

國內能源供需概況

我國能源需要在過去二十年間變化，國內能源消費自93年6,814萬公噸油當量，增至113年6,954萬公噸油當量，年成長率為0.10%。113年國內能源消費量中，能源消費（含能源部門自用）占77.69%，非能源消費占22.31%；若按部門別分，能源及工業部門占42.89%，運輸部門占16.61%，農業部門占1.17%，服務業部門占8.22%，住宅部門占8.80%；若按能源別分，煤及煤產品占7.39%，石油產品占46.72%，天然氣占7.82%，生質能及廢棄物占0.50%，電力占35.11%，熱能占2.45%。

我國能源總供給自93年11,943萬公噸油當量，降至113年11,459萬公噸油當量，年成長率為-0.21%。113年能源總供給結構中，自產能源占4.23%，進口能源占95.77%；若按能源別分，煤及煤產品占29.10%，原油及石油產品占42.74%，天然氣占21.51%，生質能及廢棄物占1.61%，慣常水力占0.32%，核能占2.77%，地熱、太陽光電及風力占1.96%。

煤炭總供給量自93年6,051萬公噸，降至113年5,694萬公噸，年成長率為-0.30%；煤炭國內用量自93年5,744萬公噸，降至113年5,613萬公噸，年成長率為-0.11%。

石油產品國內用量自93年4,341萬公噸油當量，降至113年3,348萬公噸油當量，年成長率為-1.29%，其中發電用油（轉變投入）占2.97%，一般燃料用占51.14%，非能源用占45.89%。

天然氣總進口量自93年9,073百萬立方公尺，增至113年28,233百萬立方公尺，年成長率為5.84%；天然氣國內用量自93年9,629百萬立方公尺，增至113年28,796百萬立方公尺，年成長率為5.63%；在113年消費結構中，煉油廠占0.11%，發電及汽電占77.76%，能源及工業部門占17.23%，農業部門占0.01%，服務業部門占1.74%，住宅部門占3.15%。



全國毛發電量自93年218,397百萬度，增至113年289,173百萬度，年成長率為1.41%。在113年發電結構中，抽蓄水力占1.06%，火力發電占83.00%（燃煤占39.19%，燃油占1.45%，燃氣占42.36%），核能占4.21%，再生能源發電占11.73%（慣常水力占1.46%，地熱占0.01%，太陽光電占5.29%，風力占3.63%，生質能占0.08%，廢棄物占1.26%）。電力消費自93年209,889百萬度，增至113年283,846百萬度，年成長率為1.52%；在113年消費結構中，能源及工業部門占61.68%，運輸部門占0.67%，農業部門占1.20%，服務業部門占17.62%，住宅部門占18.83%。

113年進口能源依存度為95.16%；近2年能源進口總值，113年為516億美元，較112年558億美元減少7.47%；近2年平均每人負擔能源進口值，113年為新臺幣70,551元，較112年新臺幣74,302元減少5.05%。

Energy Supply and Demand Situation in Taiwan, R.O.C.

The total energy consumption in Taiwan, R.O.C. has changed over the past two decades, going from 68.14 million tonnes of oil equivalent in 2004 to 69.54 million tonnes in 2024, which is an average annual growth of 0.10%. Of that in 2024, 77.69% was for energy use, including energy sector own use, and non-energy uses consumed 22.31%. When classified by consumer, the consumption of energy for each sector in 2024 was as follows: energy and industrial sectors consumed 42.89%; transportation sector, 16.61%; agriculture, forestry and fishery sectors, 1.17%; services sector, 8.22%; residential sector, 8.80%. Classified by form of energy, coal and coal products contributed 7.39% of consumption in 2024; petroleum products provided 46.72%; natural gas shared 7.82%; biomass and waste accounted for 0.50%; electricity constituted 35.11% and heat 2.45%.

The supply in Taiwan, R.O.C. went from 119.43 million tonnes of oil equivalent in 2004 to 114.59 million kiloliters in 2024, an average annual growth of -0.21%. Of this total in 2024, indigenous energy contributed 4.23%, and imported energy occupied 95.77%. Classified by energy form, coal and coal products contributed 29.10% in 2024, crude oil and petroleum products constituted 42.74%, natural gas shared 21.51%, biomass and waste accounted for 1.61%, hydro provided 0.32%, nuclear provided 2.77%, geothermal, solar PV and wind provided 1.96%.

The total coal supply grew from 60.51 million metric tons in 2004 to 56.94 million metric tons in 2024, an average annual growth of -0.30%. Coal consumption, however, has grown from 57.44 million metric tons in 2004 to 56.13 million metric tons in the same period, an annual growth rate of -0.11%.

Petroleum product consumption declined from 43.41 million tonnes of oil equivalent in 2004 to 33.48 million tonnes in 2024, an average annual growth of -1.29%. Of this total in 2024, 2.97% was used to produce electricity, 51.14% was consumed for non-energy use, and 45.89% went to fuel use.



In 2024 imports of natural gas reached a total of 28,233 million cubic meters, and in 2004 it was 9,073 million cubic meters, an average annual growth of 5.84%. In 2024, the consumption of natural gas was 28,796 million cubic meters, while in 2004 it was only 9,629 million cubic meters, an average annual growth of 5.63%. Of the total in 2024, petroleum refineries comprised 0.11%, power generation 77.76%, energy and industrial use 17.23%, agricultural 0.01%, services use 1.74%, residential use 3.15%.

Electricity production grew from 218,397 GWh in 2004 to 289,173 GWh in 2024, an average annual growth of 1.41%. Of the total electricity production in 2024, pumped storage 1.06%, thermal power 83.00% (coal shared 39.19%, oil 1.45%, LNG 42.36%), nuclear 4.21%, renewable energy power 11.73% (hydro 1.46%, geothermal 0.01%, solar photovoltaic 5.29%, wind 3.63%, biomass 0.08%, waste 1.26%). Electricity consumption went from 209,889 GWh in 2004 to 283,846 GWh in 2024, an average annual growth of 1.52%. Classified by sector, energy and industrial consumed 61.68% of electricity in 2024, transportation occupied 0.67%, agricultural 1.20%, services 17.62%, residential accounted for 18.83%.

In the year 2024, the dependence on imported energy was 95.16%. The total value of energy imports in the past two years was \$55.76 billion in 2023 and \$51.59 billion in 2024, a decrease of -7.47% compared to the previous year. The average energy import value per person over the past two years was NT\$74,302 in 2023 and NT\$70,551 in 2024, a decrease of -5.05% compared to the previous year.