



KANSAS WIND ENERGY UPDATE

JOINT COMMITTEE ON ENERGY & ENVIRONMENTAL POLICY

KIMBERLY SVATY ON BEHALF OF THE WIND COALITION

18 OCTOBER 2011

Operating Kansas Wind Projects

- 1072.4 MW total installed wind generation
- 9 operating wind projects
- Equates to billions in capital investment and thousands of construction jobs and more than 100 permanent jobs
- Kansas has the second best wind resource in the nation
- Ranked 14th in the nation in overall wind power production
-

Operating Kansas Wind Projects

Project Name	County	Developer	Size (MW)	Power Offtaker	Turbine Type (MW)	Number of Installed Turbine	In-Service Year
Gray County	Gray	NextEra	112	MKEC KCP&L	Vestas 660kW	170	2001
Elk River	Butler	Iberdola	150	Empire	GE 1.5	100	2005
Spearville	Ford	enXco	100.4	KCP&L	GE 1.5	67	2006
Smoky Hills Phase I	Lincoln/ Ellsworth	TradeWind Energy	100.8	Sunflower – 50 KCBPU- 25 Midwest Energy - 24	Vestas 1.8	56	2008
Smoky Hills Phase II	Lincoln/ Ellsworth	TradeWind Energy	150	Sunflower – 24 Midwest – 24 IP&L – 15 Springfield -50	GE 1.5	99	2008
Meridian Way	Cloud	Horizon/ EDP	204	Empire – 105 Westar - 96	Vestas 3.0	67	2008
Flat Ridge	Barber	BP Wind Energy	100	Westar	Clipper 2.5	40	2009
Central Plains	Wichita	RES Americas	99	Westar	Suzlon 1.2	33	2009
Greensburg	Kiowa	John Deere/ Exelon	12.5	Kansas Power Pool		10	2010

Operating Kansas Wind Projects

- **Gray County Wind Farm-** Gray County, Kansas - Kansas' first commercial wind farm was erected near the town of Montezuma by FPL Energy (now NextEra Energy Resources) in 2001. It produces 112 MW of electricity from 170 Vestas V-47 wind turbines. The power is provided to Mid-Kansas Electric and KCP&L.
- **Elk River Wind Project** - Butler County, Kansas - The 150 MW wind farm came on-line in December 2005. The project was developed by Greenlight/PPM and is now owned by Iberdrola Renewables. The 100 GE 1.5 MW wind turbines are located several miles south of Beaumont. The power is sold to Empire Electric District of Joplin.
- **Spearville Wind Project-** Ford County, Kansas - The 100.5 MW wind project was developed by enXco and is owned by KCP&L. The project consists of 67 GE 1.5 MW wind turbines and was operational at the end of 2006.

Operating Kansas Wind Projects

- **Smoky Hills Wind Farm** - Ellsworth/Lincoln Counties, Kansas- Developed by Lenexa-based TradeWind Energy and operated by Enel North America is located on the Ellsworth-Lincoln County line. Phase I of this project went on-line in January 2008 using 56 Vestas V80 turbines (1.8 MW). Phase II went online at the end of 2008 with 99 GE 1.5 MW turbines. Total project size is 250 MW. Buyers of the power from the project include Sunflower Electric Power Corporation, Midwest Energy, and Kansas City Board of Public Utilities as well as the Cities of Independence, Missouri and Springfield, Missouri.
- **Meridian Way Wind Farm** - Cloud County, Kansas – Developed by Horizon Wind Energy, now EDP Renewables. Phase I and Phase II of the project went on-line in 2008. Both phases of the project involve Vestas V90 3.0 MW turbines. Phase I involves 35 turbines and 105 MW, which is sold to Empire of Joplin, Missouri and Phase II involves 32 turbines and 96 MW of power sold to Westar Energy.

Operating Kansas Wind Projects

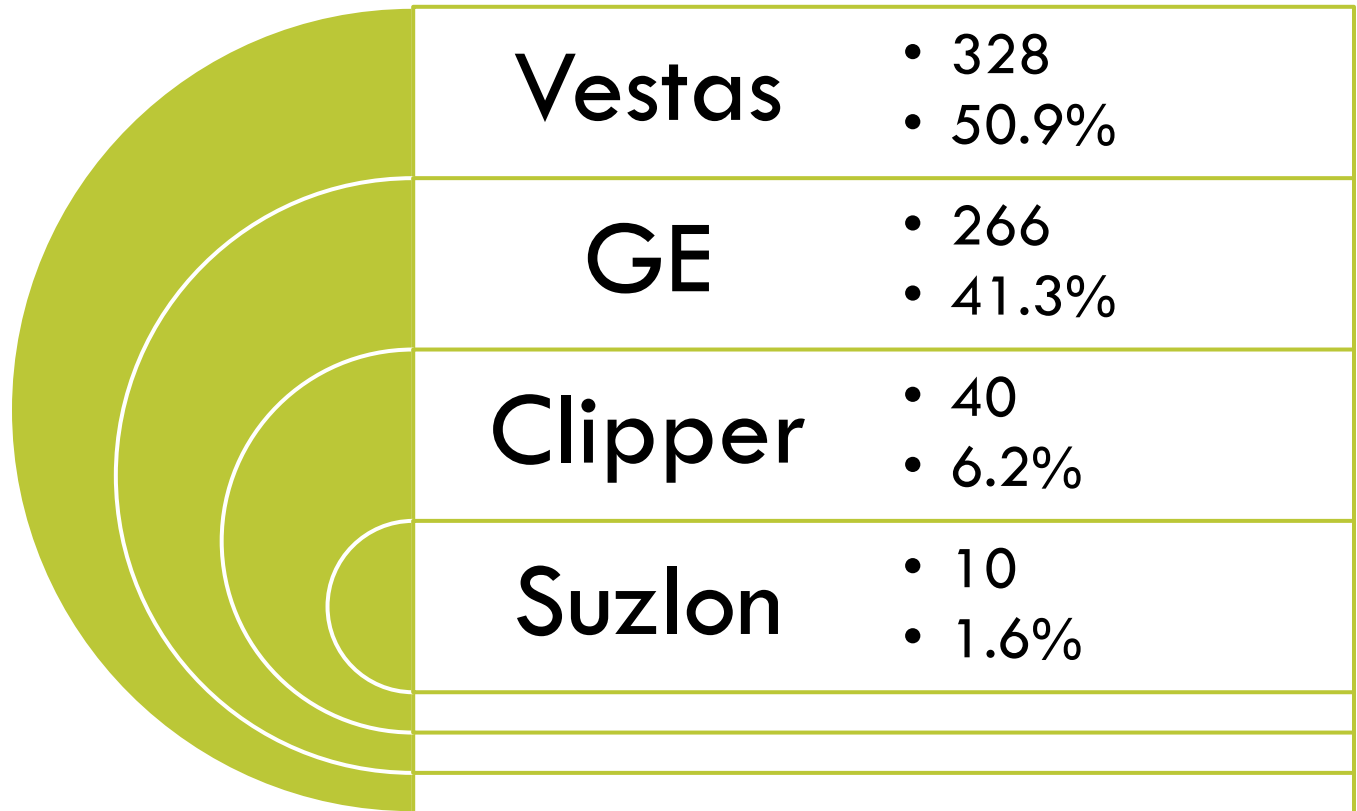
- **Flat Ridge Wind Farm** -Barber County, Kansas – Developed by BP Wind Energy. The first 100 MW was contracted to Westar Energy with both BP and Westar each owning 50% of the project. Construction began in 2008 and commercial operation began in March 2009. The wind farm consists of 40 Clipper 2.5 MW turbines.
- **Central Plains Wind Farm** - Wichita County, Kansas - The 99 MW project came on line in early 2009 with the power output sold to Westar Energy. Thirty-three Vestas V90 (3.0 MW) turbines are used.
- **Greensburg Wind Farm** - Kiowa County, Kansas - A 12.5 MW project of John Deere Renewables (now owned by Excelon) the City of Greensburg, and the Kansas Power Pool. The project came online in early 2010. All the power is used by the forty-member cities of KPP which includes the City of Greensburg. This project ensures that Greensburg is powered entirely by renewable energy.

Operating Kansas Wind Projects

- **Westar Wind Farm** - Pottawatomie County, Kansas - This project used Kansas' first commercial-scale wind turbines. In 1999, Westar (then Western Resources) erected two 600 KW turbines at Jeffrey Energy Center. These turbines have since been dismantled. One of the two turbines has been donated to Cloud County Community College where it used in the wind technicians training program.

Turbine Types in Use in Kansas

644 Installed
Turbines in
Kansas



Wind Projects & Manufacturing

With thousands of new jobs and more than \$3 billion in new capital investments from wind projects and manufacturing announced in the last 12 months, Kansas is poised to be a national leader in the new energy economy.

Kansas Wind Projects Under Construction

- 1388 MW to be constructed
- In-service date mid to end 2012
- 8 announced projects
- \$2.7 billion in new capital investment
- Several thousand new construction jobs
- More than one hundred permanent jobs

Kansas Wind Projects Under Construction

Project Name	County	Developer	Size (MWs)	Power Offtaker	In-Service
Caney River	Elk	TradeWind Energy	200	Tennessee Valley Authority (TVA)	2012
Post Rock	Ellsworth Lincoln	Wind Capital Group	201	Westar	2012
Ironwood	Ford Hodgeman	Infinity Duke Energy	168	Westar	2012
Cimarron I	Gray	Competitive Power Venture (CPV)	165	TVA	2012
Cimarron II	Gray	CPV Duke Energy	131	KCP&L	2012
Shooting Star	Kiowa	Clipper Infinity	105	Mid-Kansas Electric	2012
Flat Ridge 2	Barber, Kingman, Harper & Sumner (gen tie line)	BP Wind Energy	419	AECI – 312 BP – 105	2012
Spearville II	Ford	KCP&L	48	KCP&L	2011/2012

Kansas Wind Projects Under Construction

- **Caney River Wind Project** - Elk County, Kansas - Developed by TradeWind Energy, the project is located 10 miles west of Howard. TVA will purchase 200MW from the project under a 20-year power purchase agreement. \$400 million estimated project investment.
- **Post Rock Wind Project** - Ellsworth & Lincoln Counties, Kansas - Developed by Hilliard Energy, Wind Capital Group acquired the asset and sold the 201MW of wind to Westar. Estimated project investment \$400 million.
- **Ironwood Wind Project** - Ford & Hodgeman Counties, Kansas - Infinity Wind Energy developed a 500MW project site in NE Ford County extending into the SE corner of Hodgeman County. In December 2010, Westar announced that Duke Energy will build a 168-megawatt wind farm on the Ironwood site. Estimated project investment \$325 million.

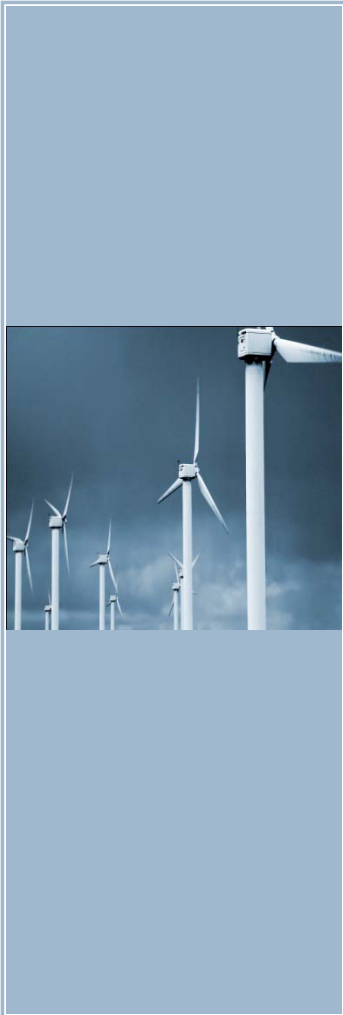
Kansas Wind Projects Under Construction

- **CPV Cimarron I Wind Project** - Gray County, Kansas – Developed by Competitive Power Venture (CPV), TVA agreed to a 20-year purchase power agreement for 165MW from the project. The wind farm is expected to produce power in 2011 / early 2012. Estimated project investment \$325 million.
- **Cimarron II Wind Project** – Gray County, Kansas - Developed by CPV, purchased by Duke Energy, the 131MW Cimarron II Wind Project will provide power for KCP&L customers. The project will go online in late 2012. Estimated project investment \$325 million.
- **Shooting Star Wind Project** - Kiowa County, Kansas - Developed by Clipper sold to Infinity, the Shooting Star Wind Project will sell 105 MW of wind power to Mid-Kansas Electric Company by the end of 2012. The project will create 160 construction jobs and more than 10 permanent jobs. Estimated project investment \$200 million.

Kansas Wind Projects Under Construction

- **Flat Ridge II Wind Project** – Barber, Harper, Kingman and Sumner Counties
- Developed by BP Wind Energy, the 419MW, \$800 million wind project will provide 312MW of wind power to AECI customers in Missouri. The project will create more than 500 construction jobs and 35 permanent jobs. The remaining power output will be held by BP and sold to another power purchaser or on the market. The project will go online in late 2012. The project has a 40-mile generation interconnection line to bring the power to market. 6.5 miles of the interconnect line runs through Sumner County.
- **Spearville II Wind Project** – Ford County, Kansas - Operational by the end of 2011, the 48MWs will be utilized by KCP&L customers.

Wind Component Manufacturing



September 2011 – Wurth Supply Service – logistics & distribution center in Wichita to provide component parts –created 10 new jobs

July 2011 – New Millennium Wind Energy announced the company's first 200,000 square foot manufacturing facility in Newton to produce 20kW and 60kW composite turbines to be sold to office buildings, casinos, stadiums & retailers – created 70-350 new jobs

January 2011 – Schuff Steele announced a new 200,000 square foot manufacturing facility in Ottawa to produce wind towers. Once complete 200-250 new jobs will be created. The facility was originally planned for North Dakota.

December 2010 – Prysiam Group, the largest cable manufacturer globally and the main cable supplier to Siemens, announced a new distribution facility in Lenexa to supply component parts to wind turbines and tower manufacturers.

April 2010 – Denmark- based, Jupiter Group announced a \$2.4M capital investment in Junction City that will create 120 new jobs. The company manufactures nacelle covers and spinners as well as wooden kit structures used in blades.

2009 – Tindall Corporation announced a wind tower base production facility in Newton, creating 400 new jobs and \$66 million in capital investment. Siemens announced a nacelle production facility in Hutchinson creating 400 new jobs and a \$35 million capital investment. At least 2 wind projects being constructed in Kansas will use nacelles from the Hutchinson plant.

Questions?