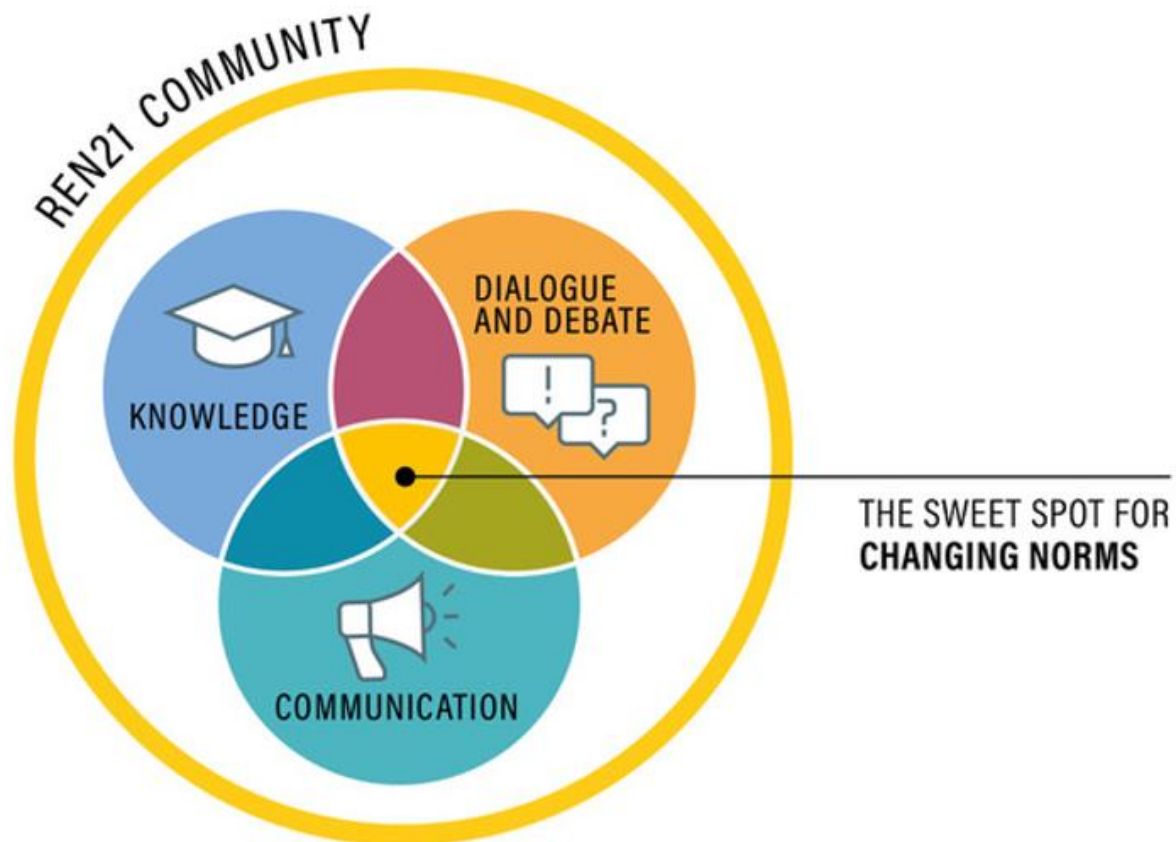




RENEWABLES NOW

OUR APPROACH TO DRIVE CHANGE



Position knowledge strategically, build on the REN21 community and their roles, **engage** with usual and unusual suspects **to change norms.**

THE ANNUAL GSR COLLECTION

COVERING ALL BUILDING BLOCKS OF THE RENEWABLE ENERGY SYSTEM



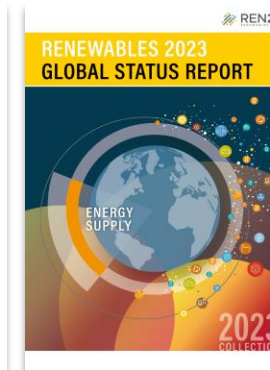
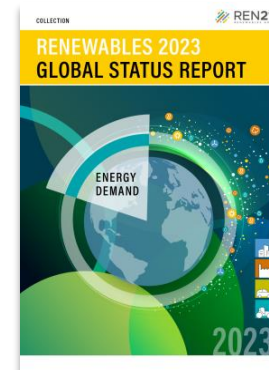
Renewables for Economic and Social Value Creation

- Employment & Equity
- Local Supply Chains
- Access to Electricity & Clean Cooking



GSR 2023 Global Overview

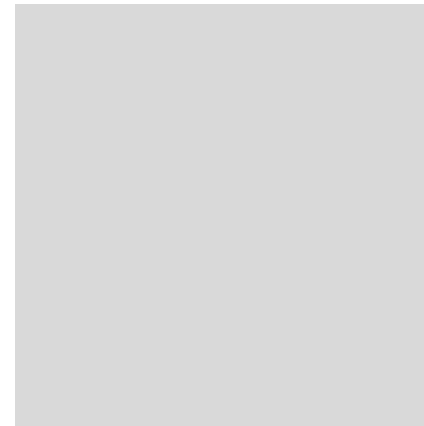
- Renewable Energy Share in TFEC
- Economy-wide Policies
- Energy System Investment



WHAT CHANGED IN 2022?



Energy Crisis was further exacerbated by Russian Federation invasion of Ukraine in February 2022



Energy prices reached their highest levels since 2008, impacting all energy-consuming sectors

Starting in October 2021, rapid economic rebound following COVID-19 led to **tighter energy markets**



High inflation became a global phenomenon during 2022

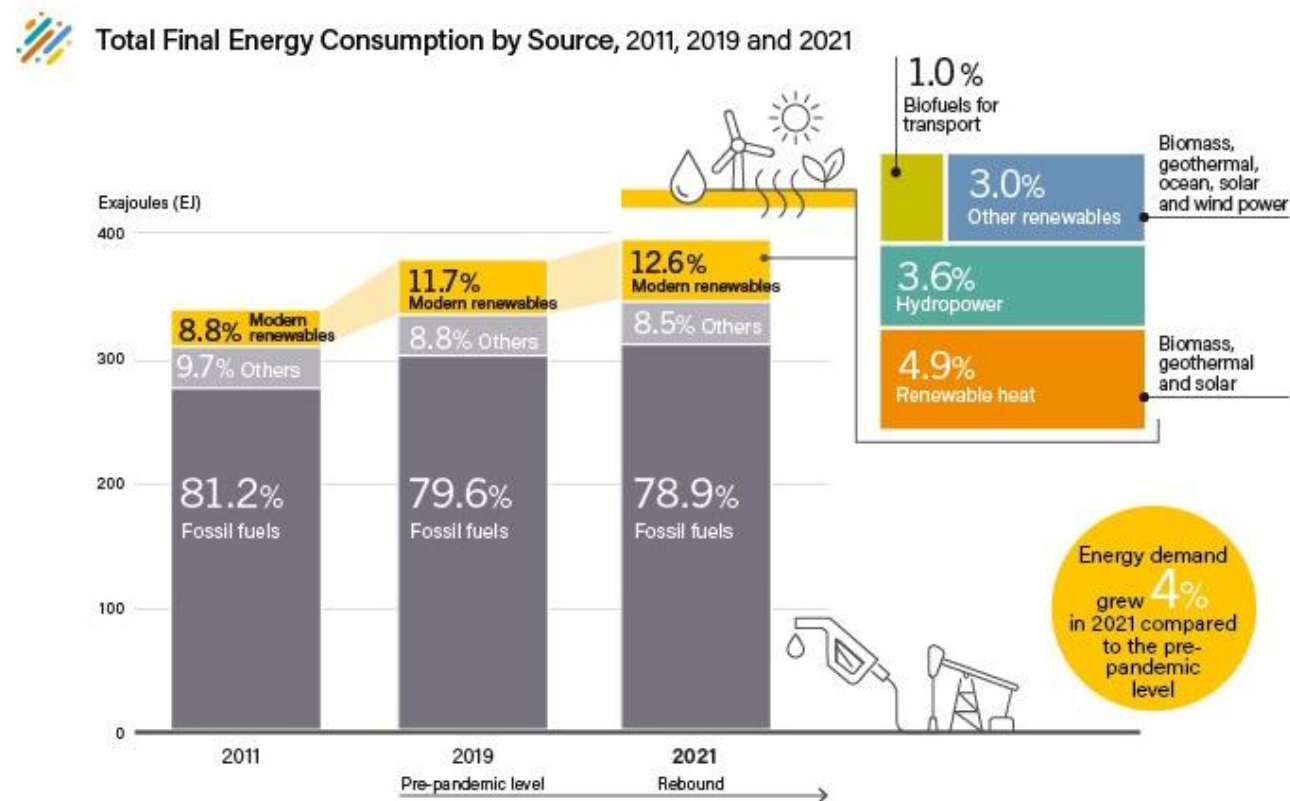




GSR 2023 GLOBAL OVERVIEW

THE ENERGY TRANSITION IS NOT HAPPENING

DEEP STRUCTURAL TRANSFORMATIONS ARE NEEDED

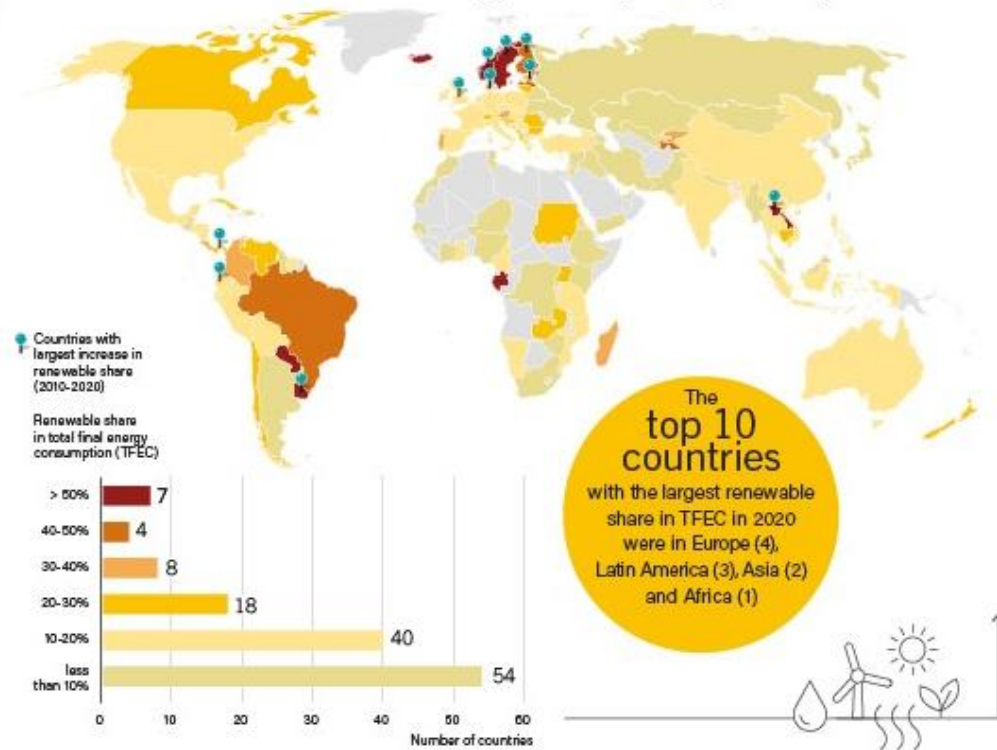


2022 was another year of record renewable deployment; however, shift is **highly concentrated** across geographies, technologies, and fuels.

UNEVEN DEPLOYMENT OF RENEWABLE ENERGY

THE TRANSITION REQUIRES EQUITY AND ENERGY ACCESS

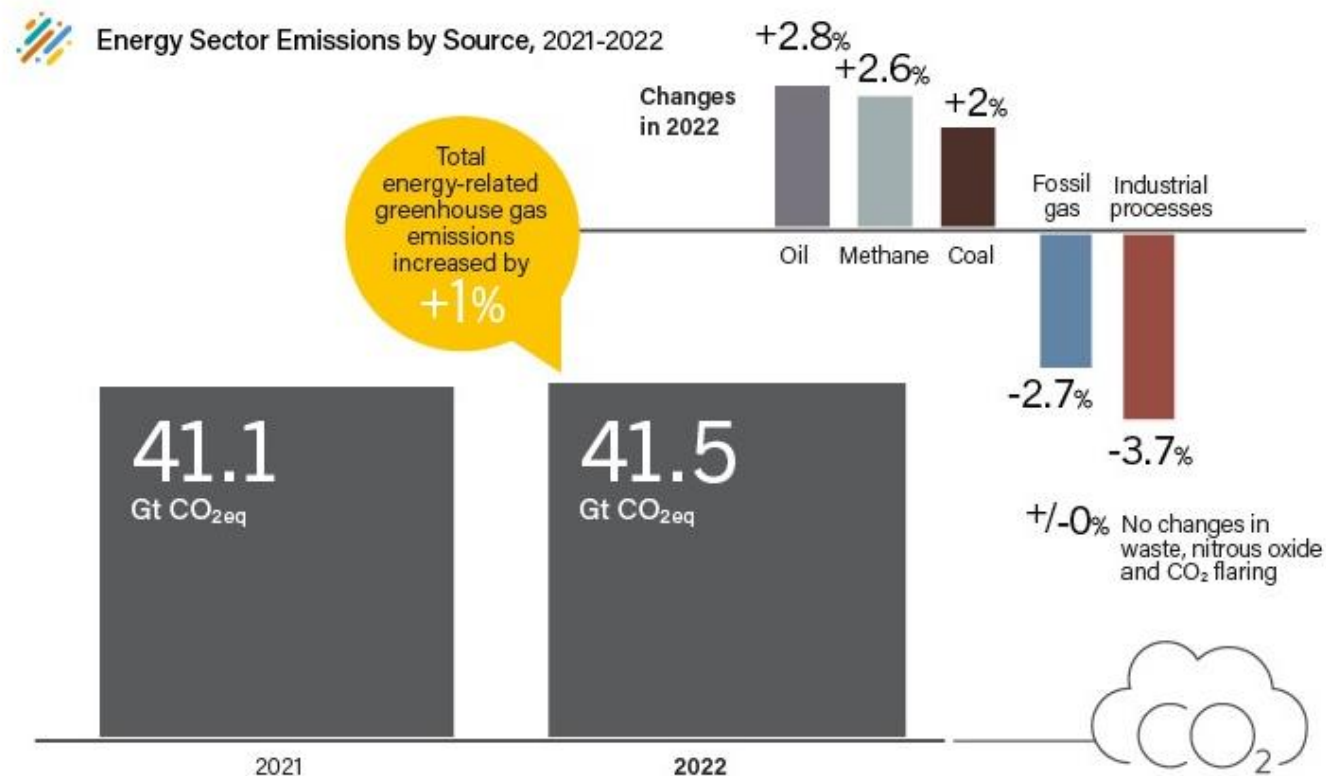
 Renewable Share of Total Final Energy Consumption, by Country, 2020



Only 7 countries have a renewable energy share in total final energy consumption above **50%**.

RECORD GROWTH IN RENEWABLES

BUT EMISSIONS ARE STILL RISING



Despite **record growth** in renewables, energy sector **emissions rose 1%** in 2022

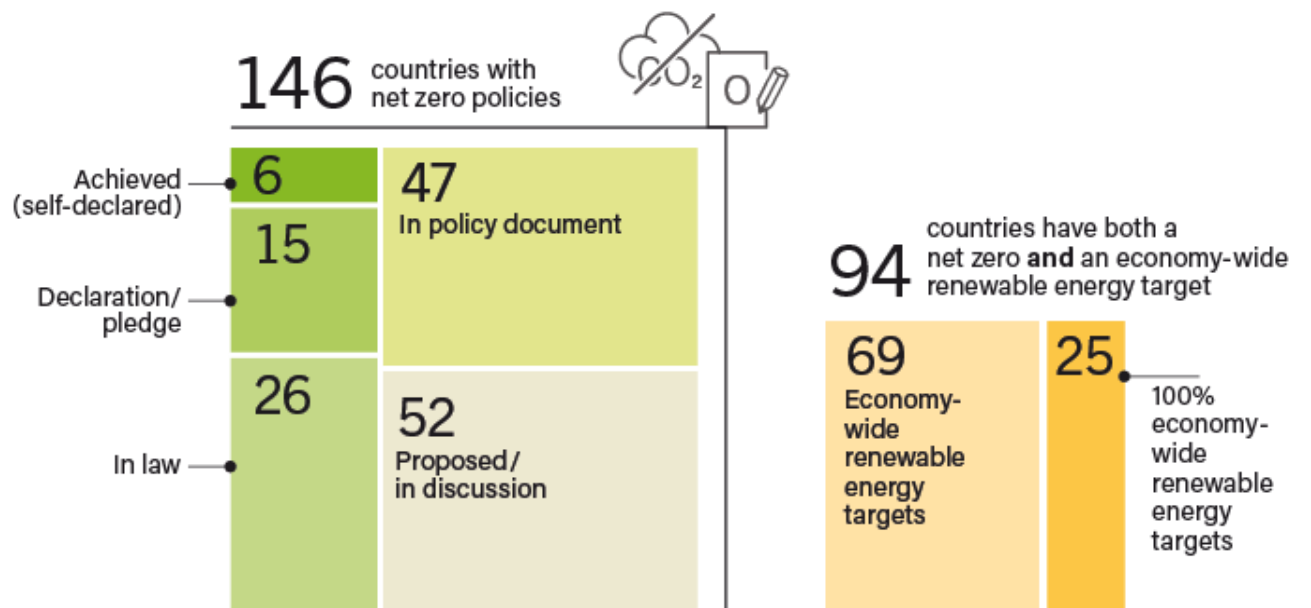


RENEWABLE ENERGY POLICIES

NET ZERO AMBITION INCREASING

BUT SHOWING DISCONNECT WITH THE ENERGY TRANSITION

 Countries with Net Zero and Renewable Energy Targets, 2022

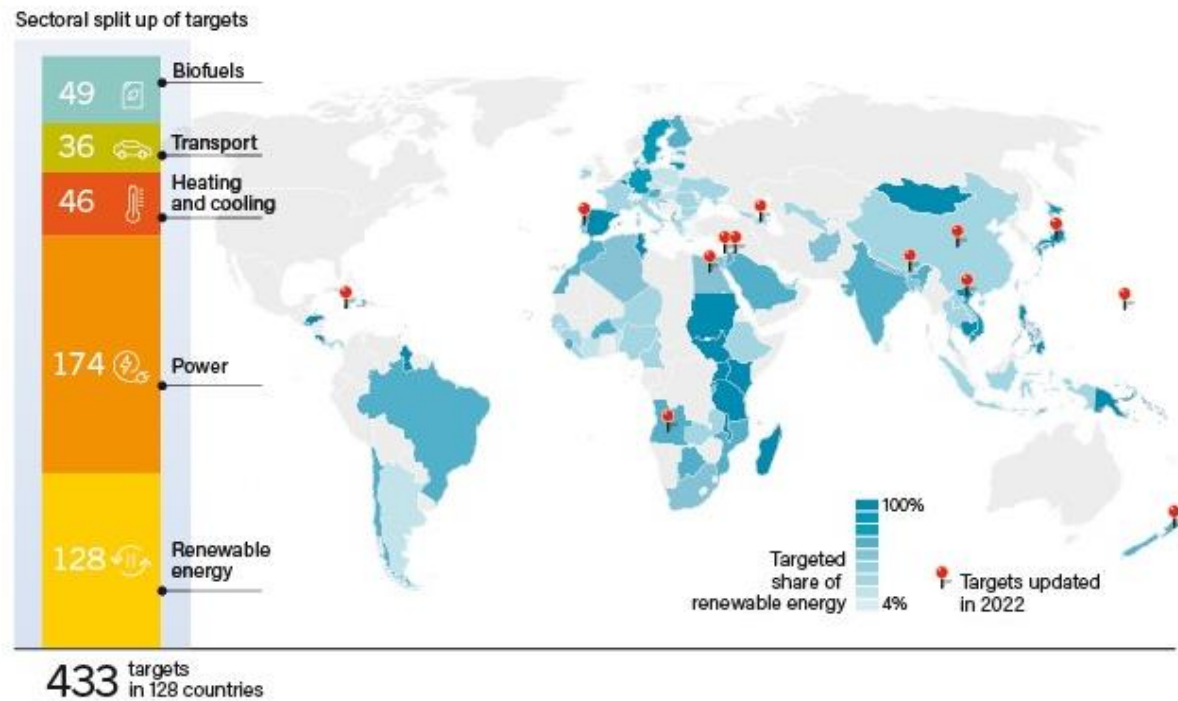


146 countries now have a net zero policy, though the majority are not backed by legislation.

RENEWABLE ENERGY TARGETS

NEW ECONOMY-WIDE AND TECHNOLOGY-SPECIFIC TARGETS

 Countries with Economy-wide Renewable Energy Targets, by Sector and Targeted Share, 2022



Over **65%** of countries have an economy-wide renewable energy target. (+13 countries in 2021)


Only **31 countries** have a 100% renewable energy target.

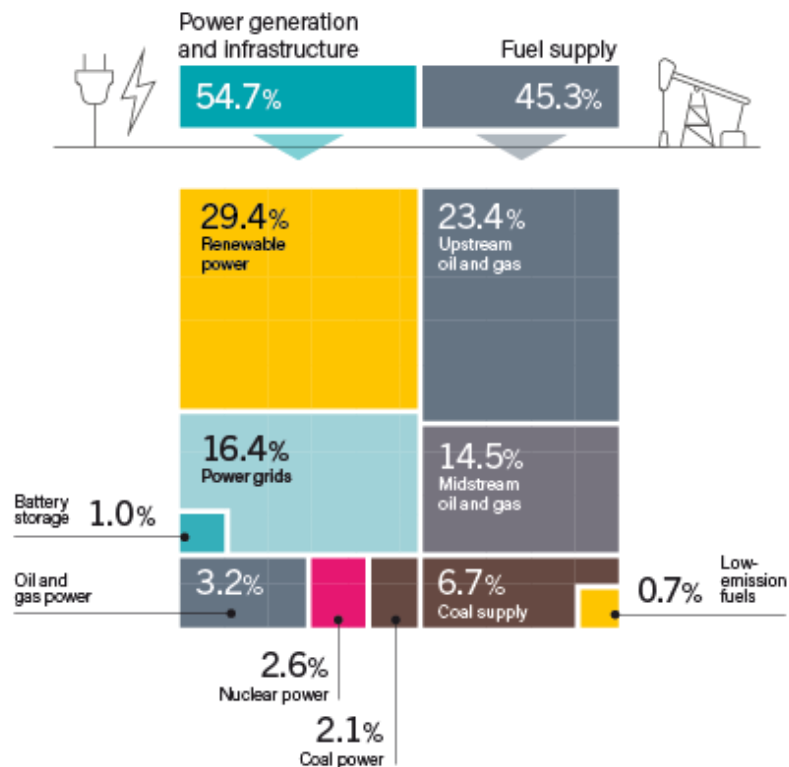


UNLOCKING INVESTMENT

INVESTMENT IN THE ENERGY SYSTEM

SOLAR PV DRIVING INVESTMENT GROWTH, BUT FOSSIL FUELS STILL DOMINATE

 Global Investment in the Energy Sector, by Type, 2022

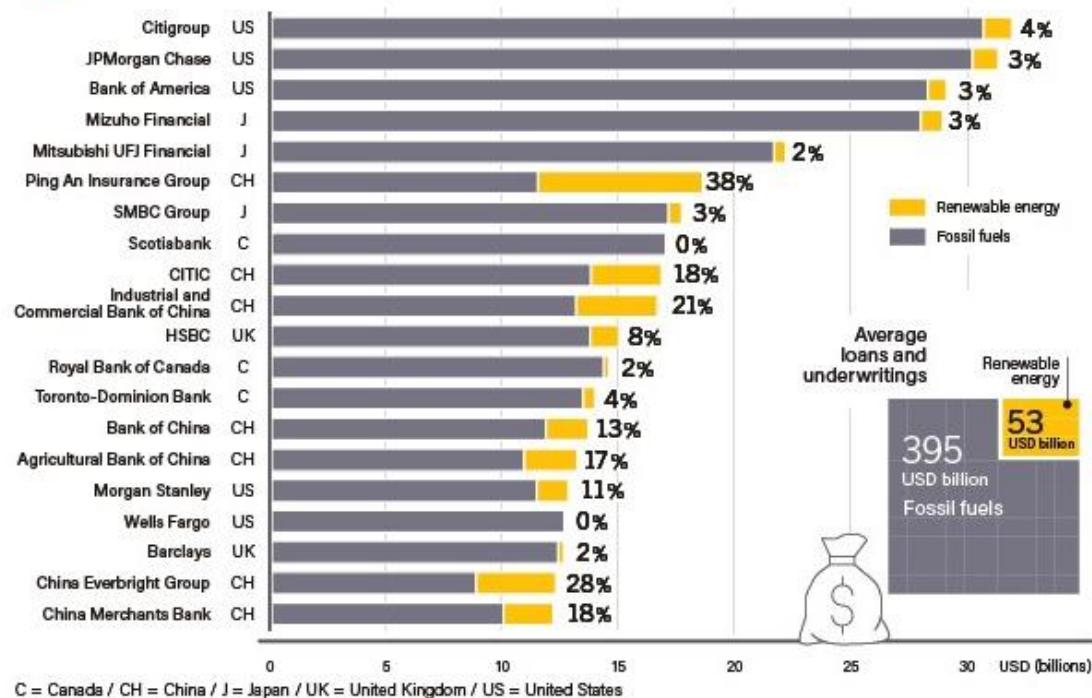


Renewable energy accounted for less than **one-third** of the global investment across the power and fuel supply and infrastructure.

INVESTMENT IN THE ENERGY SYSTEM

BIG BANKS STILL FAVOUR FOSSIL FUELS

 Loans and Underwriting for Renewable Energy versus Fossil Fuel Projects, Top 20 Banks, 2021

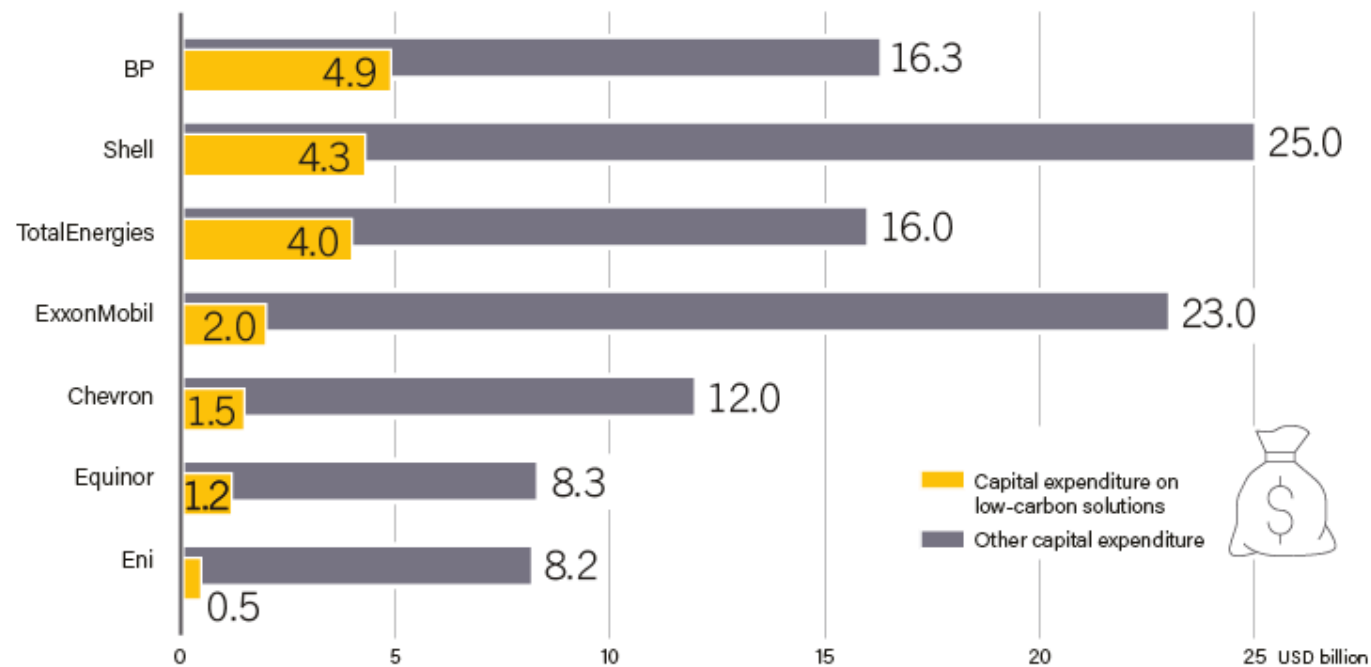


More than 78% of banks' loans and underwriting of energy finance is for fossil fuel projects.

INVESTMENT IN THE ENERGY SYSTEM

FOSSIL FUEL COMPANIES NOT TRANSITIONING DESPITE RHETORIC

 Share of Total Capital Investment of Fossil Fuel Companies Dedicated to Low-Carbon Solutions, 2022

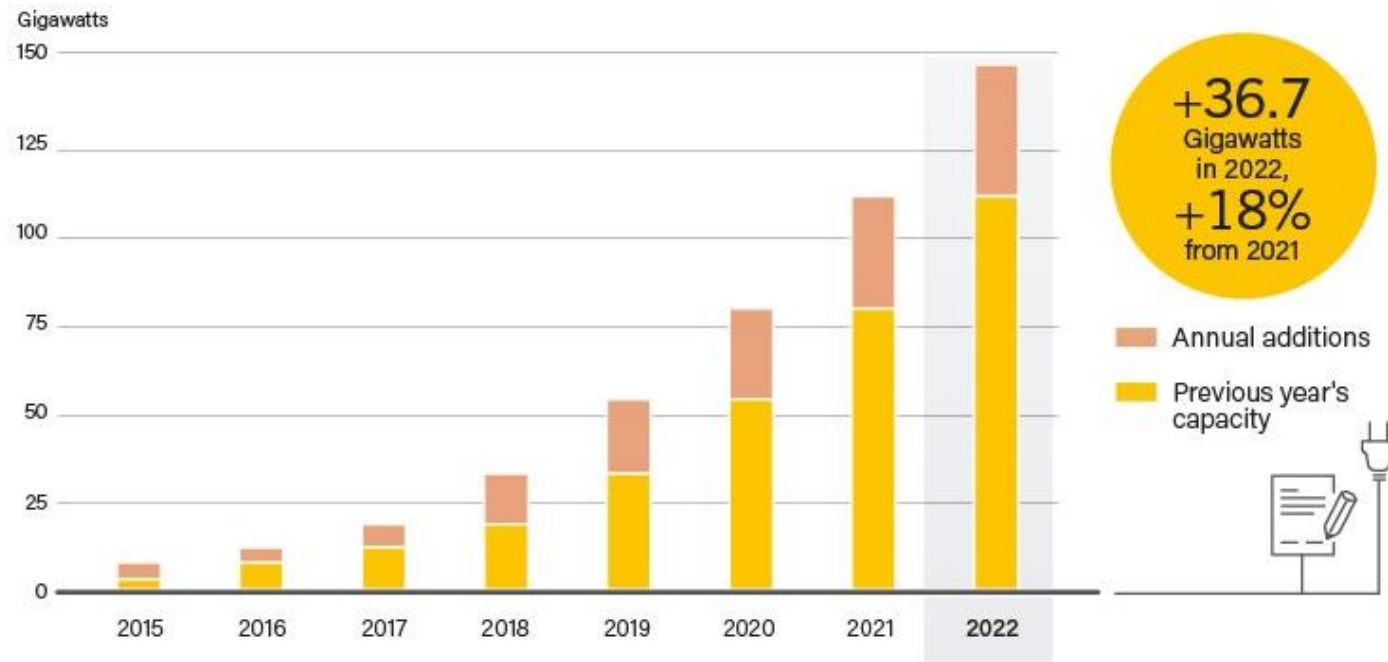


Fossil fuel companies are only investing a **small fraction** of their capital into renewable energy projects.

RECORD GROWTH IN CORPORATE PPAS

SUPPORTING RENEWABLES, SHIELDING BUSINESS FROM VOLATILE FOSSIL FUEL PRICES

 Corporate Renewable Energy PPAs, Global Capacity and Annual Additions, 2015-2022



Growth in corporate PPAs can be attributed to companies opting to protect their revenues from **high and volatile fossil fuel prices.**



ECONOMIC AND SOCIAL VALUE CREATION



THE BENEFITS OF RENEWABLES

ECONOMIC & SOCIAL VALUE CREATION

RENEWABLES DELIVER MULTIPLE BENEFITS

Renewable energy fuels **economic activities**

Local value chains can be built around renewable energy everywhere

Replacing fossil fuels reduces air and water pollution, providing considerable **health benefits**



Electricity access is improved by a decentralised renewable energy supply



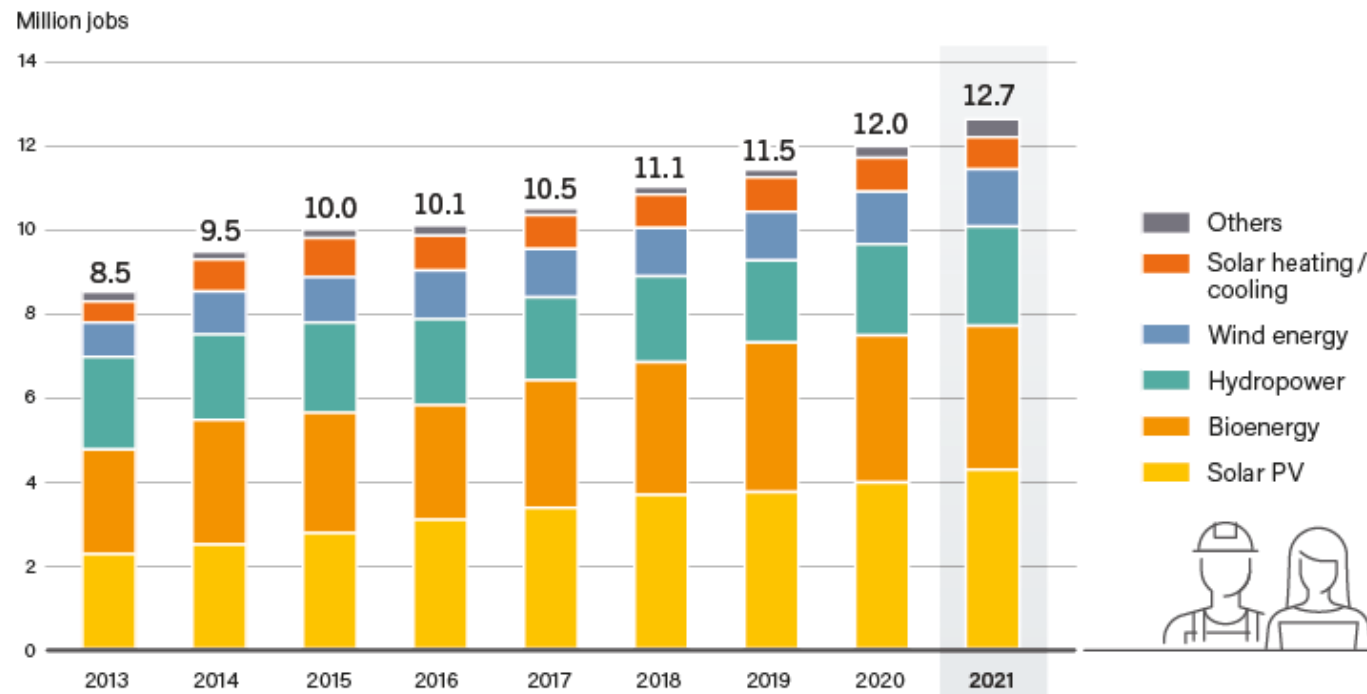
In 2021, employment in renewable energy reached a record high of **12.7 million jobs**

By creating new opportunities for women, renewables can **reduce gender inequality**

BUILDING A WORKFORCE FOR THE ENERGY TRANSITION

MODERN RENEWABLES CREATE JOBS

 Global Renewable Energy Employment, by Technology, 2013-2021



Large opportunities to create jobs, challenge to build workforce

US: **5M** (clean energy)

EU: **3.5M** by 2030

India: **3.4M** by 2030

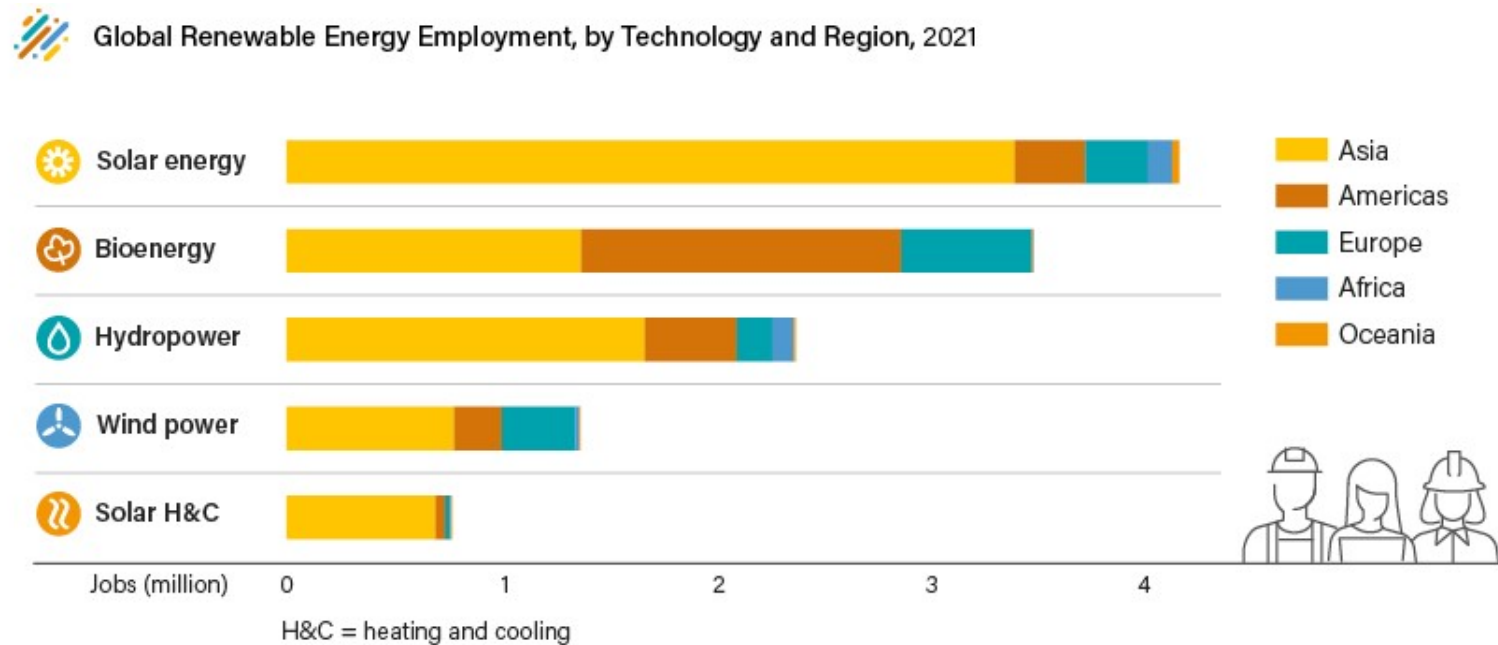
SEA: **1.3M** by 2025

South Africa: 520.000

Nigeria: 250.000

BUILDING A WORKFORCE FOR THE ENERGY TRANSITION

SOLAR AND BIOENERGY DRIVING JOB CREATION



Asia accounted for around **two-thirds of renewable energy jobs** in 2021; the Americas represented 21% and Europe 12%.

Women accounted for one-third of the workforce in 2021, but **salaries remain 20% lower** than those of male counterparts

LOCAL SUPPLY CHAINS

VALUE CREATION CLOSER TO HOME


Policies that are adopted globally to incentivise local supply chains:

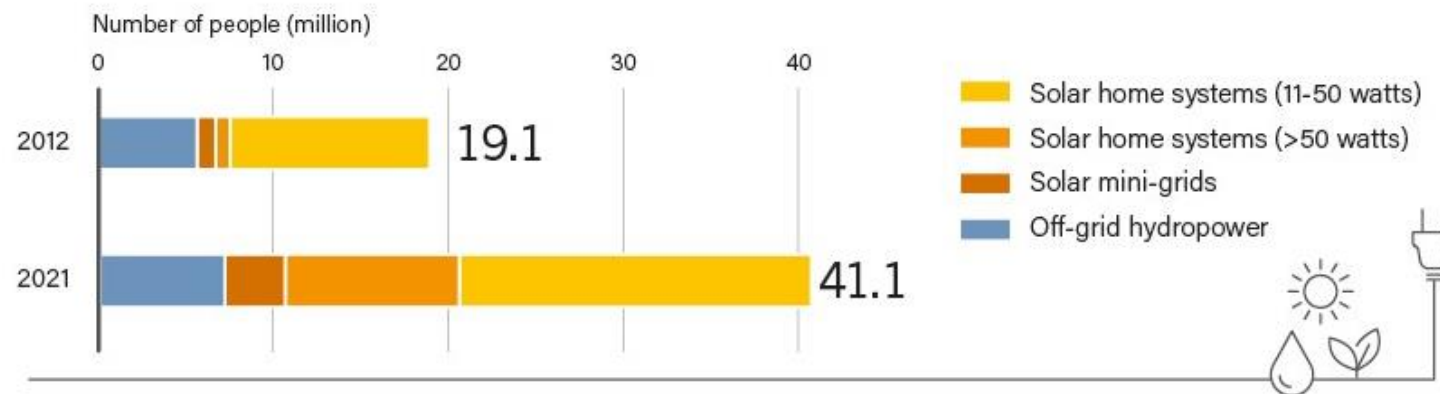
- Regulations governing the use of **locally produced materials** are in place in more than **20 countries**, including **7 advanced economies**
- Import restrictions and higher tariffs on certain technologies
- Incentives for locally produced technologies
- Funds and grants allocated to support local manufacturing of renewable energy technologies
- Local content requirements in renewable power auctions
- Bans to export of unprocessed raw material



OFF-GRID RENEWABLES

EXPANDING ACCESS TO EFFICIENT AND AFFORDABLE ENERGY


 Population with Access to Electricity Through Off-Grid Renewable Energy Systems, 2012 and 2021

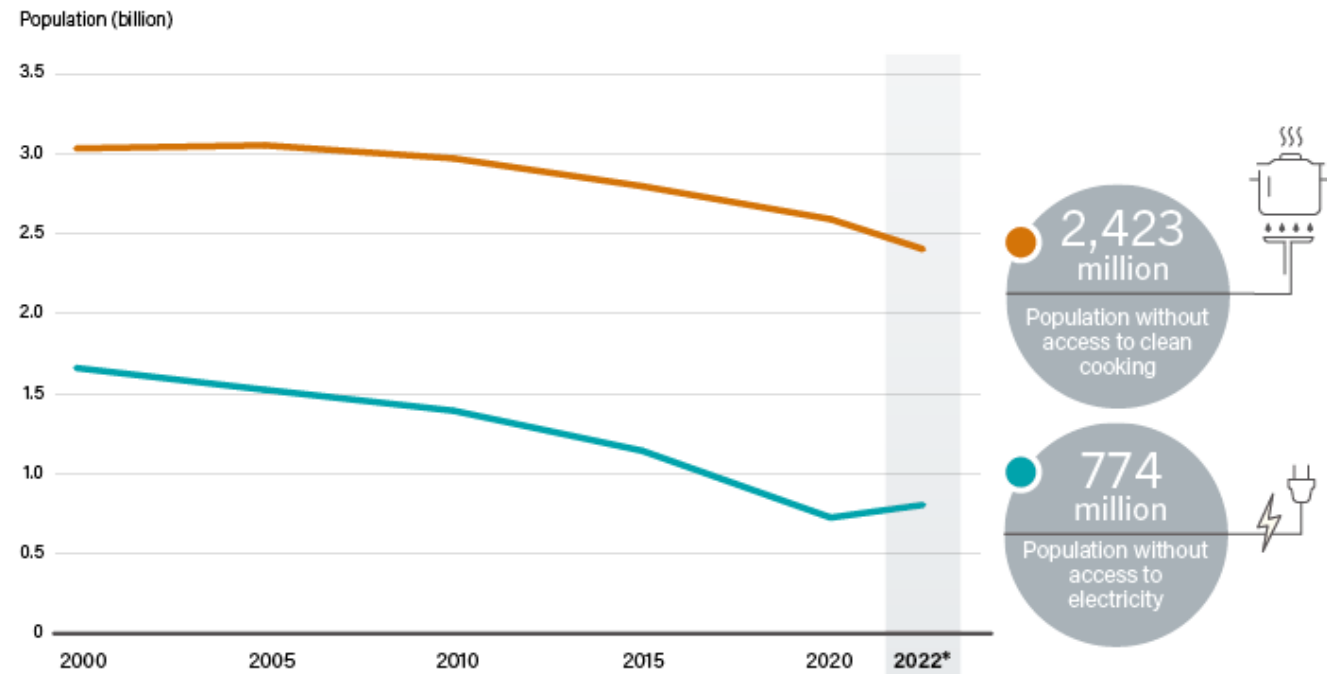


The number of people gaining access to electricity through off-grid renewable-based systems more than **doubled** in the last decade.

ENERGY ACCESS

GROWING INEQUALITY UNDERMINING A JUST TRANSITION


 Population without Access to Electricity and Clean Cooking, 2022

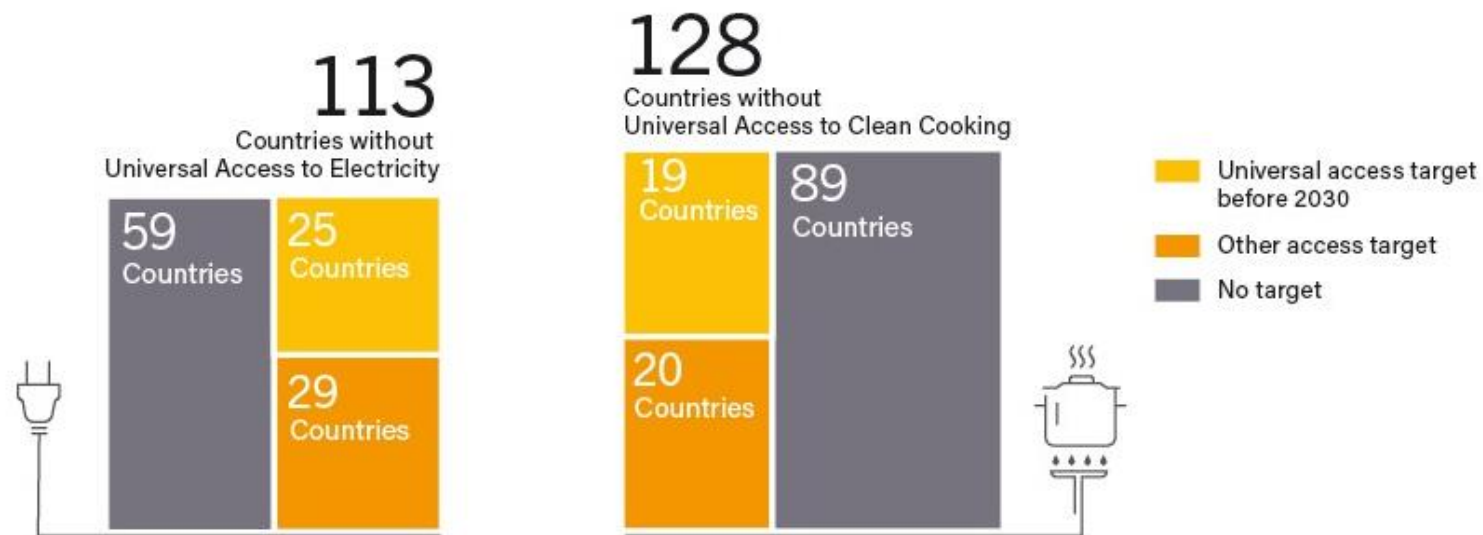


The 2022 energy crisis **reversed global progress on electricity access**, as lack of access was projected to increase for the first time in more than two decades.

ENERGY ACCESS

GOVERNMENTS LACK OFFICIAL ENERGY ACCESS TARGETS

 Countries Without Universal Access to Electricity and Clean Cooking, and Status of Targets, as of End-2022



More than half of the countries **without universal access to energy** don't have access targets.

THE WAY FORWARD

MAXIMISING THE ECONOMIC AND SOCIAL VALUE OF THE RENEWABLE ENERGY TRANSITION

- Renewable energy is an answer to many challenges – the potential is huge
 - We are moving from an energy revolution into an industrial revolution
 - Energy, climate, industrial, trade, economic policies are driving renewable energy
 - Accelerating deployment means accelerating the economic and industrial renewable energy sector
 - Maximise economic and social value
 - Bridging national, regional and global interests
 - Phase out fossil fuel needs to be coupled with renewable deployment
 - Equitable access to renewable energy technology, finance, skills
- To guarantee global stability

Systemic approach is needed!

The shift to renewables means a shift of the energy system, the economy and the society

THANK YOU!

ENJOY THE **GSR 2023** COLLECTION



REN21 Secretariat
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RENEWABLES NOW