Figure 1. Growth in electricity use slows, but still increases by 28% from 2012 to 2040



Source: EIA, Annual Energy Outlook 2013 Early Release



Adam Sieminski

House Science, Space, and Technology Committee, Subcommittee on Energy, February 13, 2013

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Figure 2. Average residential site consumption has steadily declined over the last 30 years

average site energy consumption per home and number of housing units, 1980 – 2009 million Btu per housing unit million housing units



Source: EIA, Residential Energy Consumption Survey (RECS)



Figure 3. Heating and cooling no longer bulk of residential site consumption

total site energy use in homes by end use, 1993 and 2009 quadrillion Btu and percents







Figure 4. Over time the electricity mix gradually shifts to lowercarbon options, led by growth in natural gas and renewables

U.S. electricity net generation trillion kilowatthours



Source: EIA, Annual Energy Outlook 2013 Early Release



Figure 5. Natural gas and renewables account for the vast majority of capacity additions from 2012 to 2040

U.S. cumulative capacity additions gigawatts



Source: EIA, Annual Energy Outlook 2013 Early Release



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Figure 6. Non-hydro renewable generation more than doubles between 2011 and 2040

Non-hydropower renewable generation billion kilowatthours per year



Source: EIA, Annual Energy Outlook 2013 Early Release



Figure 7. Average fossil heat rates in the electric power sector, 1990 - 2011



Source: U.S. Energy Information Administration, Form EIA-860, Annual Electric Generator Report



Figure 8. Cumulative capacity additions by fuel and technology type, 1990 – 2011



Source: U.S. Energy Information Administration, Form EIA-860, Annual Electric Generator Report



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Figure 9. Transportation energy consumption remains almost flat between 2011 and 2040

2011 Light-duty vehicles 2040 Heavy-duty vehicles Air Marine Pipeline Rail Total 5 10 15 20 25 30 0

Source: EIA, Annual Energy Outlook 2013 Early Release



quadrillion Btu

Figure 10. New light duty vehicle fuel economy approaches 50 mpg by 2040

new LDV fuel efficiency

miles per gallon



Source: EIA, Annual Energy Outlook 2013 Early Release



Figure 11. Vehicles with hybrid technologies growing share of new vehicle sales

U.S. light car and truck sales millions



Source: EIA, Annual Energy Outlook 2013 Early Release



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For more information

U.S. Energy Information Administration home page | <u>www.eia.gov</u>

Annual Energy Outlook | <u>www.eia.gov/forecasts/aeo</u>

Short-Term Energy Outlook | <u>www.eia.gov/forecasts/steo</u>

International Energy Outlook | <u>www.eia.gov/forecasts/ieo</u>

Today In Energy | <u>www.eia.gov/todayinenergy</u>

Monthly Energy Review | www.eia.gov/totalenergy/data/monthly

Annual Energy Review | www.eia.gov/totalenergy/data/annual

Consumption and Efficiency | www.eia.gov/consumption

