



#### Innovation In Upgrading & Modernizing Public Facilities: LED Street Lighting Ward Lenz, N.C. Energy Office Director February 9, 2012



# Why LED?

- LED Light Emitting Diode
- 50-85% energy savings
- Light not heat
- Fade, rather than fail
- Rapid price declines



#### **Street Lighting Retrofits in N.C.**

Seven small town projects, funded by the N.C. Energy Office through the federal Recovery Act (ARRA). Larger cities, Durham, Asheville, Raleigh, use some EECBG funds for street lighting retrofits.



#### **Energy Efficient Street Lights = Jobs**

- •LED street lights are being made by North Carolina manufacturers, such as Durham-based manufacturer Cree, Inc., and purchased from local suppliers.
- •Cree employs more than 4,700 people.





# Seeing savings quickly

#### Hendersonville, N.C. population 10,420

- Replaces 32 existing street lights with LED street lights
- -Reduces electric use by 40%
- -Saves taxpayers \$11,500 annually



### **Big impact in small communities**

La Grange, N.C., population 2,800

- Installed 345 environmentally friendly, energy-efficient LED street lights
- -Cut the annual power bill by \$52,000



# **Stimulus Dollars Are Working**

"The moral of the story is the switch has been very successful. The stimulus dollars are, literally, doing what they are supposed to do."



-- John Craft, LaGrange Town Manager



### **Street Lighting Efficiency**



#### **Downtown Kinston LED lights save taxpayers \$204,500.**

"The project's greatest impact is in the savings, ... which I hope to pass down to our customers so they can save money as well. This project sets a great example and encourages people be more efficient in their own homes."

-- Sheri Ferguson, Information and Resources Specialist



## **Energy Efficiency in larger cities**



Asheville, 84,000 population, has initiated North Carolina's first large-scale deployment of LED street lights -- installing 3,643. Projected savings; \$260,000 annually.



# Leading by example

"Upgrading to LED street lights allows us to decrease energy consumption, increase energy efficiency and contribute to the sustainability of our community. This exciting initiative helps affirm Asheville's role as a leader

in carbon footprint reduction."

-- Maggie Ullman, Asheville Office

of Sustainability





## Raleigh - 2007





# Raleigh – LED City

- 1 level of a parking deck
  - 141 lights
  - 70% of deck users felt safer
- Grown to 57 separate projects
- Working on 36,000 street lights
- "We have undertaken no LED project that did not pencil out for the taxpayers." Dan Howe -Raleigh







#### Ward Lenz, Director N.C. Energy Office wlenz@nccommerce.com 919.733.2230

