

Redwood City's

Energy Retrofit Program

Gary Hover, Superintendent

Parks and Facilities Division
City of Redwood City

Project Goals

- **To reduce energy consumed in City owned facilities and operations**
- **To establish a preventative maintenance program for lighting**
- **Act as a leader for the community saving energy resources**

The Energy Retrofit Project

- Over 6000 fluorescent lamps replaced
- 56 intersections updated with Light Emitting Diode lamps
- 11 pump stations now operate “off peak” with new Energy Management Systems
- Pool heating equipment upgraded

New Technologies Used

- Philips Alto low mercury lamps used
- Sylvania “ICETRON” 100,000 hours lamps in Main Library and City Hall
- Electronic ballast's installed in all fluorescent light fixtures

How We Created the Project

- A State program help us select our Energy Partner
- NORESO was selected and scope expanded to include all City facilities
- A cost benefit analysis was used to establish sub-projects with IRR

Noteworthy Milestones

- Dec. 18, 2000 the project was created
- Jan. 17, 2001... **first rolling blackout**
- May 2001 PG&E temporarily suspends it's rebate program

Noteworthy Milestones

- Annual savings presented in initial reportwas 863,800 kilowatt-hours
- Energy saved in first four months... versus prior year
582,112 kilowatt-hours saved
...that's 11.3%

Options beyond this Project

- EPA Energy Star Program Workshop confirmed our project approach
- Energy Star interviewed Redwood City approach for future Workshops
- Other energy generator options reviewed and analyzed

That was History

- That presentation was made to our City Council.....

October 8, 2001

-Good News.....

This approach still works!

Basics of “our” program

- All retrofit work was cost effective
- Our Finance Director said....
 ”You can have as much as you want ...if your savings is better than my Internal Rate of Return”
- Our Retrofit work was done for
 “business reasons”

Today and beyond

- Improved technology dictates we retrofit selected facilities **again....**
- We have Synthetic Sports Fields for **water savings & lower maintenance**
- New LED office lighting...**45% energy savings, no Mercury & 100,000 hr life**
- Our two Pools were fitted with Variable Frequency Drive **for 25% & 40% savings** over prior year

Other Good Stuff

- See Al Gore's **An Inconvenient Truth**
- Redwood City signed **US Mayor's Climate Protection Agreement**
- We will use **2000** as our benchmark
- Our goal is to be on the **Leading Edge** to make a difference....not the **bleeding edge**of technology

Questions and Contact

If you have questions later you can
contact me by email.....

ghover@redwoodcity.org