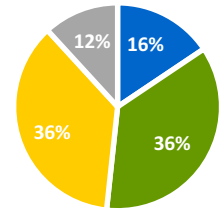
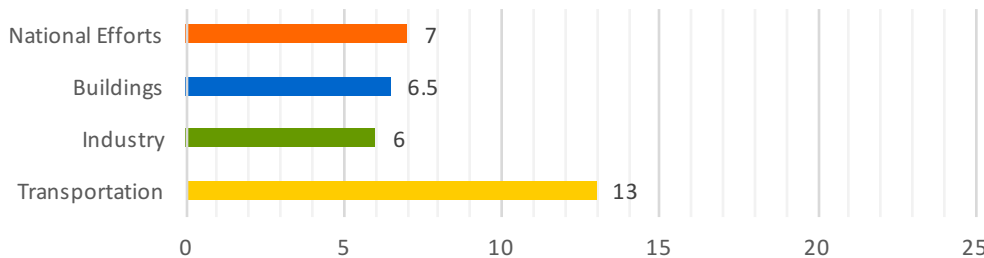


22 Brazil



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

Brazil ranked 22nd with 32.5 points out of 100. Energy policy in Brazil largely emphasizes renewable-energy production especially in the electricity and transportation sectors. This focus on energy production leaves a great deal of energy efficiency potential untapped.

Brazil performed best in the transportation section of this year's Scorecard, where it ranked 8th out of 23 countries. The country has good passenger-vehicle fuel economy standards in place, but to date these standards are still voluntary although there are strong incentives for auto manufacturers to comply. Brazil is also considering the implementation of heavy-duty standards. The Brazilian government has shown commitment to financing more-efficient modes of transportation. The Brazilian National Development Bank has increased funding for the construction of new railway lines and the expansion of the current network to improve freight efficiency; it also plans to build a high-speed rail line connecting São Paulo and Rio de Janeiro.

The Brazilian government has established a National Plan on Climate Change (PNMC), which contains some provisions related to the establishment of a national energy efficiency action plan. The government has not implemented a national energy savings policy, but a proposed national action plan would aim to reduce electricity consumption by 10%, saving up to 106 terawatt-hours (TWh) per year by 2030. The country has also submitted an INDC plan to the UNFCCC, which outlines a commitment to reduce GHGs by 37% from 2005 levels by 2025. The government hopes to achieve some of

these goals through programs implemented by PROCEL, a national energy conservation scheme that has saved Brazil more than 92 billion kilowatt-hours (kWh) since 1986. The Brazilian Programme for Labelling (PBE) and the Selo Procel define minimum performance levels for significant energy-consuming equipment such as refrigerators, ceiling fans, lightbulbs, and residential air-conditioning systems.

AREAS FOR IMPROVEMENT

Brazil has no mandatory residential or commercial building code and has only a limited number of appliance and equipment standards. Many countries have realized significant energy savings by implementing building energy efficiency policies, including Australia, France, and the United Kingdom. The United States has saved considerable energy through robust appliance standards. Brazil thus has ample models on which to draw to improve energy efficiency in buildings.

Brazil was fourth from the bottom in the industrial section and would benefit from public-private voluntary agreements for energy efficiency and requirements for plant energy managers or periodic energy audits. Less than 1% of electricity in its industrial sector is generated through CHP.