



14th Session of the OIC Statistical Commission

Role of National Statistical Offices in Supporting Data-Driven Energy Transitions

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IRENA data and analysis



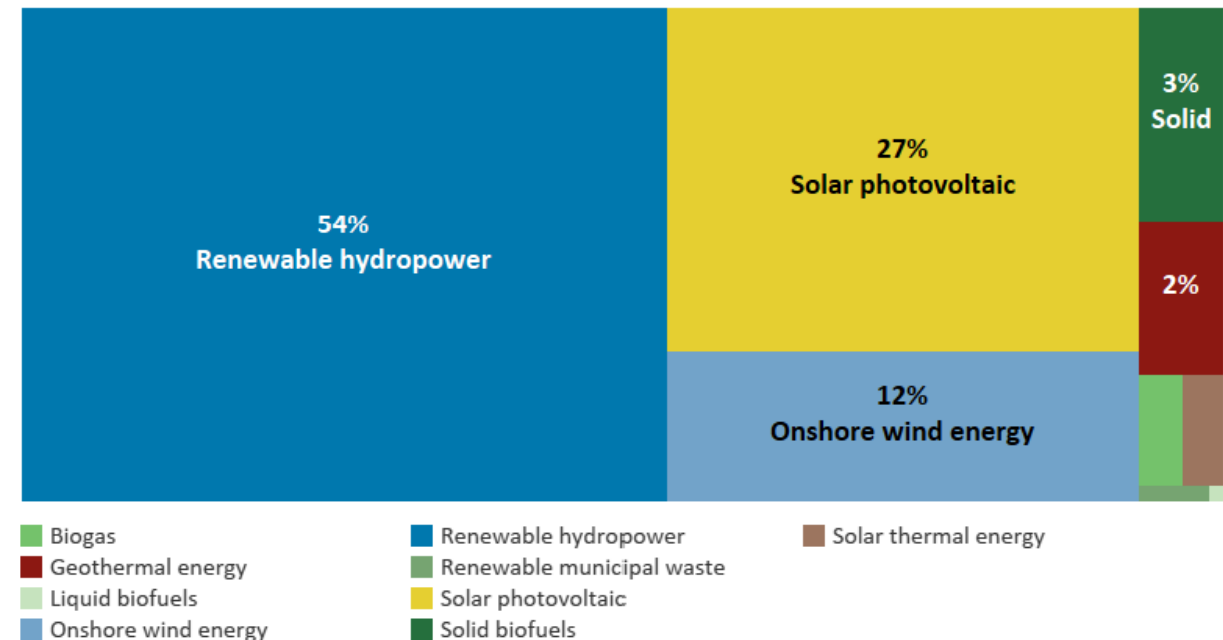
Producing timely data and analyses to help monitor the energy transition, whilst developing country capability to collect data.

Data is the foundation of evidence-based energy policy making

Importance of data to support evidence-based decision making

- Supports tracking of SDG 7, COP28 Consensus of tripling renewable's goal, Paris Agreement goals (NDCs) and other energy transition related indicators
- Enables policymakers to balance energy access, affordability, and climate goals
- Identify and address socio-economic, equity, and environmental gaps
- Facilitates investment towards energy projects

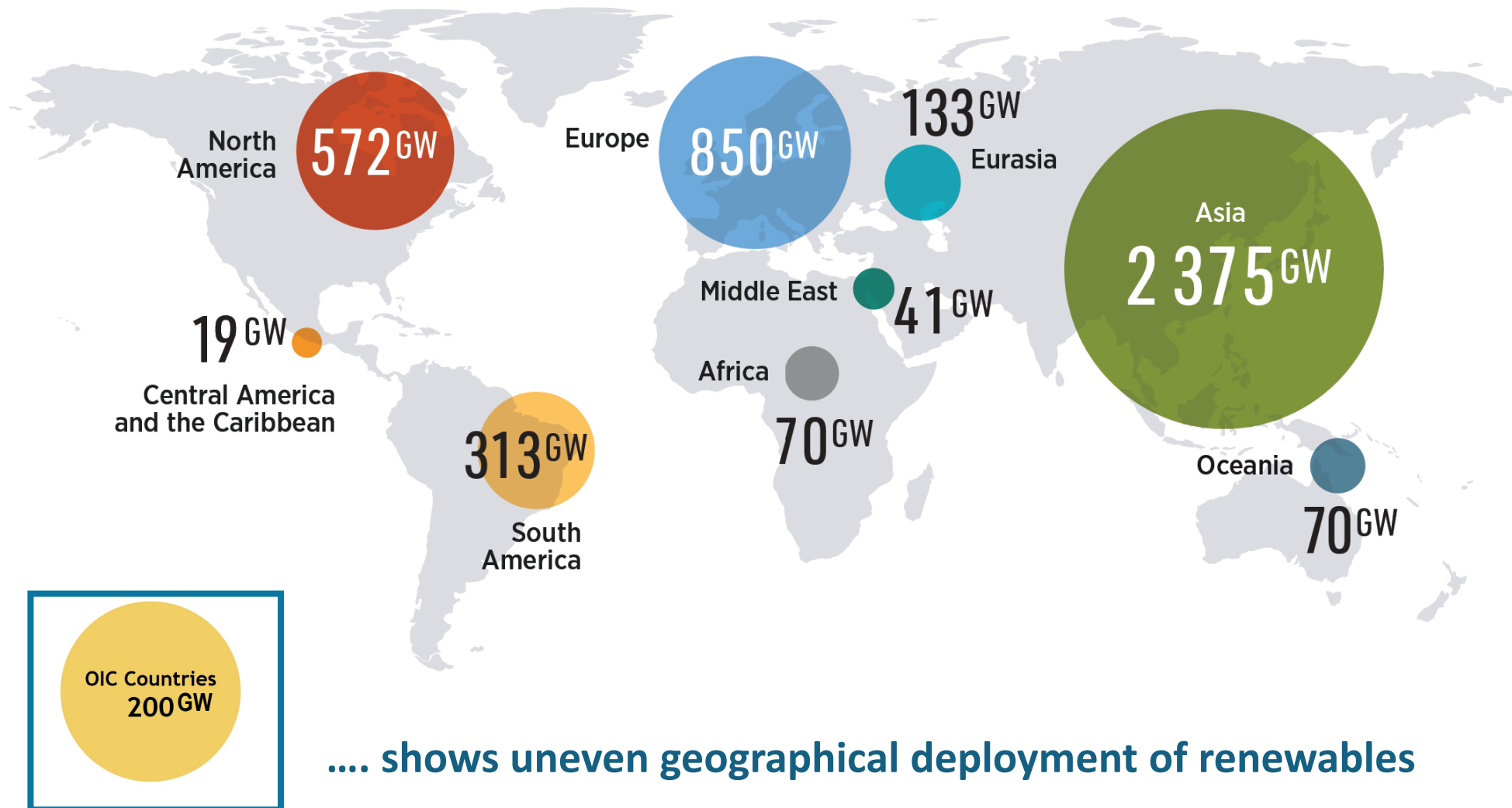
Installed Renewable Power Capacity by Technology
for Organization of the Islamic Cooperation (OIC) members, 2024



Source: IRENA Renewable Energy Statistics 2025

Example: IRENA's Renewable Energy Statistics 2025

Renewable power capacity by region in 2024

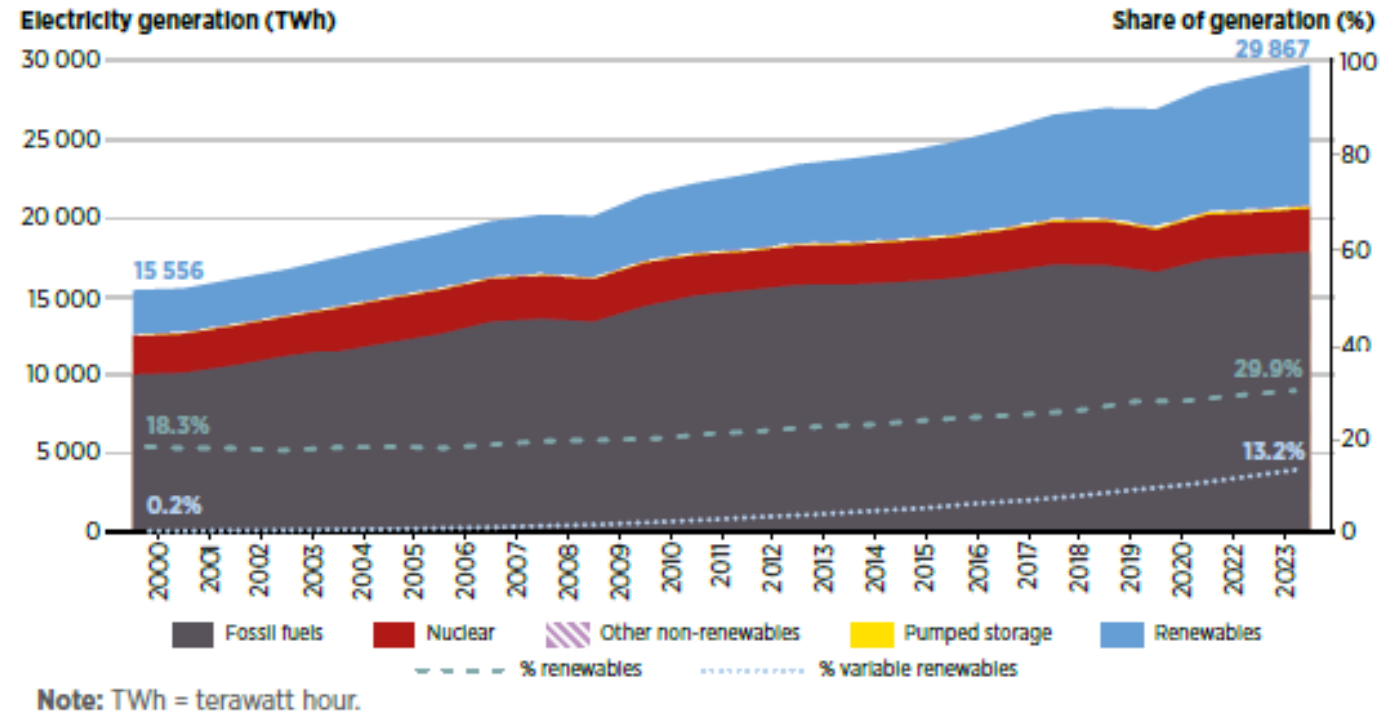


.... shows uneven geographical deployment of renewables

..renewable energy accounted for 30% of electricity generation in 2023

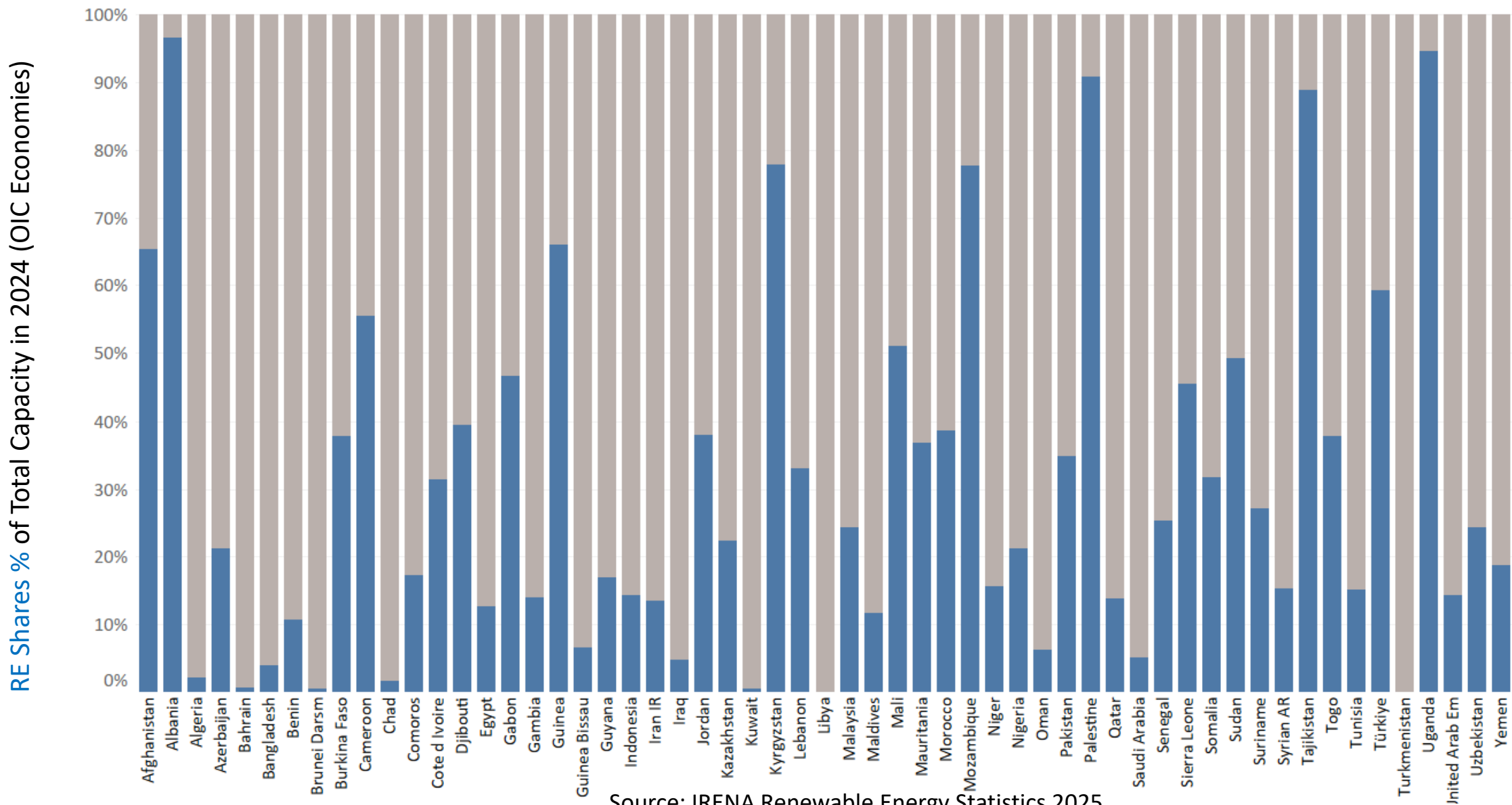
- Globally totaling 8,928 TWh in 2023
- The remaining 70% (20, 939 TWh) corresponded to other non-renewable
- Total electricity generation increased by an average of 2.5% each year between 2012 and 2023
- During the same period, renewable electricity expanded at a compound annual growth rate (CAGR) of 5.9%

→ *significantly outpacing non-renewable sources, which recorded a CAGR of just 1.3%*



Source: IRENA Renewable Energy Statistics 2025

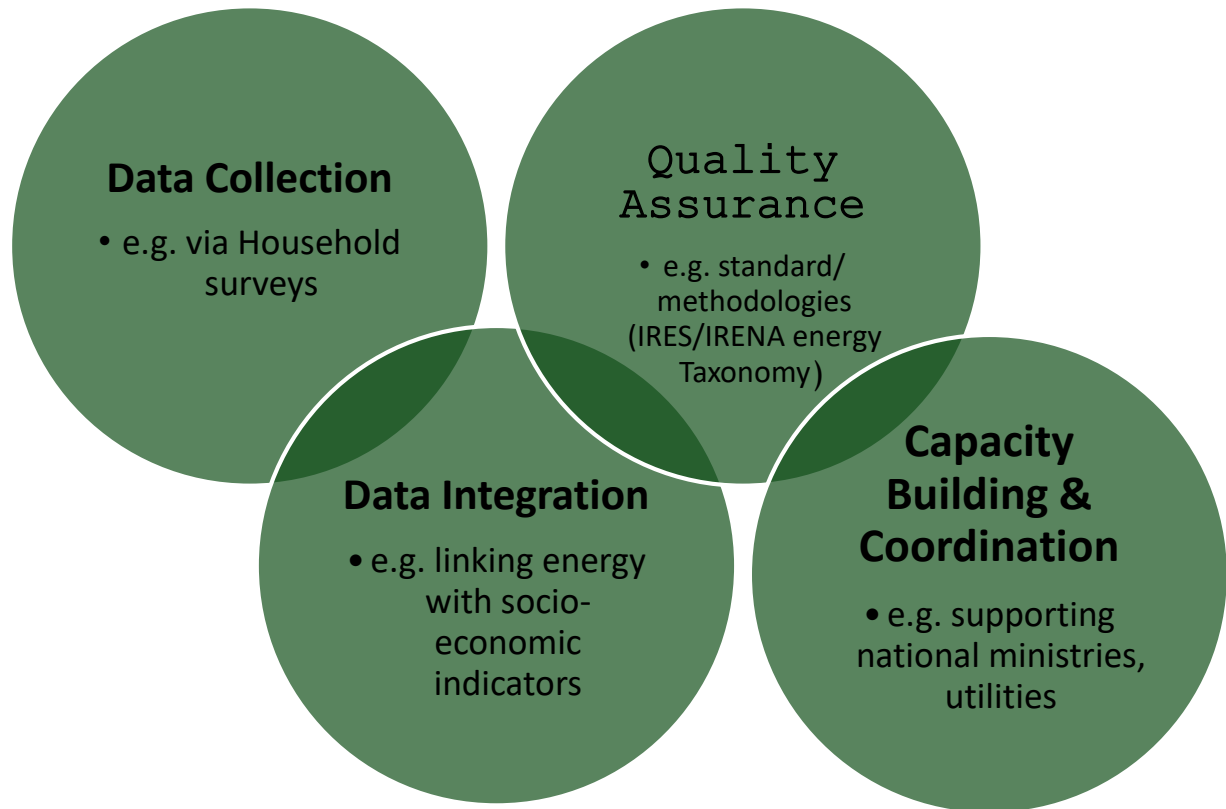
...varying shares of renewables in total power capacity in OIC economies



Source: IRENA Renewable Energy Statistics 2025

- Impartial producers of official statistics
- Longstanding experience with surveys, censuses and administrative data
- Trusted source for international reporting
- linking energy with broader social, economy, demographics & environment data sets

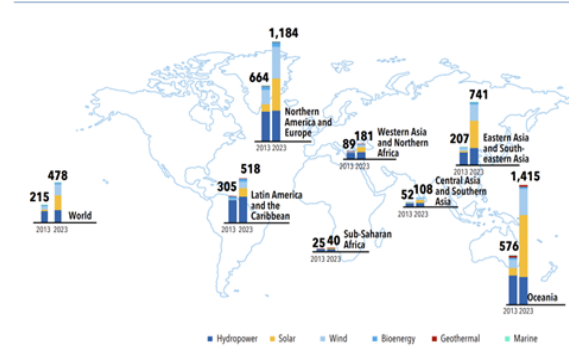
Key Roles of NSOs in the Energy Transition



Example: NSOs Role in Supporting SDG 7 Monitoring

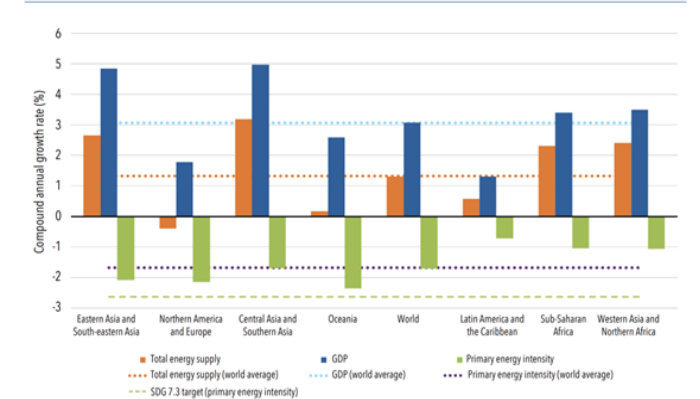
- NSOs support with Voluntary National Reviews (VNRs) and track SDG progress on national and Sub-national level
- Provide disaggregated and comprehensive data based on geography (urban/rural), gender, income ..etc for respective indicators
- Develop census and surveys aligning with the data needed to track SDG 7 progress.
- Provide and/or validate national data submitted to and reported by custodian agencies.

FIGURE 3.14 • GROWTH IN RENEWABLE ENERGY GENERATING CAPACITY PER CAPITA BY TECHNOLOGY ACROSS REGIONS, 2010-23



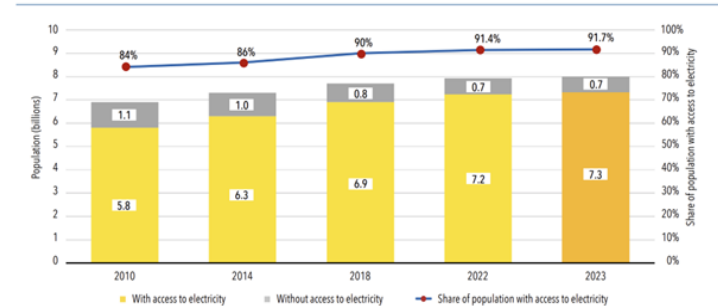
Source: International Renewable Energy Agency.
CAGR = compound annual growth rate.
Disclaimer: This map is provided for illustration purposes only. Boundaries and names shown on this map do not imply any endorsement or acceptance by IRENA.

FIGURE 4.3 • AVERAGE ANNUAL CHANGES IN TOTAL ENERGY SUPPLY, GDP, AND PRIMARY ENERGY INTENSITY, BY WORLD REGION, 2010-22



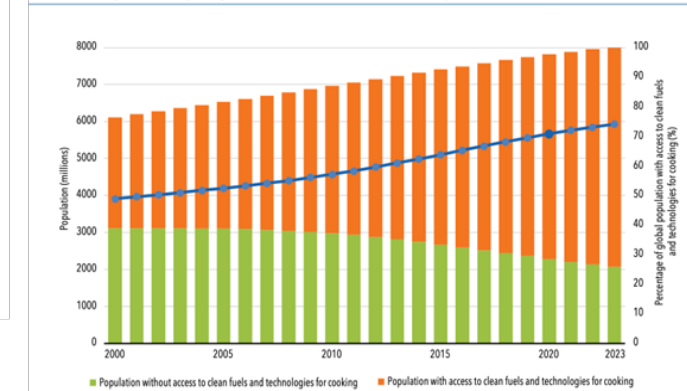
Source: International Energy Agency (World Energy Balances) and United Nations Statistics Division (Energy Balances).
GDP = gross domestic product; SDG = Sustainable Development Goal.

FIGURE 1.4 • GAINS IN GLOBAL ELECTRICITY ACCESS AND POPULATION GROWTH, 2010-23



Source: World Bank 2025.

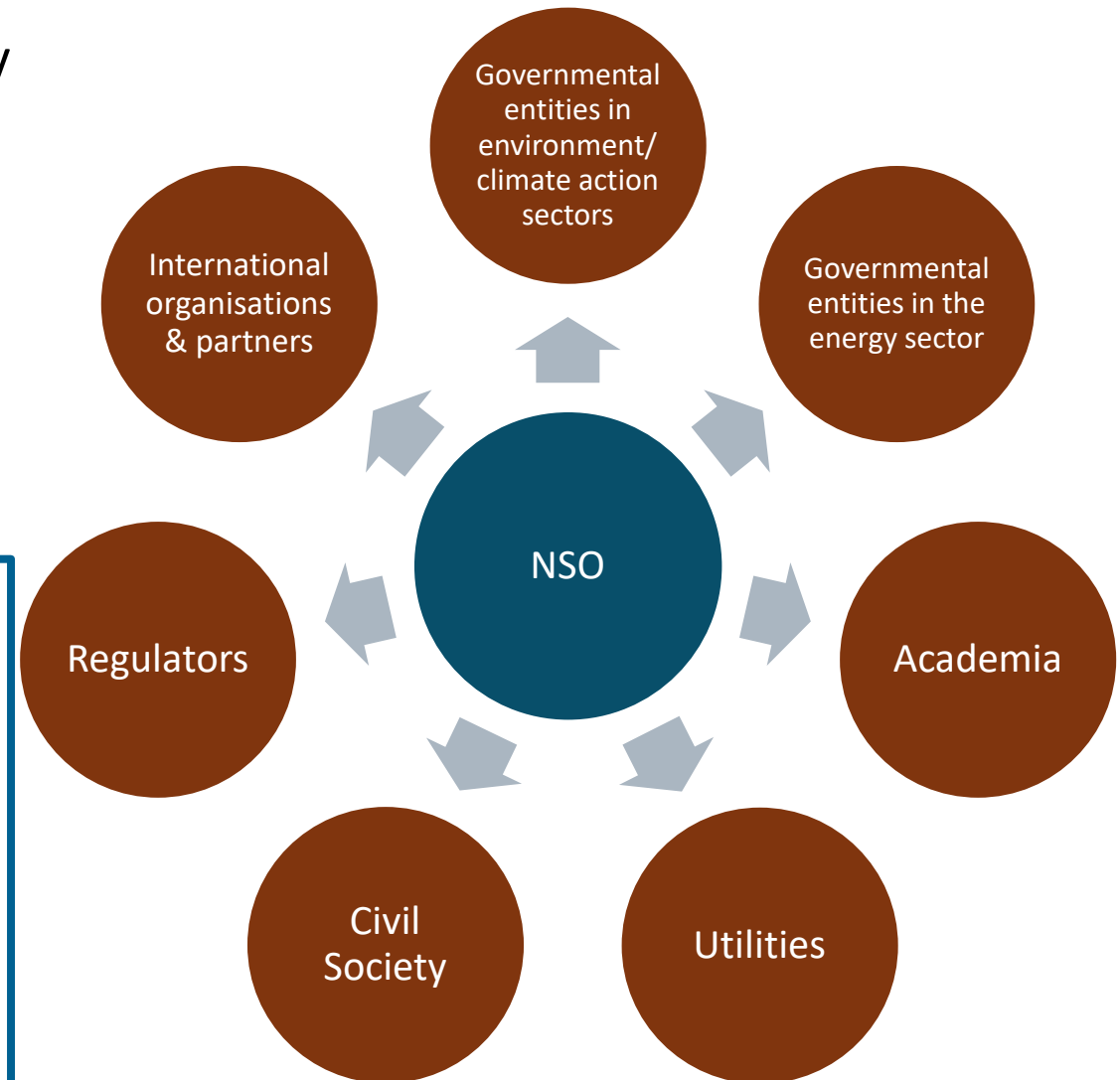
FIGURE 2.1 • ABSOLUTE NUMBER OF PEOPLE (LEFT AXIS, BARS) AND PERCENTAGE OF THE GLOBAL POPULATION (RIGHT AXIS, LINE) WITH ACCESS TO CLEAN COOKING, 2000-23



Source: Tracking SDG7: The Energy Progress report 2025

Partnerships and Coordination for Energy Data

- NSOs play a central role in coordinating data efforts across various sectors and in particularly the energy sector
- NSOs working with:
 - Ministries of Energy & Environment
 - Utilities and regulators
 - International organizations (IEA, IRENA, UNSD, IMF, WB).



Recommendations

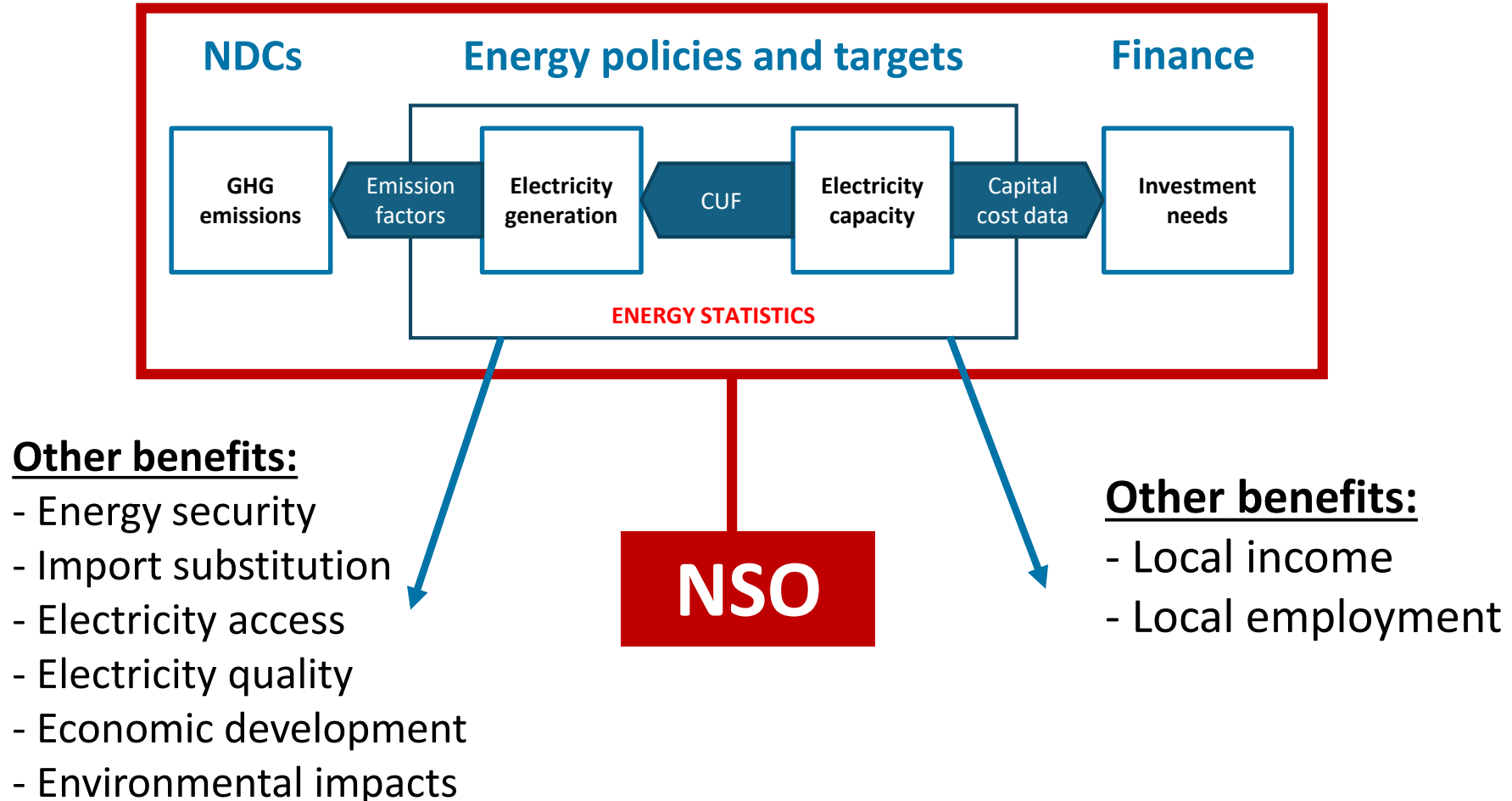
- Investing in survey modules on energy.
- Building NSOs capacity on energy statistics.
- Strengthening collaboration between NSOs and line ministries.
- Fostering innovation in data sources (satellite imagery, digital surveys, use of big data/AI).

Beyond power capacity and generation datasets:

- Energy infrastructure data (including electric vehicles, charging infrastructure, batteries and other storage technologies), which may become more important to monitor in future.
- Socio-economic data, particularly jobs (to see what changes may be needed to the workforce to make the transition a success)
- Distributed and decentralised generation related data, as the transition is likely to involve a lot of small producers (not just off-grid, but others also providing their own power some of the time- autoproducers)
e.g. plants using their own PV in island mode some of the time, people charging vehicles with their own PV panels, or own consumption “behind the meter” in net-metering schemes
- Hydrogen data

NSOs will need to adapt or expand current systems to avoid growing data gaps in the future and foster digital innovations

NSOs are at the centre of tracking data for the energy transition by providing evidence-based tracking of energy targets, NDCs and other related goals and investment plans



Thank you
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