

Vermont Electricity at a Glance: Vermont utilities' electricity generation sources, contracts & rates March 26, 2013

"Vermont Electricity at a Glance," the latest publication by the Vermont Energy Partnership (VTEP), depicts Vermont's electricity portfolio, including Vermont utilities' rates, amount of power supplied to Vermont in megawatt/hours, type of power generation, and (in most cases) the specific power generators and/or contracts.

Like several other publications, "Vermont Electricity at a Glance" identifies the state's utilities and how much and what kind of power they sell to their customers. The VTEP publication, however, also lists most of the specific generators and/or contracts for the actual sources of power consumed by Vermonters. The data provided are the most recent available, ranging from end-of-year 2011 to present day.

"Energy education has been a core mission of the Partnership since the beginning," VTEP President Brad Ferland said. "We began seven years ago in response to a need for good, solid facts about Vermont's energy portfolio. We hope that all policy makers, non-governmental organizations, the media, and indeed all interested Vermonters will find 'Vermont Electricity at a Glance' a useful resource."

The core of "Vermont Electricity at a Glance" is the reference spreadsheet (see below). A quick look reveals several energy facts of interest:

- Slightly more than half of Vermont's six million megawatt-hour portfolio is derived from sources considered "renewable" by the State of Vermont: hydro, wind, solar, methane, and wood biomass.
- Vermont's three largest utilities use about one million more MW/H of "system power" now than in 2011 (before the March 2012 expiration of Vermont's utilities' contract with Vermont Yankee which provided about one-third of the state's power). System power is the term for electricity bought from the New England transmission grid, and is comprised mostly of fossil fuel power (especially natural gas), as well as some nuclear, hydro and renewable power. Green Mountain Power, Burlington Electric Dept., and Vermont Electric Coop use 1.8 million megawatt hours of "system power." In 2011 the same three utilities used 847,000 Mw/h of system power, according to the "Utility Facts" study released in February, 2013 by the Vermont Department of Public Service.
- Over the 12 months from December 2011 to December 2012, Vermont's electricity prices rose 5.1 percent, according to the EIA. During the same time period, rates in New York and every other New England state (except Rhode Island) decreased.

Due to the ever-changing nature of Vermont's electricity portfolio, VTEP plans to provide Vermonters with annual updates to this profile. In particular, VTEP hopes to offer expanded, specific detail regarding the generating sources of the state's many municipal utilities, which tend to rely on local hydro generation and contracts with large hydro and renewable generators.

"Net-metered" electricity is not included. At present net metering is regarded as a form of electricity efficiency, because net-metered customers are generally "paid" for their power by reductions in their monthly power bills. The effects of net metering, "smart grid" technology, energy efficiency and other initiatives will be discussed in VTEP's upcoming study of Vermont's effort to reach 90% total renewable power by 2050, which is scheduled for publication sometime this spring.

Total Statewide Generation (MWh)	
Washington Electric Co-op	76,500
Vermont Electric Coop	457,351
Green Mountain Power	4,562,682
Burlington Electric	363,204
Municipal/Other	562,000
TOTAL	6,021,737

State Retail Electricity Price			
State	Year		% Change
	2011	2012	
Connecticut	\$0.16	\$0.15	-6%
Massachusetts	\$0.14	\$0.14	0%
Maine	\$0.12	\$0.12	-1%
New Hampshire	\$0.15	\$0.14	-3%
New York	\$0.15	\$0.15	0%
Rhode Island	\$0.13	\$0.14	5%
Vermont	\$0.14	\$0.15	5%

[Source: EIA Monthly Report](#)

Burlington Electric Department										
Mw/H	Generator	Mw/H	Fuel Type	Renewable	System Power	Other	Total Rate (2011)	Residential Rate (2011)	Commercial Rate (2011)	Industrial Rate (2011)
363,204							\$0.14	\$0.16	\$0.14	\$0.11
	McNeil	116,225	biomass	116,225						
	NYPA	15,254	hydro	15,254						
	GMC Wind (2013-14)	0	wind	0						
	VEPPI hydro	21,792	hydro	21,792						
	BED Turbine	500	oil/gas			500				
	SPEED	1,000	solar	1,000						
	Sheffield Wind	10,800	wind	10,800						
	Hydro Quebec (2015 30,000)	0	hydro							
	ISO-Bilateral System Power contracts	196,130	system power		196,130					

Source: 2012 BED Integrated Resource Plan; 2011 Energy By Source (Fig. 7-1, 2012 IRP)

Washington Electric Cooperative										
Mw/H	Generator	Mw/H	Fuel Type	Renewable	System Power	Other	Total Rate 2011 - kw/h	Residential Rate (2011)	Commercial Rate (2011)	Industrial Rate (2011)
76,500							\$0.19	\$0.19	\$0.18	\$0.13
	VEPPI (hydro & Ryegate biomass)	2750	hydro, biomass	2750						
	Wrightsville dam	2800	hydro	2800						
	HQVJO	16900	hydro	16900						
	Coventry	49000	landfill methane	49000						
	NYPA	9780	hydro	9780						
	Sheffield	8100	wind	8100						
	GMP System Rate W	530				530				

Source: WEC 2013 Resource Report - Pg. 8, "2012 Sources of Power"

Vermont Electric Cooperative										
Mw/H	Generator	Mw/H	Fuel Type	Renewable	System Power	Other	Total Rate 2011 - kw/h	Residential Rate (2011)	Commercial Rate (2011)	Industrial Rate (2011)
457,351							\$0.16	\$0.19	\$0.16	\$0.10
	Big Hydro - HQ,	253,473	hydro	253,473						
	Small hydro - purchases from VEPI	13083	hydro	13083						
	Farm methane/solar/small wind - standard offer	5740	methane	5740						
	Nuclear (VY, expired 2012)									
	Wind - First Wind LLC, Sheffield	57003	wind	57003						
	Natural Gas - system power contracts	115086	natural gas		115086					
	Wood (share of Ryegate biomass)	12966	biomass	12966						

Source: [VEC Energy Portfolio](#)

Municipal/Other						
Mw/H	Town	Mw/H	2011 Total Rate (kw/h)	Residential Rate (2011)	Commercial Rate (2011)	Industrial Rate (2011)
562,000						
	Enosburg	26,000	\$0.16	\$0.16	\$0.16	\$0.15
	Swanton	53,000	\$0.12	\$0.11	\$0.13	N/A
	Hardwick	32,000	\$0.18	\$0.18	\$0.19	\$0.17
	Ludlow	46,000	\$0.16	\$0.14	\$0.16	\$0.19
	Lyndonville	68,000	\$0.15	\$0.15	\$0.17	\$0.15
	Morrisville	45,000	\$0.16	\$0.16	\$0.16	N/A
	Northfield	29,000	\$0.14	\$0.14	\$0.15	\$0.13
	Stowe	74,000	\$0.15	\$0.18	\$0.15	\$0.11
	Barton	14,000	\$0.17	\$0.17	\$0.18	N/A
	Hyde Park	11,000	\$0.18	\$0.18	\$0.20	N/A
	Jacksonville	5,000	\$0.17	\$0.17	\$0.17	\$0.17
	Johnson	13,000	\$0.18	\$0.17	\$0.20	\$0.17
	Orleans	13,000	\$0.14	\$0.13	\$0.14	\$0.15
	Readsboro	1,000	\$0.17	\$0.17	\$0.20	\$0.17
	VMPD OMYA	132,000	\$0.09	\$0.10	\$0.11	\$0.09

Source: [PSD Utility Facts 2013](#)

Green Mountain Power										
Mw/H	Generator	Mw/H	Fuel Type	Renewable	System Power	Other	Total Rate (current)	Residential Rate (current)	Commercial Rate (current)	Industrial Rate (current)
4,562,682							\$0.14	\$0.17	\$0.14	\$0.10
	HQ/VJO- Existing	1,487,921	hydro	1,487,921						
	HQ PPA NEW	41,790	hydro	41,790						
	GMP Hydro	410,753	hydro	410,753						
	VEPPI Hydro	145,414	hydro	145,414						
	JP Morgan System	317,305	system power		317,305					
	Morgan Stanley System	4,416	system power		4,416					
	Nextera System	219,025	system power		219,025					
	Macquarie (20 MW off-peak)	93,600	system power		93,600					
	BP Energy System	45,080	system power		45,080					
	Constellation System	502,490	system power		502,490					
	ISO-NE	310,431	system power		310,431					
	Millstone Nuclear Plant	166,265	nuclear			166,265				
	Nextera Nuclear PPA	131,400	nuclear			131,400				
	Stony Brook	20,300	oil/gas			20,300				
	Wyman 4	3,123	oil/gas			3,123				
	GMP Peaking Units	6,410	oil/gas			6,410				
	VEPPI Wood (Ryegate)	114,907	biomass	114,907						
	McNeil	71,000	biomass	71,000						
	GMP Solar	554	solar	554						
	Searsburg	12,110	wind	12,110						
	Granite	258,508	wind	258,508						
	Kingdom Community Wind	126,802	wind	126,802						
	H446- Standard Offer	49,426	solar, methane	49,426						
	Moretown LFG	23,652	landfill methane	23,652						

Source: GMP Snapshot 2013; Supplied by GMP