**ELECTRICITY**

Worldwide electricity access: 90% (2019 est.)
- Urban areas: 96% (2019 est.)
- Rural areas: 85% (2019 est.)

Largest installed generating capacities (in kW) (2020 est.)
1. China 2.22 billion
2. US 1.14 billion
3. India 432.77 million
4. Japan 348.67 million
5. Russia 276.46 million
6. Germany 248.27 million
7. Brazil 195.04 million
8. Canada 153.25 million
9. France 138.61 million
10. South Korea 135.79 million

Highest electricity consumers (in kWh) (2020 est.)
1. China 6.88 trillion
2. US 3.90 trillion
3. India 1.23 trillion
4. Russia 942.90 billion
5. Japan 903.70 billion

**CARBON DIOXIDE EMISSIONS**

Worldwide CO₂ emissions: 35.55 billion metric tonnes (2019 est.)

Highest CO₂ emitters (in metric tonnes) (2019 est.)
1. China 10.77 billion
2. US 5.14 billion
3. India 2.31 billion
4. Russia 1.85 billion
5. Japan 1.10 billion
6. Germany 726.88 million
7. South Korea 686.95 million
8. Iran 646.04 million
9. Canada 612.08 million
10. Saudi Arabia 579.93 million
11. Indonesia 563.54 million
12. South Africa 470.36 million
13. Mexico 463.74 million
14. Brazil 456.67 million
15. Australia 417.87 million

Percent of CO₂ emissions from top 15 emitters: 75.4%

**GLOBAL ENERGY CONSUMPTION PORTFOLIO (2021 EST.)**

Energy Consumption (in billion kWh)
- 83.09% Fossil Fuels
- 6.83% Hydroelectricity
- 4.30% Nuclear
- 2.98% Wind
- 1.65% Solar
- 0.70% Biofuels
- 0.47% Other

Highest energy consumption per capita (in Btu/person) (2019 est.)
1. Qatar 723.58 million
2. Singapore 639.95 million
3. Bahrain 547.98 million
4. United Arab Emirates 471.79 million
5. Brunei 415.18 million
6. Canada 403.70 million
7. Kuwait 381.99 million
8. Norway 333.83 million
9. Turkmenistan 330.51 million
10. Luxembourg 310.07 million
11. US 304.41 million
12. Saudi Arabia 296.95 million
13. Oman 292.02 million
14. Malta 267.74 million
15. South Korea 242.35 million

*as of October 2022*
### Coal

#### Largest proven coal reserves (in metric tons) (2019 est.)

1. **US** 228.66 billion
2. **Russia** 162.17 billion
3. **Australia** 149.08 billion
4. **China** 141.60 billion
5. **India** 105.93 billion
6. **Indonesia** 39.89 billion
7. **Germany** 35.90 billion
8. **Ukraine** 34.38 billion
9. **Poland** 26.93 billion
10. **Kazakhstan** 25.61 billion

#### Highest coal consumers (in metric tons) (2020 est.)

1. **China** 4.51 billion
2. **India** 883.98 million
3. **US** 441.97 million
4. **Russia** 266.04 million
5. **Japan** 210.88 million

#### Largest coal exporters (in metric tons) (2020 est.)

1. **Indonesia** 409.89 million
2. **Australia** 390.81 million
3. **Russia** 224.32 million
4. **South Africa** 74.97 million
5. **Colombia** 69.86 million

#### Largest coal importers (in metric tons) (2020 est.)

1. **China** 307.05 million
2. **India** 219.21 million
3. **Japan** 174.49 million
4. **South Korea** 123.78 million
5. **Taiwan** 63.52 million

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### Petroleum

#### Largest proven crude oil reserves (in barrels) (2021 est.)

1. **Venezuela** 303.81 billion
2. **Saudi Arabia** 258.60 billion
3. **Iran** 208.60 billion
4. **Canada** 170.30 billion
5. **Iraq** 145.02 billion
6. **Kuwait** 101.50 billion
7. **United Arab Emirates** 97.80 billion
8. **Russia** 80.00 billion
9. **Libya** 48.36 billion
10. **US** 47.11 billion

#### Highest refined petroleum consumers (in barrels/day) (2020 est.)

1. **US** 20.54 million
2. **China** 14.01 million
3. **India** 4.92 million
4. **Japan** 3.74 million
5. **Russia** 3.70 million

#### Largest crude oil exporters (in barrels/day) (2019 est.)

1. **Saudi Arabia** 7.34 million
2. **Russia** 5.20 million
3. **Iraq** 3.98 million
4. **Canada** 3.18 million
5. **United Arab Emirates** 2.43 million

#### Largest crude oil importers (in barrels/day) (2018 est.)

1. **China** 9.24 million
2. **US** 7.77 million
3. **India** 4.53 million
4. **South Korea** 3.03 million
5. **Japan** 3.01 million

### Natural Gas

#### Largest proven natural gas reserves (in m$^3$) (2021 est.)

1. **Russia** 47.81 trillion
2. **Iran** 33.99 trillion
3. **Qatar** 23.86 trillion
4. **US** 13.18 trillion
5. **Turkmenistan** 11.33 trillion
6. **Saudi Arabia** 9.42 trillion
7. **China** 6.55 trillion
8. **United Arab Emirates** 6.09 trillion
9. **Nigeria** 5.76 trillion
10. **Venezuela** 5.67 trillion

#### Highest natural gas consumers (in m$^3$) (2021 est.)

1. **US** 857.54 billion
2. **Russia** 460.61 billion
3. **China** 306.58 billion
4. **Iran** 220.70 billion
5. **Canada** 101.77 billion

#### Largest natural gas exporters (in m$^3$) (2021 est.)

1. **Russia** 250.85 billion
2. **United Arab Emirates** 188.40 billion
3. **Qatar** 126.75 billion
4. **Norway** 107.34 billion
5. **Australia** 83.12 billion

#### Largest natural gas importers (in m$^3$) (2021 est.)

1. **China** 131.61 billion
2. **Japan** 105.26 billion
3. **Germany** 83.12 billion
4. **US** 79.51 billion
5. **Italy** 70.91 billion

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*as of October 2022*