

## Press Release

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### **RENEWABLES FACE UPHILL BATTLE IN ALL MAJOR ENERGY CONSUMING SECTORS. NEW REN21 REPORT SOUNDS THE ALARM.**

**The transition of buildings, industry, transport and agriculture to renewables is lagging. Only 12.7% of the overall energy consumed in these sectors comes from renewables and there is a concerning lack of targeted policy action.**

- By 2023, only 13 countries have implemented renewable energy policies across all-end use sectors
- Governments are not building on the success of renewable power to decarbonise the end-use sectors
- Apart from China, electrification of end-use sectors is stagnating in major countries and regions
- The fragmented approach to policymaking hampers the effective harmonisation of renewable energy supply with renewable energy demand.

**Paris** – Recent progress in the uptake of renewables in the global energy consumption is stalling as governments fail to deliver the systemic reforms, integrated strategic planning and policy alignment needed to transform the way buildings, industry, transport and agriculture use energy.

This is the conclusion reached in the ***Renewables in Energy Demand Module*** of the REN21 ***Renewables 2024 Global Status Report (GSR)*** released today. The module is the second in a series of five modules to be released this year, as part of the ***GSR 2024 Collection***. This module explores the status and trends of renewables demand in industry, buildings, transport and agriculture. Industry accounts for 34% of total final energy consumption, buildings 33%, transport 30% and agriculture 3%.

“The energy transition is not only about increasing renewable energy supply. Without coherent policies and structural reforms to increase the use of renewables and accelerate the electrification of energy use, the transition to renewables and the phase out of fossil fuel will not happen. Clearly, governments are not prioritising building their economies around renewables and in turn, reducing emissions and pollution,” said REN21’s Executive Director Rana Adib.

Post-pandemic recovery packages and policy measures passed to address geopolitical and energy crises, including the United States Inflation Reduction Act and the European Union’s REPowerEU plan, have spurred an encouraging surge of action and investment in renewables. These crises further highlighted the affordability and reliability advantages of renewables to end-use sectors, which increasingly look to renewable energy and energy efficiency to cut costs and achieve security of supply.

However, policy trends in 2023 are slowing and ambition is watered down in some countries. Targets set for end-use sectors by 69 countries in 2020 have expired. Only 17 of these countries have renewed or set new targets beyond 2024, including Aruba, Benin, Bosnia and Herzegovina, Bulgaria, Canada, Chile, Colombia, Cook Islands, Ghana, Grenada, Kosovo, Libya, Maldives, Mexico, Norway, Sweden, Trinidad and Tobago.

By the end of 2023, **only 13 countries** including Greece, Portugal, Spain, Ireland, United Kingdom, Italy, United States of America, Egypt, China, Vietnam, France, Germany and India, **had implemented renewable energy policies across all end-use sectors—buildings, industry, transport, and agriculture.** The shift to renewables and the phase out of fossil fuels requires that countries set and enforce stringent policies and regulations to boost the use of renewable energy across all end-use sectors. This needs to happen globally and be paired with energy efficiency measures and the development of renewable generation capacities.

“What began as a good-news story of turning crisis into opportunity is veering in a disappointing direction. Policymakers are stuck in business-as-usual, failing to build on the success of their reactive crisis-response measures with coherent and strategic long-term policies and planning. We need to urgently realign policies to reflect the structural changes needed in the energy consuming sectors,” said Adib.

Governments need to ban the use of fossil fuel, mandate and incentivise the use of renewable energy for example through building codes, renewable fuel mandates, or financial incentives for heat pumps, agrivoltaics or biogas. In addition, the development of enabling infrastructures like charging infrastructure for electric vehicles or district energy systems for heating and cooling needs to be accelerated.

Renewables continue to compete on an uneven playing field – fossil fuels subsidies increased to USD 7 trillion in 2022, which is around 7% of global GDP, according to the Global Overview of GSR 2024. This worrying trend threatens the rapid transition of energy consuming sectors to decarbonised, more resilient, renewable energy sources. Governments need to shift these subsidies to support the energy transition.

“High inflation, interest rates and capital costs, as well as geopolitical tensions, will continue to disrupt markets. The sectors that consume the world’s energy will not be able to rapidly replace fossil fuels with renewables unless policymakers demonstrate leadership and incentivise energy saving, energy efficiency and the use of renewables,” Adib added.

The commitment made at COP28 in the United Arab Emirates to triple renewable energy capacity and double energy efficiency by 2030 is a landmark decision. Moreover, it is expected to spur further deployment of all renewables, most certainly in a fast-changing power sector that is already 30% renewable.

To fully build on the opportunity renewable power presents, energy consuming sectors must electrify their operations more rapidly. Apart from agriculture, which has seen a significant increase in electrification (+ 6.9 percentage points between 2011 and 2021), the electrification rate, globally, is not picking up sufficiently in transport, building and industry, despite positive developments in deployment of heat pumps and electric vehicles.

Regional developments are also uneven: China is the only country that is steadily increasing the use of electricity in its energy consumption. Electricity use in China across all sectors rose from 20% to 30% between 2011 and 2021; during the same period, the share of electricity in the US and EU flatlined at around 23%. The increased electrification needs to be complemented by using renewable heat and fuels, which are expected to still meet around 50% of the energy demand by 2050.

“We need to understand that the energy transition isn't merely about generating renewable electricity. It is, above all, about ensuring that society and industry consume more electricity and its derivatives to replace fossil fuels, and that this electricity comes from renewable sources. The energy transition is a demand-centric challenge,” said Chief Executive Officer of Acciona Energía Rafael Mateo.

There is, however, some good news: Despite a lack of policy and regulatory support, energy consuming sectors continue to adopt renewables, testifying to the relevance of renewable energy. This positive trend can easily be accelerated with supportive, ambitious policies.

In **buildings**, heat pumps are increasingly replacing gas boilers. Globally, installations rose by 10% in 2023 compared to 2022; Europe witnessed a 38% increase. Countries started to announce targets for buildings in 2023. However, these have been limited to new residential buildings and mainly for solar water heating or rooftop solar.

“In light of the simple actions that can be taken to shift buildings, and the broader built environment to using renewables, the sector offers unique opportunities for governments to demonstrate they are serious about the energy transition. Incentives and subsidy schemes for retrofitting buildings with renewable energy and enhancing energy efficiency can go a long way. Unfortunately, the burden of initial costs to retrofit buildings is now mainly shouldered by its stakeholders, which is impeding the rapid transformation of the sector to a renewables-based system,” said Nasra Nanda, Chief Executive Officer of Kenya Green Building Society and Chair of Africa Regional Network at the World Green Building Council.

“For Africa, energy access and efficiency provide a real opportunity to champion a life of dignity, and prosperity in a way that includes communities, and grants them a better quality of life,” Nanda added.

Progress has been made in the **transport** sector with the electrification of public transport, higher investments in electric vehicles (EVs) and charging infrastructure, improvements in battery technology and expanded charging networks, which are making EVs more attractive. Cities like

London and Beijing are setting ambitious targets for zero-emission buses. Investment in EVs and charging infrastructure surged by 36% in 2023.

Director General of Railways (UIC) François Davenne notes however that isolated policies focusing on one or two aspects will not decarbonise the transport sector.

“Strong support policies have spurred massive investment in electric cars, but decarbonising transport requires much more than that. We need integrated policies that ensure access to affordable, sustainable transport options. Railways are the most electrified mode of transport and continue to grow in efficiency and reduce fossil fuel dependency. To go further, holistic long-term planning, regulatory reform, and social programs can reduce overall energy demand, promote energy efficiency and significantly increase integration of renewables,” said Davenne.

In **industry**, many companies are exploring renewable energy solutions, including solar thermal heating, geothermal heat, and biomass technologies to decarbonise their operations and hedge against future price volatility. Energy-intensive industries are exploring transitions from blast furnaces to electric arc furnaces powered by renewables and piloting innovative approaches like hydrogen injection in steelmaking. The food and paper sectors are increasingly using bioenergy, industrial-scale heat pumps and solar thermal systems.

In **agriculture**, farmers are replacing diesel with solar mini-grids and PV-powered water pumps, which boost rural electrification and irrigation. Given the diverse processes implicated in agricultural value chains - farming, processing, storing and packaging – the sector promises many opportunities for electrification with renewables.

#### **About REN21 and the Renewables 2024 GSR Collection**

REN21 is the only global policy network made up of renewable energy actors from science, academia, governments, non-governmental organisations and industry across all renewable energy sectors. Our community is at the heart of our data and reporting activities. All our knowledge activities, including the *GSR 2024 Global Overview*, follow a unique reporting process that has allowed REN21 to be globally recognised as a neutral data and knowledge broker.

Since the GSR’s first release in 2005, REN21 has worked with thousands of contributors to spotlight the ongoing developments and emerging trends shaping the future of renewables. Producing this annual report is a collaborative effort of hundreds of experts and volunteers who contribute data, review chapters and co-author the report contents.

REN21 released the ***Global Overview*** in April 2024. It provided the big picture status of renewables in the wider energy system in the context of global challenges such as climate change, economic development and the geopolitical landscape. Upcoming modules will focus on ***Renewables in Energy Supply, Renewable Energy Systems and Infrastructure***, and ***Renewables for Economic and Social Value Creation***.

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