

NOTABLE STRENGTHS

- Generated 89% of electricity from renewable sources
- Has a national low-income energy efficiency program
- Low energy intensity from commercial and residential buildings
- The National Urban Mobility Policy encourages walking, cycling, and public transportation

ACTIONS TO TAKE

- Implement a national water efficiency program
- Reduce energy intensity in the industrial sector
- Set fuel economy and emissions standards for passenger vehicles
- Publicize data for investment in roads and rail infrastructure

**NATIONAL EFFORTS**

Brazil was one of the lowest-ranking countries in this category. It has a national low-income energy efficiency program and provides spending data on low-income customers. Brazil generates 89% of its electricity from renewable sources. However, Brazil is one of four countries evaluated with neither a national water law nor a water efficiency program. The country should adopt a national goal for energy savings to supplement its existing greenhouse-gas reduction goals.

**BUILDINGS**

Brazil reported notably low energy intensity for residential and commercial buildings. However, the country lacks building retrofit policies and energy codes for residential and commercial buildings. But Brazil provides loans to encourage retrofits. It also requires mandatory labeling for appliance efficiency, which is more easily understood and motivating than voluntary labeling.

**INDUSTRY**

In 2023, Brazil had the sixth-highest level of industrial energy intensity, measured as consumed energy per dollar of industrial GDP (18.8 kBtus per dollar). However, Brazil has made progress reducing agricultural energy intensity, reporting a value of 0.083 kilograms of oil per dollar of agricultural GDP. Brazil also has a policy to encourage energy management. In 2023, the country had 175 facilities that achieved International Standards Organization (ISO) 5001 certification, indicating adoption of energy management systems to save energy. Brazil should supplement these efforts with a national commitment to industrial decarbonization or a target for industrial electrification.

**TRANSPORTATION**

Brazil has made some progress in encouraging non-motorized forms of transportation. The country has reported that at least 20% of passenger-km travel is by public transit. It also has a National Urban Mobility Policy to encourage walking and cycling. However, Brazil generally has substantial room for improvement with transportation efficiency. Brazil should make data available on the ratio of investment in rail compared to roads. The country should also implement standards for fuel economy and emissions standards for passenger vehicles.