Press Release

Renewables Capturing New Worldwide Attention in Light of Worsening Multiple Crises, Says New REN21 Report

The use of renewables as a reliable and affordable energy source is growing as an unparalleled energy crisis triggers skyrocketing inflation and compounds the climate breakdown

PARIS – The global renewable energy network REN21 launched its annual *Renewables Global Status Report (GSR) Collection* for 2023, with the release of four new modules exploring trends and opportunities for renewable energy deployment in buildings, industry, transport and agriculture across the world.

- **These four end-use sectors are increasing their uptake of renewables in response to a crushing worldwide energy crisis.**
- **Soaring fossil fuel prices and the risks of energy shortage – combined with stronger climate commitments, targeted policy frameworks and recent technological developments – have been the main drivers for increased renewables use in these sectors, especially of wind and solar energy.**
- **Renewables are still facing barriers, however, as they are unable to compete fairly against heavily subsidised fossil fuels.**

Renewables have demonstrated their value in all demand sectors as resilient, reliable, stable and affordable sources of energy, and they have successfully responded to the compounding crises now battering the world, according to REN21's *GSR 2023 Demand Modules*, released today.

The modules explore the growth of renewables demand in all four leading energy-consuming sectors – buildings, industry, transport and agriculture – and are the first in a series of a total of 8 modules in the *GSR 2023 Collection*. Forthcoming modules will focus on *Renewables in Energy Supply*, *Renewable Energy Systems and Infrastructure*, and *Renewables for Economic and Social Value Creation*, as well as the *Global Overview*. All of these modules are scheduled for release by June 2023.

Rising energy prices, as well as various commitments aimed at tackling the climate crisis, had a direct impact on the rising yet varying demand for renewables in buildings, industrial activities, transport and agriculture, the report says. The strong effects of price inflation on all

end-users, driven by the energy crisis, triggered key policy packages designed to counter market disruptions and speed growth in the production, use and local manufacturing of renewables.

"It's a typical story of challenges turned into opportunities," said Rana Adib, REN21 Executive Director. "The polycrisis made policymakers and the leaders of key energy-consuming sectors realise the benefits of renewables as a local energy source that can guarantee security of supply and stable costs. It's what we've been saying for decades, so it's unfortunate that it took a crisis for the world to finally turn to renewables to operate industries, buildings, transport and agriculture – a crisis that, in many places, pushed families into poverty, forced factories to cut production and slowed economic growth."

Several key policy packages boosted the demand for renewables in end-use sectors during 2022: the United States' announcement of the USD 500 billion Inflation Reduction Act, providing new spending, tax credits and incentives for energy demand sectors; the European Commission's REPowerEU plan; and India´s comprehensive renewable hydrogen plans, which directly target heavy industry and transport.

The various energy demand sectors responded differently to the global crises and announced policies.

In the buildings sector, high energy prices and the search for reliable energy supply without fossil energy pushed people to switch from natural gas boilers to electric heat pumps, making 2022 a record year for heat pump installations, boasting 10% year-on-year growth.

"This growth was most noticeable in Europe, where markets grew by +38% as households increasingly seek out more efficient and reliable alternatives to fossil fuel heating," said Thomas Nowak, Secretary General of the European Heat Pump Association.

The economic benefits of rooftop solar panels also became more visible to end-users, in light of rising fossil fuel prices. In addition, the more-frequent heatwaves that swept Europe, India and China during 2022 brought attention to the growing role of cooling in driving electricity demand.

Energy-intensive industries were hit hardest by the polycrisis, with rising costs forcing some manufacturers to cut production or to relocate in search of greater energy affordability and security. Industries also responded directly by buying power from renewable energy suppliers through power purchase agreements (PPAs), which enable users to set fixed, long-term electricity rates and shield themselves from high costs. PPAs in Europe rose by 21% in 2022, surpassing by a record six times the growth in the installed renewable energy capacity by utilities that year to feed electricity. Renewables-based industrial parks also became more attractive in light of the energy crisis.

"If there is any positive outcome of the energy crisis on the industrial sector, it´s the fact that sector leaders were able to concretely discern the benefits of renewables in cutting production costs, strengthening resilience and maximising profits," said Tareq Emtairah, Director of Energy United Nations Industrial Development Organisation.

In the transport sector, PPAs were a prominent measure to stabilise costs and shield users from external cost factors and mounting crises. In road and rail transport, electrification emerged as a growing trend and opportunity to accelerate the uptake of renewables among end-users. Electric vehicles – including electric two and three-wheelers and buses – and associated charging infrastructure had another record year, with 54% year-on-year growth in investment, especially in Asia. India doubled its electric vehicle spending in 2022.

Despite being the fastest growing sector for energy consumption, transport had the lowest overall use of renewables, with a modest 4% share. This indicates that the sector will require more than simply ongoing electrification to become more sustainable and efficient and to shift to a renewables-based sector.

“Electrifying cars will not reduce traffic congestion, improve road safety or make mobility more accessible to people. We need zero-emission public transport and dedicated infrastructure, including rail, in addition to fewer cars and more walking and cycling,” said Mohamed Mezghani, Secretary General of the International Union for Public Transport.

Electrification was a key trend in agriculture as well, alongside growth in energy independence and the use of geothermal and bioenergy sources. The sector also witnessed an uptake of decentralised renewables – especially in Africa, Asia and the Caribbean – as farmers prioritised energy access, reductions in fuel costs and energy efficiency. End users in the agriculture sector embraced technological developments and the use of renewables in food production and refrigeration.

“Renewables in agriculture offer the least-cost option for farmers, especially in rural areas where productive use of energy in the agricultural value chain drives a cycle of development by increasing income for farmers, improving financial stability for the electricity provider and enhancing food security for the country. it is really a win-win-win for everyone!” said Mohammed Jibril, Rural Electrification Agency of Nigeria.

Policy making proved to be a major driver of the higher uptake of renewables in demand sectors. However, policymakers continue to subsidise fossil fuels and seek new investments in fossil fuel extraction projects, which is maintaining the barriers preventing further renewables’ uptake.

"This report should serve as a wake-up call to all policy makers to enable immediate renewable energy responses that help users face the current multiple crises, including by reducing cost burdens and the weight of massive inflation. Renewable energy interventions will help communities build reliable and resilient infrastructure, instead of continuing to rely on harmful and obsolete energy systems," said Arthouros Zervos, REN21 President.

"By continuing to subsidise fossil fuels, policy makers are signalling that they are not serious about tackling the multiple economic, health and other crises we are facing. It shows they are being impractical about reducing high energy costs and the resulting impacts on everything we consume. Fossil fuel subsidies do not enable an even playing field for renewables to compete, and they unfortunately concentrate profits and benefits in the hands of a select few, instead of supporting greater equity for all," Zervos added.

About REN21 and the GSR 2023 Collection

REN21 is the only global community 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 of our knowledge activities, including the *GSR 2023 Demand Modules* follow a unique reporting process that has allowed REN21 to be globally recognised as a neutral data and knowledge broker.

Since its first release in 2005, REN21 has worked with thousands of contributors to put the spotlight on ongoing developments and emerging trends that shape the future of renewable energy. Producing this report each year is a collaborative effort of hundreds of experts and volunteers contributing data, reviewing chapters and co-authoring the report.

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