

# The Central Role of Energy Efficiency in the Energy Outlook and EIA's Energy Data Program



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*For*

*MIT Energy Initiative Symposium*

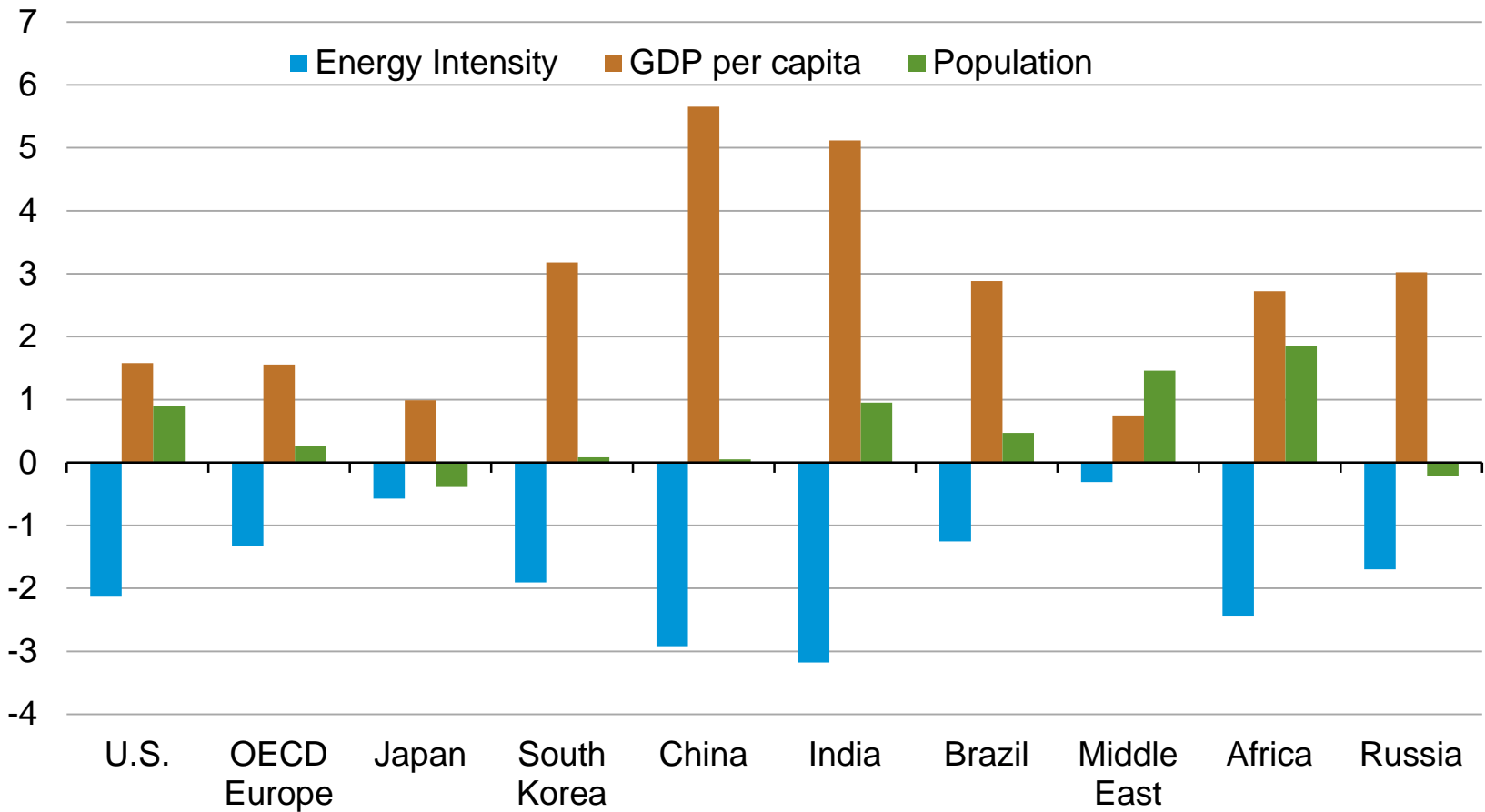
*May 12, 2014 | Cambridge, MA*

*By*

*Howard Gruenspecht, Deputy Administrator*

# Growing economies and populations drive energy use higher; reduced energy intensity, reflecting energy efficiency gains, moderates this trend

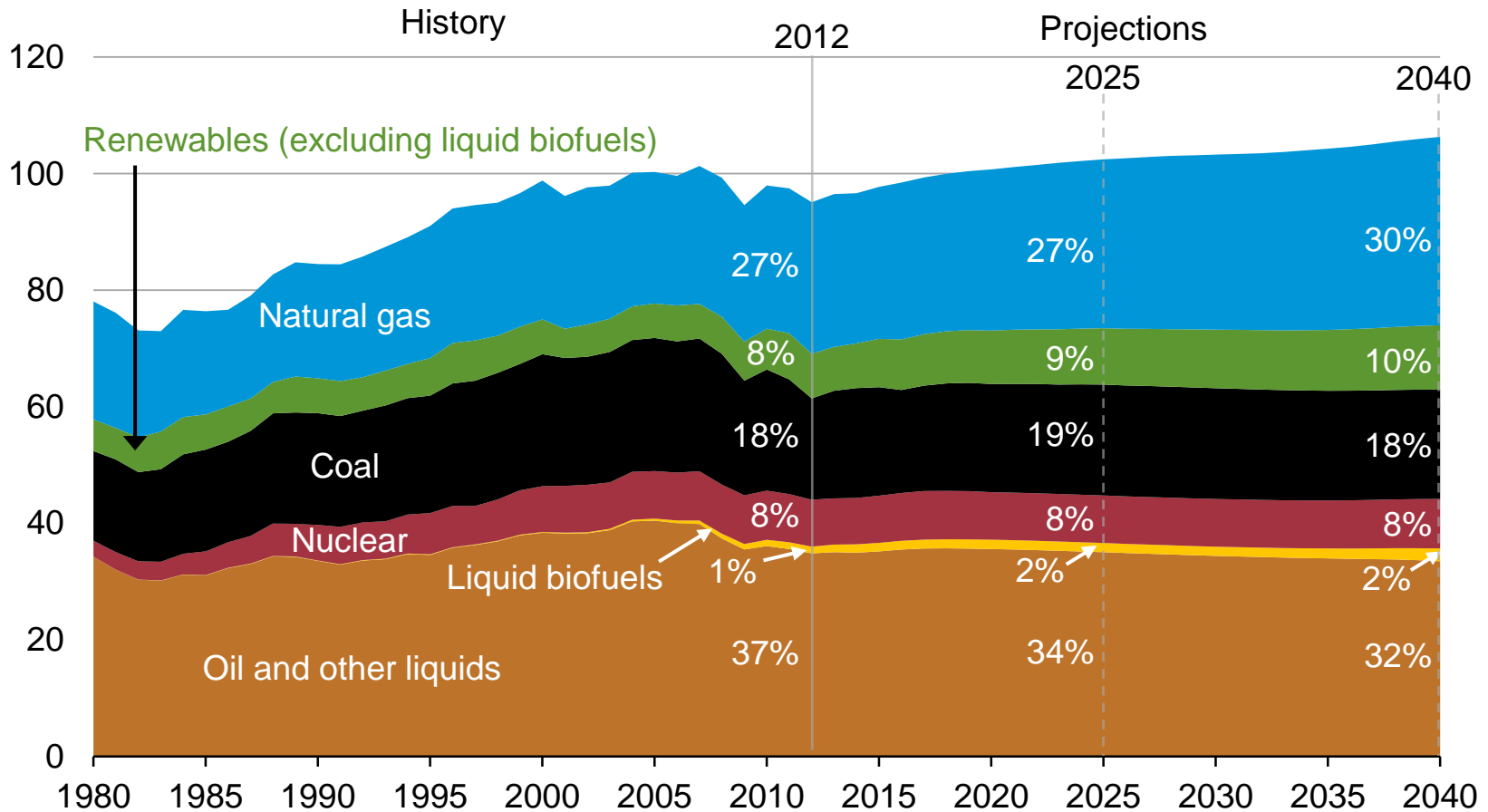
average annual change (2010-2040)  
percent per year



Source: EIA, International Energy Outlook 2013

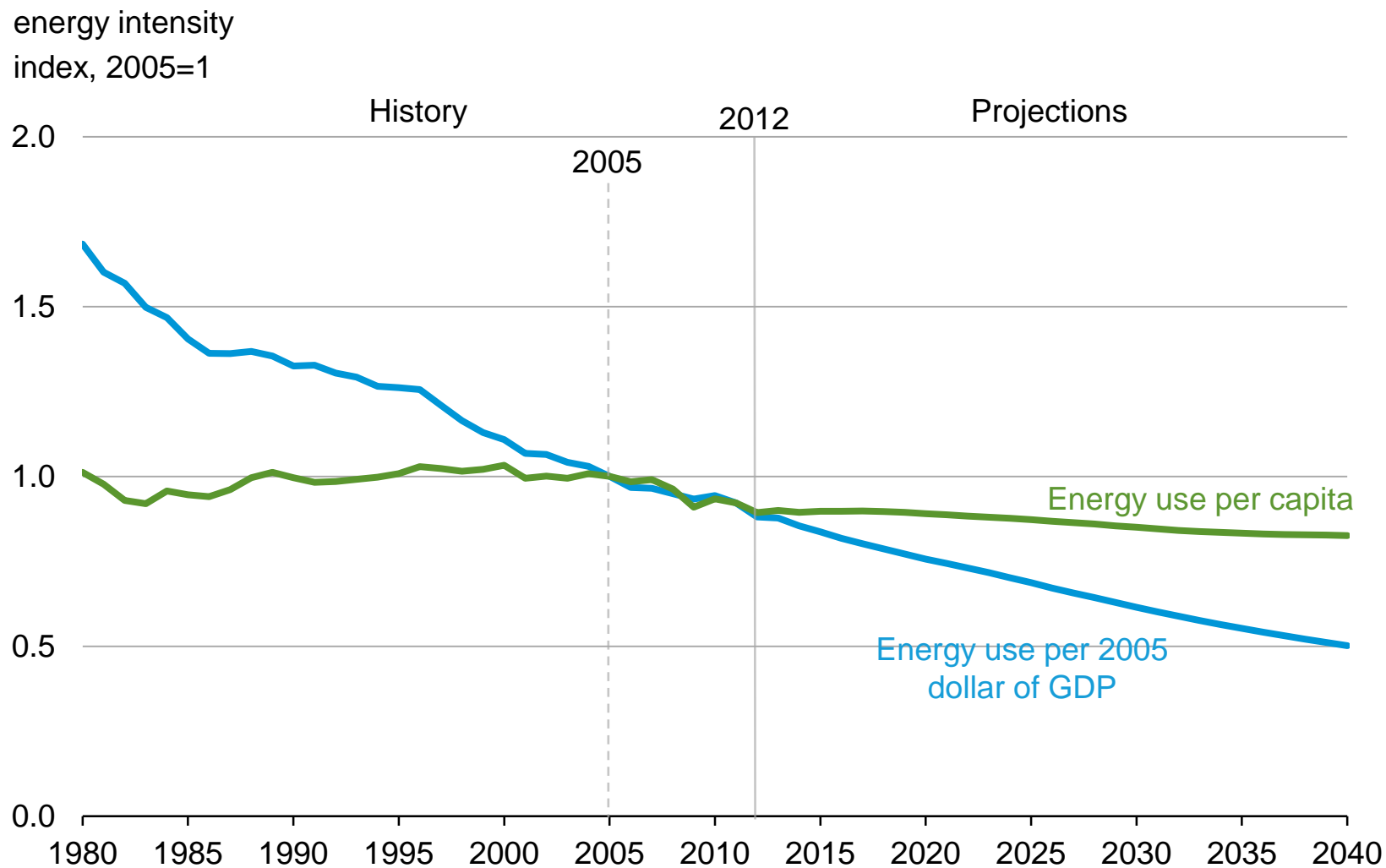
# U.S. energy use grows slowly over the projection reflecting steady growth in GDP offset by declines in energy intensity

U.S. primary energy consumption  
quadrillion Btu



Source: EIA, Annual Energy Outlook 2014

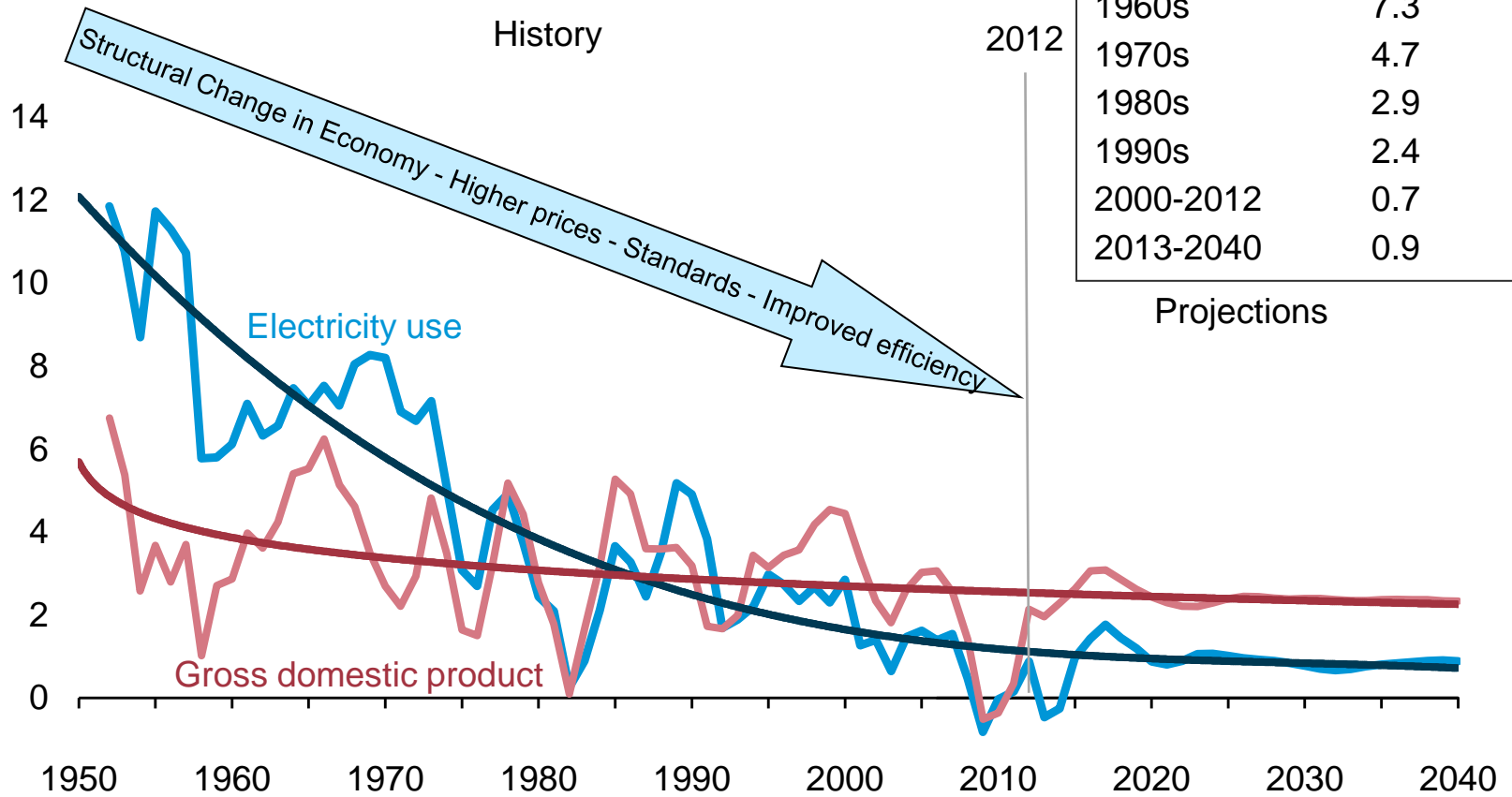
# Energy use per dollar of output and per capita are projected to decline even with expected growth in energy-intensive manufacturing



Source: EIA, Annual Energy Outlook 2014

# Growth in electricity use slows, but still increases by 28% from 2012 to 2040

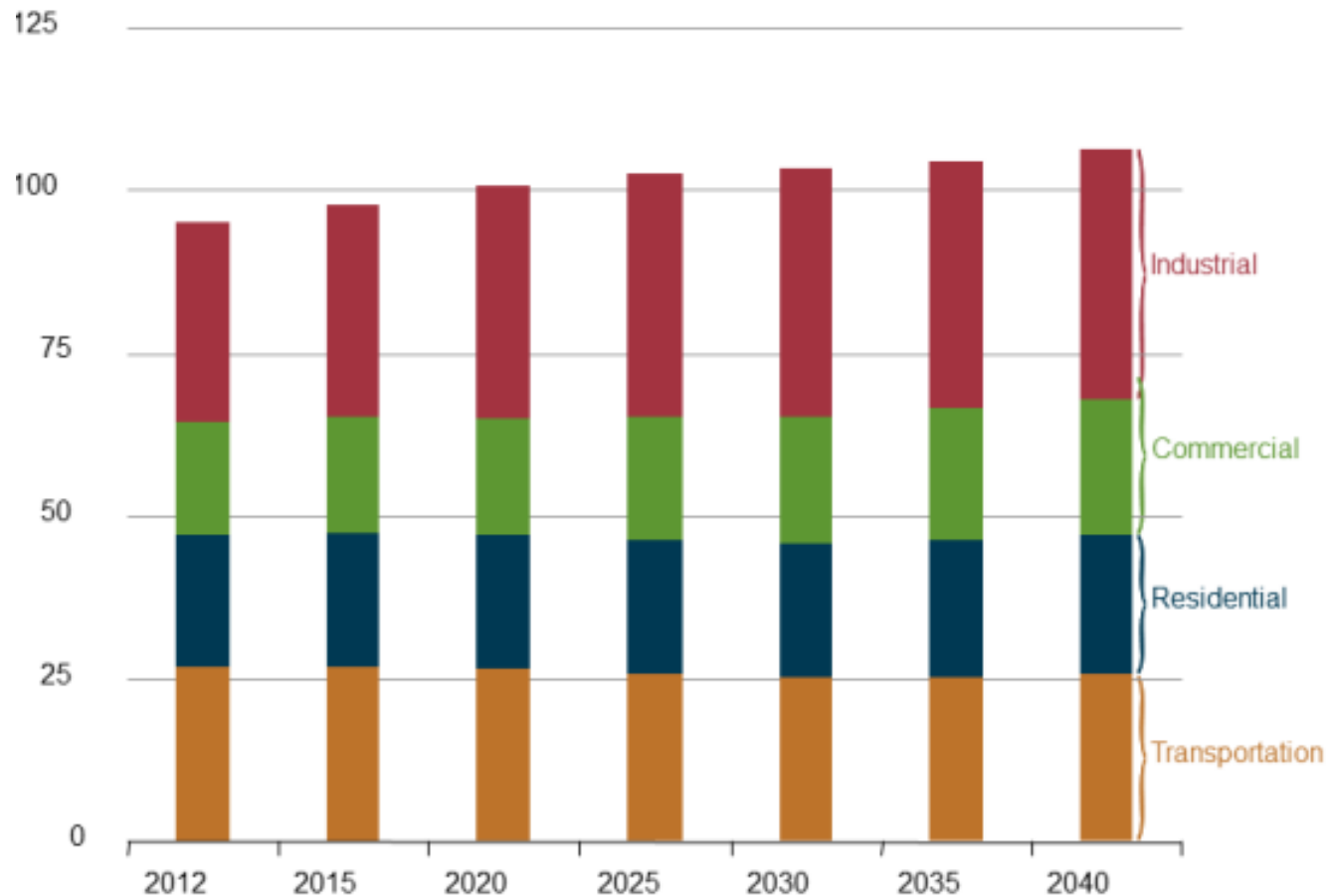
U.S. electricity use  
percent growth (3-year rolling average)



Source: EIA, Annual Energy Outlook 2014

# The industrial and commercial sectors account for virtually all growth in U.S. energy use in the AEO2014 Reference case

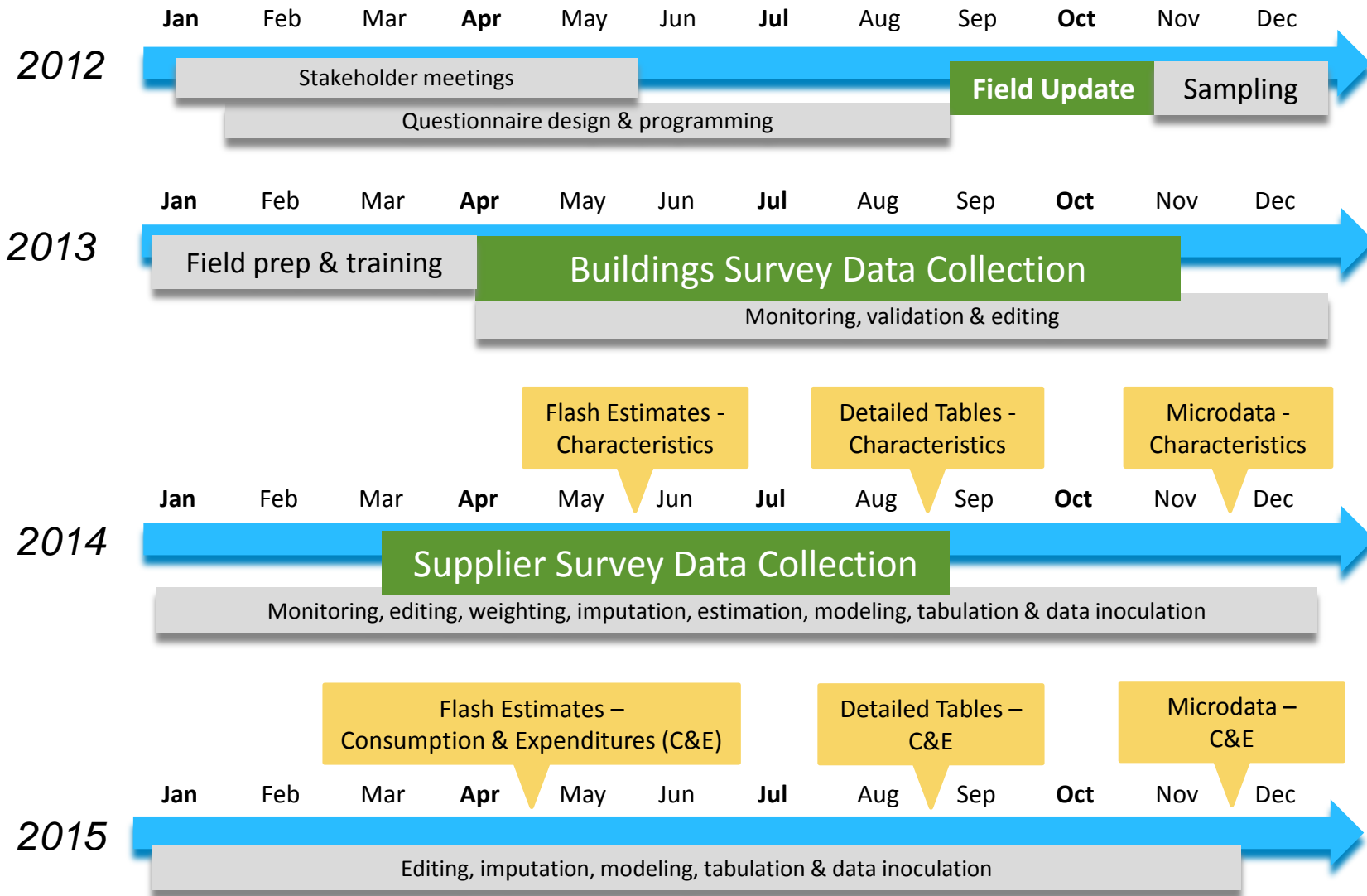
quadrillion Btu



Source: EIA, Annual Energy Outlook 2014

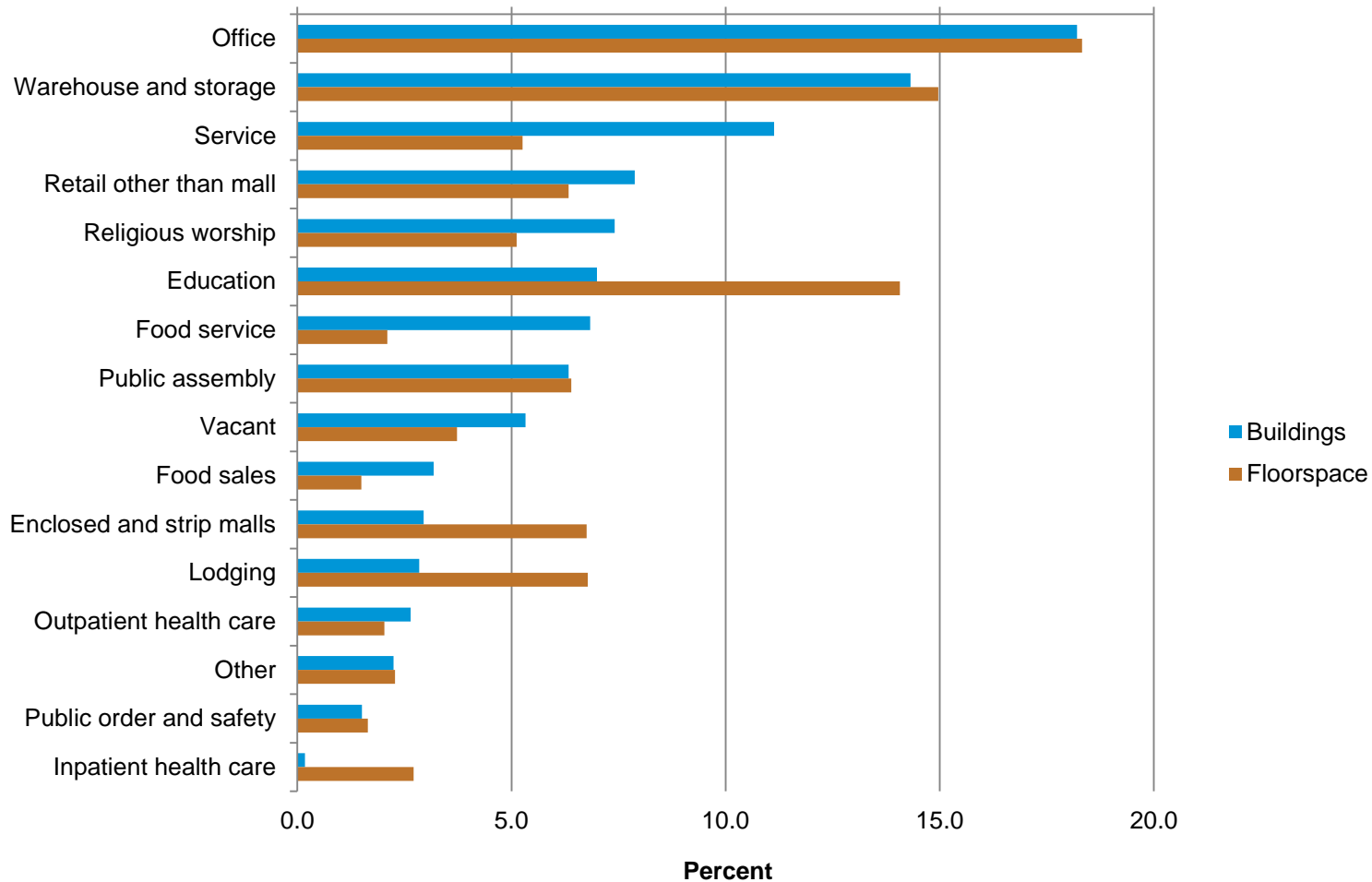
# Commercial Buildings Data

# A CBECS cycle demands many years of work





# The 2012 CBECS building population is diverse; small buildings predominate



# For more information

U.S. Energy Information Administration home page | [www.eia.gov](http://www.eia.gov)

Annual Energy Outlook | [www.eia.gov/forecasts/aeo](http://www.eia.gov/forecasts/aeo)

CBECS | [www.eia.gov/consumption/commercial/about.cfm](http://www.eia.gov/consumption/commercial/about.cfm)

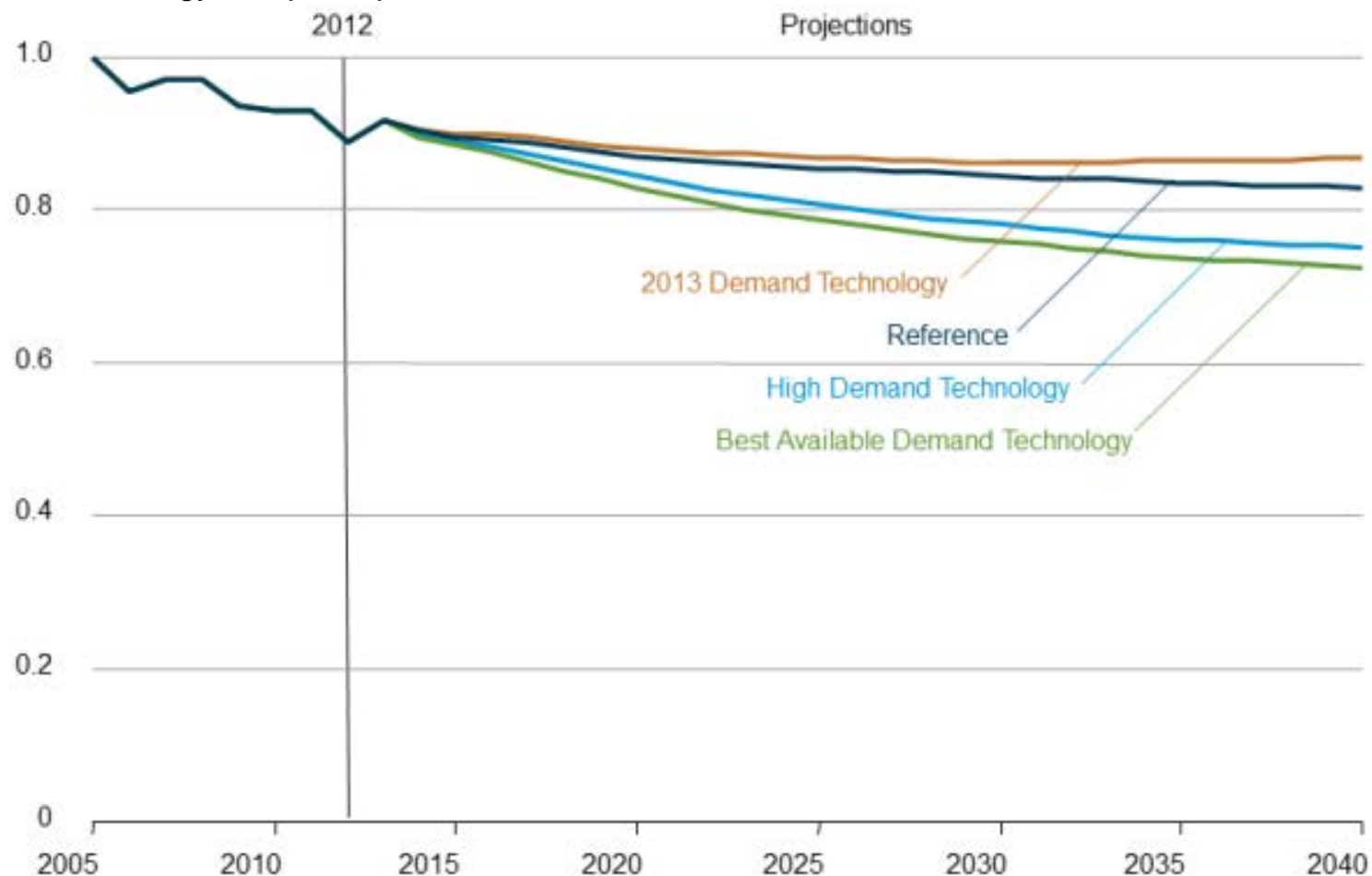
International Energy Outlook | [www.eia.gov/forecasts/ieo](http://www.eia.gov/forecasts/ieo)

Today In Energy | [www.eia.gov/todayinenergy](http://www.eia.gov/todayinenergy)

Monthly Energy Review | [www.eia.gov/totalenergy/data/monthly](http://www.eia.gov/totalenergy/data/monthly)

# More rapid adoption of technology accelerates the projected decline in commercial energy intensity (energy use per sq. foot)

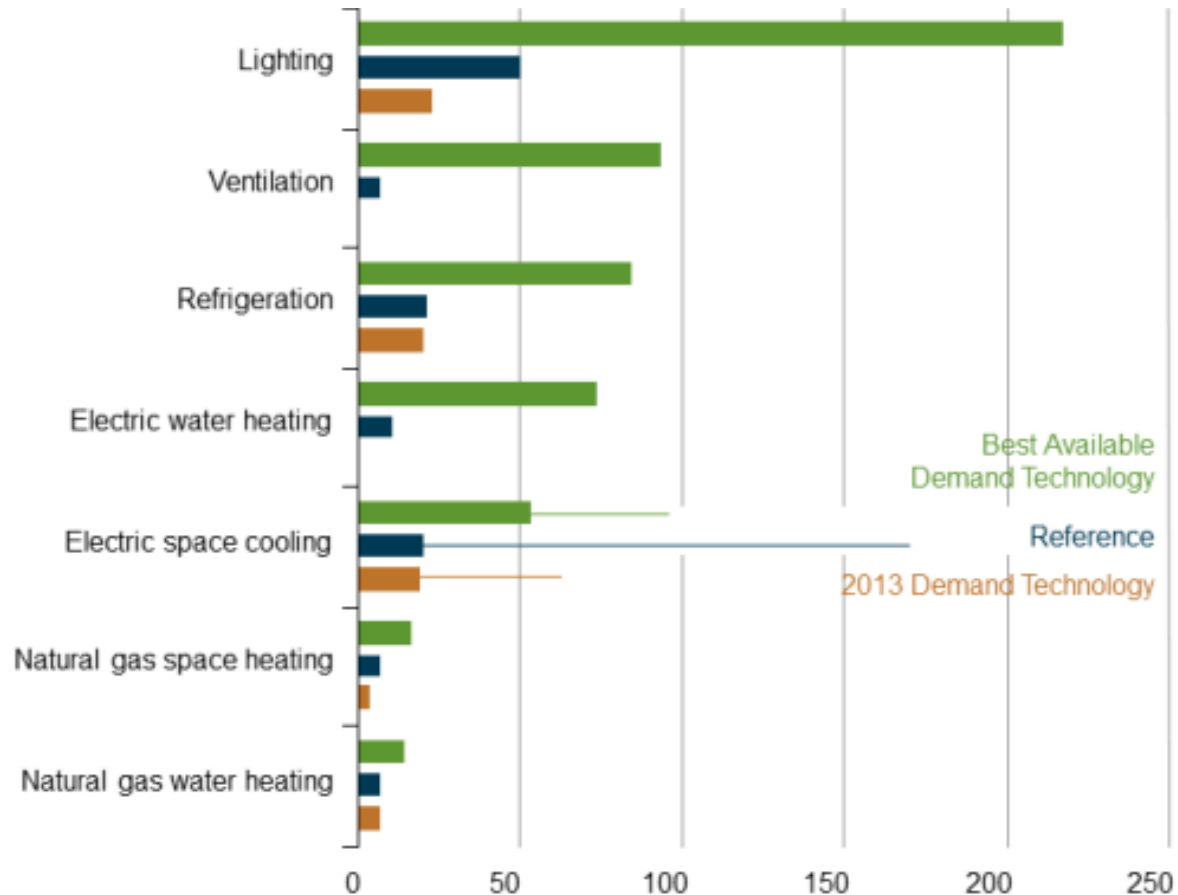
index of energy use per square foot, 2005 = 1



Source: EIA, Annual Energy Outlook 2014

# Technology improvement by use in 3 cases

Percent reduction from 2012 level



Source: EIA, Annual Energy Outlook 2014