



Research Report

EXECUTIVE SUMMARY:

Energy Efficient Buildings: Global Outlook

Energy Service Companies and Energy Performance Contracting, High-Efficiency HVAC Systems, and Energy Efficient Lighting: Market Analysis and Forecasts

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Section 1

EXECUTIVE SUMMARY

1.1 Overview of Energy Efficient Building Markets

Amid concerns over managing energy costs, increasing interest in sustainability among public and private organizations, and energy legislation, the market for energy efficiency equipment and services is on the rise worldwide. On the demand side, building owners and managers are aiming to increase the efficiency of their building portfolios to attract increasingly savvy tenants and reduce operating costs. On the supply side, building component vendors and service providers are developing long-term strategies around energy efficiency to meet this demand.

This Pike Research report provides a comprehensive, global look at the state of energy efficient buildings markets today and the main factors that will contribute to their growth over time. Energy efficiency markets consist of three main segments:

- Energy service company (ESCO) revenues, driven by energy performance contracting (EPC) and other energy efficiency service delivery mechanisms
- Non-ESCO energy efficient heating, ventilation, and air conditioning (HVAC) system sales and services
- Non-ESCO energy efficient lighting system sales

The size, structure, and composition of energy efficiency markets vary from one country or region to another. ESCOs form the core of most energy efficient markets, engaging in long-term energy efficiency contracts with building owners. However, a holistic consideration of the global energy efficiency market includes sales of energy efficient HVAC equipment and lighting systems beyond the ESCO model. In virtually all areas, markets are growing, but the market and policy drivers can be markedly different.

Figure 1.1 Energy Efficiency Market and Policy Dynamics by Country

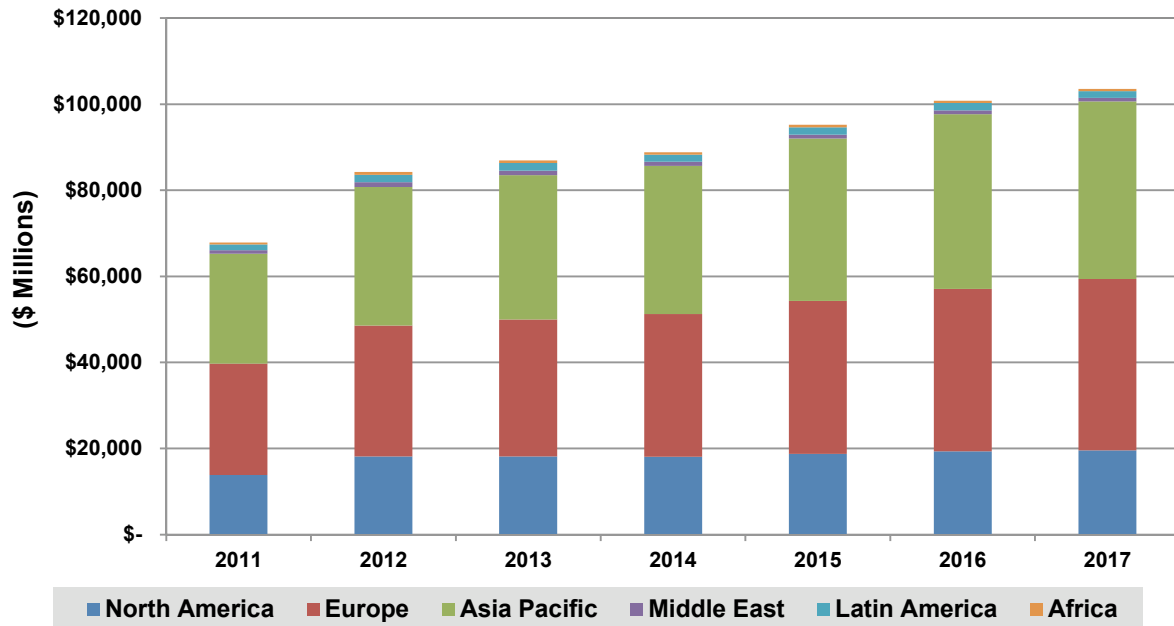
	National Energy Efficiency Policy	Demand-Side Awareness of Energy Efficiency	Public Sector Efficiency Activity	Private Sector Efficiency Activity	Access to Third-Party Financing
United States	◐	◐	●	◐↑	◐↑
Germany	◐	●	◐	◐	◐
France	◐	●	◐	◐	◐
United Kingdom	●	●	◐↑	◐	◐
Italy	◐	◐	◐	◐	◐
China	●	◐↑	◐↑	◐↑	◐↑
Japan	◐	●	◐	◐	◐
South Korea	◐	◐	◐	◐	◐
Australia	●	●	◐	◐↑	◐
India	◐	◐↑	◐↑	◐↑	◐↑
United Arab Emirates	◐	◐	◐	◐	○
Brazil	◐	◐↑	◐	◐↑	◐
Mexico	◐	◐↑	◐	◐	◐
South Africa	◐	◐↑	◐	◐	◐

(Source: Pike Research)

Developed markets in North America and Western Europe have particularly robust energy efficiency markets. ESCO revenues measure in the billions of dollars, bolstered by public sector clients with long energy performance contracts. However, the fastest growing markets are outside of these regions. China's energy efficiency markets, driven by strong central government policies and the addition of 7 billion SF of new commercial building space every year, will expand at an annual rate of 9% as both public and private organizations adopt efficiency and access to financing improves.

Today, the global market for energy efficiency stands at \$67.8 billion, encompassing ESCO revenues, sales of energy efficient HVAC equipment, and sales of energy efficient lighting systems. By 2017, the market will grow to \$103.4 billion at a compound annual growth rate of 7%. Growth will occur in all regions and for all technology types except energy efficient lighting, a market in which total market size will contract with the advent of increased levels of LED penetration and reduced demand for lamp replacements.

Chart 1.1 Energy Efficient Buildings Market by Region, World Markets: 2011-2017



(Source: Pike Research)

The energy efficiency markets – the United States, Germany, France, the United Kingdom, and China – represent over 75% of the energy efficiency market worldwide. The winning business models in each, however, will differ based on the unique demands of each market and the availability of crucial financial resources to drive energy efficiency investment on a broad scale.

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Section 10

SCOPE OF STUDY

This Pike Research report covers energy efficient building markets at a global scale. The report addresses three major business segments (ESCO revenues, non-EPC energy efficient HVAC system and service sales, and non-EPC energy efficient lighting system sales) for six regions (North America, Europe, Asia Pacific, the Middle East, Latin America, and Africa). It is intended to give a complete, comprehensive view of the equipment and services that compose the energy efficiency market worldwide. The report primarily focuses on commercial buildings (i.e., non-residential buildings), but references key issues of relevance in other sectors, as well.

SOURCES AND METHODOLOGY

Pike Research's industry analysts utilize a variety of research sources in preparing Research Reports. The key component of Pike Research's analysis is primary research gained from phone and in-person interviews with industry leaders including executives, engineers, and marketing professionals. Analysts are diligent in ensuring that they speak with representatives from every part of the value chain, including but not limited to technology companies, utilities and other service providers, industry associations, government agencies, and the investment community.

Additional analysis includes secondary research conducted by Pike Research's analysts and the firm's staff of research assistants. Where applicable, all secondary research sources are appropriately cited within this report.

These primary and secondary research sources, combined with the analyst's industry expertise, are synthesized into the qualitative and quantitative analysis presented in Pike Research's reports. Great care is taken in making sure that all analysis is well-supported by facts, but where the facts are unknown and assumptions must be made, analysts document their assumptions and are prepared to explain their methodology, both within the body of a report and in direct conversations with clients.

Pike Research is an independent market research firm whose goal is to present an objective, unbiased view of market opportunities within its coverage areas. The firm is not beholden to any special interests and is thus able to offer clear, actionable advice to help clients succeed in the industry, unfettered by technology hype, political agendas, or emotional factors that are inherent in cleantech markets.

NOTES

CAGR refers to compound average annual growth rate, using the formula:

$$\text{CAGR} = (\text{End Year Value} \div \text{Start Year Value})^{(1/\text{steps})} - 1.$$

CAGRs presented in the tables are for the entire timeframe in the title. Where data for fewer years are given, the CAGR is for the range presented. Where relevant, CAGRs for shorter timeframes may be given as well.

Figures are based on the best estimates available at the time of calculation. Annual revenues, shipments, and sales are based on end-of-year figures unless otherwise noted. All values are expressed in year 2011 U.S. dollars unless otherwise noted. Percentages may not add up to 100 due to rounding.

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