

U.S. GEOLOGICAL			_					_	PLATE 5 0
	Thumbnail graphic showing the location of the Chokecherry and Sierra Madre proposed wind energy	BLM, and is located entirely in Carbon County, Wyoming (©Power Company of	late 2012. Construction is anticipated to begin in 2013 (Kara Choquette, 2012, written communication,	The Overland Trail Cattle Company Ranch	This project will have 1,000 wind turbines with a combined nameplate capacity between 2,000 and 3,000 MW. Turbines will be located in Class 5 to Class 7 winds due to the site's extremely high wind resource. Only 2 percent of the land area in the continental U.S. has average annual wind speeds above 8.5 meters/second at 80 meters above ground, according to AWS Truewind. Of that amount, 25 percent of such high wind areas are in Wyoming, with 5 percent in Carbon County (Kara Choquette, 2012, written communication, ©Power Company o	The proposed project will permanently use less than 1,600 acres of the 320,000 acre host ranch	Maps and Photographics Photographic simulation from the Teton Reservoir Recreation Site, looking northeast. Typical 2.0 MW turbines are shown with the following specifications; height to hub 262 feet (80 meters); blade length - 130 feet (40 meters); 10% grey color.		This project could create thousands of construction jobs and estimated 114 permanent operations and maintenance jobs. Financial benefits could include millions of dollars in propert taxes and sales and use taxes (©Power Company of Wyoming
Dunlap I (©PacifiCorp, 2010)	Thumbnail graphic showing the location of the Dunlap wind farm renewable energy facility, east of the Hanna	Wyoming, 2010). PacifiCorp. Construction of	PacifiCorp's Dunlap I wind project began producing renewable energy fo customers in six states on October 1, 2010. Operating as Rocky Mountain Power in Utah, Wyoming and Idaho, and as Pacific Power in Oregon, Washington and northern California, the company serves 1.7 million electric customers (©Rocky Mountain Power, 2010).	North of the town of Medicine Bow, in Carbon County (©PacifiCorp, 2010).	Its 74, 1.5-MW turbines have a total generating capacity of 111 MW of electricity. To put this into perspective, the annual energy production of the wind farm is expected to equal the amount required to serve about 32,000 typical households per year (©PacifiCorp, 2010). A second phase of the Dunlap wind project of up to 126 additional wind turbines was approved through the Wyoming Industrial Siting Council permitting process (Jeff Hymas, 2012, written communication, ©PacifiCorp).		U.S. BLM, 2009a) Second Control of Second C	Chokecherry.html Dunlap Wind Energy Project (used with permission from ©Rocky Mountain Power, 2012)	In 2011, Wyoming's sales tax exemption for commercial wind energy equipment is set to expire. In 2012 a new wind energy generation tax of \$1 per MW hour begins. Also, the economy downturn has triggered an in-state energy generation preference for states like California, which may restrict the amount of out-of-state renewable energy that California utilities could buy. Actions like these would stall plans for power transmission line projects from Wyoming to other western States (©Bleizeffer, 2010).
Foote Creek I (©PacifiCorp, 2010)	Thumbnail graphic showing the location of the Foote Creek Rim Wind Farm, southeast of the Hanna Basin (see plate 1).	The wind project is jointly owned by the Eugene Water &	Wyoming's first commercial facility to generate electricity from wind, the Foote Creek Rim wind project is located near Arlington, Wyoming, where it began commercial operation on Earth Day, April 22, 1999. The project is partially located on public lands managed by the BLM Rawlins Field Office (US BLM, 2008b).	0	Since development of the original 69-turbine project, several subsequent phases have been constructed (Foote Creek II-IV and Rock River I). The project now totals 183 turbines with a generating capacity of 134.7 MW (U.S. BLM, 2008b).	Because the facility only occupies about one percent of the land it is housed upon, the land is also available for other uses, such as grazing livestock (©PacifiCorp, 2010).		Foote Creek I wind farm (used with permission from Jeff Hymas, 2012, ©PacifiCorp)	This facility is estimated to contribute over \$9 million in property taxes, nearly \$4 million in sales taxes and over \$5 million in royalty payments to landowners over its 20-year li span (Nielsen and others, 2002).
High Plains (©PacifiCorp, 2010)	Thumbnail graphic of the High Plains Wind Farm on the Albany/Carbon County border.	<u>©PacifiCorp</u>	In service September 2009 (©PacifiCorp, 2010)	Near the town of McFadden, High Plains is located on both sides of the border between Albany and Carbon Counties (©PacifiCorp, 2010).	High Plains wind farm is composed of 66 1.5-MW turbines; 99 MW project (©PacifiCorp, 2010)	<u>)-</u>		High Plains wind project (used with permission from Jeff Hymas, 2012, ©PacifiCorp)	Wind turbines supply customers with alternative renewable energy. By their nature, wind projects are commonly built in more remote areas, where they can diversify predominantly agricultural economies, and help the environment with their absence of carbon emissions (©PacifiCorp, 2011).
McFadden Ridge (©PacifiCorp, 2010)	Thumbnail graphic of Mcfadden Ridge wind project adjacent to High Plains (see plate 1).	<u>©PacifiCorp</u>	In service September 2009 (©PacifiCorp, 2010)	Adjacent to the High Plains project in Albany and Carbon Counties, McFadden Ridge is near the town of McFadden, Wyoming (©PacifiCorp, 2010)	McFadden Ridge wind farm consists of 19, 1.5-MW turbines; 28.5-MW project (@PacifiCorp, 2010). Originally, McFadden Ridge was proposed to be constructed in 2010, with a generating capability of up to 88.5 MW. Subsequently, Rocky Mountain Power modified its schedule to allow the project to be constructed in phases. Phase I was completed in 2009, with timing for additional turbines yet to be determined (@Renewable Energy World.com, 2009).			McFadden Ridge I wind project (used with permission from Jeff Hymas, 2012, ©PacifiCorp)	
Medicine Bow Wind Project	Thumbnail graphic of Medicine Bow wind project (see plate 1).	©Platte River Power Authority (2011)	The first commercial Clipper wind turbine, Liberty I, was installed in Wyoming's high-wind environment in early 2005 (©Clipper Windpower, 2008).		Platte River's Liberty Turbine size is 2.5 MW (©Clipper Windpower, 2008). Platte River's additional turbines each generate 600 kW to 660 kW of energy (Platte River Power Authority, 2010). Yearly estimated production: 14 GW/h (for an equivalent of 2500 hours of full load / year); from ©The Windpower (2010).			The first set of turbines, next to the water treatment plant, March 2010 (©Town of Medicine Bow Wind Project, 2010)	The wind energy is used to supply power for town buildings, and to defray the cost of electricity for town operations (©Town of Medicine Bow, Wyoming, 2010)
Mountain Wind Power (©PacifiCorp, 2010) Mountain Wind Power II (©PacifiCorp, 2010)	Thumbnail graphic of the Mountain Wind projects (see plate 1).	Edison Mission Energy. PacifiCorp is purchasing 100 percent of the facility's output (©PacifiCorp, 2010)	The project came online in July 2008 (©PacifiCorp, 2010) The project began operation in September 2008 (©PacifiCorp, 2010)	Bridger Butte and Bridger Valley, Uinta County (©PacifiCorp, 2010)	29, 2.1-MW turbines; a 60.9-MW wind farm (©PacifiCorp, 2010). Yearly estimated production: 152 GW/h (for an equivalent of 2500 hours of full load / year); from ©The Windpower (2010). 38, 2.1-MW turbines; 79.8-MW project (©PacifiCorp, 2010)				
Rock River Windpark		Co-owned by Shell and Goldman Sachs (written commun., Alan Forster, 2012, ©Shell). Under power purchas agreement, PacifiCorp will purchase 100 percent of the facility's energy output (©PacifiCorp, 2010).	е	Carbon County, near the town of Arlington (©PacifiCorp, 2010)	50 1-MW turbines; the windpark has a generating capability of 50 MW (©PacifiCorp, 2010). Yearly estimated production: 125 GW.h (for an equivalent of 2500 hours of full load / year); from ©The Windpower (2010).			Rock River Windpark (co-owned by Shell and Goldman Sachs; used with permission from Alan Forster, 2012, ©Shell)	
Seven Mile Hill (©PacifiCorp, 2010) Seven Mile Hill II (©PacifiCorp, 2010)	Thumbnail graphic showing the Seven Mile Hill wind projects (see plate 1).	PacifiCorp (©PacifiCorp, 2010)	Began operations in December 2008 (©PacifiCorp, 2010)	Carbon County (©PacifiCorp, 2010) Adjacent to the Seven Mile Hill I project (©PacifiCorp, 2010)	66, 1.5-MW turbines; a 99-MW project (@PacifiCorp, 2010) 13, 1.5-MW turbines; a 19.5-MW project (@PacifiCorp, 2010)			Seven Mile Hill wind project (used with permission from Jeff Hymas, 2012, ©PacifiCorp)	
	Thumbnail graphic showing the Simpson Ridge Wind Farm location (see plate 1).	Horizon Wind Energy (U.S. Chamber of Commerce, 2011).	Suspended. The presence of the endangered sage grouse on the project site has put the wind farm in jeopardy (U.S. Chamber of Commerce, 2011).		The Carbon County Planning Commission approved development plans for Horizon Wind Energy's 154-turbine project in 2009, and construction of the wind farm was expected to begin either in 2010 or 2011. However, the presence of the endangered sage grouse on the project site has put the wind farm in jeopardy (U.S. Chamber of Commerce, 2011).				In August 2009, Horizon announced that it would suspend the project indefinitely, citing ongoing regulatory uncertainty about sage grouse protections, particularly the question of whether proper mitigation plans can be developed that allow for wind turbines to be built in sage grouse core areas (U.S. Chamber of Commerce, 2011).
Wyoming Wind Energy Center	Thumbnail graphic showing the Wyoming Wind Energy Center (see plate 1).	NextEra Energy Resources (©NextEra Energy, 2010)	Wyoming's largest wind facility began commercial operation in 2003 (©NextEra Energy, 2010)	Uinta County	A 144-MW wind generation plant; 80 1.8-MW Vestas turbines that are capable of generating enough electricity to power more than 43,000 homes (©NextEra Energy, 2010). Yearly estimated production: 360 GW.h (for an equivalent of 2500 hours of full load / year); from ©The Windpower (2010).	Directly adjacent to the wind turbine doundation pads, agricultural		Wyoming Wind Energy Center (used with permission from ©NextEra, 2010)	Although most of Wyoming's wind power facilities are in the southeastern part of the state, its largest wind facility is situated in the southwest corner of the state. Wyoming has become a substantial producer of wind energy and exports electricity to neighboring states (US EIA, 2010).
White Mountain Wind Energy Project	Thumbnail graphic showing White Mountain (the location of a proposed wind project).	Teton Wind, LLC (U.S. BLM, 2010b)	Proposed - Environmental Assessmen prepared.	The project site is located west-northwest of the city of Rock Springs, on top of White Mountain, which is in Sweetwater County, in portions of T19N-T20N, R105W-106W (U.S. BLM, 2010b).	Approval of the proposed action could result in construction of up to 240 wind turbine generators with an anticipated total generating capacity of up to 360 MW (U.S. BLM, 2010b).	"The project area encompasses approximately 13,165 acres, including 4,398 BLM-administered acres. The initial disturbance would be 866 acres, and areas not required for operations will be reclaimed after construction, resulting in 189 acres of life-of-project disturbance" (U.S. BLM, 2010a).	Table Tree Tree	Map showing White Mountain Wind Energy Project Area and areas of environmental conflict (in gold and pink). Minimal environmental conflict shown in green (U.S. BLM, 2010b).	Socioeconomics identified by the BLM include: employment taxation, state and national energy needs, effects on the communities at large, property values, traffic and transportation requirements, vandalism, existing abuse of the local area environment vs. a well-managed project, recognizing landowners' desire to develop their lands, balancing socioeconomics with environmental concerns (U.S. BLM, 2010b).
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