RENEWABLES NOW
MEETING ASIA‘S ENERGY DEMAND WITH 24/7 RENEWABLES SUPPLY

ACEF 2024

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WE DRIVE THE SHIFT TO RENEWABLES – NOW!

We are the **only global policy network** of renewable energy actors from science, academia, NGOs, governments, and industry.

Our more than **4,000 community members** co-operate collecting information, changing norms and debating.

We build upon a **decentralised intelligence**, ensuring high responsiveness to an everchanging environment.

Our **annual publications** are likely the world’s most comprehensive, crowdsourced reports on renewables.
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.
20 YEARS OF REN21, 20 YEARS OF THE GSR
CROWD-SOURCED DATA AND INTELLIGENCE SINCE 2005

The GSR is built with knowledge from hundreds of expert contributors who share data, insights, and stories on renewable energy developments across the globe.
THE RENEWABLES 2024 GLOBAL STATUS REPORT (GSR) COLLECTION

Global Overview
- Policy and Targets
- Investment and Finance
- Challenges and Opportunities

Energy Demand
- Buildings
- Industry
- Transport
- Agriculture

Upcoming Modules
- Renewables in Energy Supply (June)
- Energy Systems and Infrastructure for Renewables (July)
- Economic and Social Value Creation with Renewables (September)
WHAT HAPPENED IN 2023?
THE 2023 MOMENTUM FOR RENEWABLES

Energy security goals and industrial strategies are helping to boost renewables.

Continued appetite from end-use sectors – strong growth in corporate PPAs, rooftop PV, electric vehicles.

In 2023, global additions to renewable power capacity increased an estimated 36% in 2023 to reach 473 GW.

Employment in the renewables sector increased 8% in 2022 to reach 13.7 million jobs – over 60% of this was in Asia.

Renewables face an uphill battle while fossil fuels continue to receive massive subsidies.
RENEWABLES RISING, BUT...

WE CONSUME MORE ENERGY AND BURN MORE FOSSIL FUELS THAN EVER

Renewable energy deployment needs to go hand in hand with reducing energy demand and phasing out fossil fuel.

Source: IEA, REN21
REN21 @ ACEF24: Meeting Asia’s Energy Demand with 24/7 RE Supply

RENEWABLE SHARES IN ENERGY CONSUMPTION

TOP RENEWABLE ENERGY SHARES: EUROPE AND LATIN AMERICA

Iceland, Lao PDR, Gabon, Paraguay, Sweden, Norway and Uruguay are the countries with the highest renewable shares in total energy use, all exceeding 50%.

Source: IEA, REN21

03/06/2024
ENERGY ≠ ELECTRICITY
ENERGY, MORE THAN ELECTRICITY
RENEWABLES UPTAKE UNEVEN ACROSS ENERGY CARRIERS

Largest focus is on the power sector, but renewable heat and renewables-based fuels seriously lag behind.
RENEWABLE ELECTRICITY IS LEADING THE SHIFT IN ENERGY SUPPLY

SOLAR AND WIND DOMINATE NEW POWER DEPLOYMENT

Renewable energy represented 29.9% of the global electricity mix in 2022, with solar and wind power providing more than 12% of the world’s electricity for the first time ever.
RENEWABLE ELECTRICITY GENERATION
UNEVEN ACROSS GEOGRAPHIES, BUT EMERGING ECONOMIES SHOWING PROGRESS

In 2022, Oceania had the highest y-y growth with 13%, followed by Asia and Africa with 11% y-y growth each.
While 170 countries had renewable power targets in 2023, covering hydropower, solar and wind technologies, only 90 countries had economy-wide renewables targets.
FEED IN TARIFFS AND NET-METERING
MORE THAN 20 COUNTRIES REMOVED FEED-IN TARIFFS IN RECENT YEARS

By the end of 2022, 83 countries had in place feed-in tariffs or a premium payment policy, 92 countries had a net-metering policy and 56 countries had both.
WHAT ABOUT THE DEMAND SECTORS?
Further action is needed to speed the electrification of end-use sectors and to transition to renewable heat and fuels.
POLICIES ARE EXPANDING GLOBALLY

BUT FEW COUNTRIES HAVE COHERENT MEASURES ACROSS DEMAND SECTORS

Only 13 countries (incl. Vietnam, India, China) have policies in place for all four demand sectors.

84 countries have no demand-side policies.
ELECTRICITY USE IN DEMAND SECTORS
A PROMISING OPPORTUNITY FOR RENEWABLES

Electricity and Renewable Shares of Total Final Energy Consumption, by Sector, 2021

Sustained uptake of renewable electricity across sectors. Agriculture leading.
BUT SECTORS ELECTRIFYING SLOWLY
WITH FASTER PROGRESS IN CHINA

USA leading electrification in agriculture; China leading in all other end-use sectors.
CORPORATE POWER PURCHASE AGREEMENTS (PPAS)
CONTINUED APPETITE FOR RENEWABLES FROM THE DEMAND SIDE

Corporate PPAs are expanding beyond the tech sector and into retail and industry and transport.

PPAs accounted for 9% of additions in 2023.
RECORD INVESTMENT BUT MASSIVE INCREASE NEEDED
Massive increase in renewable energy investment needed

Only 17.7% of investment in Africa, Asia (excl. China) and LAC

Around USD 1,300 billion needed to reach 2030 climate goals.
Investment gap in 2023: USD 677-727 billion.
Investment in 2023 not even half of investment needed.

Source: REN21 based on IRENA and BloombergNEF
GROWTH OF DEVELOPMENT FINANCE FOR RENEWABLES

PUBLIC FINANCE NEEDED TO MOBILISE PRIVATE FINANCE

Development finance for renewable energy in 2022: USD 7.85 billion

Representing only 1.4% of global renewable energy investment.

Source: OECD-DAC Creditor Reporting System (CRS) Database
... but climate adaptation finance for renewable energy needed to help closing funding gap for renewables in developing countries.
ECONOMIC AND SOCIAL VALUE: JOBS AND ACCESS
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 economic inequality**
BUILDING A WORKFORCE FOR THE ENERGY TRANSITION

MODERN RENEWABLES CREATE JOBS

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
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

113 Countries without Universal Access to Electricity
- 59 Countries
- 25 Countries
- 29 Countries

128 Countries without Universal Access to Clean Cooking
- 19 Countries
- 89 Countries

- Universal access target before 2030
- Other access target
- No target

More than half of the countries without universal access to energy don’t have access targets.
GRIDS & INFRASTRUCTURE
THE MISSING LINK
GRIDS

THE MISSING LINK

- 1,500 GW of projects in advanced stages **stalled** in 2023
  - permitting
  - access to grids
- Investment in grids
  - reaching USD 300 billion in 2023 but not increasing
  - USD 4.8 trillion needed by 2030 (IRENA)
- Energy planning is critical and needs to include society
BUILDING MOMENTUM
BUILDING MOMENTUM

THE WINNING TRIO: RENEWABLES, ENERGY EFFICIENCY AND FOSSIL FUEL PHASE-OUT

- There is **no time for mixed messages:**
  - **phasing out fossil fuel subsidies** for level playing field
  - support renewables beyond crisis-response policies
  - blended finance

- **Electrification:** A precondition to unlocking higher share of renewables in all energy-consuming sectors

- **Comprehensive** and coherent planning and policy
  - connect the dots: energy, industrial, trade and climate policy
  - **energy supply and energy systems** to accommodate **renewable energy** in all end-use sectors

- Address the missing link: **grids and infrastructure**
THANK YOU!

STAY TUNED FOR THE UPCOMING MODULES

REN21 Secretariat
www.ren21.net
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