

## ADVANCED ENERGY NOW 2015 MARKET REPORT – HIGHLIGHTS

*Advanced Energy Now 2015 Market Report* is the third annual report of market size, by revenue, of the advanced energy industry, worldwide and in the United States. As defined by Advanced Energy Economy (AEE), a national association of businesses that are making the energy we use secure, clean, and affordable, advanced energy is a broad range of technologies, products, and services that constitute the best available technologies for meeting energy needs today and tomorrow.

Prepared for AEE by Navigant Research, *Advanced Energy Now 2015 Market Report* draws on more than 60 previously published Navigant Research studies on specific industry categories and covers four years of industry revenue. The results must be viewed, however, as a conservative assessment of advanced energy market size. Navigant Research has used strict definitions within product categories in order to distinguish advanced energy from conventional energy products. Also, U.S. market revenue counts only domestic sales of products and services and does not include revenue from exports, understating the economic scope of the U.S. advanced energy industry.

### Summary Findings – U.S. Market

- In the United States, the advanced energy market reached just under **\$200 billion – making up 15% of the global market.**
- **U.S. advanced energy revenue grew 14% from 2013 to 2014 – five times greater than the U.S. economy overall.**
- **The Electricity Generation segment surged back, jumping 47% to \$45.8 billion in 2014.**
  - Wind power rebounded to \$8.2 billion from \$2.1 billion in 2013 – with a strong pipeline in place for 2015.
  - **Solar PV grew 39% year-on-year to \$22.5 billion, capping four-year growth of 173% – nearly tripling revenue of \$8.2 billion.**
  - **The natural gas revolution in the United States also, for the first time, translated into an increase in sales of new generating equipment, with revenue from natural gas turbines up 48%, to \$6.4 billion.**
- **Revenue from Building Efficiency products and services – the largest segment of U.S. advanced energy – has grown 43% over four years.**
- In Transportation, **revenue was down 19% for hybrid vehicles but up 34% for plug-in electric vehicles, while light duty and heavy duty natural gas-powered vehicles both jumped 26% in revenue in 2014.**
- **In Electricity Delivery and Management, revenue from electric vehicle charging infrastructure was up 31% to \$201.5 million, a seven-fold increase over the past four years.**

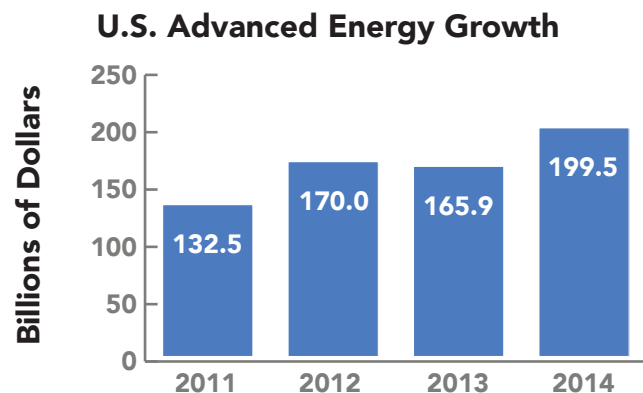


Figure 1.1 (Source: Navigant Research)

## Summary Findings – Global Market

- For 2014, advanced energy grew to just under \$1.3 trillion in global revenue, a 12% increase over 2013.
- Year-over-year increases in all seven segments made 2014 the biggest growth year for advanced energy worldwide since Navigant Research began tracking the industry for Advanced Energy Economy in 2011.
- Electricity Generation, the largest segment of advanced energy by revenue, grew strongly, up 16% over 2013.
  - Revenue from **wind power jumped 40%**, to \$95 billion globally, after a decline in 2013.
  - After a sharp decline from 2011 to 2012 and slow growth in 2013, **hydropower was up 45%** in 2014, to \$122 billion.
- Transportation grew 8% in 2014, to \$373 billion, driven by **strong growth in revenue from hybrid (+40%) and plug-in hybrid (+80%) vehicles**.
- **Building Efficiency grew 12%**, to \$209.5 billion, up 40% over four years, led by commercial and residential energy efficiency retrofits and zero net energy buildings.
- The fastest growing segment of advanced energy was Electricity Management and Delivery, up 33% to \$67.9 billion after a down year in 2013. Revenue from **transmission investments was up 400%** over 2013, with **HVDC transmission revenue up 61%** to \$6.1 billion, and **transmission system upgrades jumping nearly twenty-fold**, from \$694 million to 12.6 billion.



## ENERGY SUPPLY

Electricity Generation	Electricity Delivery & Management
<ul style="list-style-type: none"> <li>• Hydropower</li> <li>• Gas Turbines</li> <li>• Solar</li> <li>• Wind</li> <li>• Geothermal</li> <li>• Marine</li> <li>• Waste</li> <li>• Biomass</li> <li>• Nuclear</li> <li>• Fuel Cells and Other DG</li> </ul>	<ul style="list-style-type: none"> <li>• Transmission</li> <li>• Distribution</li> <li>• AMI</li> <li>• Micro-grids</li> <li>• EV Charging Infrastructure</li> <li>• Energy Storage</li> <li>• Enabling IT</li> </ul>
Fuel Production	Fuel Delivery
<ul style="list-style-type: none"> <li>• Ethanol &amp; Butanol</li> <li>• Biodiesel</li> <li>• Biogas</li> <li>• Synthetic Diesel &amp; Gasoline</li> <li>• Bio-oil</li> <li>• CNG &amp; LNG</li> <li>• Hydrogen</li> </ul>	<ul style="list-style-type: none"> <li>• Fuel Transportation Infrastructure</li> <li>• Fueling Stations</li> </ul>

## ENERGY DEMAND

Building Efficiency	Transportation
<ul style="list-style-type: none"> <li>• Building Design</li> <li>• Building Envelope</li> <li>• HVAC</li> <li>• District Energy, CHP, CCHP</li> <li>• Water Heating</li> <li>• Lighting</li> <li>• Appliances &amp; Electronics</li> <li>• Enabling IT/Demand Response</li> </ul>	<ul style="list-style-type: none"> <li>• Propulsion Systems</li> <li>• Vehicle Design &amp; Materials</li> <li>• Freight Logistics</li> <li>• Land Use &amp; Infrastructure Design</li> <li>• Enabling IT</li> </ul>

## Industry

- Manufacturing Machinery & Process Equipment
- Industrial Combined Heat & Power

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