

Building Performance Contractor Opportunities in Berkeley

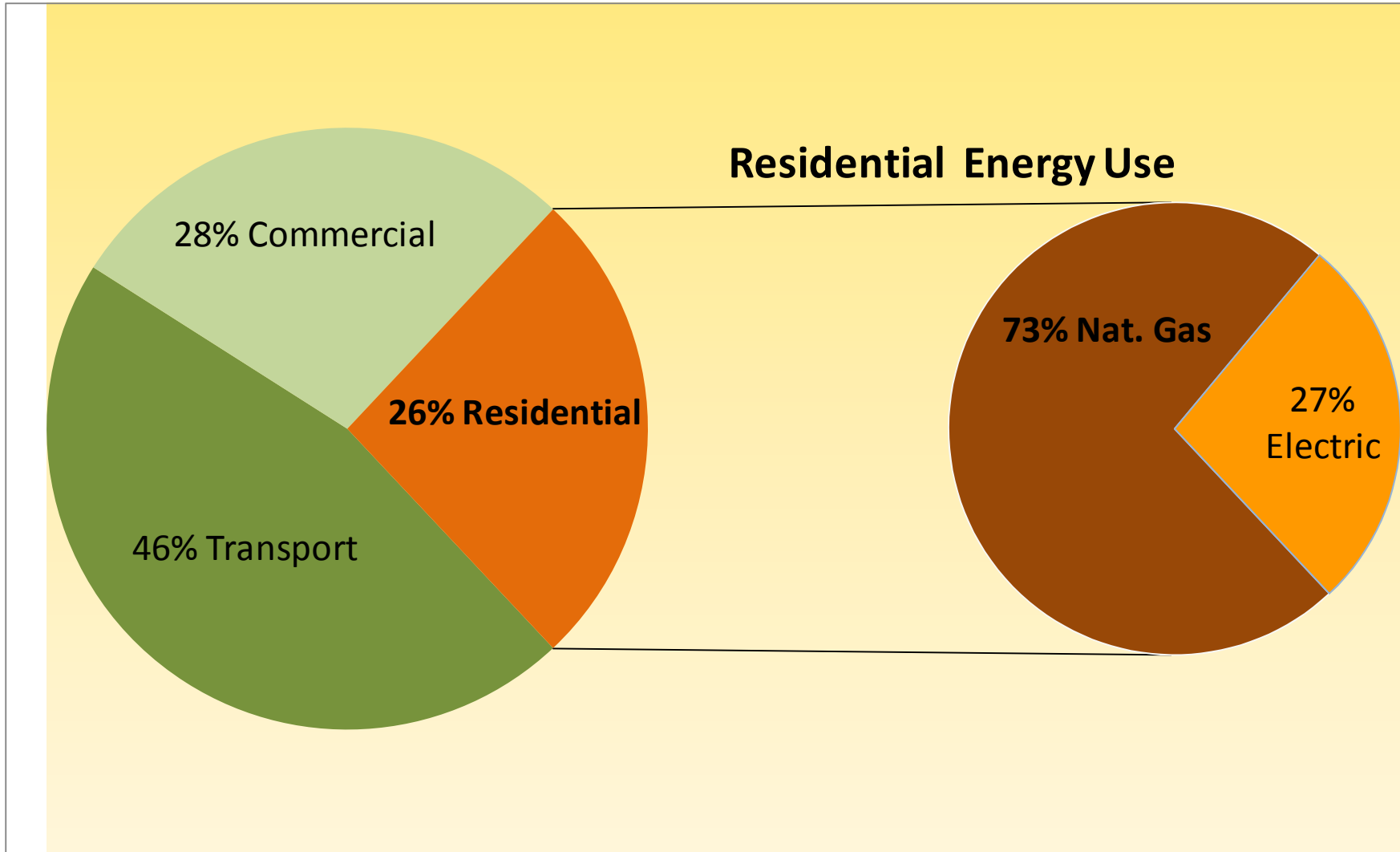
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Berkeley GHG Emissions



Berkeley Future Programs

1. Updated Residential Energy Conservation Ordinance (RECO) – in process; may be approved later in 2010

later in 2010

- a. Occurs at Time of Sale or Substantial Remodel
- b. May be hybrid performance and prescriptive
- c. Will require documentation of testing pre- and post-retrofit

2. Stimulus funding programs for energy efficiency

- a. Residential single and multifamily
- b. Commercial properties
- c. Incentive based on percentage of improvement
- d. Improvement work can be combined with other planned retrofit or remodeling work



Residential Building Retrofit: 2020 Outcomes

1. **58,000 tons green house gas reduction per year**
2. **Consumer savings of \$200 million**
3. **Non-Energy health, comfort and durability benefits**
4. **Stimulate local economy**



Retrofitting Loading Order

Fundamentals

- ***Insulation***
- ***Draft Sealing***
- ***Duct Sealing***
- ***Lighting***
- ***Appliances***
- ***Water Conservation***
- ***Plug Loads***
- ***Behavior***

Major Systems

- ***Space Heating***
- ***Water Heating***
- ***Cool Roof***
- ***Low E II Windows***

Renewables

- ***Solar PV***
- ***Solar Thermal***
- ***Wind***
- ***Rain Water Catchment***

Home Performance Contractors

- Berkeley will require qualified contractors certified and monitored by an independent agency, such as C.B.P.C.A.
- Require pressure test of building envelope and CO safety test for all natural gas appliances
- Contractor will provide recommendations from the test results to prioritize energy retrofit work based on loading order and appropriate work scope



Energy Efficiency Pathway

**Test-In
Report
for
Base-
Line**

Natural
Gas
Appliance
testing;
Building
Shell or
Envelope
Air
Sealing

Insulate
Attic,
Walls,
Floor

Space
Heating,
Water
Heating,
and
Ventilation
Improve-
ments

Window
caulking,
sealing,
storm
windows,
or new
double-
paned

**Work done by
Building Performance Contractor**

**Test-Out
Report
(showing
percentage of
improvement)
& Certificate**



Combine the Repairs

Leverage Home Performance work with other planned major renovations:

- Seismic upgrades
- Roof repair/replacement
- Termite or dry rot work
- Additions
- Siding or Window replacement

Thousand Home Challenge Participants

- Deep Energy Reduction goals (~70-90% reduction anticipated)
- Major retrofit work expected



Tax Incentives

Federal Tax Credit– 30% of the cost of qualified materials up to \$1,500 as tax credit (for 2009 & 2010). For more information: www.irs.gov or www.energytaxincentives.org

State Tax Credit- Not currently offered at this time- check back at: www.ftb.ca.gov or www.fypower.org

City of Berkeley- in process; will be based on percentage of improvement- check back at: www.cityofberkeley.info/sustainable

