

# Iowa & Rural Energy for America Program

**Second Annual Distributed  
Wind**

**All-States Summit  
Albany, New York  
October 15, 2014**



# What is Distributed Wind

- electrical power generation that occurs close to where the power is consumed



# Cherokee County Wind

- Located in Cherokee County and the energy is used for the turkey confinement units.
- 2 100 kW turbines.
- Total project cost was \$387,999 and the REAP grant was for \$97,000.
- kWh produced in 2011 was 272,340 which is 51% of the expected energy replacement.



# K & J Pork, LLC

- An Enertech 40 kW on a 100' Rohn Tower
- The total project cost was \$155,000
  - REAP grant was \$38,750.



# Luther College Wind Energy Project, LLC

- Organized in July 2005
- A 1.6 megawatt General Electric XLE wind turbine
- Applications were received and funded in Fiscal Year 2009
  - REAP grant = \$500,000
  - REAP G-Loan = \$1,302,385

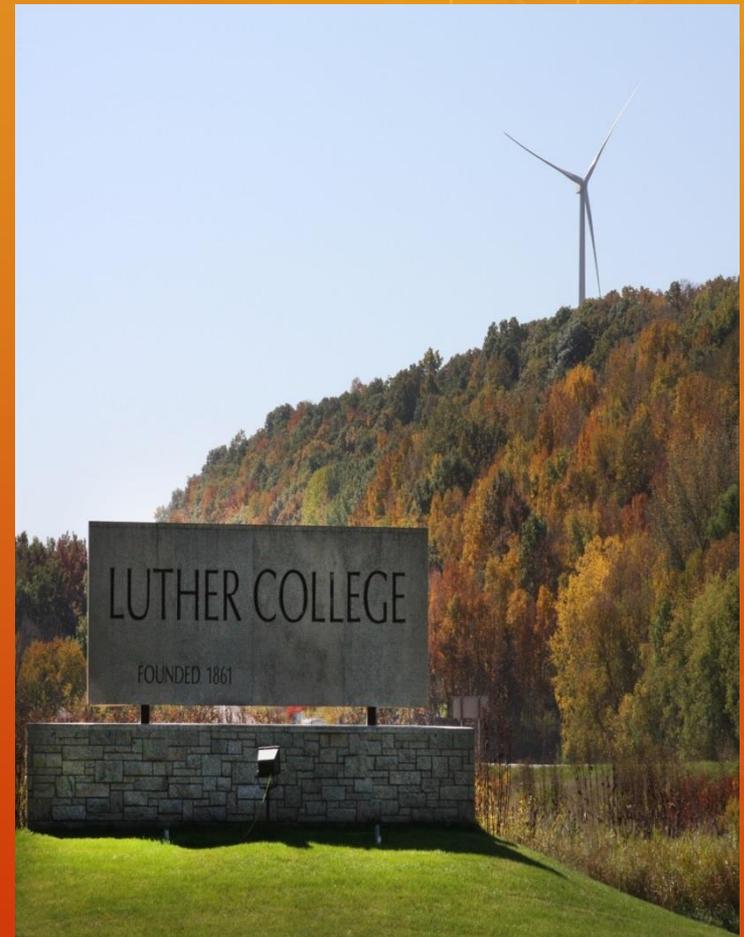


Photo – Julie Shockey

# Luther College Wind Energy Project, LLC

- In mid-June 2014, Luther College's wind turbine hit the 10 million kilowatt hours landmark.



Photo – Julie Shockey

# Story Wind Energy, LLC

- Has a 30 year Power Purchase Agreement with Story City Municipal Electric system.
- Story Wind Energy plans to receive a \$0.015/kWh tax credit from the State of Iowa
- REAP Grant, REAP & B&I Guaranteed Loans

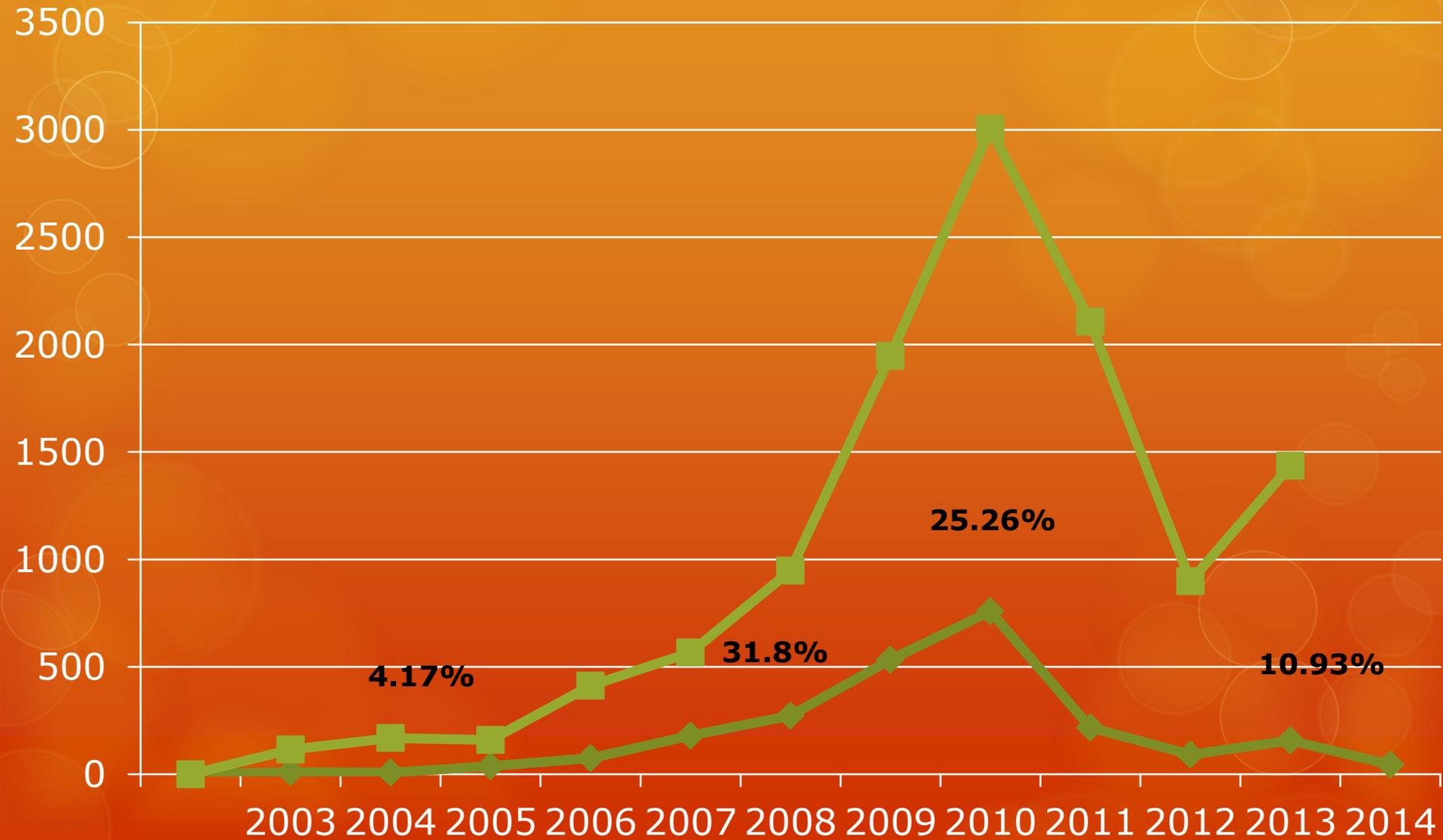


# Renewable Energy Technologies



- **Wind**
  - Large
  - Small
- **Geothermal**
  - Direct Use
  - Electrical Generation
- **Solar**
  - Photovoltaic
  - Thermal
- **Biomass**
  - Bioenergy
  - Digesters
- **Hydrogen**
- **Energy Efficiency**

# Iowa Applications to National



# REAP Investments by Technology, 2003-2013

Technology	Number of Projects	Grant Amount	Loan Guarantee Amount	Leverage Amount	Total Project Cost
BIOMASS	508	\$ 96,072,845.69	\$ 169,512,842.20	\$ 1,149,248,561.31	\$1,414,967,817.00
ENERGY EFFICIENCY	6,733	\$ 151,936,387.34	\$ 52,602,859.50	\$ 435,485,686.48	\$638,996,535.33
FLEXIBLE FUEL PUMP	98	\$ 5,435,448.00	\$ -	\$ 21,761,200.00	\$27,196,648.00
GEOTHERMAL	282	\$ 6,442,431.00	\$1,136,443.00	\$ 27,051,591.00	\$34,630,466.00
HYBRID	39	\$ 1,863,460.00	\$328,459.00	\$ 7,387,842.00	\$9,559,761.00
HYDROPOWER	34	\$ 2,994,570.00	\$19,704,500.00	\$ 43,353,508.00	\$66,302,579.00
SOLAR	1,712	\$ 59,280,144.19	\$31,960,953.00	\$ 302,999,451.81	\$394,149,081.00
WIND	647	\$ 69,640,802.73	\$45,422,876.00	\$ 627,575,736.27	\$741,972,182.00
	10,051	\$ 393,666,088.95	\$ 320,668,932.70	\$ 2,614,863,576.87	\$ 3,327,775,069.33
EA/REDA	85	\$ 7,998,559.00	\$ -	\$ 11,638,976.00	\$19,637,535.00
FEASIBILITY STUDY	163	\$ 4,150,385.50	\$ -	\$ 14,698,369.50	\$18,848,755.00
	248	\$ 12,148,944.50	\$ -	\$ 26,337,345.50	\$ 38,486,290.00

# Iowa REAP Investments by Technology, 2003-2013

Technology	# of projects	Grant Amount	Loan Amount	Leverage Amount	Total Project Cost
BIOMASS	40	\$5,175,905.00	\$20,589,932.00	\$93,184,583.00	\$118,950,420.00
EA/REDA	5	\$428,807.00	\$0.00	\$697,141.00	\$1,125,948.00
ENERGY EFFICIENCY	1882	\$36,226,213.99	\$19,778,119.00	\$156,200,782.01	\$209,028,576.00
FEASIBILITY STUDY	9	\$198,765.00	\$0.00	\$720,999.00	\$919,764.00
FLEXIBLE FUEL PUMP	17	\$681,514.00	\$0.00	\$1,195,450.00	\$1,545,927.00
GEOHERMAL	93	\$1,638,673.00	\$446,991.00	\$5,934,555.00	\$7,755,527.00
HYBRID	2	\$89,813.00	\$0.00	\$385,913.00	\$475,726.00
SOLAR	32	\$1,091,446.00	\$49,975.00	\$716,457.00	\$962,461.00
WIND	258	\$22,648,949.00	\$35,641,661.00	\$201,942,921.00	\$257,944,437.00
<b>Grand Total</b>	<b>2338</b>	<b>\$68,180,085.99</b>	<b>\$76,506,678.00</b>	<b>\$460,978,801.01</b>	<b>\$598,708,786.00</b>

# Iowa's success

## ○ Iowa Incentives

### ○ **Wind and Other Renewable-Energy Facilities Tax Credit (Iowa Code § 476C)**

- \$0.015 per kilowatt-hour (kWh) of electricity,

### ○ **Wind-Energy Facilities Tax Credit (Iowa Code § 476B)**

- A production tax credit of \$0.01 per kWh is available for electricity generated by eligible wind energy facilities,

## ○ Staffing

- 10 Experienced RBS Area staff

## ○ Partners

- Iowa State University
- Iowa Farm Bureau
- Iowa Area Development Group
- Iowa Economic Development Authority

# REAP Budget Authority (Typical Year)

	\$50,000,000	Annually
	\$10,000,000	20% < \$20,000
	\$2,000,000	4% EA / REDA
	\$28,000,000	Unrestricted
	\$10,000,000	Budget Authority to support G-Loan

REAP Guaranteed Loans compete monthly, minimum 50 score, 12 competitions maximum

REAP Guaranteed Loans with less than 50 compete in September, one time

# REAP Competition Windows for <\$20,000 Grants

		FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015
Application Type /Date Range of Receipt		Feb/Mar 2015 Competition	Feb/Mar 2015 Competition	June 2015 Competition	June 2015 Competition	June 2015 Competition	Aug/Sept 2015 Competition
		State \$20K or Less Allocation	State Unrestricted	State \$20k or Less Allocation	National \$20K or Less	State Unrestricted	National Unrestricted
\$20k or Less 6/15/2013 - 7/7/2014		X	X	X	X	X	X
\$20K or Less 7/8/14-NOSA 90		X	X	X	X	X	X
\$20k or Less After NOSA deadline - April 30, 2015				X	X	X	X (Plus One Final Round in Nov)

# REAP Competition Windows for >\$20,000 Grants

	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015	FY 2015
Application Type /Date Range of Receipt	Feb/Mar 2015 Competition	Feb/Mar 2015 Competition	June 2015 Competition	June 2015 Competition	June 2015 Competition	Aug/Sept 2015 Competition
	State \$20K or Less Allocation	State Unrestricted	State \$20k or Less Allocation	National \$20K or Less	State Unrestricted	National Unrestricted
Over \$20K 6/15/2013 - 7/7/2014		X			X	X
Over \$20k 7/8/14-NOSA 90		X			X	X
Over \$20k After NOSA deadline - April 30, 2015					X	X

# REAP Competition Windows Typical Year

	Competition Windows				
	<b>FY 2016</b>	<b>FY 2016</b>	<b>FY 2016</b>	<b>FY 2016</b>	<b>FY 2016</b>
<b>Application Type /Date Range of Receipt</b>	November 2015 Competition	June 2016 Competition	June 2016 Competition	June 2016 Competition	Aug/Sept 2016
	State \$20K or Less Allocation	State \$20K or Less Allocation	National \$20k or Less	State Unrestricted	National Unrestricted
<b>\$20k or Less 5/1/2015-10/31/2015</b>	X	X	X	X	X
<b>Over \$20K 5/1/2015 - 4/30/2016</b>				X	X
<b>\$20K or Less 11/1/2015 - April 30, 2016</b>		X	X	X	X (Plus one final round in Nov) Pooled Funds
	Utilizes 50% of State Allocation of FY 2016 \$20k funds	Utilizes 50% of State Allocation of FY 2016 \$20k funds	Pooled \$20k or less offunds	Utilizes Unrestricted 2016 Funds for Statewide competition	FY for
	Funding Levels				

# Important Notes for Wind Energy

- Feasibility Study
  - A Feasibility Study will be required when Project costs exceed \$200,000
- Commercially Available Technology
  - Proven operating history for at least 1 yr.
  - Professional service providers are familiar with installation
  - Spare parts are readily available
  - Service is available Presentation begins



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## LINKS:

- <http://www.usda.gov/wps/portal/usda/usdahome?navid=ENERGY>
- <http://www.rurdev.usda.gov/Energy.html>
- [http://www.rurdev.usda.gov/BCP\\_BI\\_ProgramDirectorList.html](http://www.rurdev.usda.gov/BCP_BI_ProgramDirectorList.html)
- [http://www.rurdev.usda.gov/BCP\\_Energy\\_CoordinatorList.html](http://www.rurdev.usda.gov/BCP_Energy_CoordinatorList.html)