

## 國內能源供需概況

我國能源需要在過去二十年間成長十分快速，國內能源消費自92年7,247萬公秉油當量，增至112年7,871萬公秉油當量，年成長率為0.41%。112年國內能源消費量中，能源消費（含能源部門自用）占76.19%，非能源消費占23.81%；若按部門別分，能源及工業部門占42.00%，運輸部門占16.67%，農業部門占1.10%，服務業部門占7.86%，住宅部門占8.57%；若按能源別分，煤及煤產品占7.38%，石油產品占48.36%，天然氣占7.54%，生質能及廢棄物占0.44%，電力占33.57%，熱能占2.71%。

我國能源總供給自92年11,957萬公秉油當量，增至112年13,159萬公秉油當量，年成長率為0.48%。112年能源總供給結構中，自產能源占3.33%，進口能源占96.67%；若按能源別分，煤及煤產品占28.82%，原油及石油產品占43.96%，天然氣占20.29%，生質能及廢棄物占1.32%，慣常水力占0.29%，核能占3.92%，地熱、太陽光電及風力占1.41%。

煤炭總供給量自92年5,467萬公噸，增至112年5,801萬公噸，年成長率為0.03%；煤炭國內用量自92年5,531萬公噸，增至112年5,918萬公噸，年成長率為0.34%。

石油產品國內用量自92年4,670萬公秉油當量，降至112年3,911萬公秉油當量，年成長率為-0.88%，其中發電用油（轉變投入）占2.68%，一般燃料用占49.81%，非能源用占47.51%。

天然氣總進口量自92年7,301百萬立方公尺，增至112年26,619百萬立方公



尺，年成長率為6.68%；天然氣國內用量自92年8,117百萬立方公尺，增至112年26,826百萬立方公尺，年成長率為6.16%；在112年消費結構中，煉油廠占0.13%，發電及汽電占76.90%，能源及工業部門占17.64%，農業部門占0.02%，服務業部門占1.87%，住宅部門占3.44%。

全國總毛發電量自92年209,072百萬度，增至112年282,287百萬度，年成長率為1.51%。在112年發電結構中，抽蓄水力占1.08%，火力發電占83.09%（燃煤占42.21%，燃油占1.34%，燃氣占39.54%），核能占6.31%，再生能源發電占9.52%（慣常水力占1.40%，地熱占0.01%，太陽光電占4.57%，風力占2.21%，生質能占0.08%，廢棄物占1.24%）。電力消費自92年200,465百萬度，增至112年276,519百萬度，年成長率為1.62%；在112年消費結構中，能源及工業部門占62.00%，運輸部門占0.67%，農業部門占1.19%，服務業部門占17.51%，住宅部門占18.63%。

112年進口能源依存度為96.19%；近2年能源進口總值，111年為774億美元、112年為557億美元，較上年減少-27.96%；近2年平均每人負擔能源進口值，111年為新臺幣97,621元、112年為新臺幣74,293元，較上年減少-23.90%。

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

The total energy consumption in Taiwan, R.O.C. has grown greatly over the past two decades, going from 72.47 million kiloliters of oil equivalent in 2003 to 78.71 million kiloliters in 2023, which is an average annual growth of 0.41%. Of that in 2023, 76.19% was for energy use, including energy sector own use, and non-energy uses consumed 23.81%. When classified by consumer, the consumption of energy for each sector in 2023 was as follows: energy and industrial sectors consumed 42.00%; transportation sector, 16.67%; agriculture, forestry and fishery sectors, 1.10%; services sector, 7.86%; residential sector, 8.57%. Classified by form of energy, coal and coal products contributed 7.38% of consumption in 2023; petroleum products provided 48.36%; natural gas shared 7.54%; biomass and waste accounted for 0.44%; electricity constituted 33.57% and heat 2.71%.

The supply in Taiwan, R.O.C. went from 119.57 million kiloliters of oil equivalent in 2003 to 131.59 million kiloliters in 2023, an average annual growth of 0.48%. Of this total in 2023, indigenous energy contributed 3.33%, and imported energy occupied 96.67%. Classified by energy form, coal and coal products contributed 28.82% in 2023, crude oil and petroleum products constituted 43.96%, natural gas shared 20.29%, biomass and waste accounted for 1.32%, hydro provided 0.29%, nuclear provided 3.92%, geothermal, solar PV and wind provided 1.41%.

The total coal supply grew from 54.67 million metric tons in 2003 to 58.01 million metric tons in 2023, an average annual increase of 0.03%. Coal consumption, however, has grown from 55.31 million metric tons in 2003 to 59.18 million metric tons in the same period, an annual growth rate of 0.34%.

Petroleum product consumption declined from 46.70 million kiloliters of oil equivalent in 2003 to 39.11 million kiloliters in 2023, an average annual growth of -0.88%. Of this total in 2023, 2.68% was used to produce electricity, 49.81% was consumed for non-energy use, and 47.51% went to fuel use.



In 2023 imports of natural gas reached a total of 26,619 million cubic meters, and in 2003 it was 7,301 million cubic meters, an average annual increase of 6.68%. In 2023, the consumption of natural gas was 26,826 million cubic meters, while in 2003 it was only 8,117 million cubic meters, an average annual increase of 6.16%. Of the total in 2023, petroleum refineries comprised 0.13%, power generation 76.90%, energy and industrial use 17.64%, agricultural 0.02%, services use 1.87%, residential use 3.44%.

Electricity production grew from 209,072 GWh in 2003 to 282,287 GWh in 2023, an average annual increase of 1.51%. Of the total electricity production in 2023, pumped storage 1.08%, thermal power 83.09% (coal shared 42.21%, oil 1.34%, LNG 39.54%), nuclear 6.31%, renewable energy power 9.52% (hydro 1.40%, geothermal 0.01%, solar photovoltaic 4.57%, wind 2.21%, biomass 0.08%, waste 1.24%). Electricity consumption went from 200,465 GWh in 2003 to 276,519 GWh in 2023, an average annual increase of 1.62%. Classified by sector, energy and industrial consumed 62.00% of electricity in 2023, transportation occupied 0.67%, agricultural 1.19%, services 17.51%, residential accounted for 18.63%.

In the year 2023, the dependence on imported energy was 96.19%. The total value of energy imports in the past two years was \$77.4 billion in 2022 and \$55.7 billion in 2023, a decrease of 27.96% compared to the previous year. The average energy import value per person over the past two years was NT\$97,621 in 2022 and NT\$74,293 in 2023, a decrease of 23.90% compared to the previous year.