

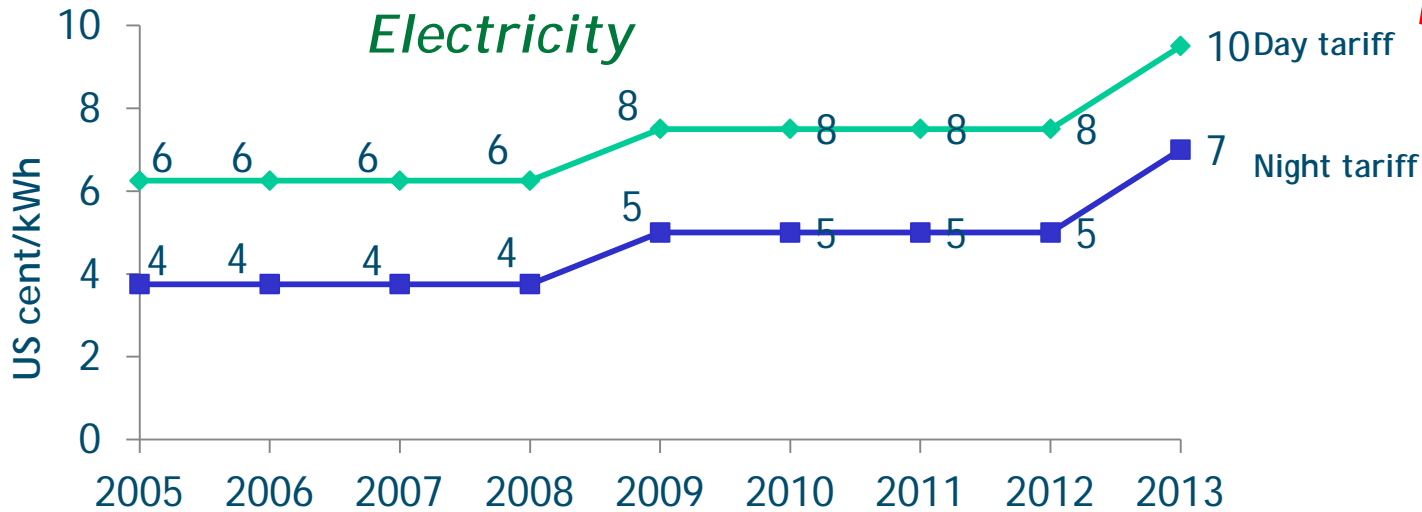
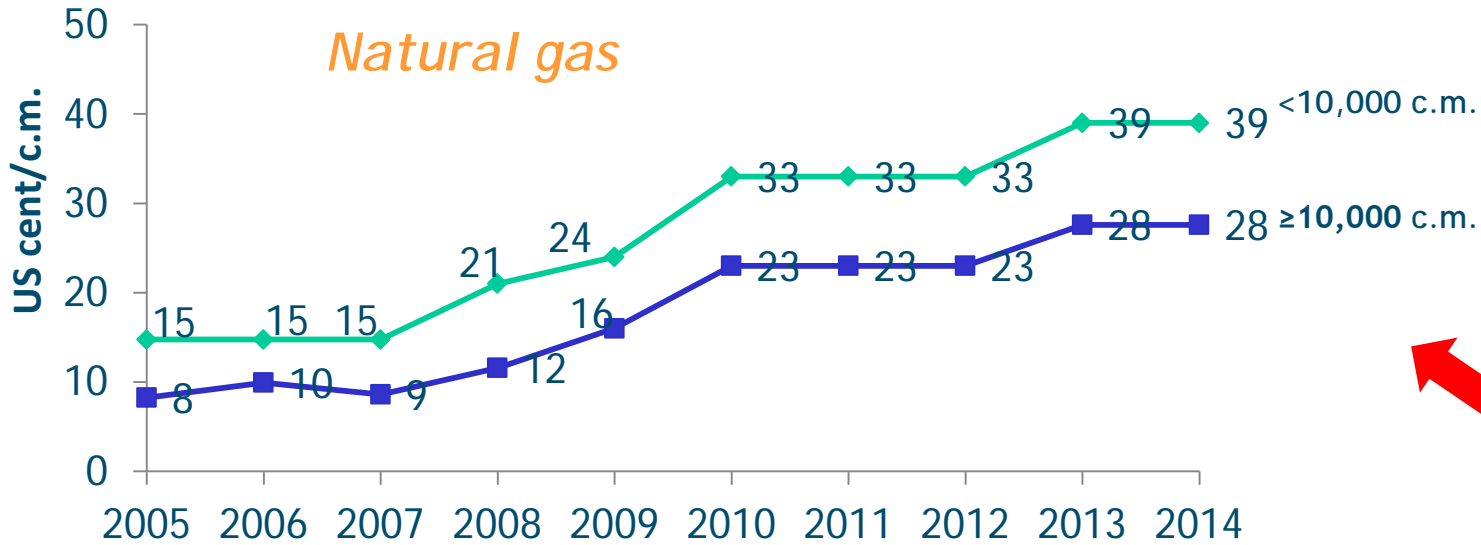


**International  
Finance Corporation**  
World Bank Group

# Energy Efficiency in Residential Sector of Armenia

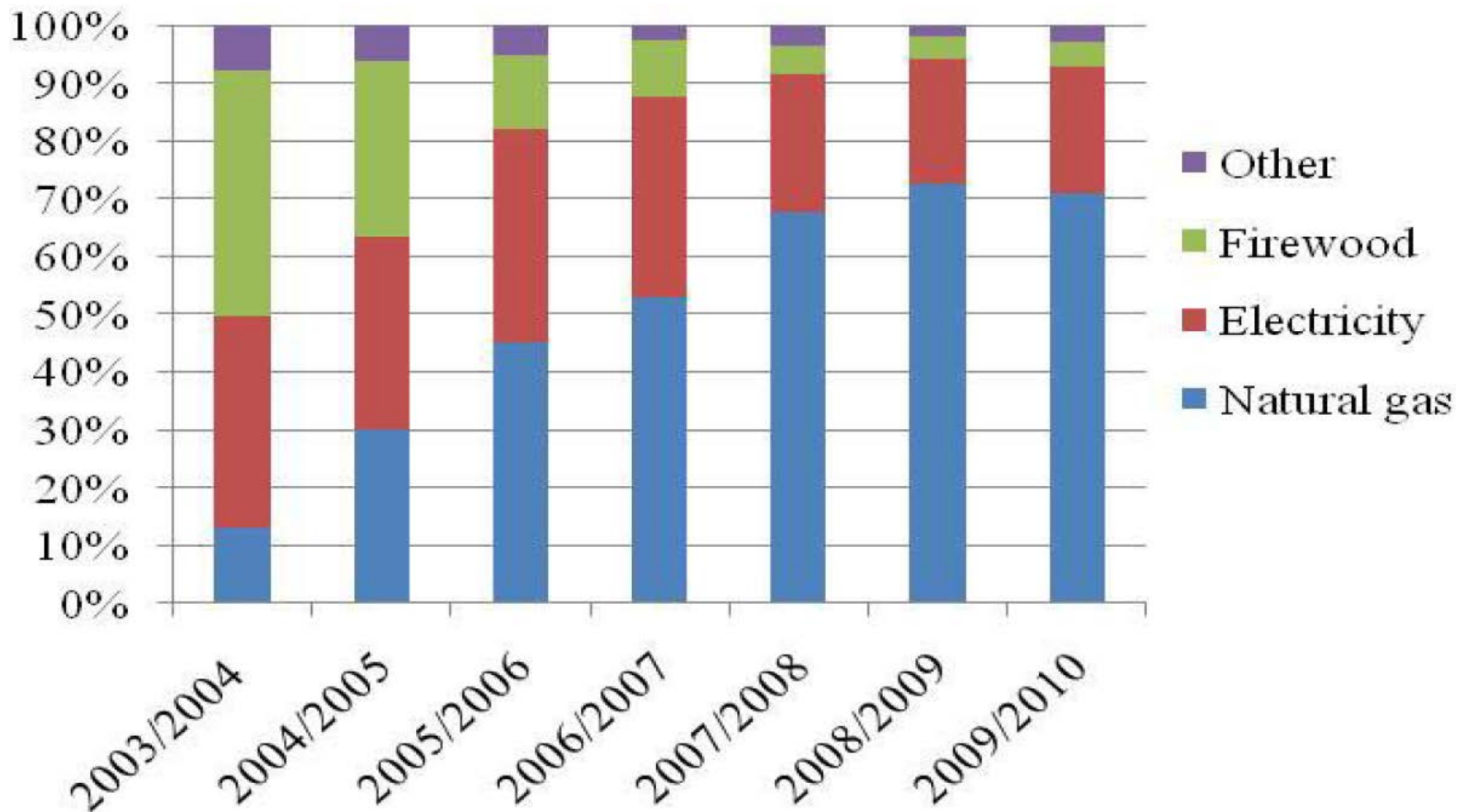
July 7, 2014  
Tirana, Albania

# ENERGY COSTS IN ARMENIA



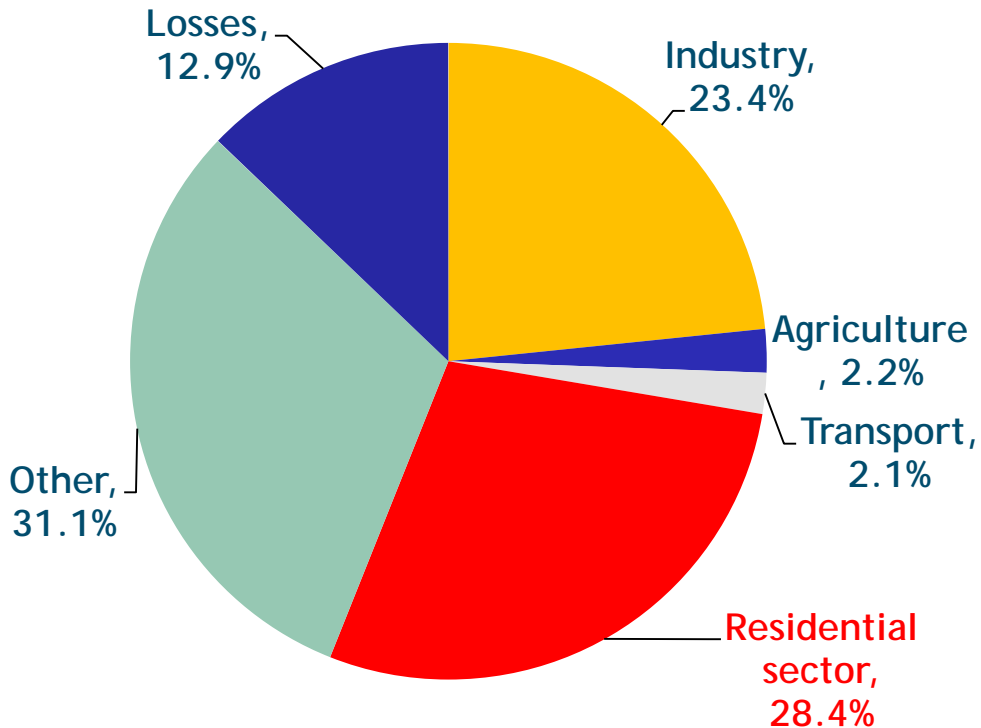
**EXPECTED TO GROW!**

# Heating fuel mix in Armenia

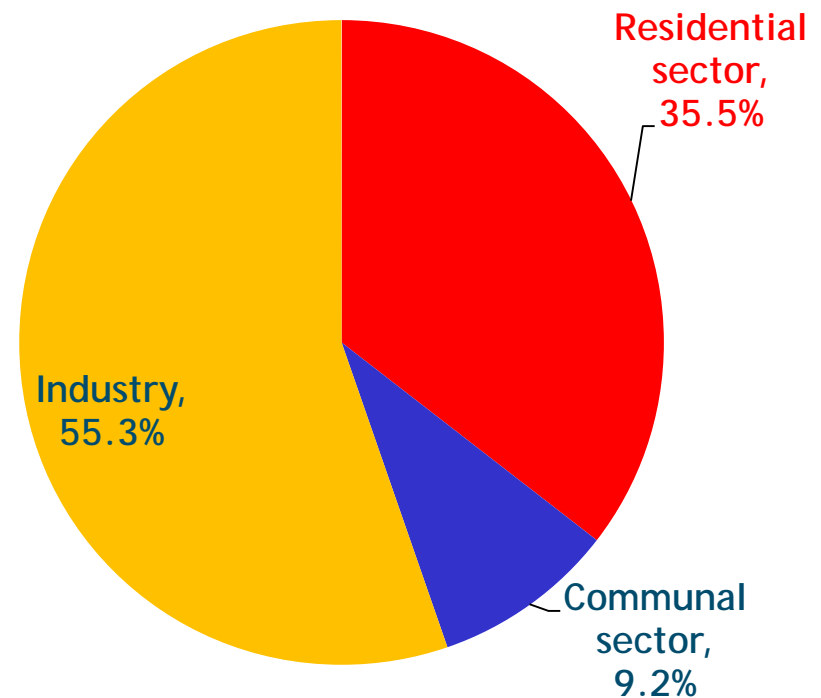


# ENERGY CONSUMPTION

## ELECTRICITY CONSUMPTION



## NATURAL GAS CONSUMPTION



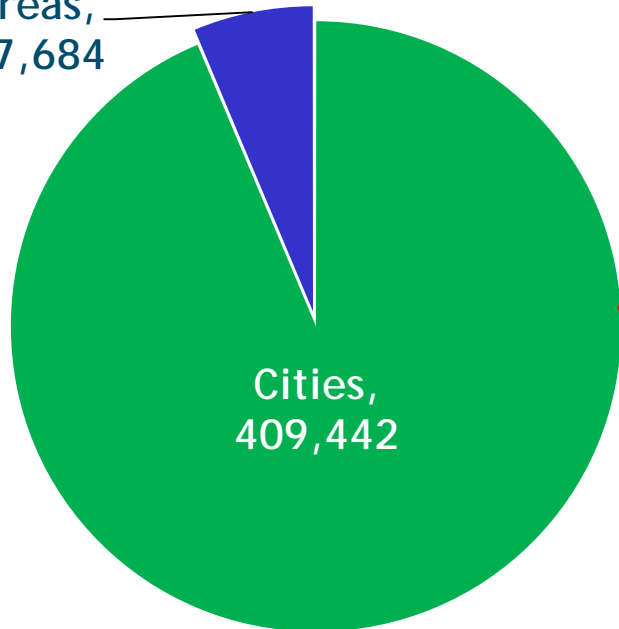
# ENERGY CONSUMPTION in RESIDENTIAL SECTOR

*# of households in multiapartment buildings*

**Annual Energy consumption**

- ✓ Natural gas: 170 m<sup>3</sup>/capita
- ✓ Electricity: 1,550 kWh/capita

Rural areas,  
27,684



An average household with 4 family members is spending over **USD \$700/year** on energy costs

# RESIDENTIAL ENERGY EFFICIENCY in ARMENIA

## What stops households from doing more EE?

- ✓ Lack of awareness about technologies and measures → expected savings
- ✓ Lack of financing opportunities
- ✓ Absence of incentives promoting EE, e.g. tax breaks, rebates, etc.
- ✓ High cost and shortage of EE materials/equipment

## Policy and regulatory field

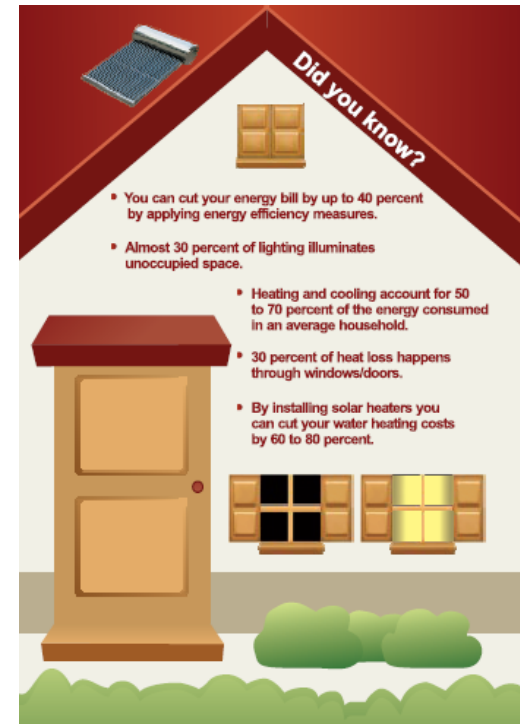
- ✓ Overall prioritization of EE by the policy makers
- ✓ **No concrete policy instruments to support implementation of residential EE**
- ✓ Normative field is being improved by UNDP-GEF Improving EE in Buildings project: catalogue of typical replicable EE houses, package of legislative changes being proposed, energy passports for buildings.

# OUR EXPERIENCE

**Byblos Bank Armenia CJSC**: Advisory services and  
*\$10 million loan from IFC*

✓ **IFC advisory services included:**

- ✓ 4 of trainings on Residential EE for the credit and risk specialists of the bank
- ✓ Transaction support – joint assessment of 10 projects
- ✓ Provision of HEEL tool
- ✓ Marketing support – development and publishing of residential EE booklet



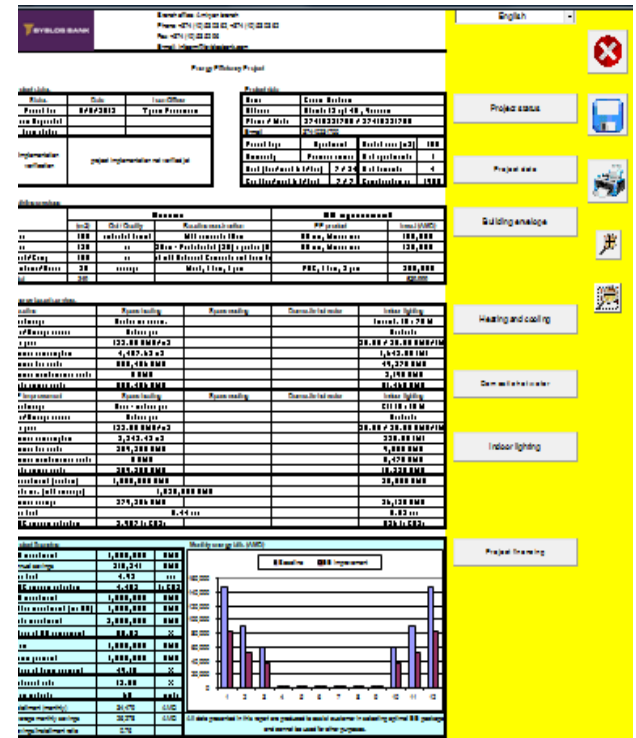
# OUR EXPERIENCE

## Results:

- ✓ over 60 projects financed; expected energy saving of over 600 MWh/y; GHG reduction of over 250 tCO<sub>2</sub>e/y

## Typical EE measures in residential sector

- ✓ Thermal insulation
- ✓ Efficient doors/windows
- ✓ Heating and hot water
- ✓ Lighting and efficient appliances
- ✓ Using the Renewable Energy Sources





# THANK YOU

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