

Improving Energy Efficiency in Public Housing

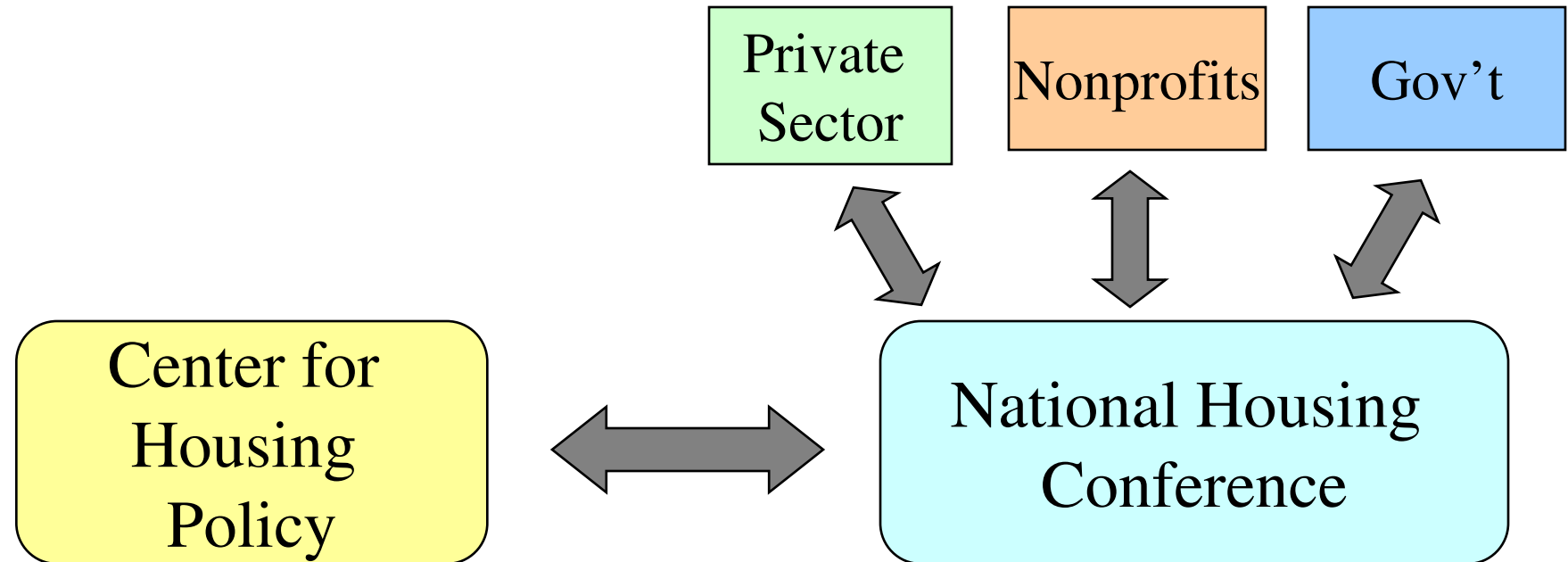
**Jeffrey Lubell, Executive Director
Center for Housing Policy**

May 4, 2009

PHADA

Atlanta, GA

Center for Housing Policy



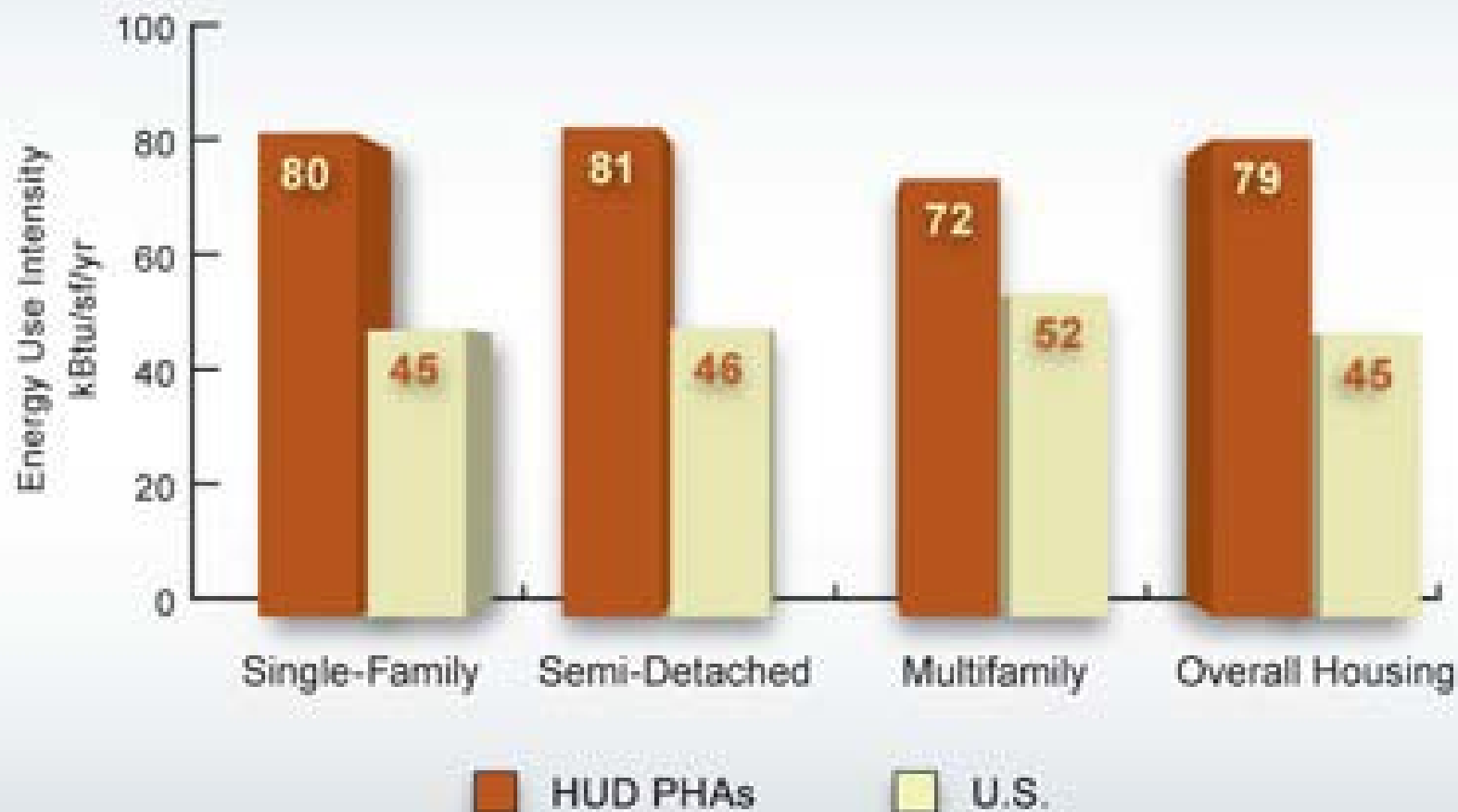
1. Expand awareness of housing challenges
2. Strengthen housing policy
3. Document affordable housing's role in advancing health, education and other key social goals

Why reduce energy use?

- Reduce greenhouse gas emissions
- Improve the nation's energy security
- Relieve pressure on the public housing budget
 - HUD spends roughly \$6.8 billion annually to operate public housing
 - Nearly 23 percent of this budget—over \$1.5 billion—is spent on utilities to heat, cool, power and provide water
- Reduce your financial dependence on HUD

FIGURE 2

Energy Use Intensity - Comparing Average Public Housing to U.S.



Source: D&R International, *Benchmarking Utility Usage in Public Housing*, 12/2007

The importance of measurement

- **Know where you stand**

- Are you using more or less energy than other public housing developments?
- Which properties need the most help / stand to gain the most?
- D&R International developed a benchmarking tool for HUD. Available at:

www.hud.gov/offices/pih/programs/ph/phecc/econserve.cfm

- **Document changes and improvements**

- Funders will likely require that you document improvements over time.
- Simple: kBTU / Sq ft / year

HUD Residential Energy Use Benchmarking Tool

For single-family, semi-detached, row/townhouse, multi-family walkup, and elevator buildings

The HUD Residential Energy Use Benchmarking Tool quantifies the performance of a user-defined building relative to the family of HUD residential buildings. A score of 75 denotes performance at the top 25th percentile of HUD residential buildings. A score of 50 denotes performance at the 50th percentile (in the middle) of HUD residential buildings. For definitions or help on the terms below, simply click-on any underlined text. Click-on "Return" to come back to this page.

Directions: Provide entries in the grey spaces below for your **Building Description and Annual Energy Consumption.**

Building Description

ORNL Aug. 22, 2007

Building Name: (optional entry)

5-digit Zip Code:

[Not Sure?](#)

Heating Degree Days:

Mapping Location: **Lexington, KY**

Cooling Degree Days:

Does the Building Have a Central Laundry? (Y/N)
Is this a Multi-Family Walkup Building? (Y/N)

Number of Units in Building
Heated Floor Area (ft²)
Construction Year

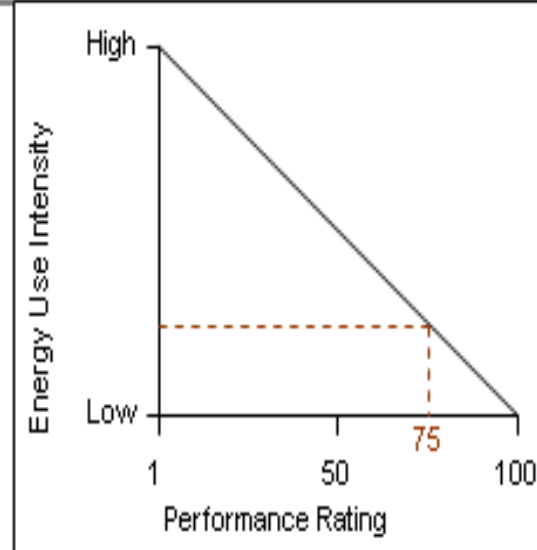
Building Description:	<input type="text" value="58,084"/>	<input type="text" value="43"/>	<input type="text" value="N"/>	<input type="text" value="N"/>	<input type="text" value="58,084"/>	<input type="text" value="1953"/>
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Annual Consumption

	Electricity	Gas	#2 Fuel Oil	#4 Fuel Oil	District Steam	District Hot Water	Propane
Select Units:	kWh	100 CF	Gal	Gal	kLbs	MMBtu	Gal
Energy	384,180	23,284					
Cost (\$)	203,888	345,196					
Calculated unit cost:	\$0.53 \$/kWh	\$14.83 \$/therm	\$/gallon	\$/gallon	\$/kLbs	\$/kBtu	\$/gallon

Results

	Your Building	HUD Typical
Score Against Peers	75	50
Building Site Energy Use (kBtu/year)	3,709,074	5,085,461
Site Energy Use Intensity (kBtu/ft ² -year)	63.9	87.6
Energy Cost Intensity (\$/ft ² -year)	9.45	12.96
Total Annual Energy Cost (\$/year)	549,084	752,842



Getting to the next level

- **Funding for energy-efficient improvements**
 - Stimulus provides \$1 billion in capital funds for energy-efficient improvements (among other uses)
 - Additional \$5 billion going to weatherization and another \$5 billion for state/local energy programs
- **Financing**
 - Performance contracts
 - Need alternatives – FHA and other financing timed to energy savings
- **Incentives**
 - Need to make sure PHAs have economic interest in improving energy efficiency
- **Education and Technical Assistance**
 - Benchmarking tool a good example of how HUD can help
 - What else is needed?

Learning Conference on State and Local Housing Policy



- Chicago, June 28-30, 2009
- Special Focus Institutes:
Foreclosure/Neighborhood Stabilization and Rental
Housing Preservation
- Register at:

HousingPolicy.org/learningconference.html



www.nhc.org



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NHC Research Affiliate

The Center for Housing Policy is the research affiliate of the National Housing Conference. The Center works to broaden understanding of America's affordable housing challenges and examines the impact of policies and programs developed to address these needs.

Enter the "Paycheck to Paycheck" Interactive Dashboard

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