

Energy Planning: Resources and Guidance

Developed for Addison County Municipalities



Click red underlined items for links to resources

Value of Enhanced Energy Planning

- Substantial deference in Section 248 proceedings
- Provide future guidance to town energy committee or planning commission
- Engage public in energy programs
- Coordination with State and Regional goals

Completing the Plan

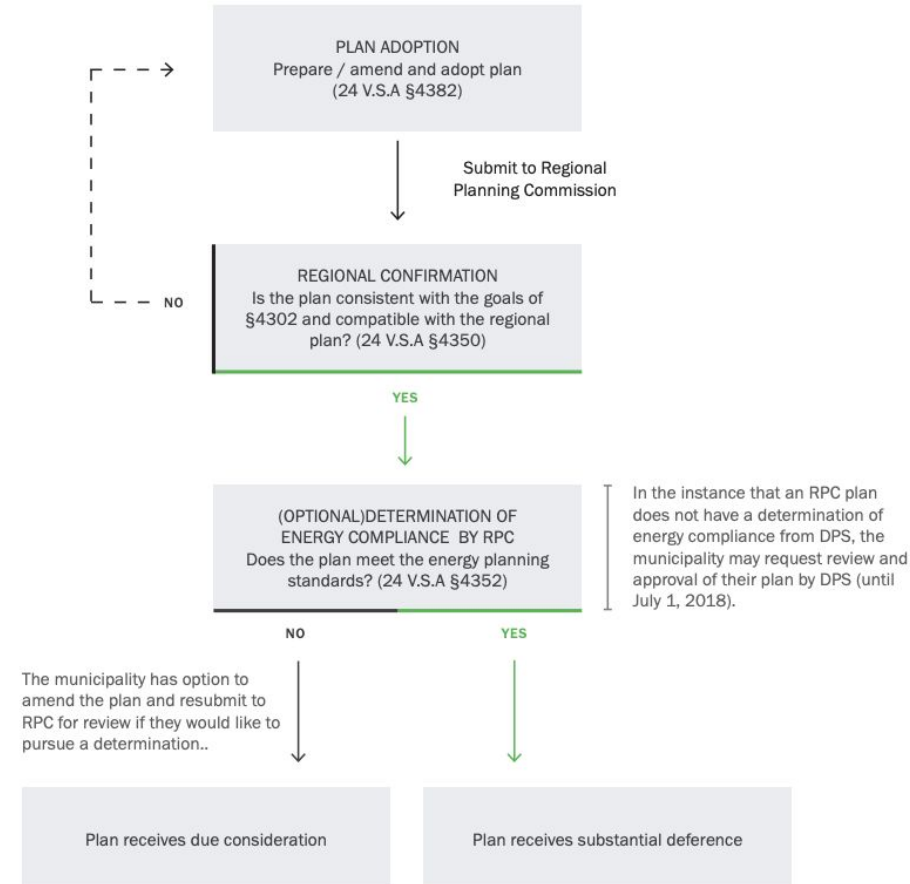
References for enhanced energy plans:

- RPC Guide: [Municipal Enhanced Energy Planning in VT](#)
 - [Energy Planning Standards for Municipal Plans](#)
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MUNICIPAL PLAN
248 SUBSTANTIAL DEFERENCE PROCESS
24 V.S.A §4352

Review Process

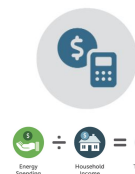
Submit draft plan to ACRPC for preliminary review prior to Plan Adoption.



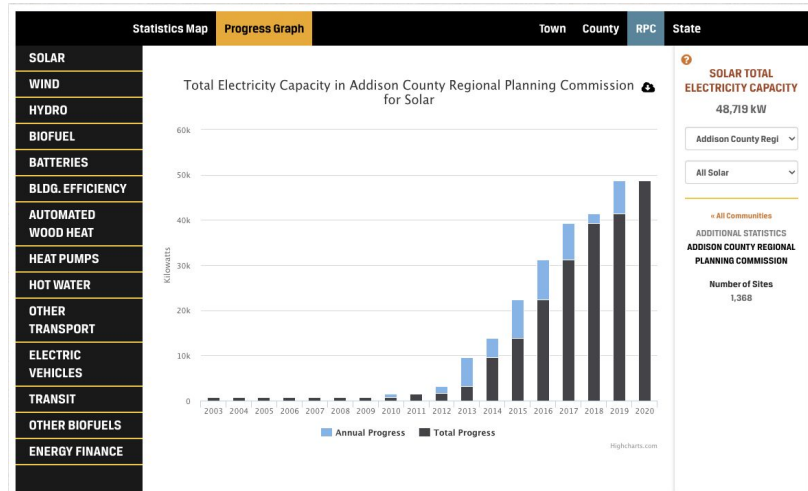
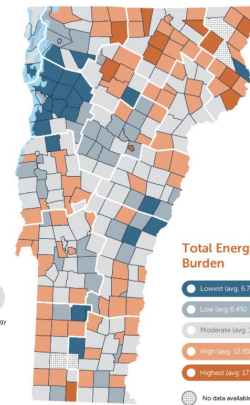
Data resources

- VT Energy [Dashboard](#)
- Efficiency VT [2019 Report](#)
- US [Census](#)
- VT State data [resources](#)
- ACRPC
 - Email: mshropshire@acrpc.org

2019 Energy Burden Report



Efficiency
Vermont



Tips from the reviewer

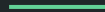
A review of the [Energy Planning Standards for Municipal Plans](#) will ensure all key elements of an enhanced energy plan are included.

Additional points to consider:

- Be sure to state clearly how the town will lead by example in thermal, electric, and transportation efforts.
- ACRPC has provided maps that will qualify the town for approval. However, the town should consider identifying preferred areas of generation or discuss potential constraints that should be added to the maps.

Implementation Activities

1. Land use
2. Electricity
3. Thermal
4. Transportation



Electricity and Thermal: Programs

Neighborworks Heat Squad

- Energy audits
- Financing support
- Project coordination
- Applying for rebates

CVOEO (Income eligible)

- Fuel Assistance
- Weatherization support

Window Dressers of VT

- Volunteer to build or order window inserts

Electricity and Thermal: Incentives and Rebates

Green Mountain Power

- Home Energy Storage

Efficiency Vermont

- Residential
- Business
- Rental Properties

3E Thermal

- Rental Properties
- Consultation and incentives

Renewable Energy Resource Center

- Adv. wood heating systems

Vermont Gas

- Energy evaluation
- Rebates

VT Energy Saver

- Database of all rebates and programs

Transportation: Programs and Incentives

Green Mountain Power

- EVs
- Home and Yard

Go! Vermont

- Support for alternative transportation programs

ACCD

- Electric Vehicle supply equipment (EVSE) Grant program

VT Local Motion

- E-bike lending libraries

Better Connections Program

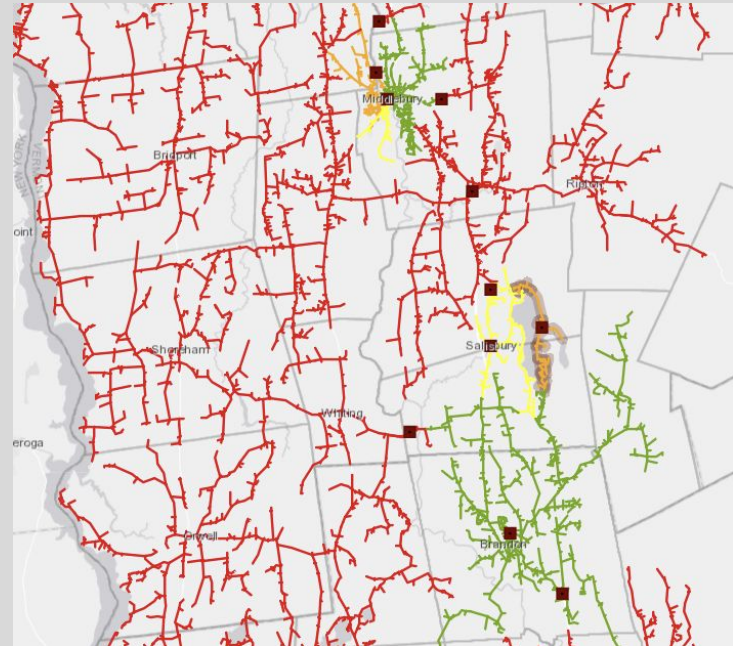
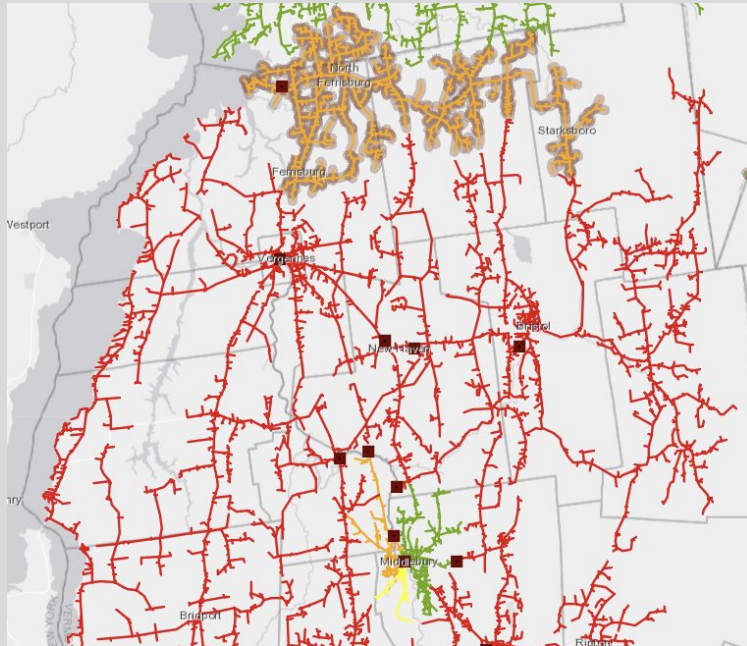
- Funding for transportation planning and implementation

Land Use Planning: community density, accessibility, and generation

- Funding and Incentives from DHCD to invest in downtown areas and accessible neighborhoods
- Funding for historic preservation to support more vibrant downtowns
- Municipal Planning Grants
- Acorn Energy Co-op
 - Residential Support
 - Community Solar

Generation Challenge: Transmission Capacity

- A majority of Addison County substations have less than 10% available capacity
- In some locations, additional generation greater than 15kW (average residential project: 5kW) cannot be installed without battery storage.

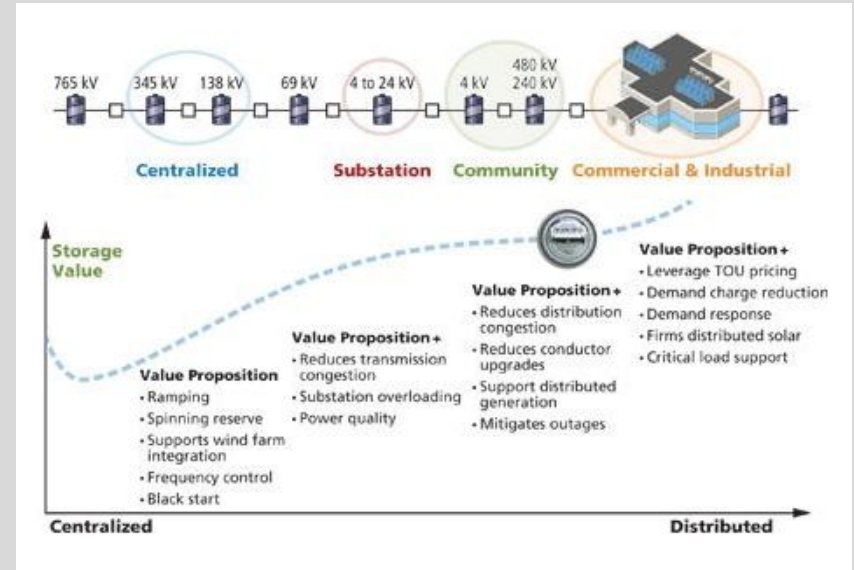


[LINK TO GMP MAP](#)

Potential Solutions: Battery Storage and Efficiency

In some areas GMP requires that any new distributed generation project for **15 kW or more** must include battery storage to ensure generated energy is added to the grid during “non-solar” hours.

Weatherization produces 10-20% energy savings on average and results in reduced energy transmission demand. ([LINK](#))



Cost comparison for residential systems

Solar

- For an average residential (5kW) system: \$13,000 - \$20,000

Battery Storage:

- Ex - Tesla powerwall (5kW): \$10,500
- Battery systems [Cost comparison](#)

GMP will [pay residents](#) installing new battery storage with solar.

- Enrollment incentive: \$850-\$950 per kW.
- GMP's maximum payment for Tesla Powerwall = **\$5,250**

Difference in Investment benefits

- GMP will pay for your solar energy but will only pay at time of enrollment for batteries.
- Batteries allow you to store your solar power and use it during peak grid demand when prices increase.

Battery Incentives and Programs

- GMP [Bring Your Own Device](#)
- GMP [Tesla Powerwall Leasing Program](#)

If you plan to pair solar with your battery system:

- Federal [Investment Tax Credit](#)
- This credit drops to zero by 2024!



Miscellaneous Funding Opportunities

Agency of Commerce and Community Development

- Provides listing of resources [HERE](#)

Vermont Community Foundation

- May support projects depending on intended impacts and the communities involved.
- The [Walter Cerf Community Fund](#) is focused on Addison County projects
- [Use this tool](#) to determine if your project qualifies for VCF funding

USDA Programs Supporting Energy Generation and Efficiency

- [Community Facilities Direct Loan & Grant Program](#)
- [Single Family Home Loans](#), [Agricultural and Small Business owners](#), and [more](#)

Vermont Economic Development Authority [HERE](#)

Vermont Low Income Trust for Energy [HERE](#)

Public Engagement

Programs to consider bringing to
your town:

- [Button Up VT](#)
 - [Window Dressers](#)
 - [GMP EVenture ride-n-drive](#)
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Potential regional projects

If your community is interested in any of the following. Please contact:

mshropshire@acrpc.org

- Community solar projects through Acorn Energy
- Cooling centers with heat pumps
- Battery storage for emergency command centers
- Alternative transportation programs (rideshares, employer incentives, e-bike libraries)
- Regional presentation from Acorn, GMP, or Go! VT (VTrans)

Something Missing?

This is a living document. If you know of information or programs that should be included **OR** if there is something you would like to know more about:

Please contact mshropshire@acrpc.org