



# AWEA 1st Quarter 2008 Market Report

**May 2008**

With the fate of a key federal incentive in the balance, the U.S. wind energy industry continued new installations at a breakneck pace, putting 1,400 megawatts (MW) or approximately \$3 billion worth of new generating capacity in place in the first quarter.



## New Wind Power Projects, completed through the end of March 2008

Table 1 lists new wind power projects that have been brought on-line and commissioned this year, as reported to AWEA by its project developer and manufacturer member companies. Project commissioning date is at discretion of project owner. Results are preliminary.

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Owner/Equity Partner	Power Purchaser
<b>Total Cumulative Installed</b>		<b>18,303</b>	<b>&gt;25,000</b>					
<b>Q1 2008</b>		<b>1479</b>	<b>955</b>					
California	<b>Dillon</b>	<b>45</b>	45	1	Mitsubishi	Iberdrola Renewables	Iberdrola Renewables	SCE
Illinois	<b>Twin Groves II (1Q08)</b>	<b>36.3</b>	22	1.65	Vestas	Horizon	Horizon	Constellation Energy
Iowa	<b>Century expansion (08)</b>	<b>12</b>	8	1.5	GE Energy	MidAmerican Energy	MidAmerican Energy	MidAmerican Energy
Iowa	<b>Charles City</b>	<b>57</b>	38	1.5	GE Energy	MidAmerican Energy	MidAmerican Energy	MidAmerican Energy
Iowa	<b>Pomeroy II (08)</b>	<b>4.5</b>	3	1.5	GE Energy	enXco	MidAmerican Energy	MidAmerican Energy
Iowa	<b>Top of Iowa III</b>	<b>29.7</b>	18	1.65	Vestas	Madison Gas & Electric	Madison Gas & Electric	Madison Gas & Electric
Kansas	<b>Smoky Hills</b>	<b>100.8</b>	56	1.8	Vestas	TradeWind Energy	Enel North America	Sunflower Electric/Midwest Energy/BPU
Minnesota	<b>Prairie Star (08)</b>	<b>1.65</b>	1	1.65	Vestas	Horizon	Horizon	Great River Energy
Missouri	<b>Conception Wind Project</b>	<b>50.4</b>	24	2.1	Suzlon	Wind Capital Group/John Deere Wind	Wind Capital Group/John Deere Wind	Associated Electric Cooperative
Missouri	<b>Cow Branch Wind Project</b>	<b>50.4</b>	24	2.1	Suzlon	Wind Capital Group/John Deere Wind	Wind Capital Group/John Deere Wind	Associated Electric Cooperative
Missouri	<b>Loess Hills Wind Project</b>	<b>5</b>	4	1.25	Suzlon	Wind Capital Group/John Deere Wind	Wind Capital Group/John Deere Wind	Missouri Joint Municipal Electric Utility Commission
Montana	<b>Diamond Willow Wind (08)</b>	<b>18</b>	12	1.5	GE Energy	Montana-Dakota Utilities	Montana-Dakota Utilities	Montana-Dakota Utilities
Oregon	<b>Elkhorn Valley (08)</b>	<b>3.3</b>	2	1.65	Vestas	Horizon	Horizon	Idaho Power

## New Wind Power Projects, completed through the end of March 2008 (continued)

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Owner/Equity Partner	Power Purchaser
<b>Q1 2008</b>								
Oregon	<b>Klondike III (08)</b>	<b>2.4</b>	1	2.4	Mitsubishi	Iberdrola Renewables	Iberdrola Renewables	PG&E/PSE/EWEB/BPA
Texas	<b>Camp Springs II (08)</b>	<b>88.5</b>	59	1.5	GE Energy	Invenergy	Invenergy	n/a
Texas	<b>Capricorn Ridge expansion</b>	<b>142.5</b>	95	1.5	GE Energy	FPL Energy	FPL Energy	n/a
Texas	<b>Champion</b>	<b>126.5</b>	55	2.3	Siemens	E.On Climate & Renewables	E.On Climate & Renewables	market
Texas	<b>JD Wind 4</b>	<b>79.8</b>	38	2.1	Suzlon	DWS/John Deere Wind	John Deere Wind	Southwestern Public Service
Texas	<b>Lone Star II (1Q08)</b>	<b>104</b>	52	2	Gamesa	RES Americas/Horizon	Horizon	JARon
Texas	<b>Roscoe</b>	<b>209</b>	209	1	Mitsubishi	E.On Climate & Renewables	E.On Climate & Renewables	Luminant
Texas	<b>Stanton Energy Center</b>	<b>120</b>	80	1.5	GE Energy	Invenergy	Invenergy	n/a
Washington	<b>Nine Canyon III</b>	<b>32.2</b>	14	2.3	Siemens	Energy Northwest	Energy Northwest	Energy Northwest
Wisconsin	<b>Forward Wind Project (1Q08)</b>	<b>99</b>	66	1.5	GE Energy	Invenergy	Invenergy	Alliant, WPS, Madison Gas & Electric, WPPI
Wyoming	<b>Mountain Wind I</b>	<b>60.9</b>	29	2.1	Suzlon	Edison Mission	Edison Mission	n/a

## Wind Power Projects, currently under construction

Table 2 lists wind power projects that are under construction, as reported to AWEA by its project developer member companies. AWEA will report project numbers quarterly in 2008. Reporting under construction projects is at the discretion of the project developer. This is, therefore, not necessarily a comprehensive list of wind power plants currently under construction.

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Power Purchaser
<b>Under Construction - NOTE - information as of 5/5/08. All projects may not have been under construction as of 3/31/08.</b>							
California	Edom Hills (repower)	20	8	2.5	Clipper	BP Alternative Energy	SCE
California	Pine Tree Wind Farm	120	80	1.5	GE Energy	LA DWP	LA DWP
California	Shiloh II	150	75	2	REPower	enXco	PG&E
Illinois	Providence Heights	72	36	2	Gamesa	Iberdrola Renewables	n/a
Illinois	Grand Ridge	99	66	1.5	GE Energy	Invenergy	n/a
Indiana	Benton County Wind Farm	130.5	87	1.5	GE Energy	Orion Energy Group, LLC	Duke Energy Indiana/Vectren Power Supply Inc.
Indiana	Fowler Ridge Wind Farm Phase I	400	222	n/a	n/a	BP Alternative Energy/ Dominion Energy	AEP/Dominion Energy
Iowa	Adair	174.8	76	2.3	Siemens	MidAmerican Energy	MidAmerican Energy
Iowa	Charles City	18	12	1.5	GE Energy	MidAmerican Energy	MidAmerican Energy
Iowa	Endeavor (08)	75	30	2.5	Clipper	FPL Energy	FPL Energy
Iowa	Pioneer Prairie I	201.3	122	1.65	Vestas	Horizon	n/a
Iowa	Top of Iowa II	80	40	2	Gamesa	Iberdrola Renewables	n/a
Kansas	Central Plains	99	33	3	Vestas	RES Americas	Westar Energy
Kansas	Flat Ridge I	100	40	2.5	Clipper	BP Alternative Energy	n/a

## Wind Power Projects, currently under construction

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Power Purchaser
Kansas	Meridian Way	201	67	3	Vestas	Horizon	Westar Energy/Empire District Electric
Kansas	Smoky Hills II	148.5	99	1.5	GE Energy	TradeWind Energy	n/a
Maine	Stetson Wind	57	38	1.5	GE Energy	First Wind	n/a
Michigan	Harvest Wind Farm	52.8	32	1.65	Vestas	John Deere Wind	Wolverine Power Cooperative
Michigan	Noble Thumb	69	40	1.5	GE Energy	Noble Environmental	n/a
Minnesota	Cisco	8.4	4	2.1	Suzlon	community/John Deere Wind	Northern States Power
Minnesota	Ewington	20	10	2	Suzlon	community/John Deere Wind	Northern States Power
Minnesota	Marshall	18	9	2	Suzlon	community/John Deere Wind	Missouri Basin Municipal Power Agency (MRES)
New York	Noble Altona	97.5	65	1.5	GE Energy	Noble Environmental	n/a
New York	Noble Bellmont	21	14	1.5	GE Energy	Noble Environmental	n/a
New York	Noble Bliss	100.5	67	1.5	GE Energy	Noble Environmental	n/a
New York	Noble Chateaugay	106.5	71	1.5	GE Energy	Noble Environmental	n/a
New York	Noble Clinton	100.5	67	1.5	GE Energy	Noble Environmental	n/a
New York	Noble Ellenburg	81	54	1.5	GE Energy	Noble Environmental	n/a
New York	Noble Wethersfield	126	84	1.5	GE Energy	Noble Environmental	n/a

## Wind Power Projects, currently under construction

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Power Purchaser
North Dakota	Langdon (08)	40.5	27	1.5	GE Energy	FPL Energy	Otter Tail Power for 60 MW/Minnkota Power Cooperative for 99 MW
North Dakota	Tatanka	90	60	1.5	Acciona	Acciona	n/a
Oregon	Pebble Springs	98.7	47	2.1	Suzlon	Iberdrola Renewables	Southern California Public Power Authority
Oregon	Rattlesnake Road	102.9	49	2.1	Suzlon	Horizon	n/a
South Dakota	Tatanka	90	60	1.5	Acciona	Acciona	n/a
Texas	Barton Chapel	120	60	2	Gamesa	Gamesa	n/a
Texas	Elbow Creek Wind Farm	121.9	53	2.3	Siemens	Padoma	n/a
Texas	Goat Mountain Phase I	80	80	1	Mitsubishi	Cielo/Edison Mission Group	n/a
Texas	Goat Mountain Phase II	69.6	29	2.4	Mitsubishi	Cielo/Edison Mission Group	n/a
Texas	Great Plains	114	76	1.5	GE Energy	Noble Environmental	n/a
Texas	Hackberry	165.6	72	2.3	Siemens	RES Americas	Austin Energy
Texas	Inadale Wind Farm	197	197	1	Mitsubishi	E.On Climate & Renewables	n/a
Texas	JD Wind 7-11	50	40	1.25	Suzlon	DWS/John Deere Wind	Southwestern Public Service
Texas	Lone Star II (2Q08)	52	2	26	Gamesa	RES Americas/Horizon	JARon
Texas	McAdoo	150	100	1.5	GE Energy	Invenergy	n/a

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Power Purchaser
Texas	Ocotillo	58.8	28	2.1	Suzlon	Duke Energy	n/a
Texas	Panther Creek Wind Farm	258	172	1.5	GE Energy	E.On Climate & Renewables	n/a
Texas	Pyron Wind Farm	249	166	1.5	GE Energy	E.On Climate & Renewables	n/a
Texas	Sherbino I	150	50	3	Vestas	BP Alternative Energy/ Padoma	market
Texas	Silver Star I	60	24	2.5	Clipper	BP Alternative Energy/Clipper	n/a
Texas	South Trent Mesa	101.2	44	2.3	Siemens	Babcock & Brown	n/a
Washington	Goodnoe	94	47	2	REpower	Northwest Windpower (enXco/ Power Holdings)	PacifiCorp
Washington	Hopkins Ridge II	7.2	4	1.8	Vestas	Puget Sound Energy	Puget Sound Energy
West Virginia	NedPower Mount Storm, Phase I	164	82	2	Gamesa	Shell WindEnergy/Dominion Energy	Dominion Energy
West Virginia	NedPower Mount Storm, Phase II	100	50	2	Gamesa	Shell WindEnergy/Dominion Energy	Dominion Energy
Wisconsin	Blue Sky - Green Field	145.2	88	1.65	Vestas	We Energies	We Energies
Wisconsin	Forward (2Q08)	30	20	1.5	GE Energy	Invenergy	Wisconsin Public Service

## New U.S. Wind Power Manufacturing Facilities Online or Expanded 2007-2008

Acciona Energy, turbine assembly: West Branch, IA

Composite Technology/DeWind, turbine assembly: Round Rock, TX

DMI, towers: Tulsa, OK

Dowding Industries, bases and hubs: Eaton Rapids, MI

Genzink Steel, nacelle frames: Holland, MI

Hailo, LLC, ladder and lift systems: Holbrook, NY

Kaydon Corp., bearings: Sumter, SC

Knight & Carver, blades: Howard, SD

LM Glasfiber, blades: Little Rock, AR

Molded Fiberglass, blades: Aberdeen, SD

Siemens, blades: Fort Madison, IA

Tower Tech, towers: Manitowoc, WI

Trinity Structural Towers, towers: Clinton, IL

Vestas, blades: Windsor, CO

Wausaukee Composites, nacelle housing: Cuba City, WI

Wausaukee Composites, nacelle housing: Wausaukee, WI

Winergy Drive Systems, gear units: Elgin, IL

## Finalized Tally of New Wind Projects Completed Fourth Quarter 2007

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Owner/Equity Partner	Power Purchaser
<b>Final Q4 2007</b>		<b>2935</b>	<b>1811</b>					
California	<b>Solano Wind Project</b>	<b>63</b>	21	3	Vestas	Sacramento Municipal Utility District	Sacramento Municipal Utility District	Sacramento Municipal Utility District
Colorado	<b>Peetz Table (4Q07)</b>	<b>136.5</b>	91	1.5	GE Energy	FPL Energy/Invenergy	FPL Energy	Xcel Energy
Colorado	<b>Cedar Creek (4Q07)</b>	<b>79.5</b>	53	1.5	GE Energy	Babcock & Brown/BP America	Babcock & Brown/BP America	Xcel Energy
Colorado	<b>Cedar Creek (4Q07)</b>	<b>221</b>	221	1	Mitsubishi	Babcock & Brown/BP America	Babcock & Brown/BP America	Xcel Energy
Illinois	<b>Camp Grove</b>	<b>150</b>	100	1.5	GE Energy	OEG (Orion Energy Group)	OEG (Orion Energy Group)	AEP - Appalachian Power
Illinois	<b>Twin Groves II (4Q07)</b>	<b>161.7</b>	98	1.65	Vestas	Horizon	Horizon	Constellation Energy
Iowa	<b>Pomeroy I</b>	<b>123</b>	82	1.5	GE Energy	enXco	MidAmerican Energy	MidAmerican Energy
Iowa	<b>Pomeroy II (4Q07)</b>	<b>73.5</b>	49	1.5	GE Energy	enXco	MidAmerican Energy	MidAmerican Energy
Iowa	<b>Century expansion (4Q07)</b>	<b>3</b>	2	1.5	GE Energy	MidAmerican Energy	MidAmerican Energy	MidAmerican Energy
Minnesota	<b>Fenton Wind Power Project</b>	<b>205.5</b>	137	1.5	GE Energy	enXco	enXco	Xcel Energy

## Finalized Tally of New Wind Projects Completed Fourth Quarter 2007 (continued)

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Owner/Equity Partner	Power Purchaser
Minnesota	<b>MinnDakota Wind Farm</b>	<b>96</b>	64	1.5	GE Energy	Iberdrola Renewables	Iberdrola Renewables	Xcel Energy
Minnesota	<b>Prairie Star</b>	<b>99</b>	60	1.65	Vestas	Horizon	Horizon	Great River Energy
Montana	<b>Diamond Willow Wind (07)</b>	<b>1.5</b>	1	1.5	GE Energy	Montana-Dakota Utilities	Montana-Dakota Utilities	Montana-Dakota Utilities
New York	<b>Munnsville</b>	<b>34.5</b>	23	1.5	GE Energy	E.On Climate & Renewables	E.On Climate & Renewables	Coral Energy
North Dakota	<b>Langdon Wind Project (4Q07)</b>	<b>118.5</b>	79	1.5	GE Energy	FPL Energy	FPL Energy	Otter Tail Power/ Minnkota Power Cooperative
North Dakota	<b>Oliver II</b>	<b>48</b>	32	1.5	GE Energy	FPL Energy	FPL Energy	Minnesota Power
Oklahoma	<b>Sleeping Bear</b>	<b>94.5</b>	45	2.1	Suzlon	Edison Mission Group/ Chermac Energy Corp.	Edison Mission Group	American Electric Power (Public service of Oklahoma)
Oregon	<b>Klondike III (GE Energy)</b>	<b>120</b>	80	1.5	GE Energy	Iberdrola Renewables	Iberdrola Renewables	PG&E/PSE/EWEB/ BPA
Oregon	<b>Klondike III (Siemens)</b>	<b>101.2</b>	44	2.3	Siemens	Iberdrola Renewables	Iberdrola Renewables	PG&E/PSE/EWEB/ BPA
Oregon	<b>Biglow Canyon, phase I</b>	<b>125.4</b>	76	1.65	Vestas	Orion Energy/Portland General Electric	Portland General Electric	Portland General Electric
Oregon	<b>Elkhorn Valley Wind Farm</b>	<b>97.35</b>	59	1.65	Vestas	Horizon	Horizon	Idaho Power

## Finalized Tally of New Wind Projects Completed Fourth Quarter 2007 (continued)

State	Project Name	Capacity (in MW)	Number of Turbines	Turbine Rating (in MW)	Turbine Manufacturer	Project Developer	Owner/Equity Partner	Power Purchaser
Pennsylvania	<b>Casselman Wind Project</b>	<b>34.5</b>	23	1.5	GE Energy	Iberdrola Renewables	Iberdrola Renewables	First Energy
South Dakota	<b>MinnDakota Wind Farm</b>	<b>54</b>	36	1.5	GE Energy	Iberdrola Renewables	Iberdrola Renewables	Xcel Energy
Texas	<b>Camp Springs II (4Q07)</b>	<b>31.5</b>	21	1.5	GE Energy	Invenergy	Invenergy	n/a
Texas	<b>Capricorn Ridge (4Q07)</b>	<b>97.5</b>	65	1.5	GE Energy	FPL Energy	FPL Energy	n/a
Texas	<b>Capricorn Ridge (4Q07)</b>	<b>4.6</b>	2	2.3	Siemens	FPL Energy	FPL Energy	n/a
Texas	<b>Lone Star I (4Q07)</b>	<b>18</b>	9	2	Gamesa	RES Americas/Horizon	Horizon	Direct Energy
Texas	<b>Lone Star II (4Q07)</b>	<b>44</b>	22	2	Gamesa	RES Americas/Horizon	Horizon	Direct Energy
Texas	<b>Sand Bluff</b>	<b>90</b>	45	2	Gamesa	E.On Climate & Renewables	E.On Climate & Renewables	Direct Energy
Texas	<b>Snyder</b>	<b>63</b>	21	3	Vestas	Windkraft Nord	Enel North America	merchant/ market
Texas	<b>Sweetwater 5</b>	<b>80.5</b>	35	2.3	Siemens	Babcock & Brown/ Catamount Energy	Babcock & Brown/Catamount Energy	market (merchant)
Texas	<b>Whirlwind Energy Center</b>	<b>59.8</b>	26	2.3	Siemens	RES Americas	RES Americas	Austin Energy
Washington	<b>White Creek Wind Power Project</b>	<b>204.7</b>	89	2.3	Siemens	Last Mile Electric Cooperative	Last Mile Electric Cooperative	Last Mile Electric Cooperative

Finalized Completed in 2007	<b>5249</b>	3190
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## Project Definitions

Definitions (the last two – web link and WEW reference – are not currently being used in the report, and therefore will come out of the definitions for now).

<b>Term</b>	<b>Abbrev.</b>	<b>Description</b>	<b>Information Source</b>
Capacity (in Megawatts)	MW	Total nameplate capacity rating of assembly of turbines	Information as received from project developer at end of each quarter.
Completion Date		Date on which wind project is considered to be operational. Usually "Commercial Operation Date".	Specific criteria for "Completion" is at the discretion of the project developer.
Merchant or "market"		Wind power plants that are built without a traditional long-term power purchase agreement, instead selling power into a spot-market, sometimes with a hedge contract, or an option to sell the power at a certain price in the future.	Project developer or owner
Owner/Equity Partner		Company or companies that will have a managing interest in project when it is complete, though they may not have 100% ownership. Does not usually include structural equity investors.	Project developer or owner
Power Purchaser		Utility contracted to purchase power under long-term Power Purchase Agreement (PPA) contract or use the power in case of utility ownership	project developer or power purchaser
Project Developer		Company or companies managing most aspects of project development process. Is often a joint effort among several companies.	project developer
Project Name		Name supplied by project developer	project developer
Turbine Manufacturer		Turbine vendor or supplier	project developer or turbine manufacturer
Turbine Rating (in Megawatts)	MW	Nameplate capacity rating of each turbine – typically the maximum potential power output of the turbine generator	project developer