

**Attachment to Appendix D:**  
**Commercial Wind Energy Projects**  
**(as of January 2004)**

Data on commercial wind energy projects in the western states that are within the scope of this programmatic environmental impact statement (PEIS) are displayed in the tables below. The American Wind Energy Association (AWEA) compiles and maintains all of the data displayed below. All data presented are current as of January 14, 2004. All data are accessible electronically from the AWEA Web site at <http://www.awea.org/projects/index.html>. Data presented in the tables below are updated quarterly by the AWEA.

The Bureau of Land Management (BLM) cannot guarantee the completeness or accuracy of these listings. Submission by wind farm developers or operators of project information to AWEA for inclusion in these listings is voluntary.

## California

### Major CA Wind Energy Resource Areas

Existing Project or Area	MW Installed*	Annual Energy Output (Yr of Est)	Power Purchaser/ User	Turbines
<u>1. Altamont Pass</u>	548.32	637 M kWh (1998)	Pacific Gas & Electric	Variety
<u>2. Pacheco Pass</u>	16.0	22.3 M kWh (1998)	Pacific Gas & Electric	Variety
<u>3. San Geronio Pass</u>	614.94	805 M kWh (1998)	So. California Edison	Variety
<u>4. Solano County</u>	176.16	N.A.	S.M.U.D	Kenetech & Vestas
	60.0	97.1 M kWh (1998)	Pacific Gas & Electric	U.S. Wind- power 100
<u>5. Tehachapi</u>	605.72	1.2 B kWh (1998)	So. California Edison	Variety
<u>Others</u>	0.675	N.A.	U.S. Navy	NEG-Micon

### Wind Energy Projects in California

Project Name	Owner	Year	MW	Power Purchaser	Turbines / Units
<b>Altamont Pass</b>					
1985 Zond Windsystem Partners Series 85C	GE Wind	1985	18.0	PG&E	Vestas V-17 (200)
Venture Wind (old Los Vaqueros)	SeaWest	mid-1980's	2.89	PG&E	Polenko/ Wind-matic (38)
Altech Energy, Ltd	SeaWest	1981-1995	5.76	PG&E	Enertech (144)
C.W.E.S.	SeaWest	1981-1995	1.32	PG&E	Enertech (24)
SeaWest Energy Group (a)	SeaWest	1981-1995	0.065	PG&E	Micon (1)

		1995			(170)
Zond-PanAero Windsystems	GE Wind	1981-1995	29.9	So Cal Ed	Vestas V-15 (460)
Whitewater Hill (San Gorgonio Farms)	San Gorgonio Farms	1984 - 1994	31.0	So Cal Ed	DWT 400 (35), Bonus 120 (56), Vestas 500 (5), Bonus 65 (85)
Dutch Pacific	Dutch Pacific, LLC	1994	10.0	So Cal Ed	NedWind (20)
Karen Avenue (San Gorgonio Farms)	San Gorgonio Farms	1995	3.0	So Cal Ed	Vestas (6)
East Winds (formerly Altech III)	Nichimen America	1997	4.2	So Cal Ed	NEG-Micon (7)
Invest I-IX Project Web Site	K/S Whitewater	1999	10.0	So Cal Ed	Nordex (10)
Pacific West I	PacifiCorp	1999	2.1	SCE - Green Mt. Energy	NEG Micon - (3)
Cabazon (Re-power)	GE Wind	1999	39.75	So Cal Ed	Zond Z-750 (53)
Westwind (Re-power)	Cinergy & Caithness	May 1999	46.5	So Cal Ed	<a href="#">NEG Micon Project Info</a>
GE Wind / Earth Smart/ Green Power	GE Wind	June 1999	16.5	Electricity Marketers	Zond Z-50 (22)
Westwind-Pacificorp (Re-Power)	Pacificorp/ GMER	May 1999	1.5	SCE - Green Mt. Energy	NEG-Micon (2)
Mountain View Power Partners II	PGE-NEG	Oct 2001	22.20	PG&E	Mitsubishi MWT600 (37)
Mountain View Power Partners I	PGE-NEG	Oct 2001	44.40	PG&E	Mitsubishi MWT600 (74)
Whitewater Hill	Shell Wind Energy	Dec 2002	61.50	Dept. of Water Resources	GE Wind Energy 1500 (41)
Cabazon	Shell Wind Energy	Dec 2002	40.92	Dept of Water Resources	Vestas V-47 (62)
Karen Avenue II	San Gorgonio Farms	June 2003	4.5	So Cal Ed	GE Wind Energy 1500 (3)
Mountain View III	San Diego Gas & Electric	4th Q 2003	22.44	San Diego Gas & Electric	Vestas 650 (34)

## Solano County

Solano County/ Kenetech	NA	1985	60.0	PG&E	U.S. Wind-power (600)
Sacramento Municipal Utility District (SMUD)	SMUD	1994	3.6	Sac Mun Utility District	Kenetech (12)
SMUD	SMUD	1999	0.66	Sac Mun Utility District	Vestas (1)
SMUD	SMUD	2003	9.9	Sac Mun Utility District	Vestas 660kW (15)
High Winds	SMUD	2003	162	Sac Mun Utility District	Vestas 1.8 MW (90)

## Tehachapi

Zond Systems	GE Wind	1986	0.2	So Cal Ed.	Vestas (1)
Victory Gardens, Phase IV	GE Wind	1990	22.05	So Cal Ed.	Vestas V-27 (98)
Sky River	GE Wind	1993	76.95	So Cal Ed.	Vestas V-27 (342)
Oak Creek Energy Systems	Oak Creek Energy Systems	2002	0.8	So Cal Ed.	NEG Micon (1)
Oak Creek Energy Systems	Oak Creek Energy Systems	1981-1995	3.45	So Cal Ed.	Micon (36)
AB Energy	NA	1981-1995	7.0	So Cal Ed.	Vestas V27 (31)
Calwind Resources	NA	1981-1995	14.1	So Cal Ed.	Bonus (217)
Calwind Resources	NA	1981-1995	8.7	So Cal Ed.	Nordtank (134)
Coram Energy Group	NA	1981-1995	1.9	So Cal Ed.	Aeroman (47)
Coram Energy Group	NA	1981-1995	4.0	So Cal Ed.	Aeroman (100)
Coram Energy Group	NA	1981-1995	6.8	So Cal Ed.	Aeroman / Tacke (110 / 4)
Mogul Energy	NA	1981-1995	4.0	So Cal Ed.	Mitsubishi (8)
Mohave 3, 4, 5	Tomen/FPL	1981-1995	75.0	So Cal Ed.	Mitsubishi (300)
Mohave 16, 17, 18	Tomen/FPL	1981-1995	85.0	So Cal Ed.	Mitsubishi (340)
Windridge	NA	1981-1995	2.34	So Cal Ed.	Windmatic (36)
Victory Gardens I & IV	NA	1981-1995	1.0	So Cal Ed.	Vestas (2)
Cannon	NA	1981-1995	13.46	So Cal Ed.	Micon, Vestas (8, 28)
Cannon (Various)	NA	1981-1995	4.54	So Cal Ed.	Micon, Vestas (42)
Ridgetop Energy	NA	1981-1995	32.6	So Cal Ed.	Nordtank, Micon (329)
Zond Systems	GE Wind	1982-1987	23.99	So Cal Ed.	Vestas (369)
Zond Systems	GE Wind	1982-1987	64.0	So Cal Ed.	Vestas (711)
Windland (Boxcar II)	Windland, Inc.	Mid-1980's	14.3	So Cal Ed.	Various (141)
Oak Creek Energy Systems	Oak Creek Energy	2002	1.35	So, Cal Ed	NEG Micon (1)

Oak Creek Phase 1 (ON Energy)	Nichimen & Oak Creek Energy	Sept 1997	4.2	So Cal Ed.	NEG Micon (7)
Oak Creek Phase 2A (Re-power)	Oak Creek Energy	June 1999	1.6	So Cal Ed	NEG Micon (2)
Pacific Crest	FPL Energy	Jun 1999	45.54	So Cal Ed	Vestas (69)
Oak Creek Wind Power Phase 2 (Repower)	Caithness	June 1999	23.1	So Cal Ed	<u>NEG Micon- 700 Project Info</u> (33)
Cameron Ridge (Re-power)	FPL & Caithness	Mar 1999	56.0	So Cal Ed	NEG Micon (80) <u>Project Info</u>
Victory Gardens (Repower)	Enron Wind Corp.	Jun 1999	6.75	So Cal Ed	Zond Z-50 (9)

### Others

U.S. Navy/ NEG Micon San Clemente Island	U.S. Navy	1998	0.675	U.S. Navy	NEG Micon (3)
Los Angeles Co.	Wind Turbine Company	2001	0.50	Southern Cal Ed.	WTC (1)

## Planned Projects in California

Utility/Developer (Project)	Location	Status	MW Cap	Online date/ Turbine
PG&E/SeaWest (Venture Pacific)	Altamont Pass	Pending	25.6	2004 Mitsubishi
FPL/Green Ridge Power	Altamont Pass	Proposed Re-power	110.0	2004 NEG Micon - 700
Indigenous Global Development Corp.	Contra Costa	Proposed	22.50	NA / TBD
Pacific Ind Elec (San Clemente Is.)	San Clemente Is.	Under Dev	0.75	2004 NEG Micon
Mark Technologies (Alta Mesa IV)	San Geronio	Under Dev.	40.3	2004 Vestas - 660 kW
SMUD (Solano Wind Project - Phase I)	Solano	Under Development	9.24	2004 Vestas V-47
GE Wind (Victory Garden)	Tehachapi	Proposed	30.0	2004 GE Wind
Oak Creek Energy Sys (Jawbone)	Tehachapi	Proposed	52.5	2004

+ Uncertain completion dates

## Colorado

### Wind Energy Development

Project or Area	Owner	Date Online	MW	Power Purchaser/User	Turbines / Units
1. Ponnequin (EIU) (Phase I)	K/S Ponnequin WindSource & Energy Resources	Jan 1999	5.1	PSCo	NEG Micon (7)
1. Ponnequin (PSCo) <a href="#">Project Info</a>	PSCo	Feb-June 1999	16.5	PSCo	NEG Micon (22)
1. Ponnequin (Phase III)	New Century (Xcel)	2001	9.9	New Century (Xcel)	Vestas (15)
Peetz Table Wind Farm	New Century (Xcel)	Sept 2001	29.7	New Century (Xcel)	NEG Micon (33)
Colorado Green, Lamar (Prowers County)	Xcel Energy / GE Wind Wind Corp.	Dec 2003	162.0	Xcel	GE Wind 1500 (108)

### New Wind Projects in Colorado

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By / Turbines
None				

## Idaho

### Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Turbines/ Units
Boise	Bob Lewandowski	2003	0.216	NA	108 (2)

### Planned Wind Projects in Idaho

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By / Turbines
None				

## Montana

### Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Turbine
Blackfeet Reservation	Blackfeet Nation	1996	0.1	Glacier Electric Cooperative	Vestas V-17 (1)

## New Wind Projects in Montana

Utility/Developer (Project)	Location	Status	MW Capacity	On Line / Turbine
Assiniboine & Sioux Tribes / Montana-Dakota Utilities (Fort Peck Reservation Wind Project)	Fort Peck Res/ Poplar MT	Under Dev.	0.66	2004/ Vestas V-47 660kW

## Nevada

### Wind Energy Development

Existing Project or Area	MW Installed*	Annual Energy Output (Yr of Est)	Power Purchaser/ User
None			

## New Wind Projects in Nevada

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By/ Turbine
Global Renewable Energy Partners & BP Capital (Power Star) (Table Mountain)	Near Primm in Sandy Valley	Proposed	105.0	2004 / NEG Micon
Cielo Wind Power (Desert Queen Wind Ranch)	Clark County	Proposed	60.0	2005
Global Renewable Energy Partners (Ely Wind LLC)	White Pine County	Proposed	50.0	2005 / NEG Micon

## New Mexico

### Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Wind Turbines
1. Curry County (Llano Estacado Wind Ranch at Texaco)		June 1999	0.66	Excel	Vestas V-48 (1)
SW Public Service (Clovis)	Texas Wind Power	June 1999	0.66	Southwestern Public Service	Vestas V-47
<b>New Mexico Wind Energy Center</b>	<b>FPL Energy</b>	2003	<b>204</b>	Public Service of New Mexico	GE Wind 1500 (136)
Llano Estacado Wind Ranch	Cielo Wind Power	4th Q 2004	1.32	PS of New Mexico	Vestas 660 kW (2)

## New Wind Projects in New Mexico

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By
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None

## Oregon

### Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Turbines/ Units
1. Vansycle Ridge (Helix, OR)	FPL Energy	Oct 1998	25.1	Portland General Electric	Vestas V-47 (38)
Condon Wind Project Phase I (Gilliam County)	TBA	Dec 2001	24.6	BPA	Mitsubishi MWT600 (41)
Klondike (Wasco)	Northwest Wind Power	Dec 2001	24.0	Northwest Wind Power	Enron 1.5MW (16)
Stateline Wind Project, (Umatilla)	FPL Energy; Vansycle	Dec 2001	83.16	PacificCorp	Vestas V-47 (127)
Condon Wind Project Phase II (Gilliam County)	TBA	Dec 2002	25.2	Bonneville Power Administration	Mitsubishi MWT600 (42)
Stateline (Orphans)	FPL Energy Vansycle LLC	2002	37	NA	Vestas V47 (55)
Combine Hills	PacificCorp/ Eurus	Dec 2003	41.0	PacificCorp	Mitsubishi 1000 (41)

### New Wind Projects

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By / Turbines
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None

## Utah

### Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Wind Turbine/ Units
Camp Williams, Riverton	U.S. Gov't	May 2000	0.225		NEG Micon / (1)

### New Wind Projects in Utah

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By / Turbine
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None

## Washington State

### Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Turbines/ (Units)
Stateline Wind Project, Phase I (Walla Walla)	FPL Energy, Vansycle	Dec 2001	180.2	PacifiCorp	Vestas V-47 (273)
Nine Canyon Wind Farm	Energy Northwest	Sep 2002	48.0	Public Power Members of Energy Northwest	Bonus 1300 (37)
Walla Walla County	Stateline Wind	2002	39.6	NA	NA
Nine Canyon Phase II	Energy Northwest	4th Q 2003	15.6	Energy Northwest	Bonus 1300 (12)

## New Wind Projects in Washington State

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By
BPA / Pacific Winds (Maiden Wind Farm)	Benton & Yakima Co. near Presser	Proposed	150.0	2004
BPA / Pacific Winds (Horse Heaven Hills)	Benton Co.	Proposed	150.0	2004
Zilkha Renewable Energy (TBD)	Near Ellensburg / Kittitas County	Proposed	100.0	2004
BPA / SeaWest Wind Power (Roosevelt)	Klickitat County	Speculative	150.0	2004
BPA / SeaWest Wind Power (Six Prong)	Klickitat County	Speculative	150.0	2004
BPA / SeaWest Wind Power (Waitsburg)	Walla Walla / Columbia	Speculative	100.0	2004
BPA / Columbia Windpower (Columbia Wind Ranch)	Klickitat Co.	Speculative	80.0	2004

## Wyoming Wind Energy Development

Existing Project or Area	Owner	Date Online	MW	Power Purchaser/ User	Turbines/ Units
Medicine Bow	PRPA+	1996	0.065	PRPA	Nordtank (1)
1. <u>Medicine Bow, WY</u>	PRPA	1998	1.2	PRPA	Vestas (2)
1. <u>Footo Creek Rim - I (Carbon Co.)</u>	Pacificorp, Eugene Water & Elec.	April 1999	41.4	Pacificorp, EWEB	Mitsubishi (69)
1. Footo Creek Rim - II (Carbon Co.)	Cinergy Global (Part Interest)	June 1999	1.8	BPA	Mitsubishi (3)
1. Footo Creek Rim - III	Cinergy Global	June	24.75	Public Service	NEG Micon



(Carbon Co.)	Power	1999		Co of Colorado	(33) <u>Project Info</u>
1. Foot Creek Rim - IV (Carbon Co.)	Cinergy Global Power	Oct 2000	16.8	BPA	Mitsubishi 600 (28)
1. Medicine Bow	PRPA	Oct 1999	3.3	PRPA	Vestas V-47 (5)
1. Medicine Bow	PRPA	July 2000	1.32	PRPA	Vestas V-47 (2)
Arlington, Carbon Co. (Rock River I)	Shell Renewables	Oct 2001	50.0	PacifiCorp	Mitsubishi MWT (50)
Evanston	FPL Energy/Orion Energy	4th Q 2003	144.0	PPM Energy	Vestas 1800 (80)

+ Platte River Power Authority

### New Wind Projects in Wyoming

Utility/Developer (Project)	Location	Status	MW Capacity	On Line By / Turbines
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None

**Notes:**

No commercial wind energy projects are operational or planned for Arizona.

Only those wind energy projects that interconnect to the electric transmission system are listed.

Unless otherwise specified, all data are current as of January 14, 2004.

