

NPPD's Wind Development in Nebraska

Nebraska Wind Energy Conference
November 9, 2009



Nebraska Public Power District
"Always there when you need us"

David Rich, P.E.
Renewable Energy Development Manager

Springview Wind Farm



- NPPD owned facility
- 1.5 MW farm built in 1998 – DOE funded 50%
- Partners were Lincoln Electric System (LES), Municipal Energy Agency of Nebraska (MEAN), Grand Island Utilities, KBR Rural Public Power District, and City of Auburn
- Connected to 12.5 kV distribution system
- Two Zond turbines, 750 KW
- Retired in 2007 (lack of available replacement parts and opportunity to sell turbines)

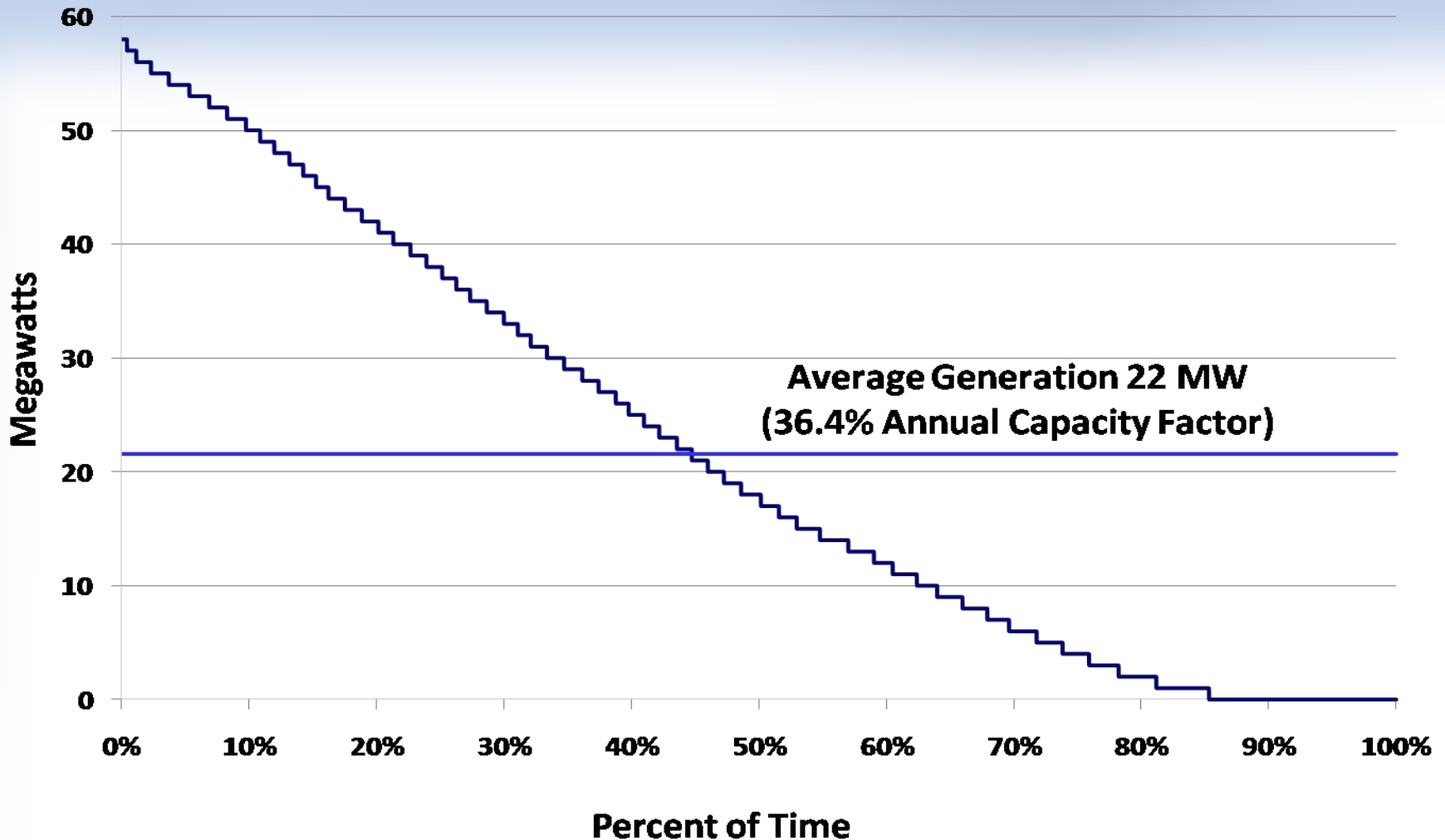
Ainsworth Wind Energy Facility

- Owned and operated by NPPD
- Begin operation in 2005
- 36 Vestas V82 turbines, 1.65 MW
- 11,000 acres of land – 50 acres used
- Four year average of 38% capacity factor
- Other participants are Omaha Public Power District (OPPD), Jacksonville Electric Authority (JEA), MEAN, and Grand Island Utilities
- Six full-time employees handling maintenance and repair



Ainsworth Wind Farm

October 2008 - September 2009

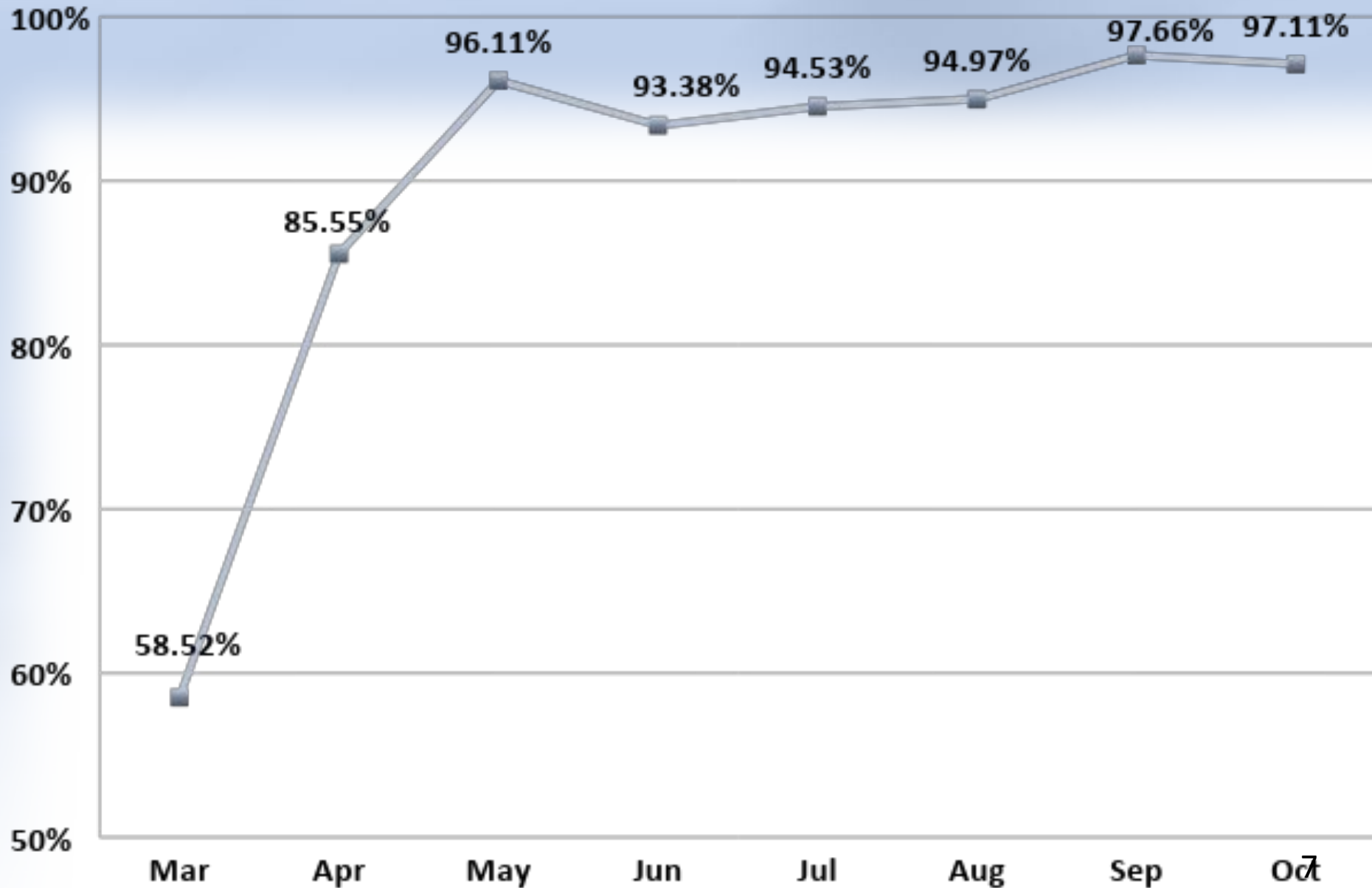


Elkhorn Ridge Wind Farm



- Owned and operated by Edison Mission
- 20 year Power Purchase Agreement (PPA) with NPPD
- 27 Vestas V-90, 3 MW turbines
- Community Based Economic Development (C-BED)
- Commercial March 1, 2009
- Other participants – OPPD, MEAN, LES, and Grand Island Utilities

Elkhorn Ridge Wind Farm Availability Factor (2009)



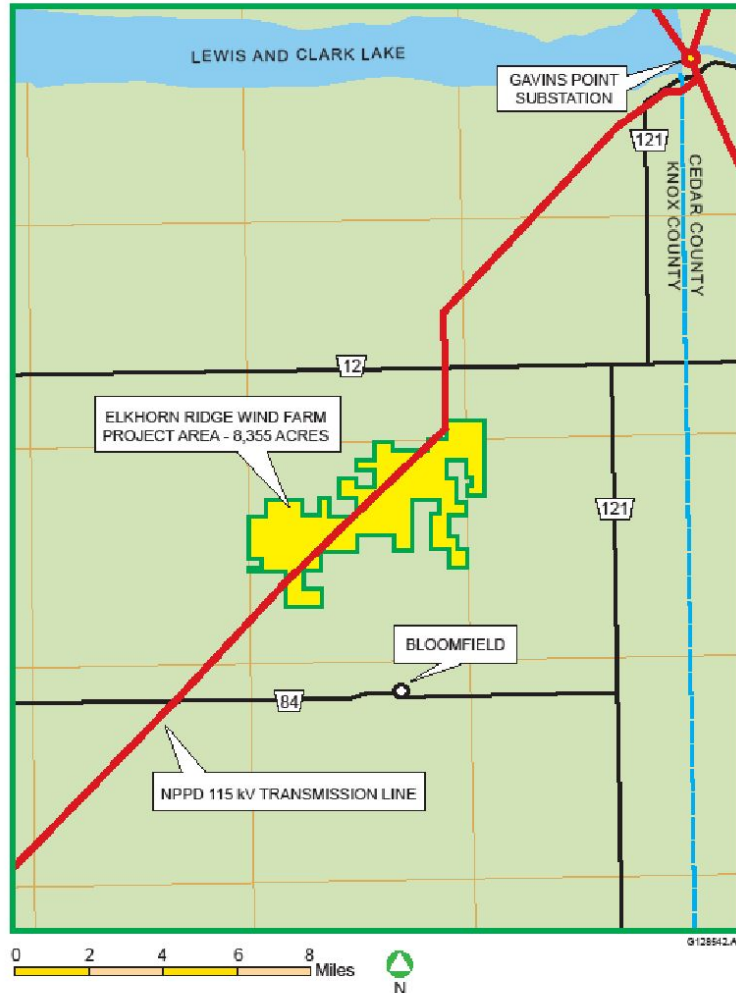
Crofton Hills



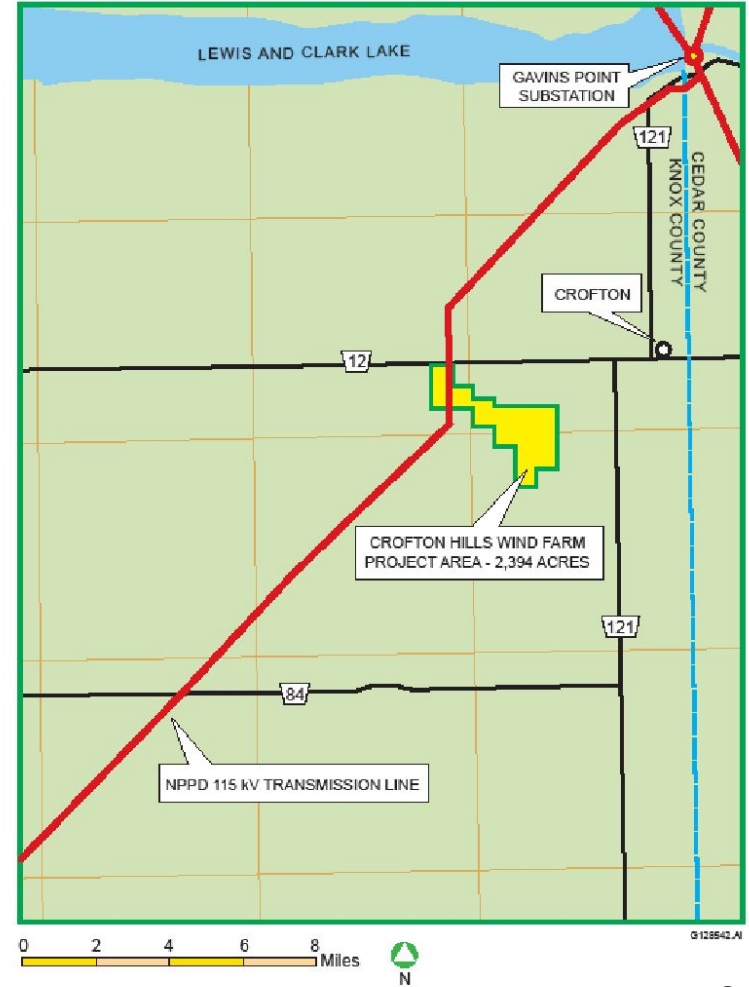
- Originally planned for 2009 construction, now scheduled for 2010
- 20 year PPA with NPPD
- 42 MW
- C-BED
- Participation offered to OPPD, LES, and MEAN

Elkhorn Ridge and Crofton Hills Wind Farms

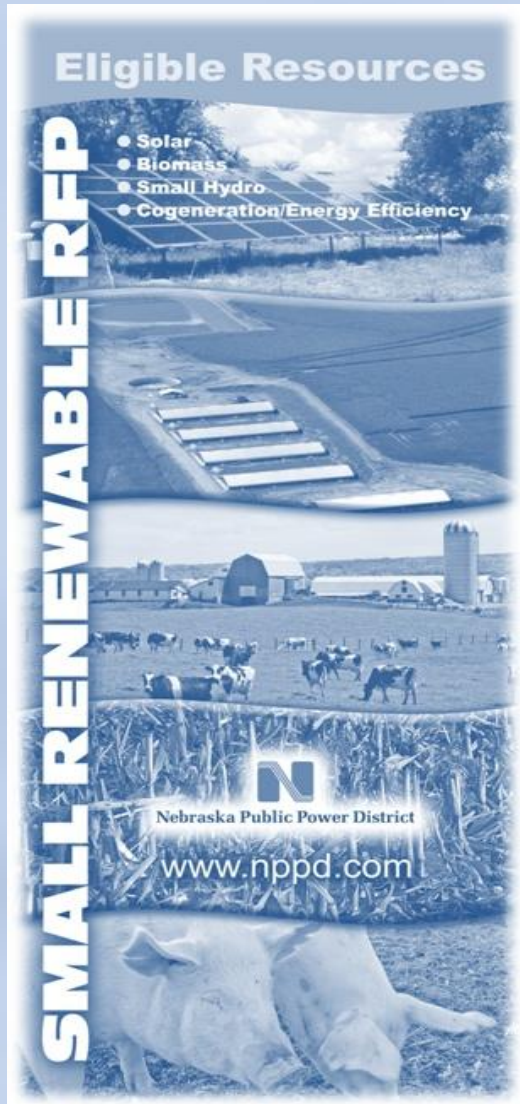
ELKHORN RIDGE WIND FARM / LOCATION MAP



CROFTON HILLS WIND FARM / LOCATION MAP



Small Renewable Request for Proposals



- Types of renewable
 - PURPA Qualified – Bio Mass, Solar, Wind, Co-Gen and Heat Recovery Generation
- Size
 - > net metering, < 10 MW
- Partnering with wholesale customers
 - Projects < 2 MW can be purchased directly by the wholesale partner
- Coordinated with USDA, EPA, Ag Star, and Nebraska Department of Agriculture

Small Renewable Request for Proposals (cont'd)

- RFP issued early 2nd quarter 2009
 - Proposals were due September 1st
 - Received 9 proposals
 - 2 Wind
 - 4 Landfill Methane
 - 1 solar
 - 1 recovered Energy Generation
 - 1 Cogeneration
 - Evaluation
 - Prices not attractive to Wholesale Customers or NPPD
 - Requesting respondents to seek grants or other cost reductions
 - Plan to issue similar RFP in 2010; goal to get proposals which include grants

Wind Request for Proposals II

- RFP announced November 2008; responses due April 15, 2009
- 80 MW projects at Broken Bow and/or Petersburg
- For each site, NPPD requested and received approval for 80 MW of generation interconnection and deliverability to NPPD from Mid-Continent Area Power Pool (MAPP) prior to joining South West Power Pool (SPP)
- 20 year PPA with NPPD for electricity and renewable attributes

Wind Request for Proposals II (cont' d)



- Received 22 proposals
- 17 proposals on land that NPPD had under control through lease agreements
- 5 proposals on developer controlled land
- Narrowed to 6 proposals
- Selected Midwest Wind/Edison Mission as low cost supplier at both sites
- Current plans are for late 2010/early 2011 installations
- Finalizing PPA and Generation Interconnection Agreement (GIA) for Petersburg

August 2009 NPPD Board Resolution

- Management is authorized to negotiate and enter into a power purchase agreement with Midwest Wind Energy/Edison Mission for an 80 MW wind project near Petersburg, Nebraska
- Management is authorized to negotiate and enter into a power purchase agreement with Midwest Wind Energy/Edison Mission for an 80 MW wind project near Broken Bow, Nebraska;
- If the District can find participants for up to 50% of the energy from the projects

Questions?



David Rich, P.E.
Renewable Energy Development Manager