

# Residential Engagement Energy Savings in Subsidized Housing

- “Big Picture”
  - Chris Jedd, Denver Housing Authority
- “Program Design”
  - Rachelle Macur, Group14 Engineering
- “Program Implementation”
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# *Denver Housing Authority & Energy Efficient Resident Engagement*



# Denver Housing Authority

- **5,116 housing units in 30 properties**
  - 3,706 Traditional Public Housing
  - 628 Subsidized units
  - 782 Mixed income units
- **Administer 6,700 tenant based vouchers**
- **7+ LEED Certified Buildings**
- **3,500 existing units with energy upgrades**



# DHA – Energy Efficiency & Renewable Energy

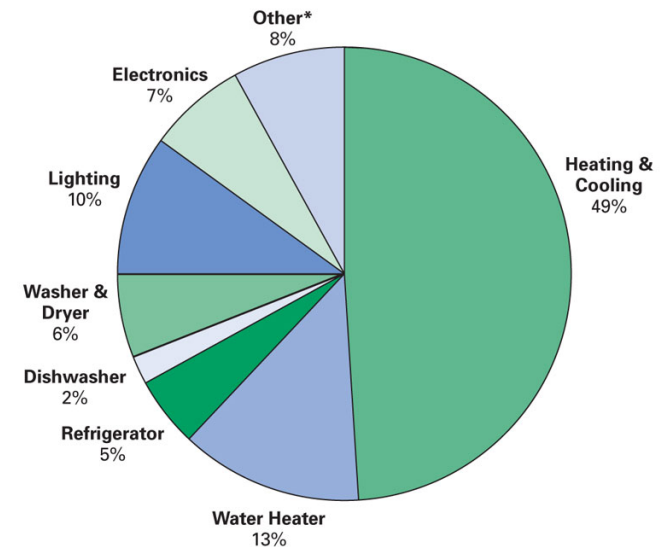
- 7+ LEED Certified Buildings
- 3,500 existing units of energy conservation upgrades
- 2.5 megawatt solar power purchase agreement (PPA)
- Low Income community solar participant
- 2 ground source geothermal systems
- Better Buildings Challenge Partner



# What Impacts Resident Energy Consumption

- Who pays the utilities
- Age and health
- Condition of home / HVAC system
- Lifestyle
- Monthly budget
- Knowledge of energy conservation
- Staff
- And more – ASK RESIDENTS!

**Typical Household Energy Use**



\*Other represents an array of household products, including stoves, ovens, microwaves, and small appliances like coffee makers and dehumidifiers.  
Courtesy of [www.energystar.gov](http://www.energystar.gov)

# The Human Side of Efficiency





# Energy Efficiency Programs

**Dealing with human behaviors**

**Timely process**

**100% penetration difficult**

**Multiple strategies**

**DHA already has them in place**

**They are successful!!!**



# Existing Efforts for Resident Engagement

**Your light switch has been replaced with an Occupancy Sensor designed to save Energy!**

## ***Here is How it Works***

- *Push the button to turn the lights on.*
- *Push the button to turn the lights off.*
- *If the lights go off while you're in the space, make some movement where the sensor can "see" you and they should come back on. If this happens frequently, call the number below.*
- *If the lights come ON when you walk in the room, call management*



## **While you were out**

**Unit Upgrades and Energy Conservation Measures have been installed in your home.**

### **Benefits Include:**

- **Increased comfort**
- **New equipment**
- **Reduction of utility costs**
- **Reduced environment impacts**

Inspections for quality control will be taking place over the next 2 weeks. Please contact management for additional details.





# Existing Efforts for Resident Engagement

To keep you warm, Denver Housing Authority has raised the limit on your thermostat to 85° F.



**PLAY IT SAFE,**  
Heat your home using your thermostat

Heating your home with space heaters or stoves is **PROHIBITED**



## Home Heating Tips

Close your windows

Open blinds to let the sun in

Close blinds on cold nights

Keep heating vents clear of furniture

Dress in warmer clothes

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## Space Heaters are PROHIBITED

In 2008 alone, space heaters caused:

22,400 residential fires,

\$573 million in property damage,

1,170 personal injuries

420 deaths



Space Heaters Cause Fires

# Existing Efforts for Resident Engagement



# Existing Efforts for Resident Engagement

## Incentives / Disincentives

### Resident Awards Program

*“RAP rewards resident participation and accomplishments. You can earn points by doing simple things like attending LRC meetings or attending DHA-sponsored classes and events.”*

### Utility Surcharges & Utility Allowances



# Property Wide Pilot Programs

## Project Goals

- **Reduce Utility Consumption**
- **Isolate effective and ineffective strategies**
- **Develop a scalable approach to incorporate to the greater portfolio**



**Thomas Connole Apt.**



**Westridge Homes**

# Questions?

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