Business Council for Sustainable Energy

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About the BCSE

• The Business Council for Sustainable Energy (BCSE) is a coalition of companies and trade associations from the energy efficiency, natural gas and renewable energy sectors.

• The Council advocates for policies at state, national and international levels that:
  – increase the use of commercially-available clean energy technologies, products and services
  – support an affordable, reliable power system
  – reduce air pollution & greenhouse gas emissions
BCSE Mission Statement

BCSE advocates policies that promote clean, efficient, and sustainable energy products, technologies and services
2014 BCSE Members
Membership Facts: 51 BCSE members

BCSE Membership by Sector Interests

- Natural Gas: 28%
- Energy Efficiency: 37%
- Renewable Energy: 35%

Note: Some members may have more than one interest.
US IN THE MIDST OF ENERGY TRANSFORMATION

**Changes in how we produce energy**

- Natural gas met 28% of US electricity in 2013, up from 22% in 2007
- Gas production is at all-time high
- Renewable generation, including large hydro, grew from 8% to 13% of US mix over 2007-13
- PV costs down by 80% since 2008; wind projects signing PPAs for $20-35/MWh in some regions
- Distributed generation has emerged as a transformative phenomenon
- More than $250bn invested in US clean energy over last five years

**Changes in how we consume energy**

- Total annual energy use fell 5.0% while GDP grew by 6% over 2007-13
- Gas consumption is at all-time high
- Energy efficiency financing from utilities complying with state standards and from ESCOs is on upward trend, with $12bn invested in 2012
- Decreasing energy intensity in industrial sectors
- Intelligent homes and a more intelligent grid on the horizon; 53m smart meters deployed
- Hybrid and plug-in electric vehicle sales in US totalled 600,000 in 2013

**2013 developments**

- Transformation continues – eg, natural gas production and consumption increased; cumulative solar capacity grew by 50%; efficiency policy and financing moved forward
- …albeit with some detours – eg, total clean energy investments down from 2011 peak; energy consumption and emissions ticked up
THE FACTBOOK...

- Aims to augment existing, reputable sources of information on US energy
- Focuses on renewables, efficiency, natural gas
- Fills important data gaps on areas such as the contribution of distributed generation and investment trends for all sectors
- Is current through 2013 wherever possible
- Employs Bloomberg New Energy Finance data in most cases, augmented by EIA, FERC, ACEEE, ICF International, LBNL, and other sources where necessary
- Contains the very latest information on new energy technology costs
- Has been graciously underwritten by the Business Council for Sustainable Energy
- Is in its second edition (first published in January 2013)
US PRIMARY ENERGY CONSUMPTION VS. GDP, 1990-2013

Notes: GDP is real and chained (2009 dollars); 2013 value is based on economic forecasts from Bloomberg Terminal. Values for 2013 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through October 2013).

Source: Bloomberg New Energy Finance, Bureau of Economic Analysis, EIA
US ELECTRICITY GENERATION BY FUEL TYPE, 2007-13 (%)

Notes: Contribution from ‘Other’ is not shown; the amount is minimal (<0.4%) and consists of miscellaneous technologies including hydrogen and non-renewable waste. The hydropower portion of ‘Renewables’ includes negative generation from pumped storage. Values for 2013 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through October 2013).

Source: Bloomberg New Energy Finance, EIA
TOTAL NEW US INVESTMENT IN CLEAN ENERGY

Notes: Shows total clean investment in the US across all asset classes (asset finance, public markets, venture capital/private equity), as well as corporate and government R&D and small distributed capacity. Values include estimates for undisclosed deals and are adjusted to account for re-invested equity. Values are in nominal dollars and are not normalized in any way. Clean energy here means: renewable energy, energy smart technologies (digital energy, energy efficiency, fuel cells, storage, advanced transportation), and other low-carbon technologies and activities (carbon markets value chain, companies providing services to the clean energy industry).

Source: Bloomberg New Energy Finance
Notes: 'Copenhagen target' assumes 17% reduction by 2020 on 2005 levels of total GHG emissions. The actual language of the announcement left vague whether the reductions applied to economy-wide emissions or just emissions of sectors that would have been covered under a federal cap-and-trade scheme. Values for 2013 are projected, accounting for seasonality, based on latest monthly values from EIA (data available through September 2013). Data for total GHG emissions comes from EPA’s Inventory of US Greenhouse Gas Emissions and Sinks (1990-2011), published April 2013. Data for CO2 emissions from the energy sector comes from the EIA’s Monthly Energy Review.

The *Sustainable Energy in America Factbook* provides the leading independent analysis and market intelligence for clean energy sectors in the U.S.

Today's energy mix in the United States is radically different from that of a generation ago.

The 2014 edition of the *Sustainable Energy in America Factbook* -- produced for the Business Council for Sustainable Energy by Bloomberg New Energy Finance, provides up-to-date, accurate market intelligence about the broad range of industries — energy efficiency, renewable energy and natural gas — that are contributing to the country's move towards cleaner energy production and more efficient energy usage. Findings from the 2014 Factbook include:

- Natural gas and renewable energy provided over 40 percent of U.S. electricity generation in 2013, down slightly from 2012, but up 10 percent since 2007.

- U.S. energy use has fallen 5 percent from 2007 to 2013, while GDP is estimated to have grown by 6 percent. This demonstrates the increased energy productivity of the U.S. economy.

- Clean energy generation sources and energy efficiency improvements have driven U.S. greenhouse gas emissions down nearly 10 percent since 2005, dramatically reversing decades of increases. The U.S. is now more than halfway to reaching President Obama's goal of a 17 percent reduction from 2005 levels by 2020.

Industry Focus:
- Energy Efficiency
- Natural Gas
- Renewable Energy

Quick Facts on:
- Alternative Fuel Vehicles
- Biomass/Waste-to-Energy
- Carbon Capture and Storage
- Combined Heat and Power
- Fuel Cells
- Hydropower
- Smart Grid

Energy efficiency, natural gas and renewable energy are leading America's energy transformation.
GET THE FACTS
To view the Sustainable Energy in America 2014 Factbook, visit the link below

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Thank you