project may be appropriate;
- Practice a “good neighbor policy”. Site the sub-station so that it creates no greater burden on neighboring property owners or public infrastructure than it does on the property on which it is sited;
- Use black or earth tone materials (panels, supports fences) that blend into the landscape instead of metallic or other brighter colors).

Projects found to have poor siting characteristics pursuant to the Regional Standards contained in Section 1 above and/or other poor siting characteristics that a municipality clearly defines in their plan, including, but not limited to mass and scale, that cannot be mitigated by the mitigation methods contained in the policy, violate the municipalities’ and the Region’s standards regarding orderly development.

As noted previously, neither the Region nor any member municipality may apply the siting standards so strictly so as to eliminate the opportunity to meet the electrical generation targets for the Region or any given municipality.

Finally, the siting policy above identifies the attributes of “good” sites for development. Generally, these “good” sites include the description of “preferred” areas as defined by Public Utilities Commission Rule 5.100 governing net metered sites. “Preferred” sites as defined by Rule 5.100 entitle solar developers to additional financial compensation per kWh of power produced from a site meeting the definition of “preferred” sites. ACRPC’s plan does not locate or define “preferred” sites for the purposes of Rule 5.100. However, since the areas it encourages for development as “good” in many cases are the same types of sites as the



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