

NOTABLE STRENGTHS

- Low levels of transmission and distribution losses from electric power generation
- Has mandatory, comprehensive building codes for residential and commercial buildings
- 6th lowest industrial energy intensity
- Has national policies to encourage walking and cycling

ACTIONS TO TAKE

- Generate more electricity from renewable sources
- Set a national target for industrial electrification
- Enact fuel economy/emissions standards for heavy-duty vehicles
- Encourage greater use of public transit

**NATIONAL EFFORTS**

Taiwan ranked in the top half of countries for the national efforts chapter. Taiwan's Energy Research Development Fund supports county-specific programs to promote low-income energy efficiency. The country also provides tax incentives and loans encouraging energy efficiency investments for the buildings, transportation, and appliance sectors. Taiwan should work to reduce emissions from electric power generation. Although the country faces only 3.2% transmission and distribution losses, it only generates 9.6% of its electricity from renewable sources.

**BUILDINGS**

Taiwan performed well in the buildings chapter. The country has mandatory building codes for both residential and commercial buildings, each covering five technical requirements (e.g., insulation, U-factor/shading, lighting, water heating, and heating and cooling). Taiwan also has mandatory, categorical labeling for 16 appliance categories and equipment; categorical labels are better understood and more motivating than continuous labels. The country reported lower-than-average energy intensity from both residential and commercial buildings.

**INDUSTRY**

Taiwan earned its best score in the industry chapter. The country reported the sixth lowest industrial energy intensity with a value of roughly 7.53 kBtus per 2023 U.S. dollar. The country has voluntary agreements with manufacturers and provides financial incentives to encourage participation in energy efficiency improvements. Taiwan also requires large industrial facilities to employ onsite energy-use or sustainability experts. Taiwan should consider adding an electrification target to supplement its existing national commitment to industrial decarbonization.

**TRANSPORTATION**

Taiwan has significant room for improvement in transportation efficiency. The country has a goal of limiting carbon dioxide emissions to 128–176 grams of carbon dioxide per kilometer by 2030, but it does not have a goal to reduce emissions from heavy-duty tractor-trailer trucks. The country reported the eighth-highest ratio of investment in rail compared to road infrastructure in 2023 (\$0.68 in rail for each \$1 on roads). Taiwan should work to encourage greater public transit use, as only 16.8% of travel occurred by transit in 2022. However, Taiwan's Pedestrian Safety Improvement Plan for Sustainability encourages walking. It also has the 2024–2027 Bicycle Network Planning and Subsequent Promotion of the Second Round-Island Route to promote bicycling.