

Energy Cost Impacts on American Families

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Eugene M. Trisko
Attorney at Law
emtrisko@earthlink.net

Background

- National and state-level household energy cost studies conducted for CEED/ACCCE since 2000.
- Studies measure percent of after tax-income spent for household utilities and gasoline.
- Current national study provides estimates for 2016 based on EIA price projections.
- Principal data sources are Bureau of Census, CBO (tax rates), DOE/EIA, and DOT/NHTS.

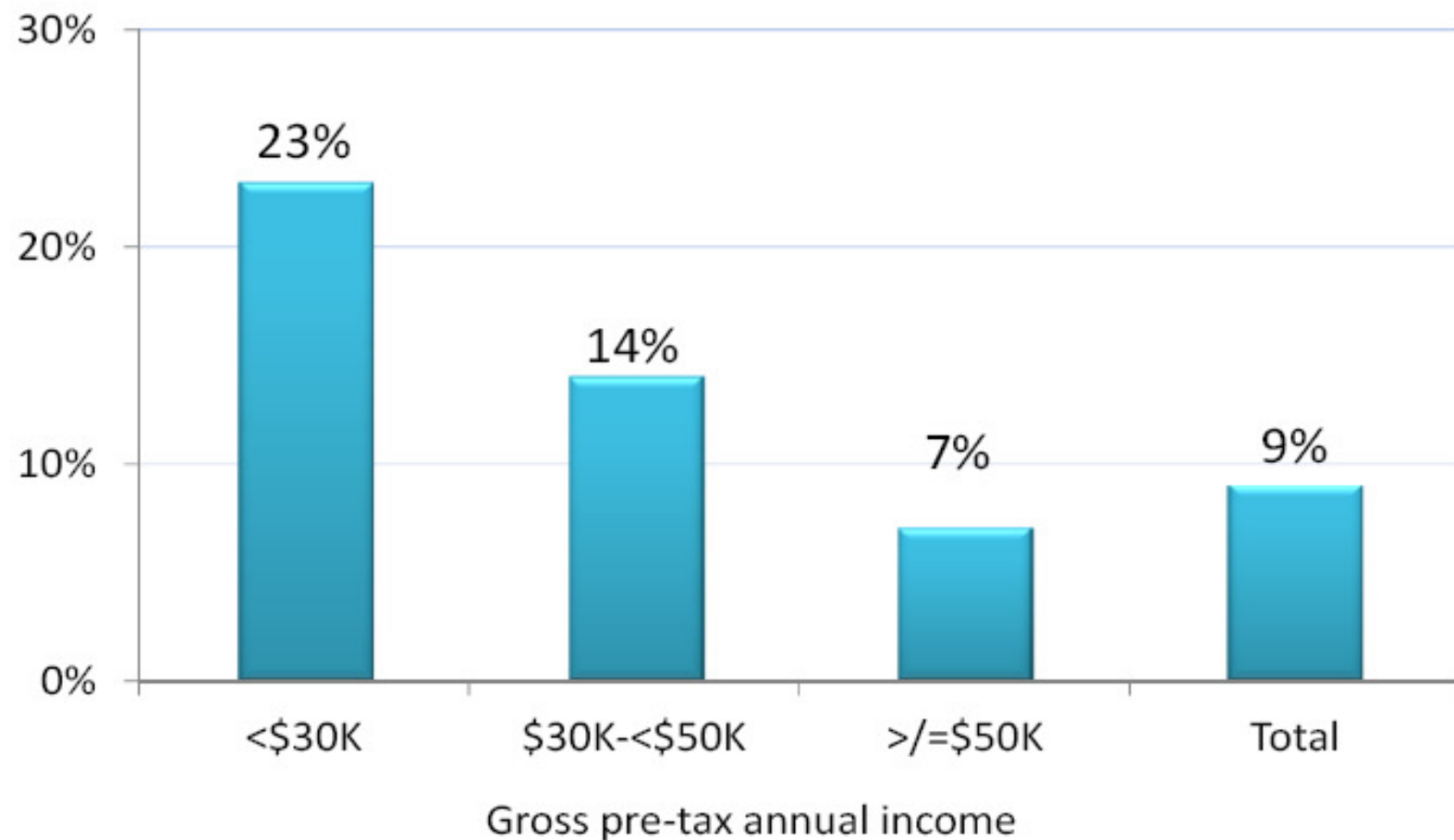
Highlights

- 48% of American households have pre-tax incomes <\$50K, with an average take-home income of less than \$1,900/mo.
- These households will spend an average of 17% of their after-tax income for residential and transportation energy in 2016.

Highlights, cont.

- The 29% of households with gross pre-tax incomes <\$30K will spend an average of 23% of their after-tax income on energy.
- Households with pre-tax earning less than \$30K will spend three times more of their after-tax income on energy (23%) than households with pre-tax incomes of \$50K or more (7%).

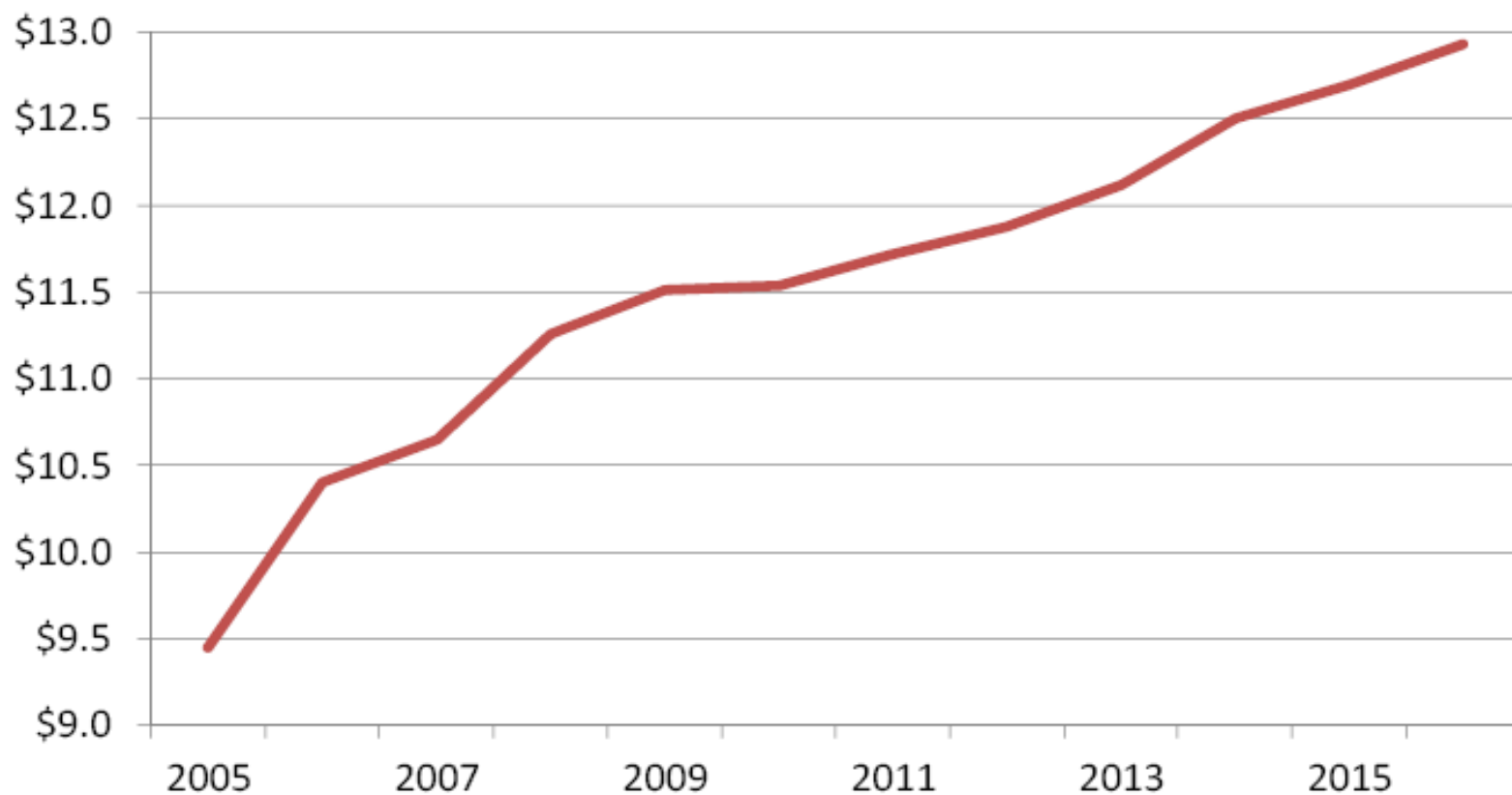
Estimated U.S. household energy costs as percentage of after-tax income



Electricity

- Electricity represents 69% of average household utility bills.
- Electricity prices have increased by 32% on average since 2005, in current prices.
- Additional price increases are in store due to compliance with EPA MATS (2015+) and Clean Power Plan (2020+) rules.

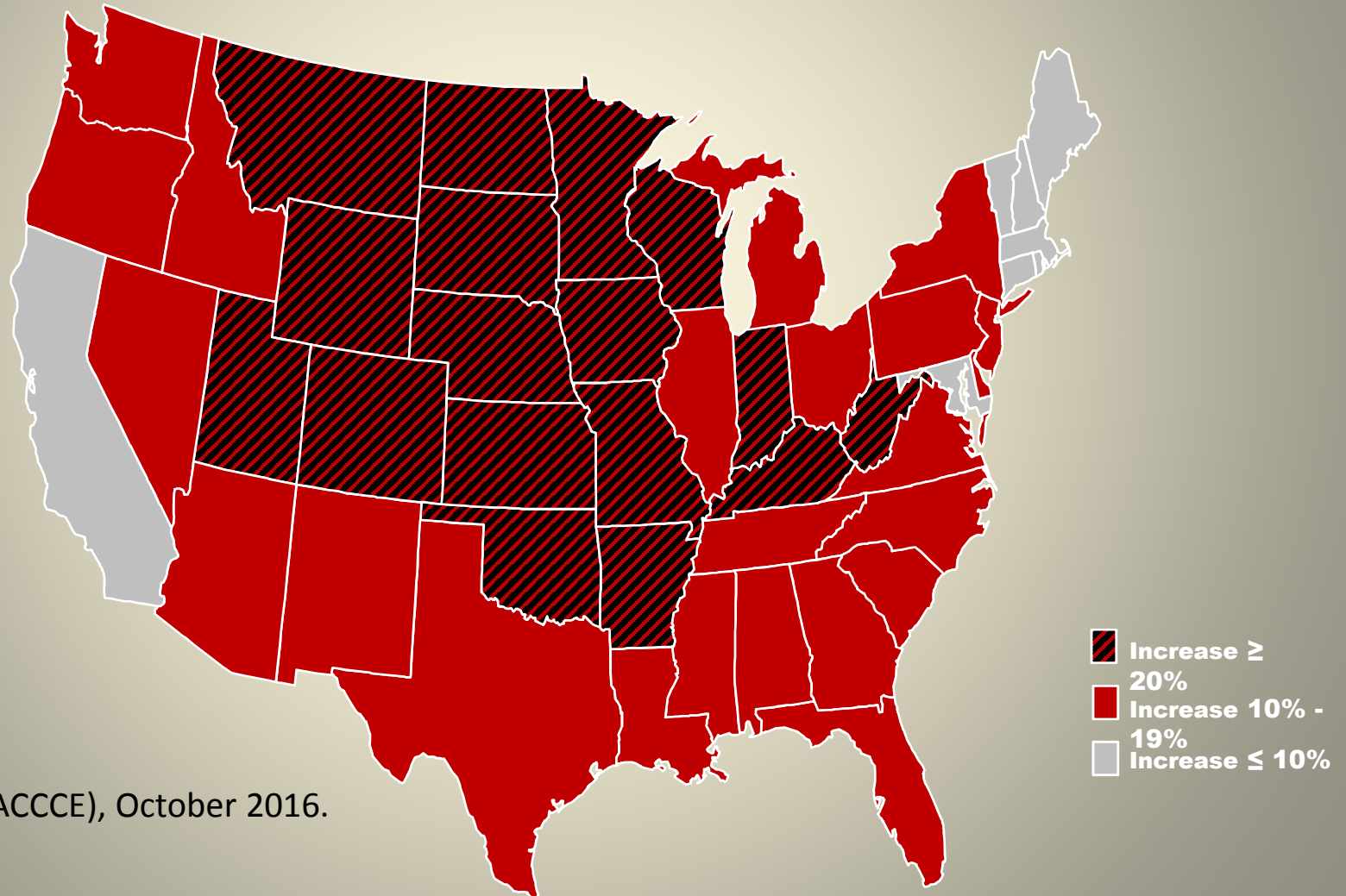
U.S. average residential electric prices, 2005-2016 (Cents per kWh)



Source: U.S. DOE/EIA.

What about future energy
prices?

NERA projects that the Clean Power Plan would increase retail electricity prices by double digits in 40 states, and by 20% or more in 17 states.

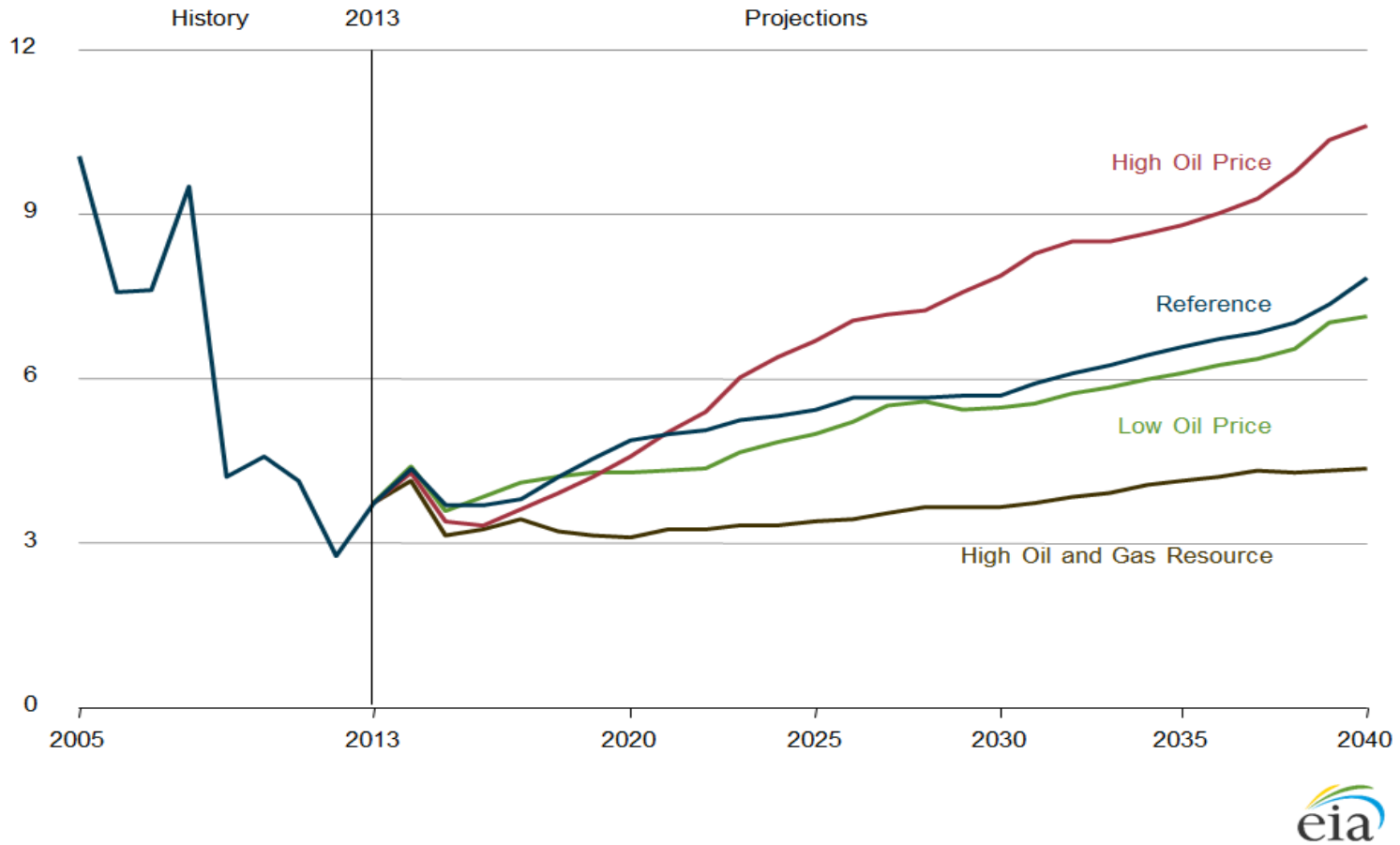


Source: NERA (ACCCE), October 2016.

DOE/EIA Henry Hub Projections

Figure 6. Average Henry Hub spot prices for natural gas in four cases, 2005-40

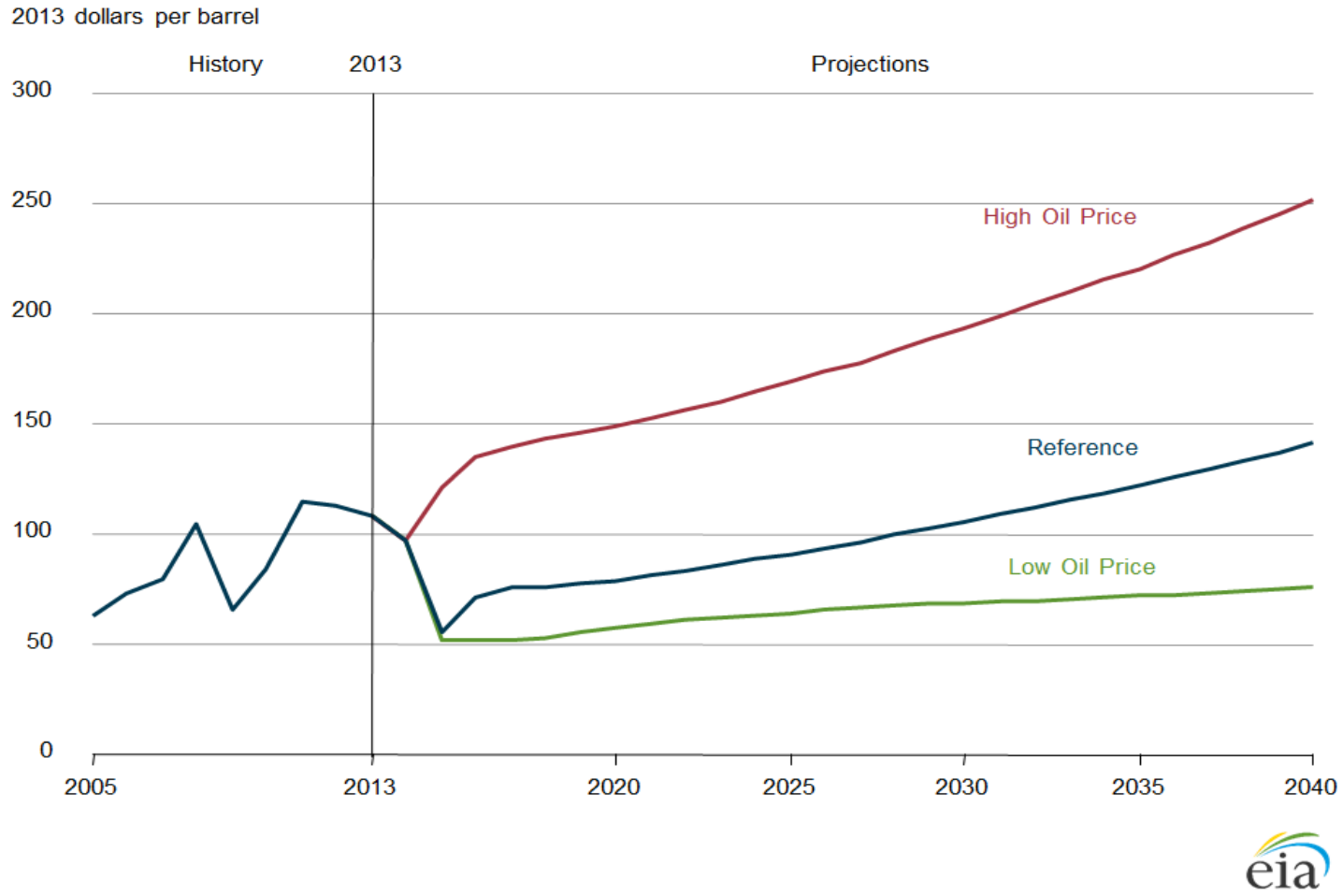
2013 dollars per million Btu



Source: DOE/EIA AEO 2015 (April 2015)

DOE/EIA Brent Projections

Figure 3. North Sea Brent crude oil prices in three cases, 2005-40



Source: DOE/EIA AEO 2015 (April 2015)

Meanwhile, on the income side

Real incomes have declined across all five income quintiles since 2001

Average real U.S. household incomes by income quintile, 2001-2013
(In 2013 \$)

	1Q	2Q	3Q	4Q	5Q
2001	\$13,336	\$33,510	\$56,090	\$87,944	\$192,063
2013	\$11,651	\$30,509	\$52,322	\$83,519	\$185,206
Pct Chg	-13%	-9%	-7%	-5%	-4%
\$ Chg	(\$1,685)	(\$3,001)	(\$3,768)	(\$4,425)	(\$6,857)

Seniors and minorities are most vulnerable to energy price increases due to low incomes

U.S. median pre-tax household incomes, 2013

	Median Household Income	Pct. Diff. Vs. U.S. Median	Pct. of Households
U.S.	\$51,939		100%
Black	\$34,598	-33%	13%
Hispanic	\$40,963	-21%	13%
Age 65+	\$35,611	-31%	23%

Source: U.S. Bureau of the Census, Current Population Reports Supplement (2014).

2011 NEADA Survey Findings

- Low income households experience adverse health and welfare impacts due to high energy bills:
 - 24% went without food for at least one day.
 - 37% went without medical or dental care.
 - 34% did not fill a prescription or took less than the full dose.
 - 19% had someone become sick because their home was too cold.

Inadequate federal support for low-income customers

- Congress cut LIHEAP funding to \$3 Billion in FY 2015.
- Total residential electric and other fuels are estimated to cost \$62 Billion in 2016 for the 36 million households with pre-tax incomes less than \$30K/year.

Policy indications

- Need for government policies that encourage stable and affordable energy prices.
- Increased public and private sector assistance for low-income families.

Postscript: EPA Final Clean Power Plan

HELPING COMMUNITIES BENEFIT FROM CLEAN ENERGY

- The Clean Power Plan gives states the opportunity to ensure that communities share in the benefits of a clean energy economy, including energy efficiency and renewable energy.
- EPA is creating a Clean Energy Incentive Program (CEIP) to reward early investments in wind and solar generation, as well as demand-side energy efficiency programs implemented in low-income communities, that deliver results during 2020 and/or 2021.
- Through this program, EPA intends to make allowances or emission rate credits (ERCs) available to states that incentivize these investments. EPA is providing additional incentives to encourage energy efficiency investments in low-income communities.

Acknowledgments

Thanks to CIBO for the invitation today!