

# ENERGY ACTION WORKSHOP



**Parks and Recreation Workshop**

**December 4, 2013**

**1-2pm**

**PHILADELPHIA  
PARKS &  
RECREATION**



*Energy Efficiency Incentive Program*

# Agenda

## ENERGY ACTION WORKSHOP

**Goal: Reduce Energy Waste, Reward Action**

### Energy:

- **Why** it matters
- **What** you can do
- **How** it will benefit you and your department



# City of Philadelphia & Greenworks Philadelphia



## E N E R G Y

**GOAL: PHILADELPHIA REDUCES ITS VULNERABILITY TO RISING ENERGY PRICES**

### TARGET 1

**LOWER CITY GOVERNMENT ENERGY CONSUMPTION BY 30 PERCENT**

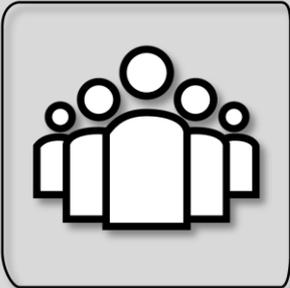
City Government Lays the Groundwork for Energy Conservation

### TARGET 2

**REDUCE CITYWIDE BUILDING ENERGY CONSUMPTION BY 10 PERCENT**

Public/Private Partnerships and New Law Reduce Energy Consumption

# Leading by Example: City Energy Efficiency Efforts



**Before**



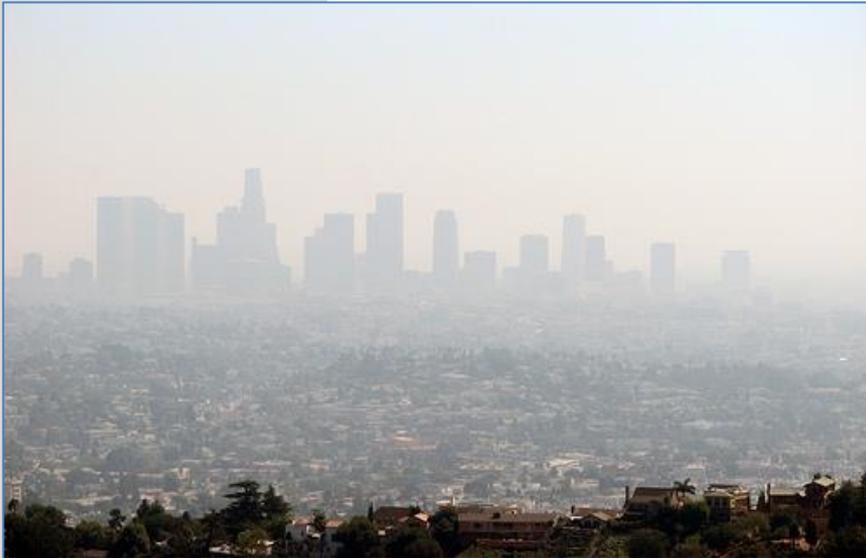
**After**





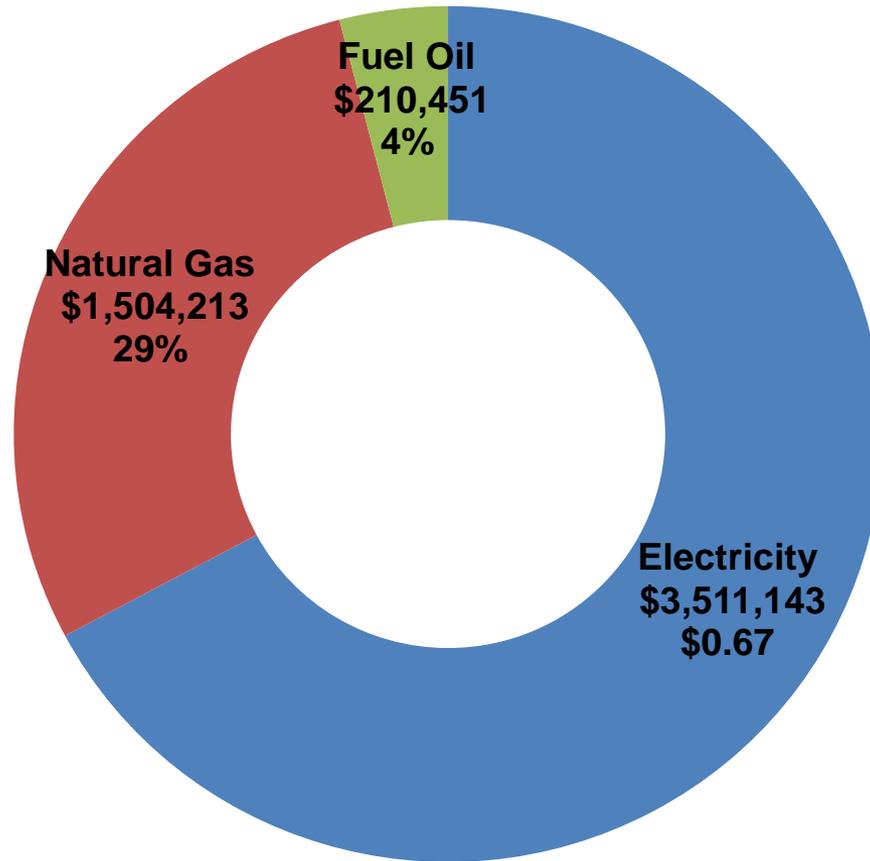
# Why Eliminate Energy Waste?

- **Financial:** Reducing energy use cuts costs
- **Environment:** Every kWh = 1.26 pounds CO<sub>2</sub>
  - 10% electricity savings city-wide:
    - Eliminates more than 20 million pounds of CO<sub>2</sub> emissions annually
    - Equivalent to planting nearly 500,000 mature trees
- **Health:** Emissions = asthma, neurological problems
- **Natural Resource Preservation**



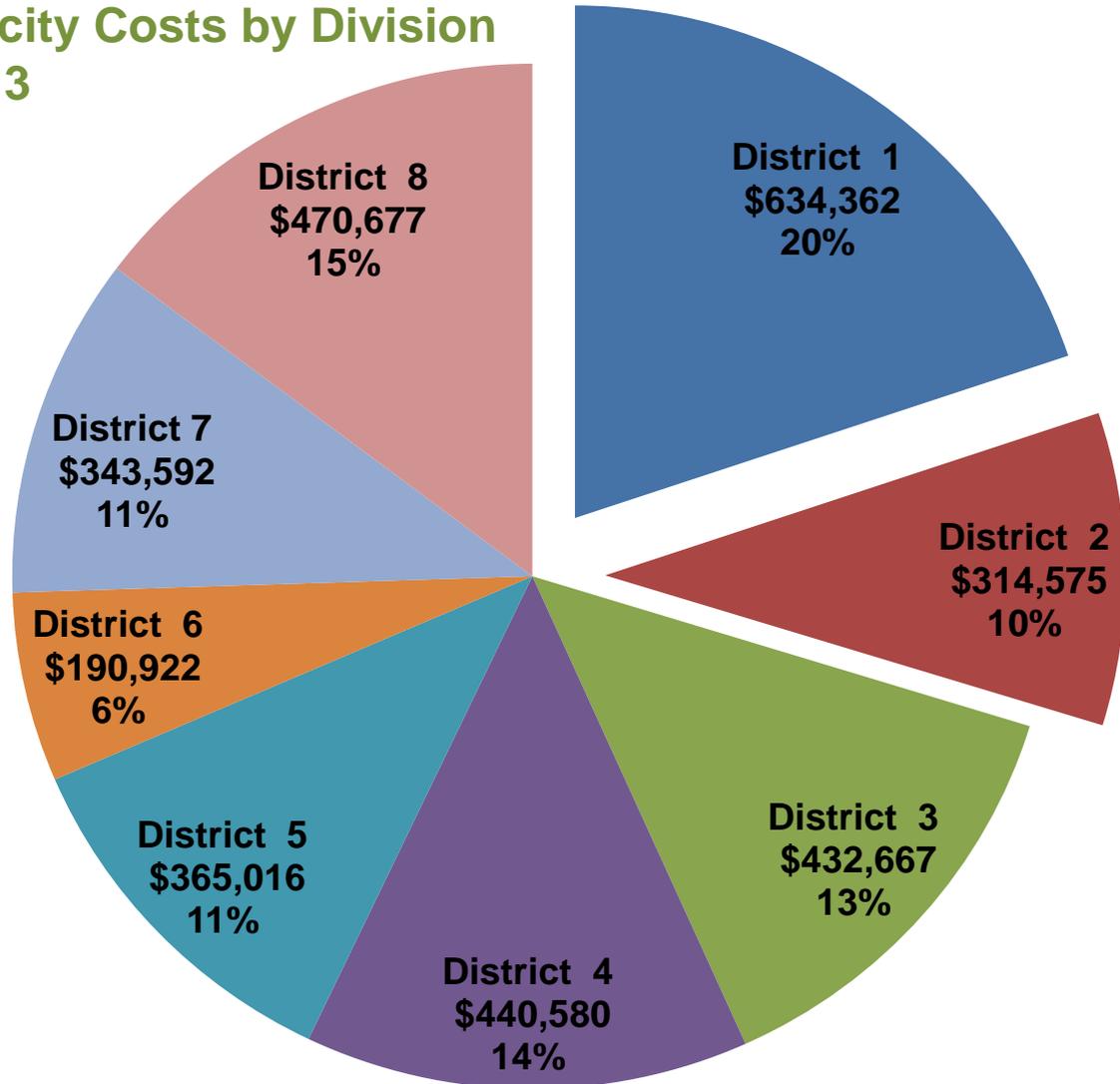
# Parks and Recreation Energy Consumption

## Annual Energy Consumption FY 2013



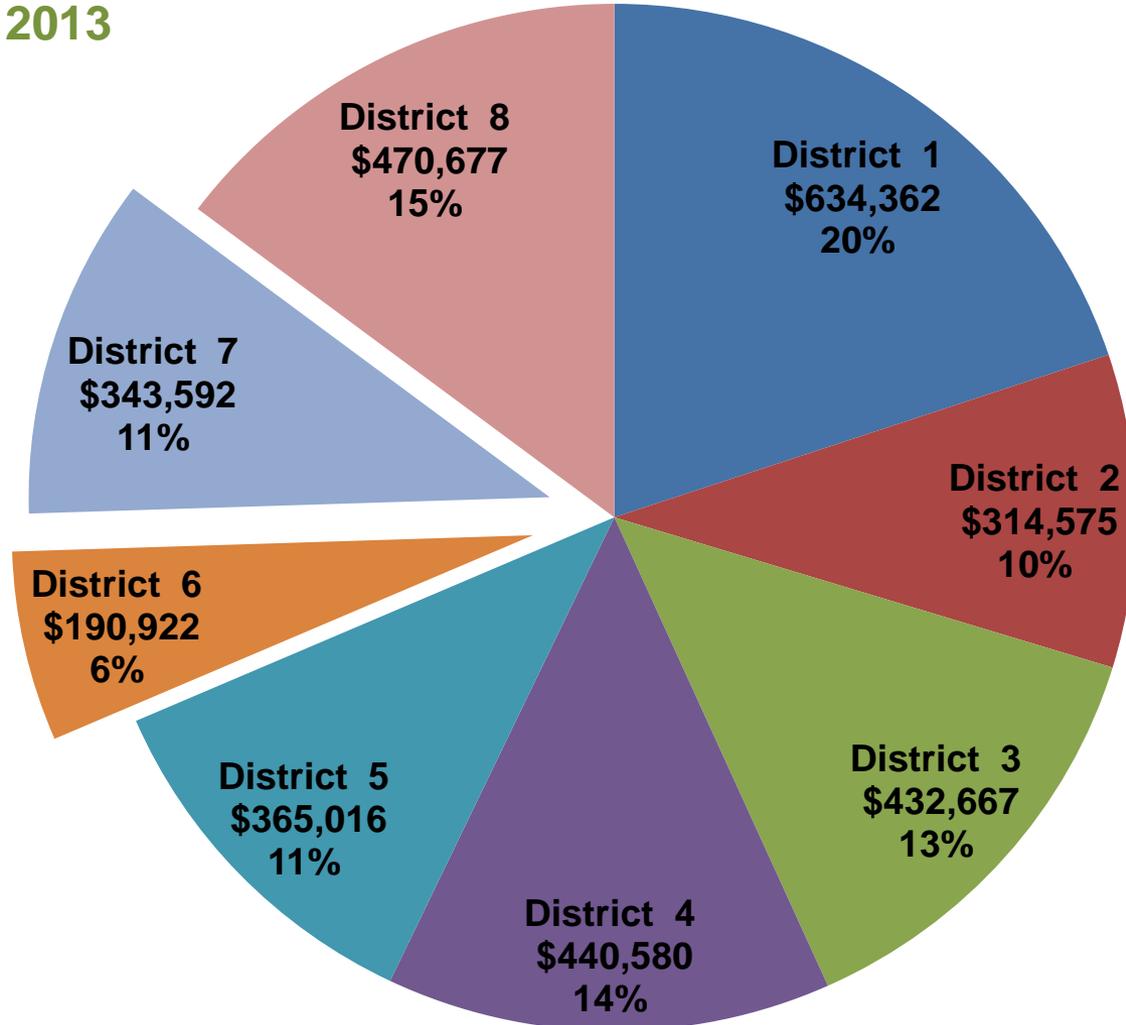
# Parks and Recreation Energy Consumption

## Electricity Costs by Division FY 2013



# Parks and Recreation Energy Consumption

## Electricity Costs by Division FY 2013





# Parks and Recreation Energy Bank

## Your Potential

	1%	5%	10%
<b>Dist 1</b>	\$ 6,344	\$ 31,718	\$ 63,436
<b>Dist 2</b>	\$ 3,146	\$ 15,729	\$ 31,457



# Parks and Recreation Energy Bank

## Your Potential

	1%	5%	10%
<b>Dist 6</b>	\$ 1,909	\$ 9,546	\$ 19,092
<b>Dist 7</b>	\$ 3,436	\$ 17,179	\$ 34,359



# Parks and Recreation Energy Bank

## Rewarding Action: **THE ENERGY BANK**

Performance calculated 2x/year. Savings distributed 1x/year.

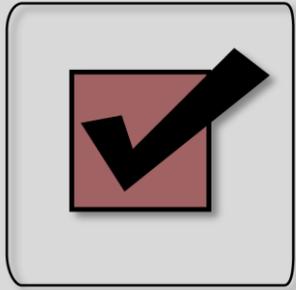
### DISTRIBUTION: POSITIVE SAVINGS

**Retain 50%** of savings in general fund

**Return 50%** of savings to your department



# Energy Conservation Tips



## Conservation vs. Efficiency: What's the Difference?



Hummer @ 8 mpg, 5,000 miles/year = 626 gallons of gas  
Prius @ 45 mpg, 30,000 miles/year = 667 gallons of gas

# Energy Conservation Tips

## Lights

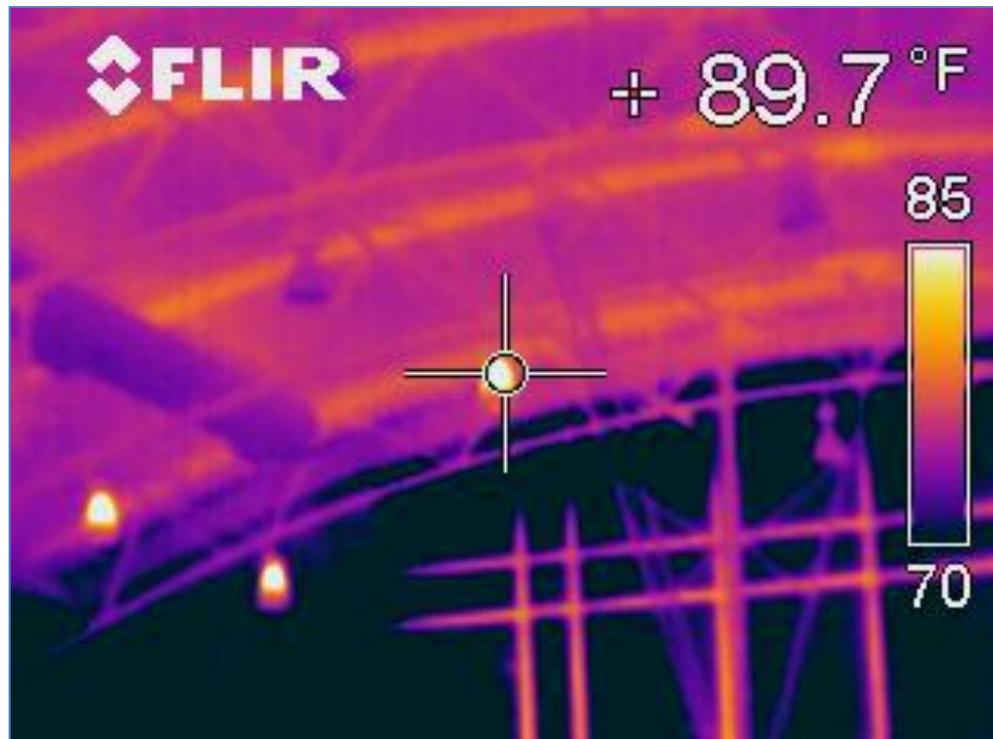
- Turn lights on only when room is in use
  - Not 1 o'clock yet? Almost everything should be off (except emergency lighting) until just before programs begin.
  - Take responsibility for common areas



# Energy Conservation Tips

## Lights

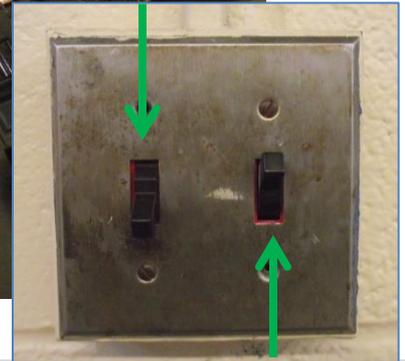
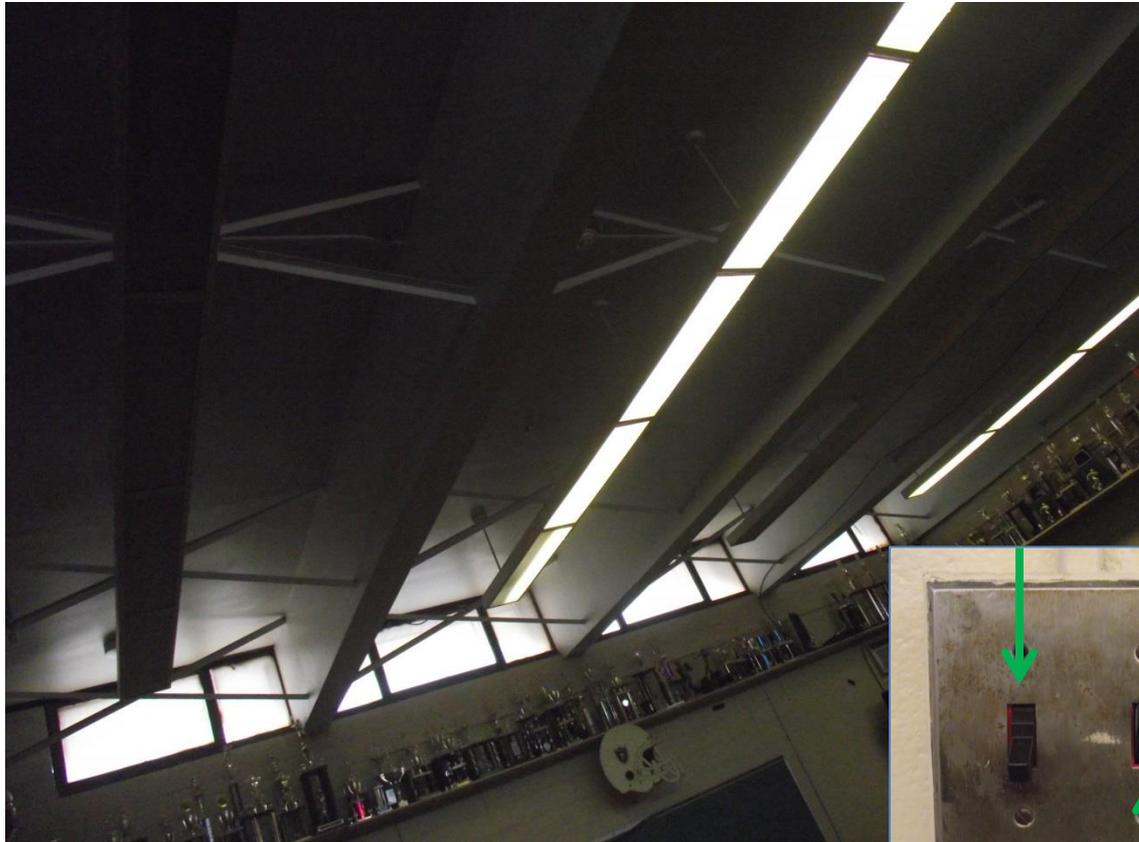
- Use only the lights you need (use natural light if it is available)



# Energy Conservation Tips

## Lights

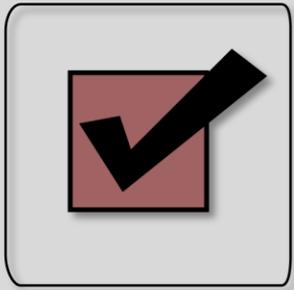
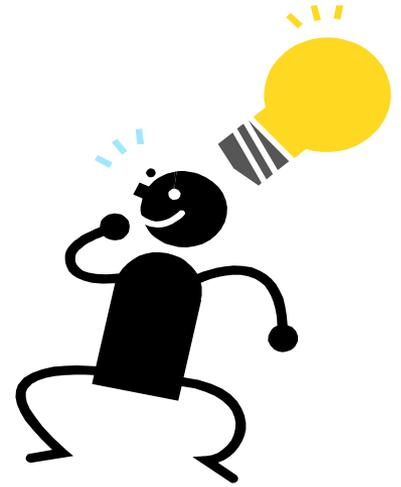
- Take advantage of multiple switches



# Energy Conservation Tips

## Lights

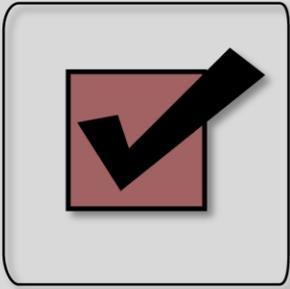
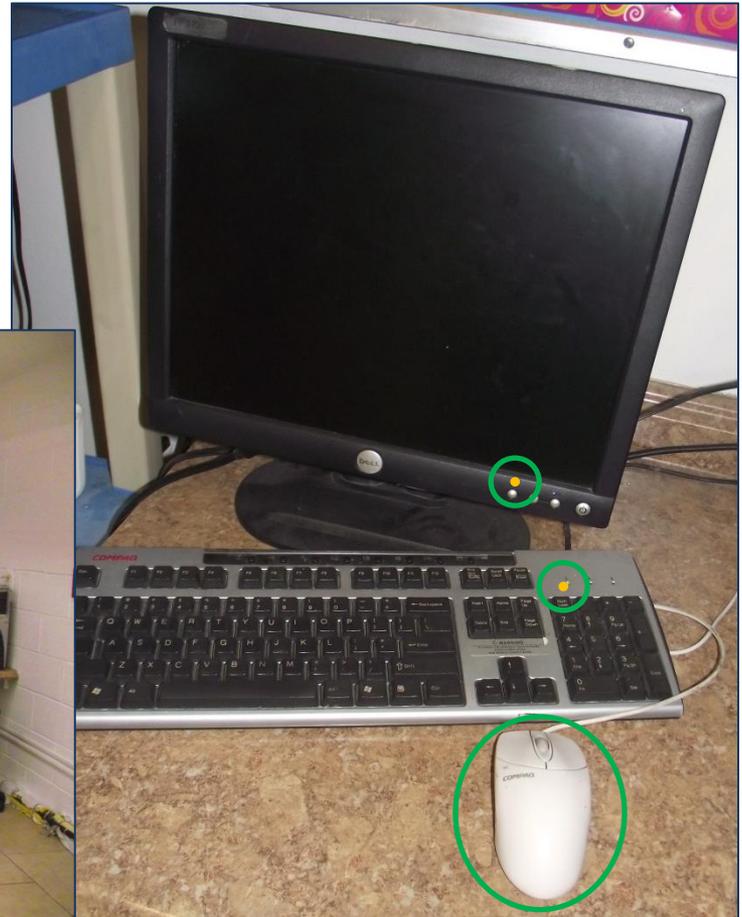
**Bust the myth!**  
*Remember the 5-second rule.*



# Energy Conservation Tips

## Televisions, Computers, and Appliances

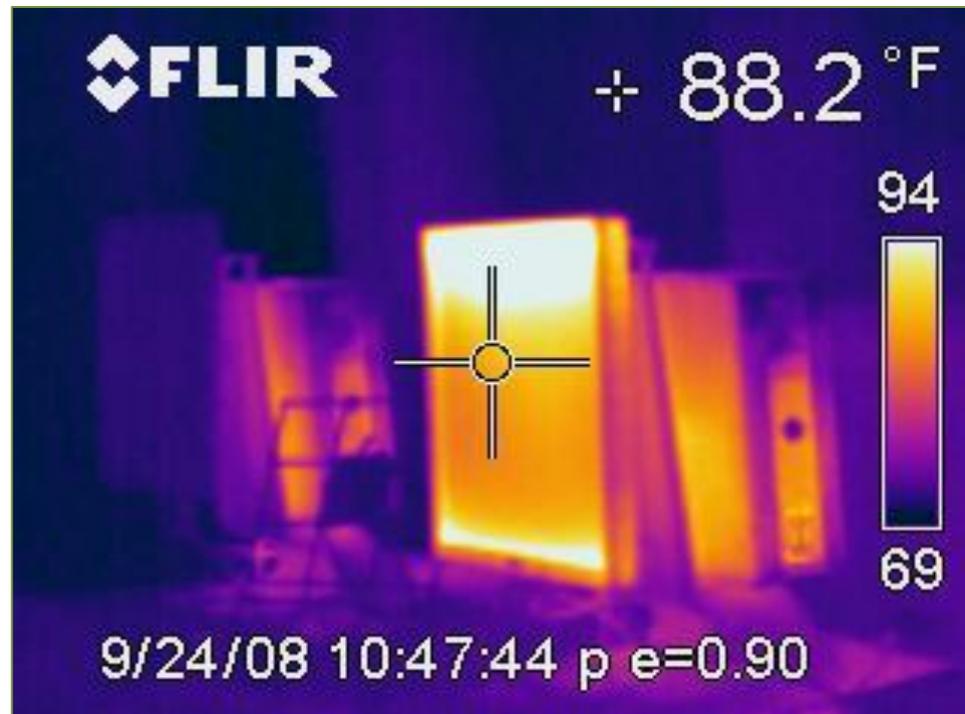
- It's safe to turn them off when not in use



# Energy Conservation Tips

## Televisions, Computers, and Appliances

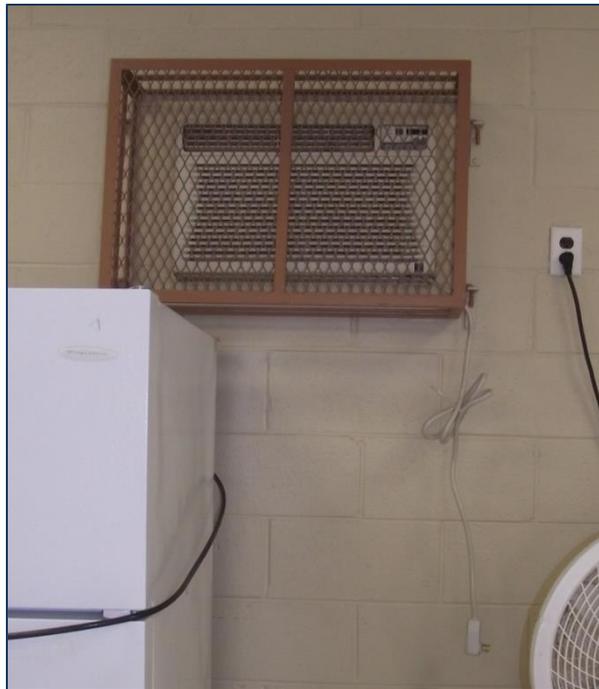
- Manage key spots: Have computer monitors go to “sleep” mode after 5 – 15 minutes of inactivity (\$20/computer/year)



# Energy Conservation Tips

## Televisions, Computers, and Appliances

- Don't turn A/C on while heat is on. Turn heat off.
- Unplug air conditioners when not in use



# Energy Conservation Tips



## Manage Ice Rink Lighting



Use only the light you need.  
Turn off perimeter lights while prepping the ice.

# Energy Conservation Tips

## Manage Field Lighting

Example: Jardel Field Lighting



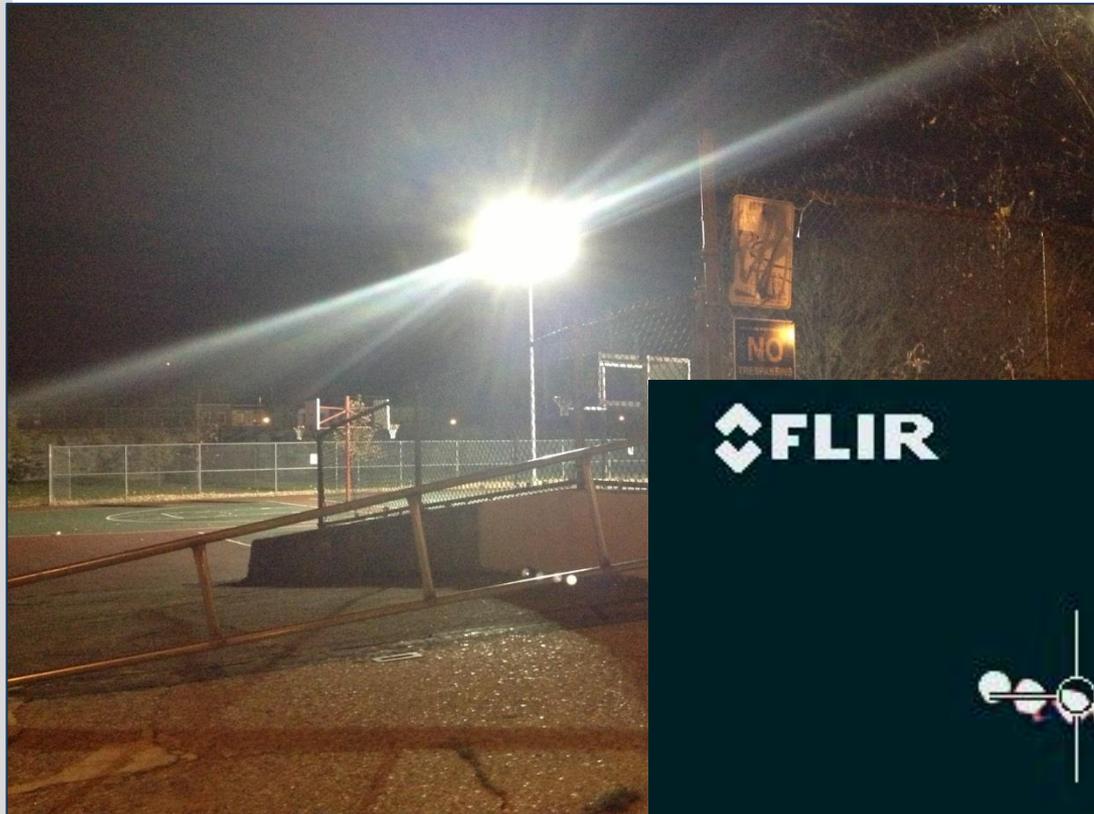
Annual Cost for Field Lighting: \$8,410  
10% Reduction: \$841

*Consider these savings at all fields throughout the City!*



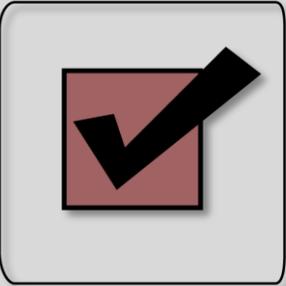
# Energy Conservation Tips

## Manage Field Lighting



# Energy Conservation Tips

## Manage Field Lighting



**FIELD LIGHTING**

FIELD LIGHTS ARE OPERATIONAL FROM  
MARCH 15 TO DECEMBER 31  
MONDAY THROUGH FRIDAY  
DUSK TO 10:30PM

Help us **CONSERVE RESOURCES**  
If you notice field lights on at a PPR facility  
after hours, please report it to us via email at:  
**PPR.ENERGYSAVER@PHILA.GOV**  
Include name of facility, address and the  
date & time the lights were lit.

In order to conserve energy, no ball field permits  
will be issued during the winter season.

 PHILADELPHIA  
PARKS &  
RECREATION

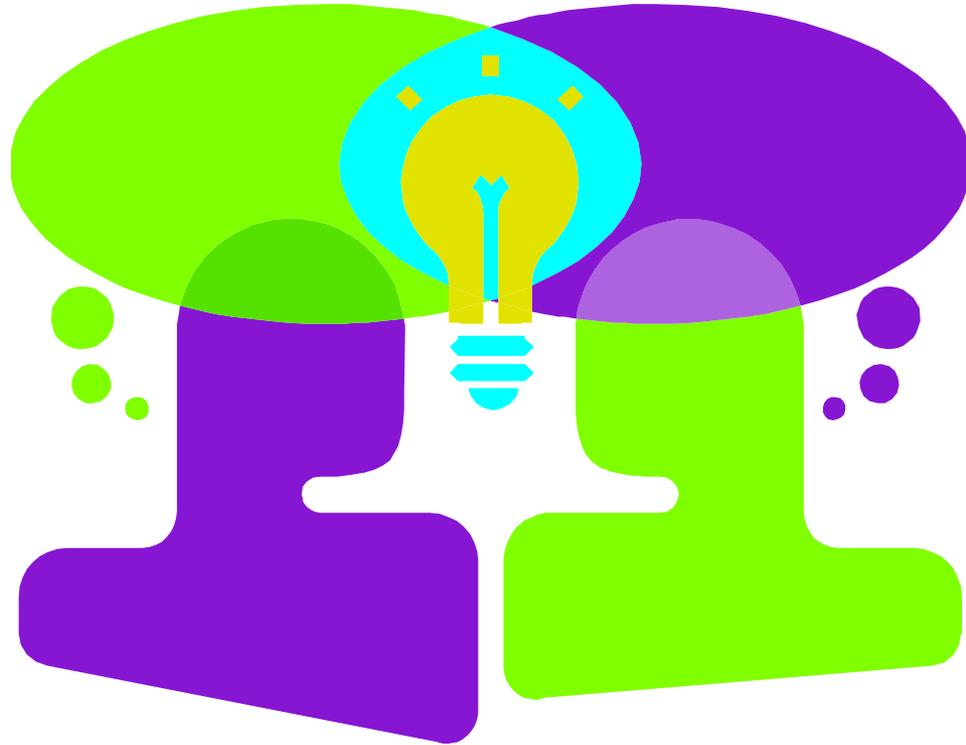
*Thank you for helping PPR save resources!*

- Manual shut-off Friday night in most cases (except where safety is a concern, special events), turn on Monday at dusk
- Try to shut off during inclement weather

# Ideas



## Brainstorming



# Progress Reporting

## Regular Communications:

- Cost Savings
- kWh Reductions
- CO<sub>2</sub> Savings
- Division + Facility Rankings (by % reductions)



*What's Your Rank?*

# Progress Reporting

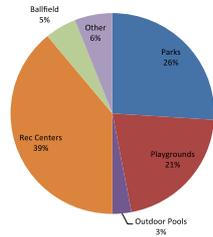


## PHILADELPHIA PARKS & RECREATION Energy Conservation Initiative Summary

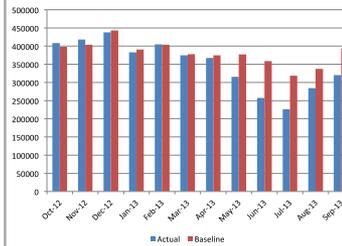


District 2 Report For Sep-13	Consumption (kWh)	
	September-13	Cumulative
Department Wide Savings	343,864 3.55%	858,485 7.15%
Savings for District 2	49,028 11.53%	124,038 10.02%

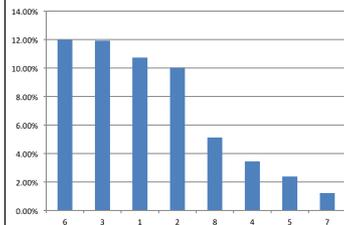
This Month's Consumption, by type



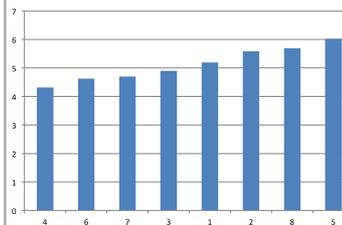
District Consumption (kWh)



Districts Ranked by Cumulative % Energy Saved



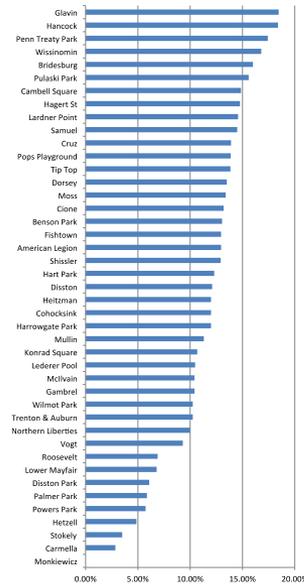
Districts Ranked by Normalized Consumption this Month (kWh/sqft)



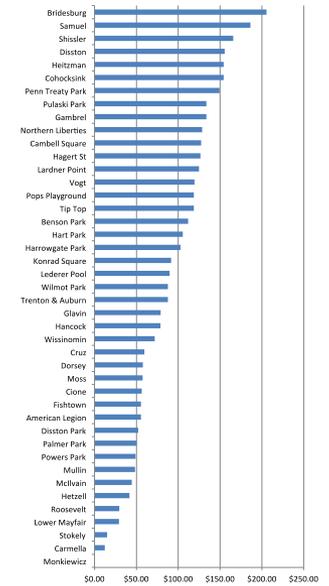
### Energy Conservation Initiative Summary (page 2)

District 2 Report For Sep-13	Cost Savings (\$)		Carbon Savings (MTCDE)	
	September-13	Cumulative	September-13	Cumulative
Department Wide Savings	\$27,509 3.55%	\$68,679 7.15%	167.1 3.55%	417.2 7.15%
Savings for District 2	\$3,922 11.53%	\$9,923 10.02%	23.8 11.53%	60.3 10.02%

Facilities Ranked by % Saved this month



Facilities Ranked by \$ Saved this month



Questions about this report? Contact: J Smith at (215) 555-5555 or ###@###.com



# Energy Conservation: It Works!

- 25%-35% of the energy used in commercial buildings is wasted.
- Half of this waste is due to equipment management and behavior.
- Eliminating energy waste does not impact your daily routine or your job. But it can help your department make money for future efficiency/capital projects.

**It's a Great Way to Raise Funds!  
Start Today!!**



## Think About How You Use Energy!



practical  
energy  
solutions

**EEBHUB** Energy  
Efficient  
Buildings  
Hub

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1. Philadelphia – kla4067
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3. Light switch – orange steeler

Slide 5: [www.propane.pro](http://www.propane.pro) (l); City of Philadelphia (r)

Slide 21: Jardel field, Flickr – Kathy Ng/NE Philly Blog

All Other Photos: Practical Energy Solutions