SDG Goal 7	**Affordable and clean energy**
SDG Target 7.3	**By 2030, double the global rate of improvement in energy efficiency**
SDG Indicator 7.3.1	**Energy intensity measured in terms of primary energy and GDP**
Time series	**Energy intensity measured in primary energy in relation to GDP**

1. General information on the time series

- Date of national metadata: 7 December 2022
- National data: http://sdg-indicators.de/7-3-1/
- Definition: The time series measures how much primary energy is used to produce one unit of economic output measured by gross domestic product (GDP). It is a proxy of the efficiency with which an economy is able to convert energy into economic output. A lower ratio indicates that less energy is needed to produce one additional unit of output.
- Disaggregation: Not available.

2. Comparability with the UN metadata

- Date of UN metadata: March 2022
- UN metadata: https://unstats.un.org/sdgs/metadata/files/Metadata-07-03-01.pdf
- The time series is compliant with the UN metadata. GDP is not measured at purchasing power parity but in constant euro.

3. Data description

- The data on total primary energy supply (TPES) is derived from the national energy balances calculated by the Working Group on Energy Balances (AGEB) as a secondary statistic. The source data is compiled from several official and private institutions like the Federal Statistical Office or the Association of the German Petroleum Industry (MWV). TPES is defined as the production of energy plus net imports minus international marine and aviation bunkers plus stock changes. The data on GDP is calculated by the Federal Statistical Office's National Accounts as a secondary statistic. GDP is adjusted based on a price base changing every year (previous year's price base). After several revisions due to new data input, final results are available four years after the first preliminary release.

4. Access to data source

- National accounts – Gross value added, gross domestic product (nominal/price-adjusted) – GENESIS online 81000-0001:
  https://www-genesis.destatis.de/genesis//online?operation=table&code=81000-0001&bypass=true&language=en
- AG Energiebilanzen: Evaluation Tables on the Energy Balance:
  https://ag-energiebilanzen.de/en/data-and-facts/evaluation-tables-on-the-energy-balance/

5. Metadata on source data

- Quality Report – National Accounts:
  https://www.destatis.de/EN/Methods/Quality/QualityReports/National-Accounts-Domestic-Product/national-accounts.pdf
- Preliminary notes and additional information on the German Energy Balance:
  https://ag-energiebilanzen.de/wp-content/uploads/2020/09/awt_2019_e.pdf

6. Timeliness and frequency

- Timeliness: GDP: t + 0.5 months; TPES: t + 3 months
- Frequency: Annual

7. Calculation method

- Unit of measurement: 2015 = 100; Megajoule per EUR
- Calculation:

$$\textbf{Energy intensity} = \frac{\text{TPES [Mega Joule]}}{\text{GDP [EUR]}}$$