

Maine Wind Farms	Status	Oper date	Cost \$million	Mfr	Qty	Rating mW	Total mW	Cost \$/kW	Height ft	Output gWh/yr	C.F	Source
Mars Hill Wind	O	2007	85	G.E.	28	1.5	42.0	2024	389	133.5	0.36	http://www.mainewind.org/
Beaver Ridge	O	2008	12	G.E.	3	1.5	4.5	2667	389	12.5	0.32	http://www.windpoweringamerica.gov/ne_project_detail.asp?id=50
Stetson Wind Farm I	O	2009	140	G.E.	38	1.5	57.0	2456	389	167.0	0.33	http://www.renewableenergyworld.com/rea/news/article/2009/01/57-mw-stetson-wind-farm-starts-commercial-operations-in-maine-54573
Kibby Wind Power I	O	2009	160	Vestas	22	3.0	66.0	2424	410	178.5	0.31	http://www.istockanalyst.com/article/view/StockNews/articleid/2386398
Fox Islands	O	2009	14.5	G.E.	3	1.5	4.5	3222	389	11.6	0.29	http://www.foxislandswind.com/
Total			411.5				174.0			503.1		
Kibby Wind Power II	UC	2010	160	Vestas	22	3.0	66.0	2424	410	178.5	0.31	http://www.facebook.com/posted.php?id=129110170335
Stetson Wind Farm II	UC	2010	60	G.E.	17	1.5	25.5	2353	389	73.7	0.33	http://www.google.com/search?hl=en&client=safari&rls=en-us&q=Stetson+Wind+Farm+No.++II&btnG=Search&aq=f&oq=&aqi=
Total			220				91.5			252.2		
Rollins	P		150	G.E.	40	1.5	60.0	2500	389	168.2	0.32	http://www.rechargenews.com/energy/wind/article196102.ece
Longfellow	P		100		16	2.5	40.0	2500		112.1	0.32	http://www.windaction.org/news/19629
Oakfield	P		125	G.E.	34	1.5	51.0	2451	389	143.0	0.32	http://www.wind-watch.org/news/2009/09/02/oakfield-wind-farm-panel-reviews-proposal/
Record Hill	P		120		22	2.5	55.0	2182		154.2	0.32	http://www.mainebiz.biz/news45086.html
Total			495				206.0			577.5		
Total			1126.5				471.5			1332.8		

Notes:

Data from the Internet

O = operating, UC = under construction, P = proposed

Capital costs, outputs and CFs for proposed projects are estimates.

Maine plans to have a total of 2,000 mW installed by 2015 and a total of 3,000 mW by 2020

Wind electricity output in 2015 = 2,000 mW x 1,000 kW/mW x 8,760 hrs/yr x 0.3 capacity factor = 5,256,000,000 kWh/yr

Construction time to clear trees, build roads, install foundations, build transmission lines, install turbines, etc., is 1 - 3 years

Maine has more of the strong, steady, long-lasting winds for wind power than Vermont, especially off-shore

Power is proportional to wind speed cubed.

GE has more than (12,000) 1.5 mW turbines installed worldwide.

The higher CF for Stetson I and II is due to exceptional wind and geographical conditions

Vermont's consumption in 2008 was about 6,000,000,000 kWh = 6,000 gWh. Maine's consumption in 2008 was about 12,300 gWh

New England grid consumption in 2008 was about 130,000,000,000 kWh/yr = 130,000 gWh/yr

US consumption in 2008 was about 3,816,000,000 gWh/yr. Source CIA fact book.

Wind power producers receive a \$0.02/kWh production tax credit, PTC, from the federal government

Wind power producers sell their output to power companies under long term power purchase agreements, PPAs

Wind power producers receive renewable energy credits, RECs, (1 REC = 1,000 kWh) which can be sold, traded and bartered

REC prices fluctuate from \$5 to \$90 per MWh, medium price about \$20

Wind power producers reduce taxes by using a 5-yr accelerated depreciation schedule

Wind power producers deduct interest on borrowed funds from taxable incomes

New England ridgeline wind farms are smaller, experience lower wind speeds, and cost more to install than in the flat terrain of northern Plains states

Wind power may cost less than \$0.05/kWh in northern Plains states, \$0.06 to \$0.07/kWh in New England