



Energy Efficiency Through Lighting Upgrades

The Chickasaw Nation

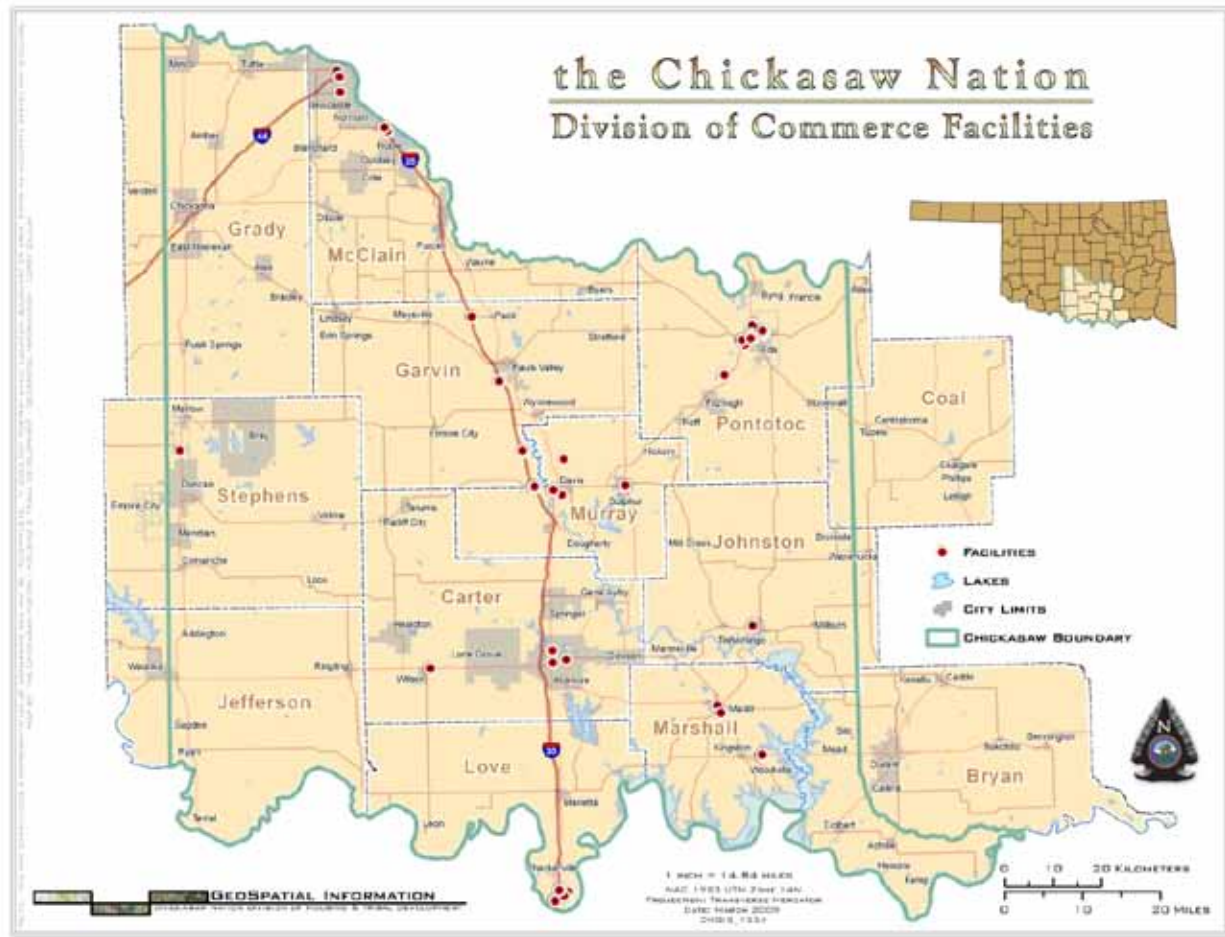
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The Chickasaw Nation

- The Chickasaw Nation consists of 13.5 counties in southeastern Oklahoma
- Tribal enrollment exceeds 35,000
- The Tribal headquarters complex is located in Ada, Oklahoma
- The Division of Commerce operates 17 facilities most of which are included in this grant

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Chickasaw Nation Boundaries





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Main Objectives

- Retrofit Casino Lighting to the most energy efficient option available
- Reduce energy consumption and energy bills by 30%
- Provide the insight and proven cost savings to management to allow for more green measures to be taken throughout the tribe

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Lighting Audits

- Lighting audits were conducted for all Commerce facilities in 2007
- Every lighting fixture was counted and recorded at each facility
- A cost analysis was done to determine the ROI – most less than 24 months
- Savings were seen in labor costs and total energy consumption
- An estimated \$180,000 will be saved each year



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Pilot Facility

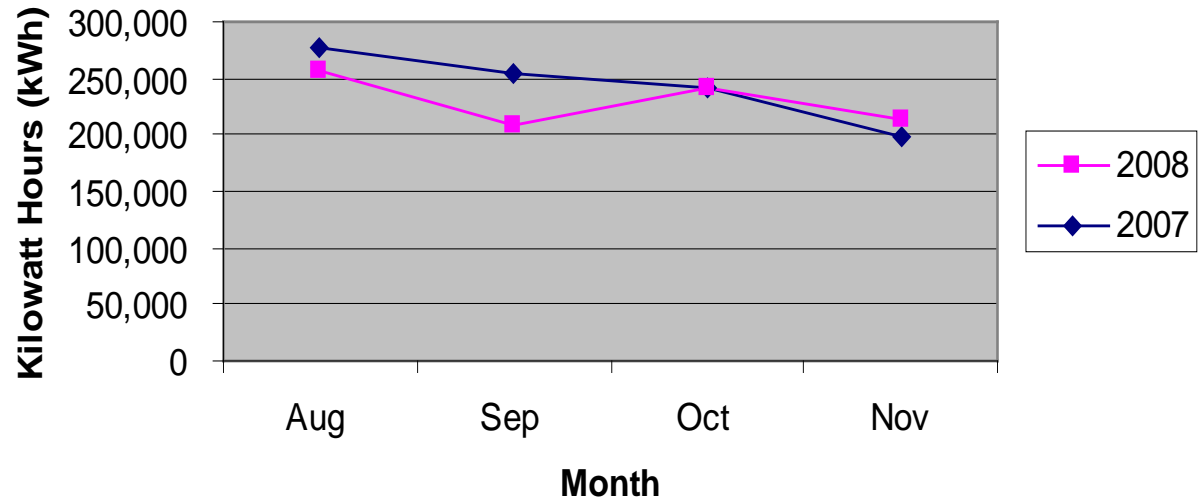
Ada Gaming Center

- Ada Gaming Center chose to upgrade their lighting about one year before the grant was awarded
- A consistent \$1,000 has been saved per month at this facility
- This cost includes bulb savings, labor savings and energy savings. Just the energy savings alone would be \$10,274.26 per year or \$856.18/month

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Ada Gaming Center Savings

Monthly kWh Usage Ada East Gaming Center



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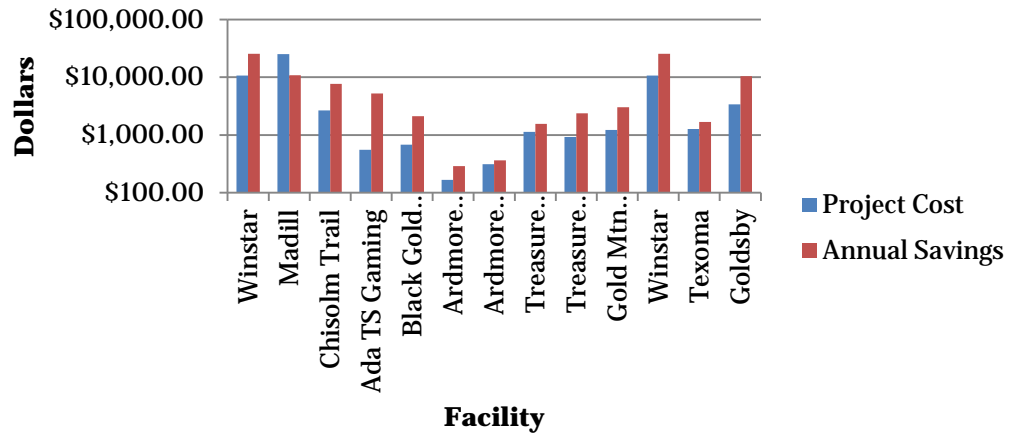
Project Cost and Projected Savings

| | | |
|------------------------|-------------|-------------|
| Winstar | \$10,626.80 | \$25,408.04 |
| Madill | \$24,992.83 | \$10,839.70 |
| Chisholm Trail | \$2,644.46 | \$7,619.50 |
| Ada TS Gaming | \$553.60 | \$5,203.92 |
| Black Gold Casino | \$675.00 | \$2,121.26 |
| Ardmore Tobacco #1 | \$166.77 | \$289.35 |
| Ardmore Tobacco #2 | \$312.51 | \$364.38 |
| Treasure Valley Inn | \$1,130.37 | \$1,548.76 |
| Treasure Valley Casino | \$915.08 | \$2,354.45 |
| Gold Mtn Casino | \$1,216.93 | \$3,030.48 |
| Texoma | \$1,269.62 | \$1,675.37 |
| Goldsby | \$3,401.51 | \$10,428.66 |

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Project Cost vs Savings

Project Cost vs Projected Annual Savings



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Madill Gaming Center

First facility to be retrofitted both interior and exterior.



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Neon to LED conversion

- All neon lights at Madill Gaming Center was upgraded to LED lighting
- The neon lights had created a safety hazard and caused maintenance cost to increase greatly
- The LEDs have reduced energy consumption and have provided a safer lighting option

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Madill Interior Lighting

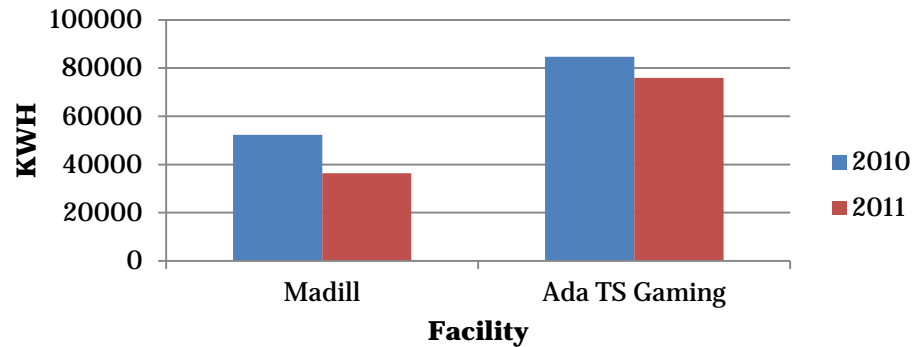
Most of the interior lighting consisted of the small MR16 type lighting which have an LED replacement. A total of 295 bulbs were replaced.



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Lighting Upgrade Savings To Date

Electrical Usage per Corresponding Month (2010 & 2011)



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Savings by Percentage month following the installation

Madill Gaming-

30.5% or

52327 kWh to
36365 kWh

Ada Travel Stop -

10.4% or

84729 kWh to
75888 kWh

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Opportunity = WinStar World Casino

- Since the 2007 lighting audit, WinStar has tripled in size
- Cost savings are expected to at least double
- Biggest opportunity for savings of all the facilities – \$25k/ year
- Rented man lifts are needed for bulb replacements each week

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WinStar World Casino Facts

- 3rd largest casino in the world
- 566,000 Square Feet
- 3 level Parking Garage added in 2011
- Additional Square Footage will be added next year including a hotel tower
- Thousands of light bulbs light the facility

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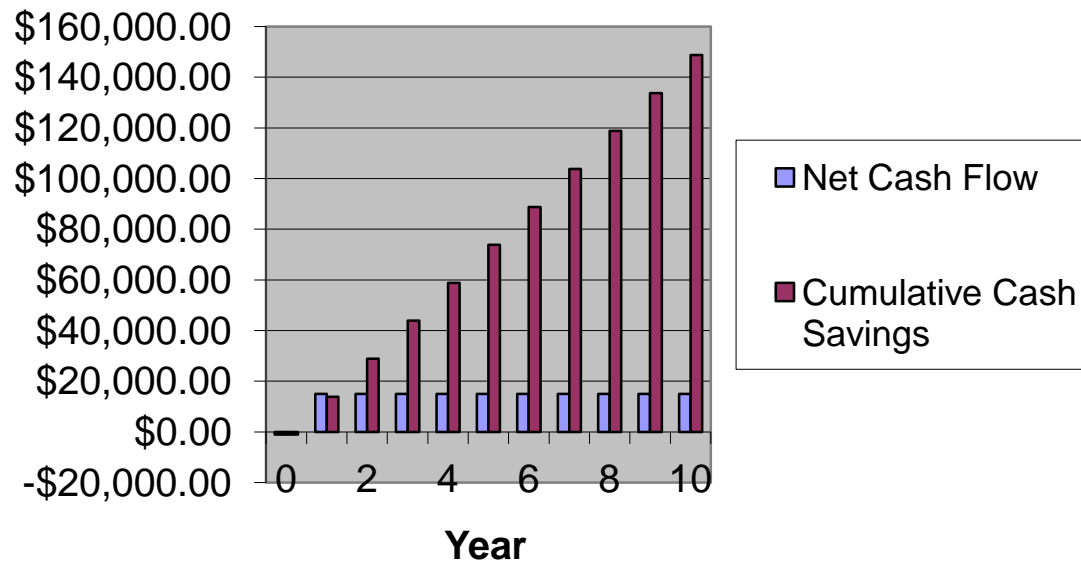
WinStar Aerial View



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Projected WinStar Savings

Annual Net Cash Flow & Cumulative Savings





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Community Outreach

- Along with the upgrades to the facilities, a community outreach program has begun
- Head Starts have been visited to explain the program and to help create a sense of stewardship for the environment.
 - Children were taught the difference between a incandescent and CFL spiral bulb
 - Conservation methods were also taught to the 3 and 4 year olds

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Ada Head Start Class #1



The background is a solid light blue color. In the top left corner, there is a faint watermark that says "earth day" in a light blue, sans-serif font, with a small globe icon below it. On the left side, there are white, stylized floral and vine patterns that curve upwards and outwards. In the bottom left corner, there are some green leaves. In the top right corner, there are white, stylized floral and vine patterns that curve downwards and inwards.

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Broader Message

Not only will a monetary and environmental benefit be gained with this grant but also an awareness of impacts on the environment that tribes and businesses alike will be spread throughout the community in press releases and word of mouth.

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Questions?

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