

DIMENSION

WHAT SUCCESS LOOKS LIKE

KEY TRANSITION INDICATORS

SUPPORTING TRANSITION INDICATORS

KEY DATA GAPS


**Energy Systems
and Energy Security**

Energy demand widely met by renewable electricity, heat and fuels

- **Renewable energy (RE) share in total final energy consumption (TFEC)**

- › Economy-wide 15%
- › Agriculture 20%
- › Buildings 18%
- › Industry 19%
- › Transport 5%

- **Electricity share in TFEC (2023)**

- › Economy-wide 23%
- › Agriculture 32.5%
- › Buildings 36.2%
- › Industry 30%
- › Transport 1.5%

- **Share of RE per energy carrier**

- › Electricity 33.7%
- › Heat 10%
- › Fuels 4%

- **Net energy imports**

- › 92 net importer countries
- › 36 net exporter countries

- **Cross sectoral policies**

- › 17 countries with policies for the uptake of renewables in the four main demand sectors

- **Renewable Energy Targets**

- › 169 countries with targets for renewable energy share

- **Capacity**

- › Solar PV 2,889 GW
- › Wind 1,305 GW
- › Hydropower 1,280 GW
- › Total 5,655 GW

- **Grids**

- › ~2,500 GW of renewables and storage projects awaiting grid connection

- **Storage capacity**

- › Batteries 267 GW
- › Pumped Storage 199 GW

- **Curtailment**

- › Variable

- **Heat pumps**

- › Steady growth in China, volatile in Europe and the US

- **Electric vehicles**

- › 20 million global sales – ¼ of global sales (2025)

- **Biofuels**

- › 193 billion litres in 2024

- **Distributed renewable energy generation**

- **Flexibility**

- **Interconnections**

- **Integrated planning tracking**

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Economy

Renewable energy becomes a driver of economic activity and competitiveness

- **Renewable manufacturing**
 - › Solar PV >1,100 GW/year
 - › Wind energy ~210 GW/year
 - › Batteries >3.5 TWh/year
- **Investment in renewable energy and enabling technologies (2025)**
 - › Renewables USD 690 billion
 - › Grids USD 483 billion
 - › Electrified transport USD 893 billion
- **Subsidies for fossil fuels (direct subsidies)**
 - › 3X higher than subsidies for renewables
- **Renewable energy jobs**
 - › 16.6 million

- **Fiscal and financial incentives**
 - › 114 countries, 388 recorded policies
- **Trade policies**
 - › 212 trade measures related to renewables and enabling technologies (2024)

- **Economic contribution of renewables (GDP, tax income)**
- **Supply chains**
- **Manufacturing policies**
- **Renewable energy technologies trade**
- **Upstream & downstream renewable energy jobs**
- **Job quality**

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Society & Governance

Benefits of the transition are broadly shared

- **Distributed renewables**
 - › 41% of solar PV is distributed
- **Community participation**
 - › 114 policies for renewables-based community energy and citizen engagement across 41 countries
- **Energy access**
 - › 69 countries without universal access to electricity
 - › 53 countries with policies targeting renewables for energy access

- **Reskilling**
 - › 56 policies worldwide
- **Affordability policies**
 - › 64 countries with policies for energy affordability with renewables and energy efficiency
- **Citizen energy**
 - › 118 policies across 42 countries

- **Affordability**
- **Ownership**
- **Participation**



Environment & Climate

Renewable energy deployment translates into environmental gains

- **Energy-related CO₂ emissions over time**
 - › +15% since 2010
- **Recycling rates**
 - › From 2% (Rare Earth Elements) to 75%(aluminium), 2021

- **NDCs**
 - › ~90% mentions to renewables in 109 submitted Third NDCs
- **National adaptation plans**
 - › ~90% mentions to renewables in 85 submitted NAPs
- **Permitting**
- **Circularity**

- **Circular economy value**
- **Policy integration**