

Weather Events Increasing Electricity Costs



Since 2000, VT suffered more than one federally-declared weather-related disaster every year.

GMP:

- ✘ \$34 Million dollars due to storms since 2013
- ✘ Average of \$8 Million Every Year

Washington Electric Coop:

- ✘ \$156,000 net operating loss in 2017 due to a single storm



Sources:

https://floodready.vermont.gov/flood_costs

Prefiled Testimony of Edmund F. Ryan on Behalf of Green Mountain Power (6/4/2018)

Washington Electric Coop 79th Annual Membership Meeting Annual Report (2018)

MOST ENERGY DOLLARS FLOW OUT OF VERMONT

We Are Moving in the Wrong Direction!



- x** Vermont spends over \$3 Billion annually on energy.
- x** 90% of Vermont's total energy is imported from out-of-state and out-of-country.
- x** Large majority of Vermont's electricity is imported from out-of-state.

Sources: Energy Action Network Vermont Electric Generation Data for 2016; eanvt.org
Energy Information Administration; www.eia.gov/state/data.

ISO-NE: Regional Electricity Sources

View the real-time fuel mix at iso-ne.com



Natural Gas



Nuclear



Renewables



Hydro



Coal



Oil

2017



48%



31%



11%



8%



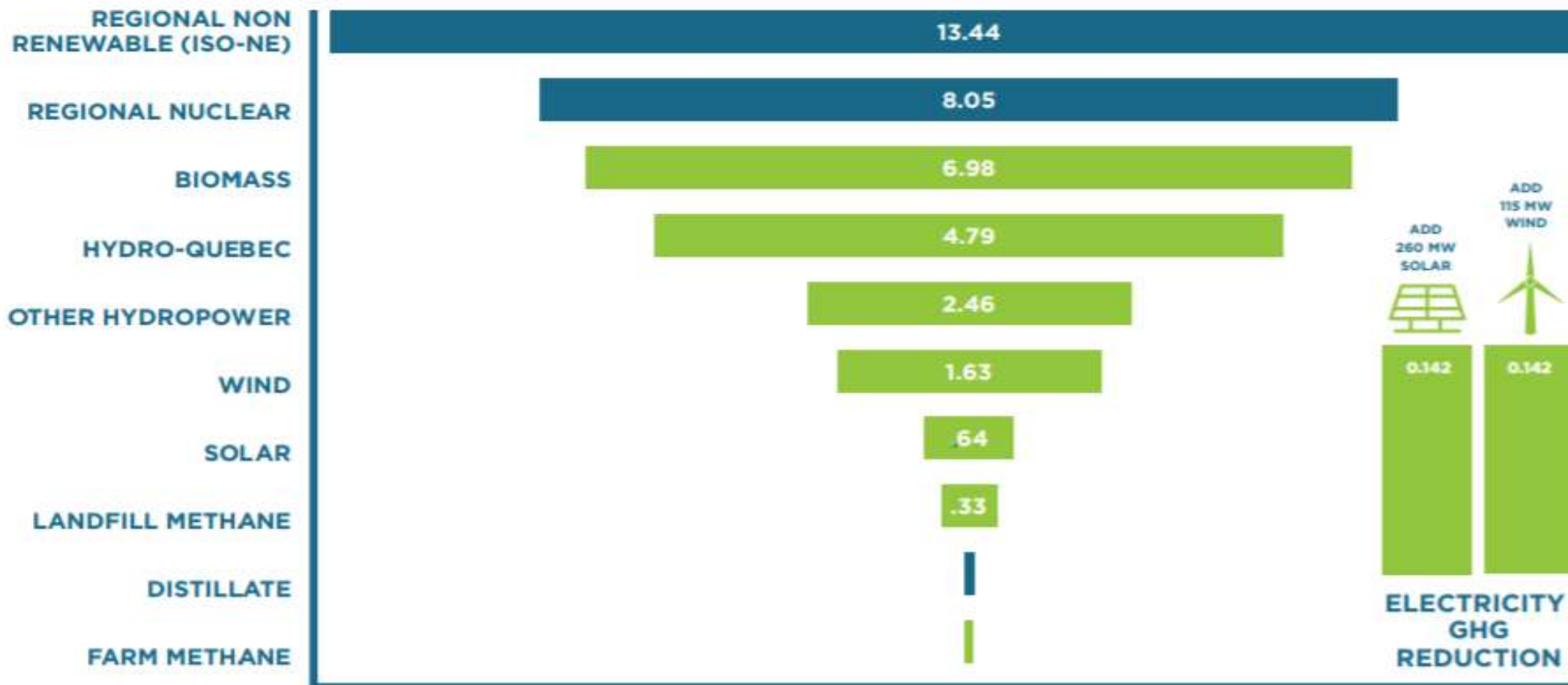
2%



1%

VT imports 60+% electricity from NE & HydroQuebec
→ inadequate local community renewables

VERMONT ELECTRICITY GENERATION SOURCES¹⁷ (in TBTU SOURCE ENERGY)



Seabrook & Millstone - Nuclear Plants

“most vulnerable to inundation” from Climate Change

Bloomberg Businessweek April 18, 2019 *Nuclear Power Plant's Weren't Built for Climate Change*

According to a Bloomberg review of correspondence between the commission and plant owners, 54 of the nuclear plants operating in the U.S. weren't designed to handle the flood risk they face. Fifty-three weren't built to withstand their current risk from intense precipitation; 25 didn't account for current flood projections from streams and rivers; 19 weren't designed for their expected maximum storm surge. Nineteen face three or more threats that they weren't designed to handle.

Union of Concerned Scientists:

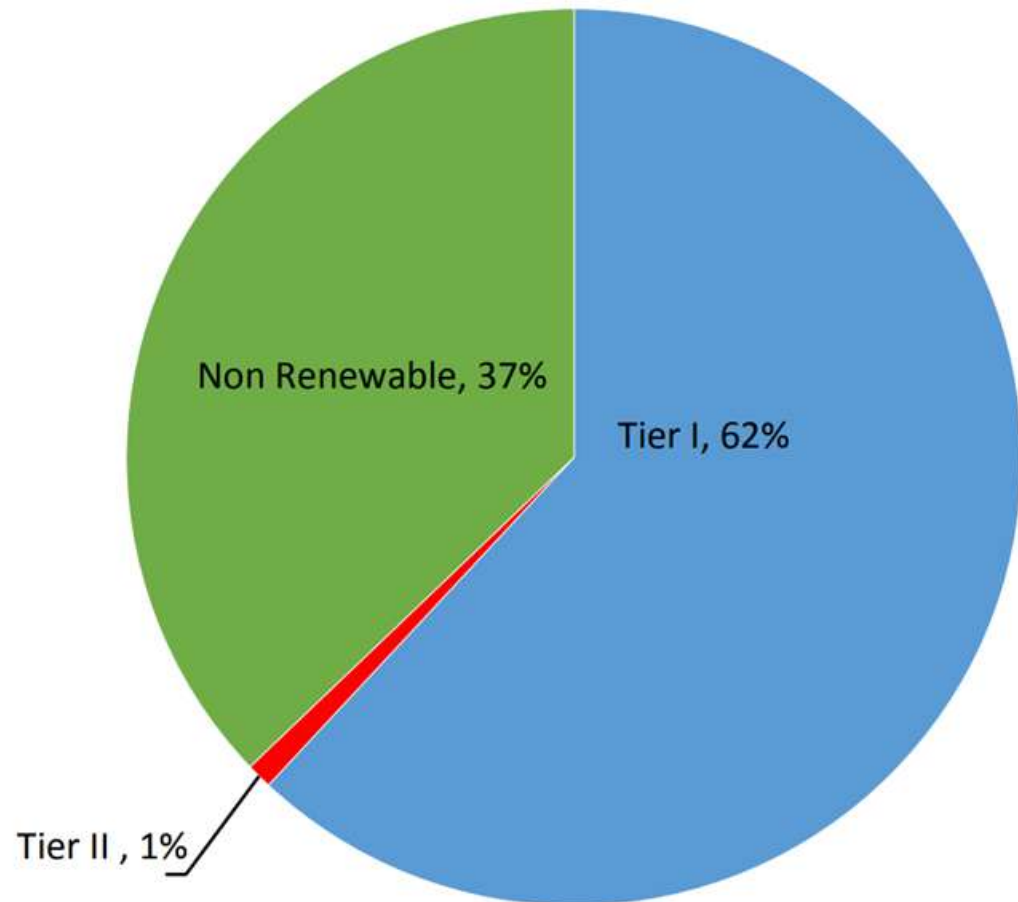
According to our data, the U.S. plants most vulnerable to inundation are the Salem and Hope Creek plants on the New Jersey/Delaware border; the Millstone plant in Connecticut; and the Seabrook plant in New Hampshire. All are close to large cities: The Salem and Hope Creek plants are about 90 miles from Washington and about 35 miles from Philadelphia. The Millstone plant is about 40 miles from Hartford, Conn., and 100 miles from New York City. The Seabrook plant is about 35 miles from Boston. As points of reference, consider that the U.S. government recommended a 50-mile evacuation radius during the Fukushima disaster, and Tokyo is about 140 miles away from the Fukushima Daiichi site.



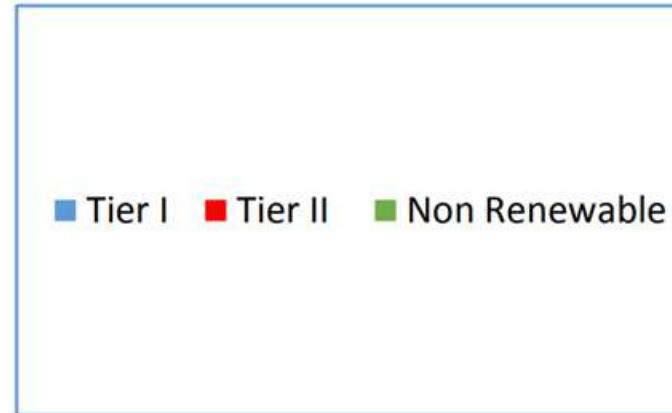
Millstone Station, Waterford, Conn.

Current VT Law Inadequate

Percent Renewability of Vermont Retail Electric Sales



VT's Electric Usage - 5 TWh's



VT gets ~ 3 TWh's from Hydro Quebec and buys associated REC's

2019 Energy Report - VT Department of Public Service

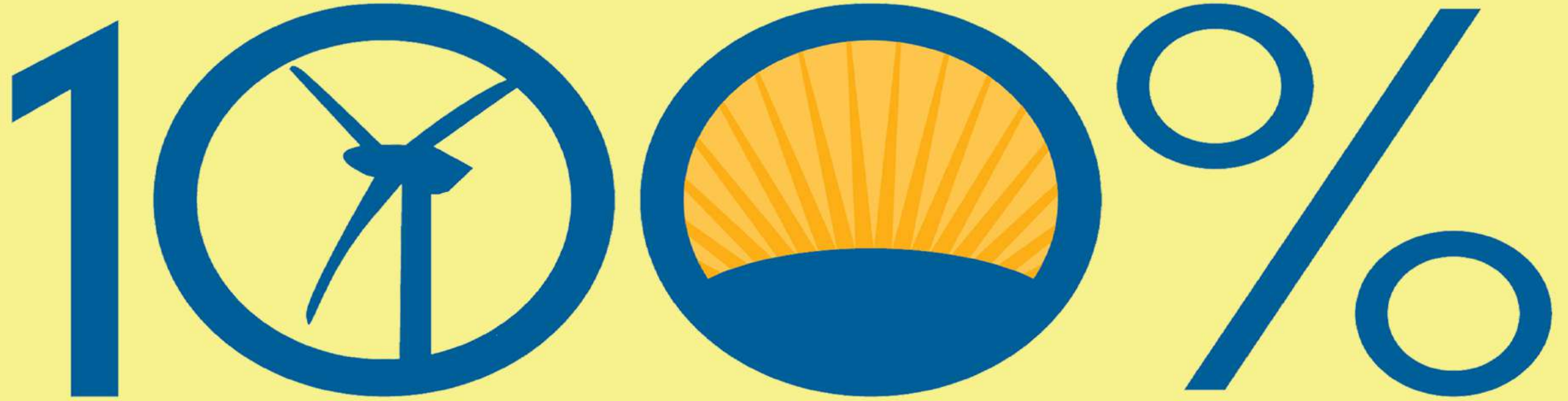
Growing Vermont's Economy & Meeting Commitments



- ▶ Improve the integrity, transparency, and effectiveness of Vermont's Renewable Energy Standard to:
 - ✓ Create resilient communities
 - ✓ Enable choices for Vermonters
 - ✓ Meet our climate economy commitments
- ▶ Buy local, eat/drink local, energize local
- ▶ Increasing participation & access to renewable energy solutions for ALL Vermonters, equitable opportunities for low & moderate income neighbors

WE NEED

100%



Renewable Energy

NOW

Energy Resiliency & Diversity

100% Renewable Energy Standard



- ▶ 100 % renewable electricity by 2030 (Tier 1)
 - ▶ Doubling Local Renewables to 20% by 2030
 - ▶ Resilient & Dispatchable Renewables - 30%
- ▶ No Nuclear or Fossil Fuels Qualifying for Energy Transformation (Tier 3)
- ▶ Accelerate Energy Transformation (Tier 3) with EEU carbon pollution focus

Increasing Local Solar = Tremendous Benefits

*“by 2050 Vermont would see about **\$8 billion of net benefits.... This does not include the value of reducing carbon dioxide or other environmental benefits. Those benefits are in addition to \$8 billion in net savings.**”*

www.veic.org/vermont-solar-pathways



Resiliency & Renewable Energy Storage (Tier 2b)

- ✓ Increases grid reliability, resiliency, integrity, and stability
- ✓ Helps residents and businesses manage electricity use, lowering costs
- ✓ Lowers costs to ratepayers by reducing electricity demand during peak periods when additional supply is needed
- ✓ Helps avoid costly distribution and transmission infrastructure upgrades, reducing costs to ratepayers
- ✓ Provides backup power when the grid is offline
- ✓ Replaces fossil fuel powered backup generators
- ✓ Reduces greenhouse gases
- ✓ Maximizes use of VT produced renewable energy
- ✓ Supports economic growth





Olivia Campbell Andersen, Executive Director

www.revermont.org



[@RE_Vermont](https://twitter.com/RE_Vermont)

info@revermont.org



802-595-5373