ACEEE
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EXECUTIVE SUMMARY
THE 2014 INTERNATIONAL ENERGY EFFICIENCY SCORECARD
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A country that uses less energy to achieve the same or better results reduces its costs and pollution, creating a stronger, more competitive economy. While energy efficiency has played a role in the economies of developed nations for decades, cost-effective energy efficiency remains a massively underutilized energy resource.

In this second edition of the *International Energy Efficiency Scorecard,* we analyze the world's 16 largest economies covering more than 81% of global gross domestic product and about 71% of global electricity consumption. We looked at 31 metrics divided roughly in half between policies and quantifiable performance to evaluate how efficiently these economies use energy. The policy metrics were scored based on the presence in a country or region of a best-practice policy. Examples of policy metrics include the presence of a national energy savings target, fuel economy standards for vehicles, and energy efficiency standards for appliances. The performance metrics are a measure of energy use and provide quantifiable results. Examples of performance metrics include average miles per gallon of on-road passenger vehicles and energy consumed per square foot of floor space in residential buildings. The metrics are distributed across the three primary sectors responsible for energy consumption in an economically developed country: buildings, industry, and transportation. We have also included a number of metrics that cut across these sectors (such as the efficiency of electricity generation) and that indicate a national commitment to energy efficiency. These metrics are included in a national efforts section. The maximum possible score for a country is 100 points, and we allocated 25 points to each of these four sections, assigning a point value to each metric. We then scored and ranked all economies based on the results of our research.

Germany has the highest overall score, with 65 out of 100 possible points. The top-scoring countries in each category are: China in buildings, Germany in industry, Italy in transportation, and a three-way tie between France, Italy, and the European Union in national efforts.

Our results indicate that some countries are significantly outperforming others, but the more important finding is that there are substantial opportunities for improvement in all economies analyzed. The conditions required for a perfect score are currently achievable and in practice somewhere on the globe. For every metric, at least one country (and often several) received full points. However, every country also has serious weaknesses, and the average score was just 50 points.

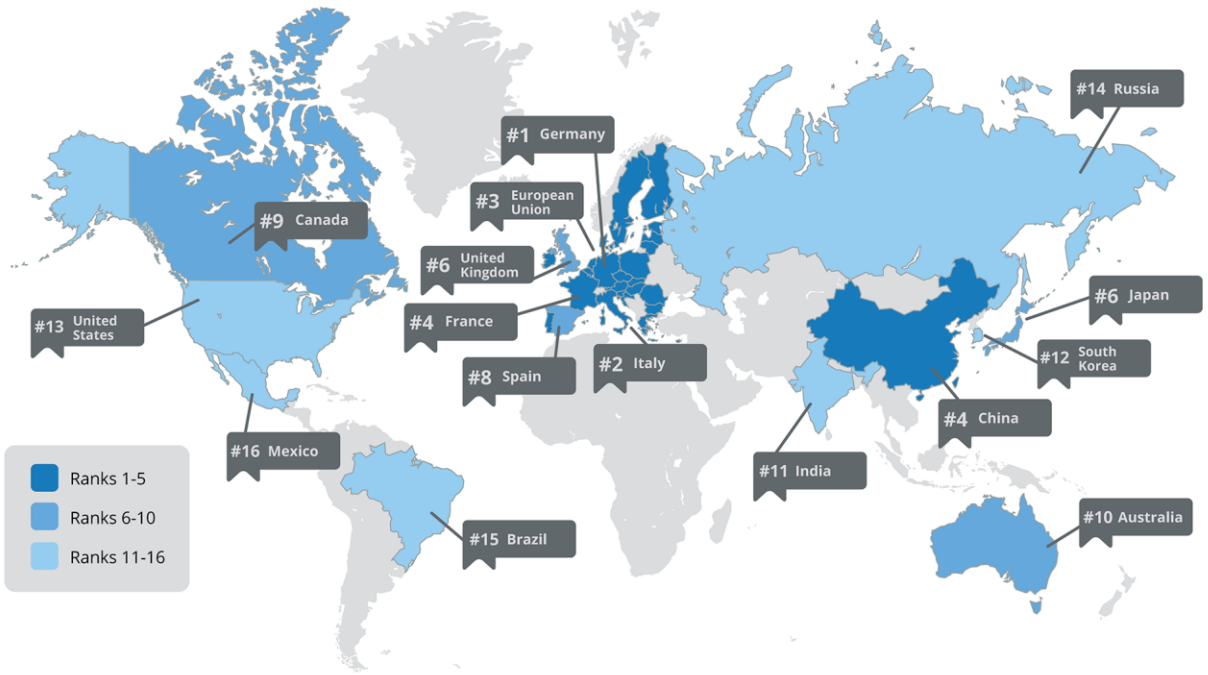
Understanding exactly why countries scored and ranked where they did requires a detailed look at the metrics; however, generally, the top-scoring countries scored solidly across all four sections.

The United States has made some progress toward greater energy efficiency in recent years, particularly in areas such as building codes, appliance standards, voluntary partnerships between government and industry, and, recently, fuel economy standards for passenger vehicles and

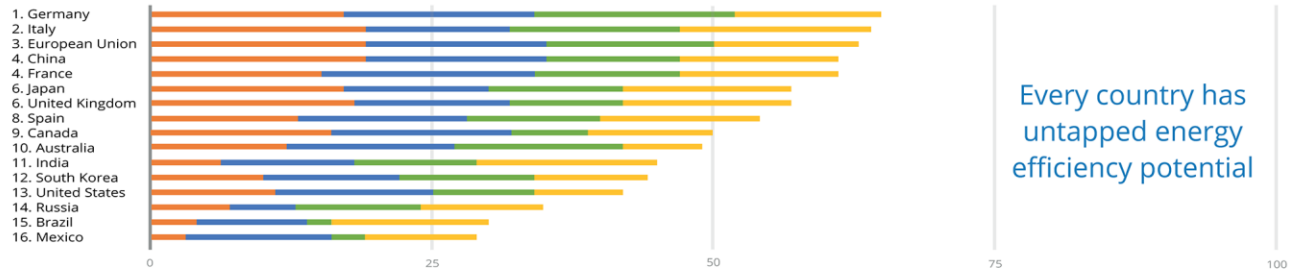
heavy-duty trucks. However, the overall story is disappointing. The United States, long considered an innovative and competitive world leader, has progressed slowly and has made limited progress since the last *International Scorecard* in 2012. In contrast, countries including Germany, Japan, and China are surging ahead. Countries that use energy more efficiently use fewer resources to achieve the same goals, thus reducing costs, preserving valuable natural resources, and gaining a competitive edge over other countries. In the United States, a great deal of resources are wasted, and costs have been allowed to remain unnecessarily high.

The inefficiency in the U.S. economy means a tremendous waste of energy resources and money. Across most metrics analyzed in this *International Scorecard*, in the past decade the United States has made limited progress toward greater efficiency at the national level. The overall U.S. score of 42 is less than half of the possible points and is 23 points away from the top spot. Further, the United States falls behind Canada, Australia, India and South Korea. These scores suggest that this list of countries may have an economic advantage over the United States because using less energy to produce and distribute the same economic output costs them less. Their efforts to improve efficiency likely make their economies more nimble and resilient. This raises a critical question: looking forward, how can the United States compete in a global economy if it continues to waste money and energy that other industrialized nations save and can reinvest? This report offers a number of recommendations for the United States. Figure ES-1 shows a high level snap shot of the results of the report and four major opportunities for the United States.

2014 International Energy Efficiency Scorecard



Overall country scores with sector breakdown



THE US RANKS #13 OUT OF 16

The United States – long considered an innovative and competitive world leader – has allowed other nations to surpass it.

What can the U.S. do to improve?

NATIONAL EFFORTS

The U.S. Congress should pass a national energy savings target.

A national energy savings target such as HR 5072 would push a unified effort for efficiency and spur greater investment in energy efficiency.

BUILDINGS

The federal government should strengthen national model building codes.

National model codes should be updated and the federal government should provide technical assistances to states implementing and adopting energy efficiency building codes.

INDUSTRY

The federal government should support education and training in the manufacturing and industrial sectors.

Government should support the manufacturing and industrial sector to reduce the energy intensity of facilities by providing education, outreach and training that will facilitate greater investment in energy efficiency and quicker adoption of systematic energy management practices.

TRANSPORTATION

The U.S. Congress should prioritize energy efficiency in transportation spending.

Government budgets should apply energy efficiency performance metrics in prioritizing federal transportation investments and increase funding levels for energy–efficient modes of passenger and freight transport.

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Figure ES-1. Rankings for all economies analyzed

In addition, the United States should follow through on efforts that it has already begun. For example, the Environmental Protection Agency has drafted a proposal pursuant to Section 111(d) of the Clean Air Act that could lead to improved efficiency of fossil-fuel power plants and increased investment in energy efficiency. The final rule should ensure that these efficiency improvements are realized. The Agency and the Department of Transportation are also in the process of finalizing fuel economy standards for light-duty vehicles. For light-duty vehicles, standards should be at least as stringent as the current provisional standards, and for heavy-duty vehicles the United States should set standards at 40% or more below 2010 levels.

By taking these steps, the United States would increase its world ranking in energy efficiency significantly. The opportunities for improvement in global competitiveness and economic resiliency in the United States and worldwide are considerable. Countries can preserve their resources, address global warming, stabilize their economies, and reduce the costs of their economic outputs by using energy more efficiently—an eminently achievable goal.