

NOTABLE STRENGTHS

- Has national goals to reduce energy consumption, energy intensity, and greenhouse gas emissions
- Energy Voucher Program helps low-income households pay for energy efficiency upgrades
- Has mandatory, comprehensive building energy codes for residential and commercial buildings
- Has national policies to promote walking and cycling

ACTIONS TO TAKE

- Generate more electricity from renewable sources
- Reduce energy intensity from residential and commercial buildings
- Set a national target for industrial electrification
- Enact fuel economy/emissions standards for heavy-duty vehicles

**NATIONAL EFFORTS**

South Korea ranked 12th in the national efforts chapter. The country ranked 7th for its energy efficiency R&D investments, with \$3.31 (2023 U.S. dollars) per capita. South Korea also operates the Energy Voucher Program, which helps low-income households pay for energy bills. The country has energy consumption reduction and energy intensity reduction goals in addition to a greenhouse gas reduction goal. South Korea should work to improve its electric power generation: although the country reported only 3.3% in transmission and distribution losses, it only generates 8.4% of its electricity from renewable sources.

**BUILDINGS**

South Korea ranked 9th in the buildings chapter. The country has mandatory building energy codes for both residential and commercial buildings, each covering five technical requirements related to building shell and systems (e.g., insulation, U-factor/shading, air sealing, lighting, and heating and cooling). South Korea has mandatory, categorical labeling for appliances and equipment covering 22 total appliance categories. South Korea's building rating and disclosure policies apply only to some buildings, so the country should work to make these policies more widely applicable. South Korea reported higher-than-average energy intensity for both residential and commercial buildings.

**INDUSTRY**

South Korea earned its best ranking in the industry chapter. The country reported the seventh-lowest value for total industrial energy intensity at a value of 8.42 kBtus per 2023 U.S. dollar. South Korea has voluntary agreements with manufacturers and provides financial incentives to encourage participation in energy efficiency improvements. It also requires energy audits of large facilities. The country should consider requiring large industrial facilities to employ onsite energy-use or sustainability experts. South Korea should also implement an electrification target to supplement its existing national commitment to industrial decarbonization.

**TRANSPORTATION**

South Korea ranked 13th in the transportation chapter. The country has a goal of limiting emissions from passenger vehicles to 65 grams of carbon dioxide per kilometer by 2030, but it lacks standards for reducing carbon dioxide emissions from heavy-duty tractor trailer trucks by 2030. South Korea ranked 5th for its 2024 ratio of investment in rail versus road infrastructure, at \$0.88 on rail for every \$1 on roads. South Korea's First National Basic Plan for Pedestrian Safety and Convenience Promotion and National Basic Plan for Bicycle Policy promote walking and cycling.