



# PRESENTATION

to the

## 2013 NEBRASKA WIND CONFERENCE

by

### TRADEWIND ENERGY, INC.

Derek Sunderman - Director Business Development



November 13, 2013





# Introducing TradeWind Energy, Inc.

## AN EXPERIENCED DEVELOPMENT TEAM

- **Founded in 2003; based in Lenexa, Kansas**
- **Approx. 4,000 MW of Active Wind Development in the Central USA**
  - Senior managers with 80 + years of combined utility and Independent Power Project (IPP) experience
  - Talented team of engineers, meteorologists and project managers

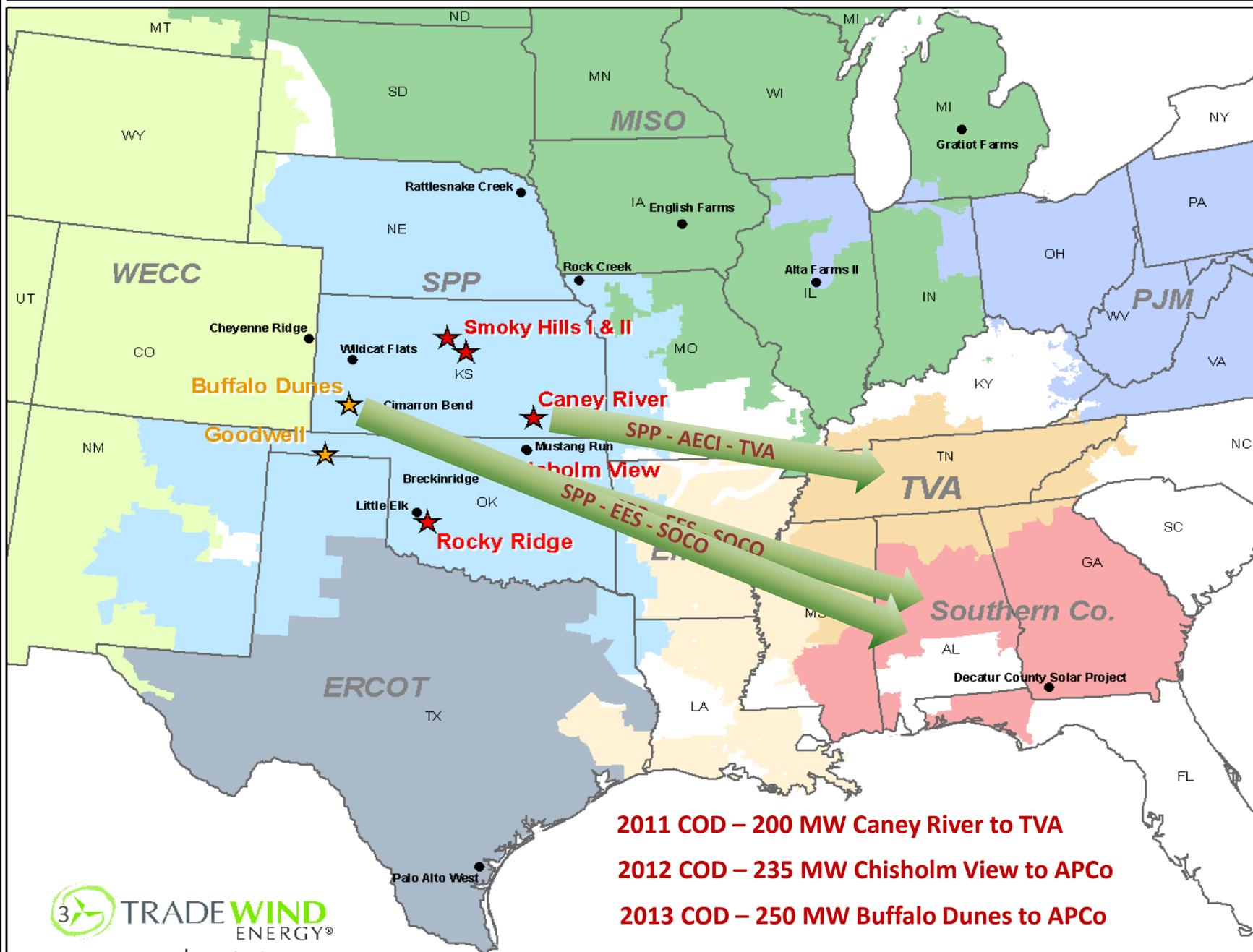


*Award-Winning Smoky Hills Wind Project, Kansas*

Recipient of AWEA's  
2012 "Outstanding  
Commercial  
Achievement Award"

# Introducing TradeWind Energy

## TRADEWIND ENERGY PROJECTS



### Project Status

- ★ Operating
- ★ In Construction
- In Development

### Contracted Projects

- Smoky Hills I**  
148.5 MW  
In Service: 2008
- Smoky Hills II**  
100 MW  
In Service: 2008
- Caney River**  
200 MW  
In Service: 2011
- Rocky Ridge**  
150 MW  
In Service: 2012
- Chisholm View**  
235 MW  
In Service: 2012
- Buffalo Dunes**  
250 MW  
COD: 2013

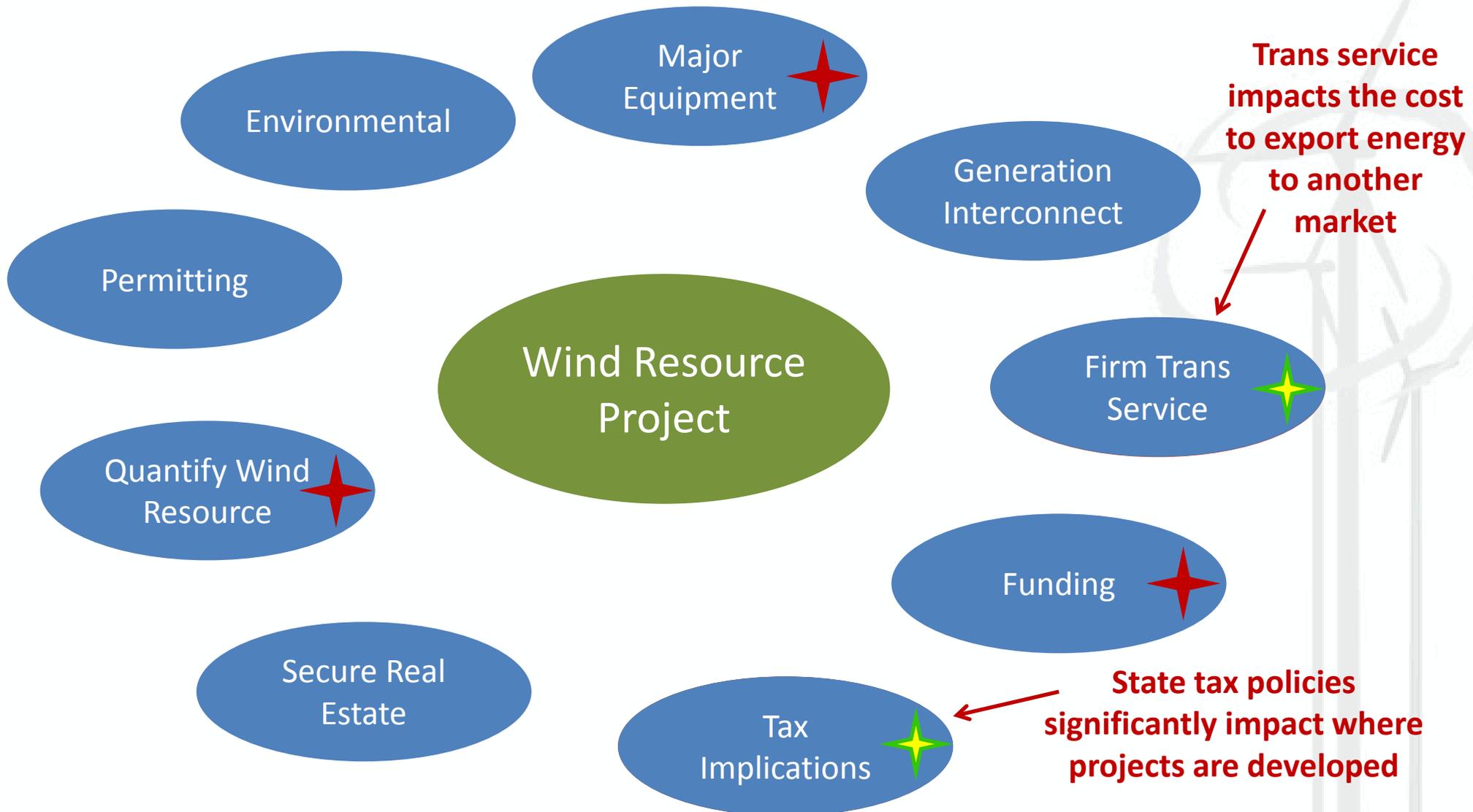
### RTO Regions

- ERCOT
  - MISO
  - PJM
  - SPP
  - WECC
- Control Areas
- Entergy
  - Southern Co.
  - TVA

**2011 COD – 200 MW Caney River to TVA**  
**2012 COD – 235 MW Chisholm View to APCo**  
**2013 COD – 250 MW Buffalo Dunes to APCo**

# The Wind Development Maze

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-  **Main drivers impacting energy price in standard PPA competition**
-  **Additional drivers impacting SPP's competitive export market**

## Quotes from last year

- “Nebraska has a huge renewable energy potential”
- “Nebraska’s wind resource is ranked 3<sup>rd</sup> in the U.S.”
- “You have to be looking at this for the long term”
- “Renewables will play a growing role,...”
- “Nebraska has only 457 MW of online wind generation”



*TradeWind Energy's Caney River Wind Project, Kansas*

- “Nebraska is at a crossroads”
- “Nebraska’s current Sales & Use tax policy is the single largest impediment to wind development in the state”



# The Impact of LB104

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## LB104 Became Law on June 4, 2013

- **Key leadership provided by Senators Steve Lathrop (sponsor), Galen Hadley and Heath Mello**
  - Significant Unicameral support of 38 votes
- **Provided sales tax exemption for major wind farm components**
  - Nameplate capacity tax of \$3,518 still applies
    - Replaces the assessment of depreciable tangible personal property used directly in the generation of electricity
  - Real property is still subject to local assessment.
  - The front year impact to contractual energy price can be 5% or more

**In today's wind energy environment, the impact to a PPA is a lowering of the energy price by approximately 10%**



# The Impact of LB104

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## The passage of LB104 is significant

Improves the chances of renewable energy companies making continued or increased investments in Nebraska

Moves Nebraska towards a comparable footing with most other Midwestern states (Oklahoma still has advantage)

Better positions Nebraska to benefit as an exporter of future wind energy development

# Nebraska's 2013 Reality

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- **OPPD contracted for 200 MW at Prairie Breeze Wind Farm**
- **NPPD contracted for 75 MW at Steele Flats Wind Project**
- **LES contracted for 100 MW from Arbuckle Mountain Wind Farm in OK.**
- **“NPPD will not pursue additional wind in 2013;...”** NPTelegraph.com 10/11/13
- **OPPD announced 400 MW wind PPA for Grand Prairie Wind Farm** 10/17/13
- **NE's in-state wind resources are expected to surpass 1,100 MW by 2016**



*TradeWind Energy's Rocky Ridge Wind Project, Oklahoma*



# Nebraska's Export Opportunity

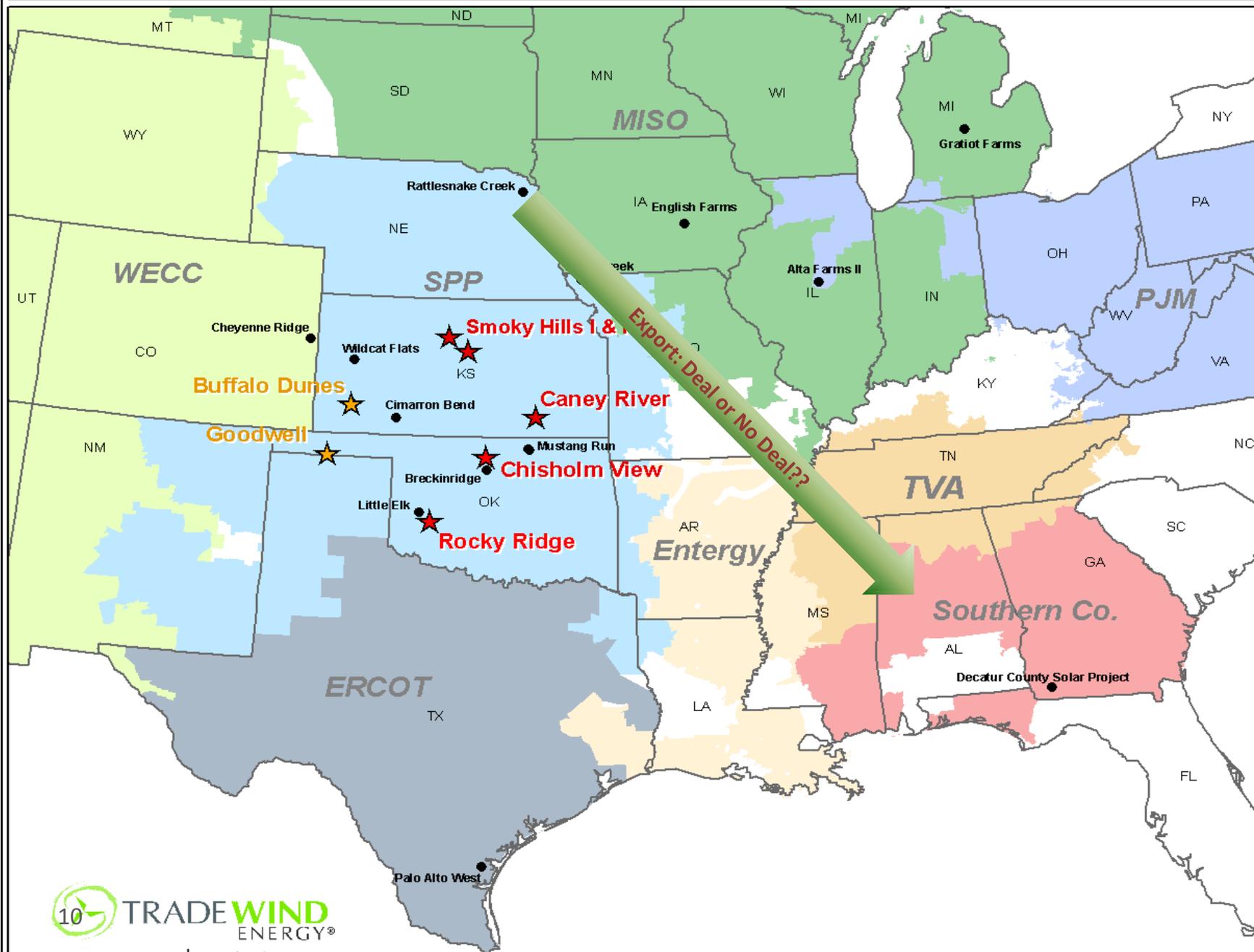
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**But what about Nebraska's wind energy  
export opportunities?**



# Nebraska's Export Market

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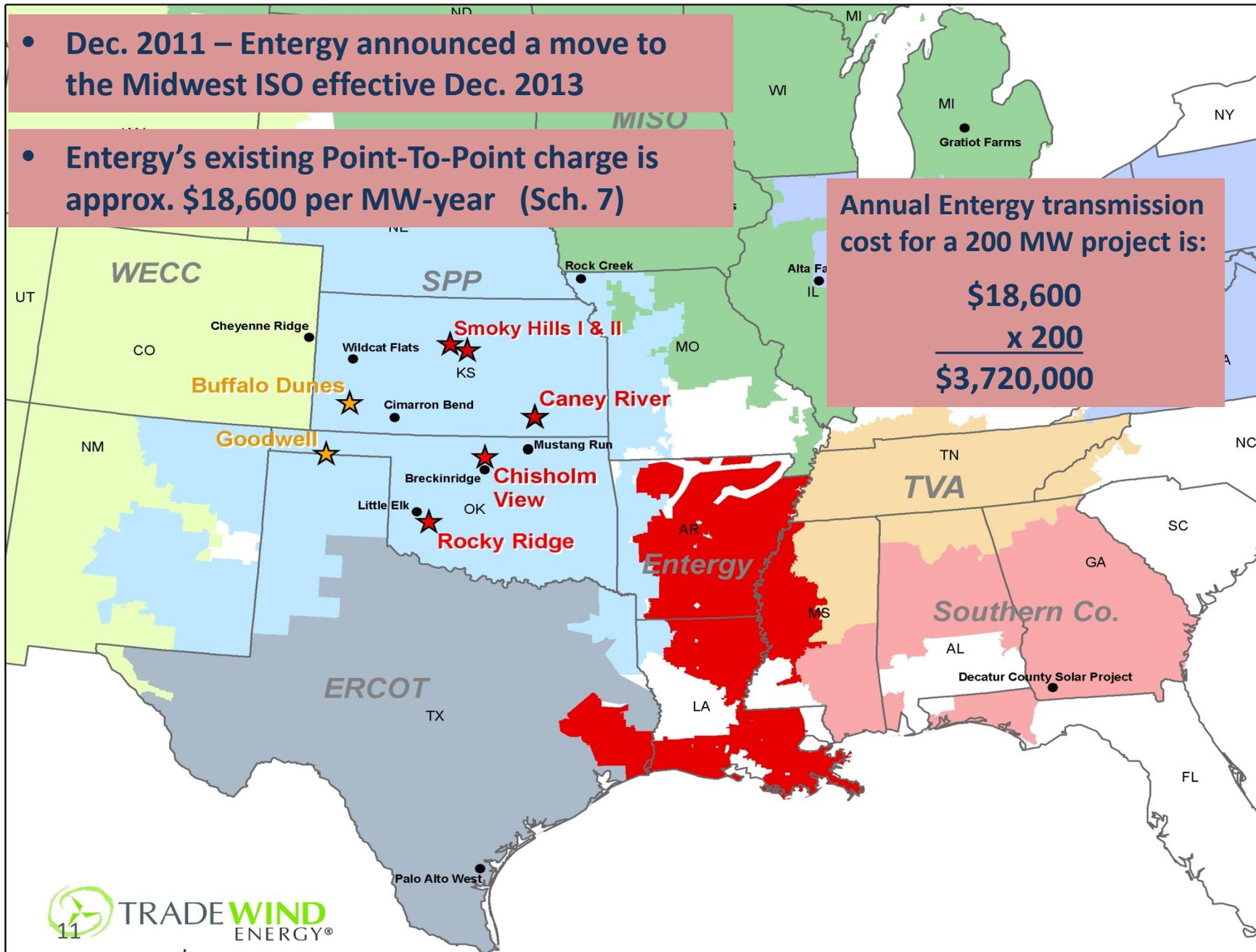
# Nebraska's Export Market

## TRADEWIND ENERGY PROJECTS

- Dec. 2011 – Entergy announced a move to the Midwest ISO effective Dec. 2013
- Entergy's existing Point-To-Point charge is approx. \$18,600 per MW-year (Sch. 7)

Annual Entergy transmission cost for a 200 MW project is:

$$\begin{array}{r} \$18,600 \\ \times 200 \\ \hline \$3,720,000 \end{array}$$



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- Goodwell**  
200 MW  
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# Nebraska's Export Market

## TRADEWIND ENERGY PROJECTS

- The MISO Drive-Through Tariff rate consists of three major charges; Sch. 7, 26 & 26A
- The existing MISO South Region Drive-Through charge is approx. \$35,000 per MW-year (Sch. 7 + 26)

Annual Entergy transmission cost for a 200 MW project is:

$$\begin{array}{r} \$35,000 \\ \times 200 \\ \hline \$7,000,000 \end{array}$$

MISO's South Region tariff is expected to increase even more due to future transmission development in Arkansas, Texas, Louisiana and Mississippi

The total impact of this tariff change is \$3-\$5 per MWh, which exceeds the sales tax savings presently generated under LB104

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## SPP's Export Opportunities May Be Impaired in the Near Term

- **The cost of delivering energy on a physical basis is currently above Southeast utilities' long-term avoided cost projections**
  - Decreases in long-term natural gas prices have lowered utilities' long-term avoided cost projections
- **Existing transmission capacity to the Southeast is reaching its limits**
  - Existing transmission infrastructure within MISO's Southern Region, TVA and the Southern Company has not experienced the level of transmission investment seen in the SPP footprint
- **Current and proposed environmental emissions regulations will tend to make renewable energy more attractive vs. fossil fuel**
  - Water supply is quickly becoming the major concern



## What makes Oklahoma so attractive?

- No Sales & Use Tax on major components
- 5-year property tax exemption
- \$5 per MWh state production tax credit
  - Applies to first 10 years

The combined impact of Oklahoma's state policies lowers the cost of Oklahoma wind energy by approximately 25% over the life of a 20-year PPA. This makes Oklahoma the preferred wind development location.

**Until upgrades are made, a lack of transmission capacity through the MISO Southern Region and into Southern Company's footprint will limit the physical delivery of wind "export" energy to the southeast for the next few years**



## LB104 is still a good “pro business” decision for Nebraska

- Has already made it easier for OPPD to make a very serious investment in Nebraska wind energy
- “Fertilizes the soil” for northern Nebraska wind investment while awaiting construction of the 345 kV R-Plan trans line
- Positions Nebraska as a legitimate contender when future export opportunities arise
- **Benefits rural Nebraska**
  - Export projects bring new – not recirculated - money into the state
  - Brings economic development dollars to rural Nebraska in the form of new tax revenues, which can help relieve pressure on property taxes
  - Brings economic development dollars to rural Nebraska in the form of lucrative landowner royalties, which stimulates the local economy
  - Brings high paying jobs to rural communities

# Nebraska's Export Opportunity

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## What is the value of "export" wind development to Nebraska?

Future Wind Expansion (MW) **1,000**  
 Total Project Investment \$ 1,700,000,000

Annual State Personal Income Tax Increase (\$11,000/MW impact, 5% tax rate)*	\$ 550,000
Annual Property Tax Increase (100% assessment, 2% tax rate)	\$ 1,495,000
Annual Nameplate Capacity Tax Revenue Increase (\$3,518/MW)	\$ 3,518,000
<b>Total Annual Revenue Increase</b>	<b>\$ 5,563,000</b>
<b>20 Year "Nebraska" Tax Revenue Increase</b>	<b>\$ 111,260,000</b>
<b>Add'l New Jobs for Rural Nebraska (.48/MW)*</b>	<b>480</b>

Increase in Nebraska Wealth Due to Land Owner Royalties	
LO Royalties (\$/MW)	\$ 8,000
Annual LO Royalties	\$ 8,000,000
<b>20-Year Royalties</b>	<b>\$ 160,000,000</b>

**These are direct payments to rural Nebraskans!**

Analysis does not include the additional and substantial positive impacts of "second tier" economic activities.

Nov 2012 - "Ex Post Analysis of Economic Impacts from Wind Power Development in U.S. Counties" - Study performed by Berkeley Lab, Economic Research Service of US Dept of Agriculture, and the Nat'l Renewable Energy Laboratory  
 Study period of 2000-2008, 1009 counties across 12 wind belt states from Texas to Minnesota.

<http://www.sciencedirect.com/science/article/pii/S0140988312001466>