City of South Lake Tahoe EECBG-Funded Lighting Retrofit Project

Presentation to California Energy Commission's

Integrated Energy Policy Report (IEPR) and Federal Stimulus Program (Ad Hoc) Committees

July 9, 2010

City's EECBG Project

- City applied for maximum amount available (formula based)
- Direct-Purchase Energy Efficiency Projects
- Awarded $131,300
  - (1) Custom Retrofit of Pedestrian Walkway Lights (LED)
  - (2) Replace fluorescent lights with LED in City Motor Pool Building and City Offices
  - (3) Replace standard wall-switches with motion detector

Change Your Lights, Change the World!

- City Council adopted Sustainability Plan (Nov 08)
- Established Sustainability Commission (May 09).
- City is focused on demonstration projects and opportunities that business / residents can replicate in their own properties homes.

- City met with CEC staff, focus was "lighting."
- City proposed projects to *demonstrate* Energy Efficiency to public community through simple concept:

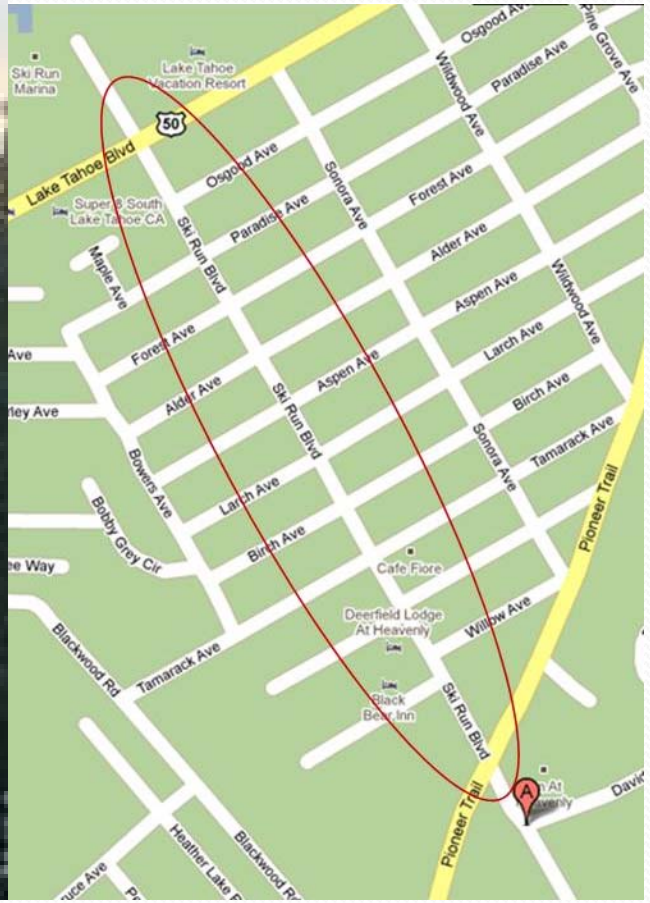
"Change your Lights, Change the World."

Energy Savings projected by CEC: 35 ton GHG annually

Ski Run Blvd Project

- Ski Run Boulevard is an important roadway in the City.
- Connects the Lake to the Mountains.
- Estimates are that 600,000 cars travel up/down Ski Run Blvd each winter.
- Business Improvement District branded area "*On the Run*," host events and keep Blvd landscaped & clean.
- 88 Tall Decorative Pedestrian Lights.
- Current usage 175-watt, replace with LED 56-watt lights.
- **Demonstration outcomes: LED cost/benefit; and Pedestrian impacts, lighting opinions.**

Ski Run Blvd – LED Retrofit



Important Roadway in the City

Ski Run Blvd – LED Retrofit

Ski Run Blvd – LED Retrofit

Current Light Head

LED Custom Retrofit (Sample)

Replace Lights & Switches

- City has high-wattage fluorescent lights in most city buildings (similar to most businesses).
- Will replace fluorescent lights with LED lights in Motor Pool Building & City offices, where workers are under bright lights all day.
- Replace standard all switches with motion-detector switches (Wattstopper)
- **Demonstration outcomes: LED cost/benefit. Wattstopper cost/benefit. Employee impacts.**

Motor Pool Building/Garage Lights

Overall Project Outcomes

- Demonstration project will evaluate the financial costs and benefits, (incl maintenance), of installing LED to provide community evidence for their own LED projects.
- Demonstration will evaluate energy cost savings compared to actual providing evidence to community.
- CEC estimated 35 ton GHG reduction and $6,000 direct energy cost savings *(maintenance savings could be as much as another $5,000 per year)*.
- Expect increase in % of property owners installing LED.
- Jobs Created from $131,300 include supporting LED manufacturing retrofit companies.

Just from changing the lights!

ARRA Project Challenges

- Coordination between ARRA & state requirements and municipal agencies. Timelines require quick turnaround but award announcement delay results in delayed City budget amendment process.
  - Solution: Make the announcement "pending final confirmation," so City's have a formal document to begin budget amendment process.

City Sustainability

- The City of South Lake Tahoe's focus on Sustainability has led to the establishment of a Sustainability Plan, the Sustainability Commission, efforts to adopt additional "Green Building" Standards and policies.
- The City's energy challenges stem from being spread out among many buildings throughout the community. Currently, "on the list" for energy audit from CEC.
- Recently, the Parks and Recreation Department utilized California Energy Commission's State Energy Program Loan to construct an innovative energy efficient project leveraging energy from one building to warm and cool other buildings.
- The City's future energy efficiency will depend on consolidating operations to fewer locations and improving older buildings(eg: fire department).

THANK YOU ENERGY COMMISSION!