

## **STORY CITY MUNICIPAL ELECTRIC UTILITY**

### **BIENNIAL SUMMARY OF ENERGY EFFICIENCY AND RENEWABLE ENERGY ACTIVITIES**

**December 30, 2011**

**Prepared by:**

**Jeff Ishmael  
Administrator**

**Story City Municipal Electric Utility**

**P.O. Box 236**

**Story City, IA 50248-0236**

**515-733-4691**

**[ishscmeu@iowatelecom.net](mailto:ishscmeu@iowatelecom.net)**

## **Overview**

The Story City Municipal Electric Utility has provided rebates for replacement of central air conditioners with high efficiency units for many years. In 2011 the utility expanded rebate activities to include energy efficient lighting for commercial and industrial customers.

Both programs will continue to be offered in 2012 and 2013. Annual rebate budgets for the air conditioner and lighting programs are \$7000 and \$25,000 respectively.

In addition to the energy efficiency programs the utility has actively sought to add renewable energy to its supply portfolio with 2.5 MW of wind energy capacity. In November, 2011 wind energy provided over 16% of the energy needs of the utility system.

# STORY CITY MUNICIPAL ELECTRIC UTILITY

## BIENNIAL SUMMARY OF ENERGY EFFICIENCY AND RENEWABLE ENERGY ACTIVITIES

### Program: Residential Air Conditioner Rebates

Description: Customer receives \$150 rebate when replacing existing central air conditioner with new unit with SEER of 14 or higher.

	2010	2011
Number of Participants:	41	27
Total Rebates Amount: \$	6,150 \$	4,050
Estimated Administrative Costs: \$	150 \$	150
Total Program Costs: \$	6,300 \$	4,200
Estimated Annual Energy Savings (kWh):	6150	4050

### Program: Commercial/Industrial Lighting Rebates

Description: Commercial and industrial customers receive rebates for replacing existing lighting systems with new energy efficient lighting systems. Rebate depends on lights being replaced and type of new lighting installed. (See Attached)

	2010	2011
Number of Participants:	NA	1
Total Rebates Amount:	NA \$	5,688
Estimated Administrative Costs:	NA \$	647
Total Program Costs:	NA \$	6,335
Estimated Annual Energy Savings (kWh):	NA	22,676

# STORY CITY MUNICIPAL ELECTRIC UTILITY

(Continued)

## BIENNIAL SUMMARY OF ENERGY EFFICIENCY AND RENEWABLE ENERGY ACTIVITIES

**Project:** Story Wind and Hamilton Wind

**Description:** Utility worked with a private developer to locate a privately owned wind project within the system footprint of the utility. The project includes the 900 kW Story Wind Turbine and the 1500 kW Hamilton Wind Turbine. Story Wind became fully operational in May 2011 and Hamilton wind in November 2011. The utility has entered into long term agreements to purchase all energy produced from the wind projects. Costs are based on average annual wholesale costs.

### Renewable Energy Production Summary

Month	Production kWh	Percent System kWh Sales
January	-	0.0%
February	-	0.0%
March	-	0.0%
April	-	0.0%
May	85,953	2.0%
June	149,118	2.9%
July	79,451	1.4%
August	80,508	1.5%
September	91,034	2.1%
October	148,206	3.6%
November	732,012	16.8%
December		
Total	1,366,282	4.1%

# Story City Municipal Electric Utility

## Commercial and Industrial Energy Efficient Lighting Program

(Existing Facilities Only)

When Replacing Existing T-12 Systems with T-8 or T-5 Systems				
Equipment	Fixture Size	No. of Lamps	Lamp Type	Rebate Amount
Fluorescent T-8 or T-5 fixtures w/Electronic Ballasts (Less than 15 feet mounting height)	2 Ft	1	T-8 or T-5	\$ 8 /fixture
		2	T-8 or T-5	\$ 8 /fixture
	46 Inch	1	T-5	\$ 6 /fixture
		2	T-5	\$ 11 /fixture
		3	T-5	\$ 17 /fixture
		4	T-5	\$ 22 /fixture
		6	T-5	\$ 34 /fixture
		4 Ft	1	T-8
	2		T-8	\$ 7 /fixture
	3		T-8	\$ 11 /fixture
	4		T-8	\$ 14 /fixture
	8 Ft	1	T-8 or T-5	\$ 6 /fixture
		2	T-8 or T-5	\$ 11 /fixture
Fluorescent T-8 fixtures w/High Output Electronic Ballasts	8 Ft	1 or 2	T-8HO	\$ 8 /lamp

When Replacing HID Fixtures				
Equipment	Fixture Size	No. of Lamps	Lamp Type	Rebate Amount
Linear fluorescent T-8 and T-5 fixtures, high bay w/HO Electronic Ballasts (Minimum 15 feet mounting height)	4 Ft	3-8	T-8	\$ 11 /lamp
	46 Inch	3-8	T-5HO	\$ 12 /lamp

Installing Timers and Occupancy Sensors				
Equipment	Fixture Size	No. of Lamps	Lamp Type	Rebate Amount
Occupancy Sensor - Must control >400 Watts	N/A	N/A	N/A	\$ 16 each
Lighting Clock/Timer - Commercial Grade	N/A	N/A	N/A	\$ 16 each

LED Exit Sign Retrofit				
Equipment	Fixture Size	No. of Lamps	Lamp Type	Rebate Amount
LED Exit Sign	N/A	2	N/A	\$ 5 /sign