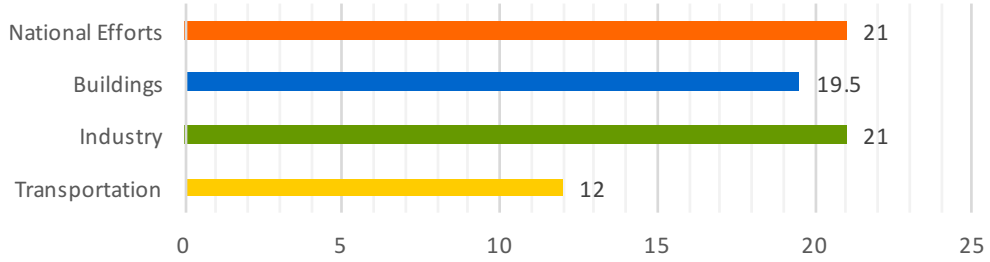
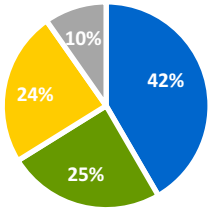
1 Germany





The bars show ACEEE scores for energy efficiency. The pie chart shows 2013 end-use energy shares of buildings, industry, transportation, and other sectors.

Germany scored 73.5 out of 100 points in 2016, maintaining its position as the top-ranking country on the *Scorecard*. German policymakers have implemented a comprehensive energy strategy known as *Energiewende*, helping the country to become one of the most energy-efficient economies. The country has set a target of a 20% reduction in primary energy consumption by 2020 and a 50% reduction by 2050, compared to 2008 levels. To meet this ambitious goal the German government has implemented a comprehensive set of complementary policies and incentives funded by the KfW Development Bank. As a result Germany ranks first in the national efforts section.

Germany also came in first in the industrial section of the 2016 analysis. The energy intensity of Germany's industrial sector is relatively low compared with that of other countries, with the majority of energy used in the chemical and iron and steel industries. A voluntary agreement between German industry and the federal government to reduce CO2 emissions has been in place since 1995 (IEA 2013). Updates in 2012 set targets for annual reductions in energy intensity until 2022 (IIP 2016a). Germany also has a target of obtaining 25% of its electricity generation from CHP by 2020. However, given Germany's recent renewables-capacity expansion in recent years, the new CHP law of 2016 (which has been passed by the German parliament but is awaiting European commission approval) changes this target to 25% of net controllable electricity generation, which excludes wind-generated energy and photovoltaics. The CHP Act (KWK-G) provides investment support in the form of a feed-in tariff.

AREAS FOR IMPROVEMENT

Germany claimed the top spot in buildings efficiency thanks largely to its national Energy Saving Ordinance for buildings in 2002, which set energy performance requirements for new buildings and existing buildings undergoing major renovations. Nevertheless plenty of untapped efficiency potential still remains, particularly in the area of appliance standards, which could help reduce the energy intensity of both commercial and residential buildings.

Likewise the transportation sector, for which Germany scored only 12 out of a possible 25 points, provides some energy efficiency opportunities. Outside of the European Union's passenger-vehicle standards few efforts have been made to reduce energy consumption in this sector. While public transit is widely available, Germany's status as an auto-manufacturing powerhouse has led to the use of personal vehicles as the primary mode of transport and little government interest in investing in rail or other public-transit facilities.