

# With developing world's policy support, global renewable energy generation capacity jumps to record

June 3 2014



## POLICY MAPS

Countries with Renewable Energy Policies, Early 2014



Countries with Renewable Energy Policies, 2005



These maps show the difference in the number of countries with renewable energy policies in place, early 2014 vs. 2005. Credit: REN21

The number of emerging economy nations with policies in place to support the expansion of renewable energy has surged more than six-fold in just eight years, from 15 developing countries in 2005 to 95 early this year.

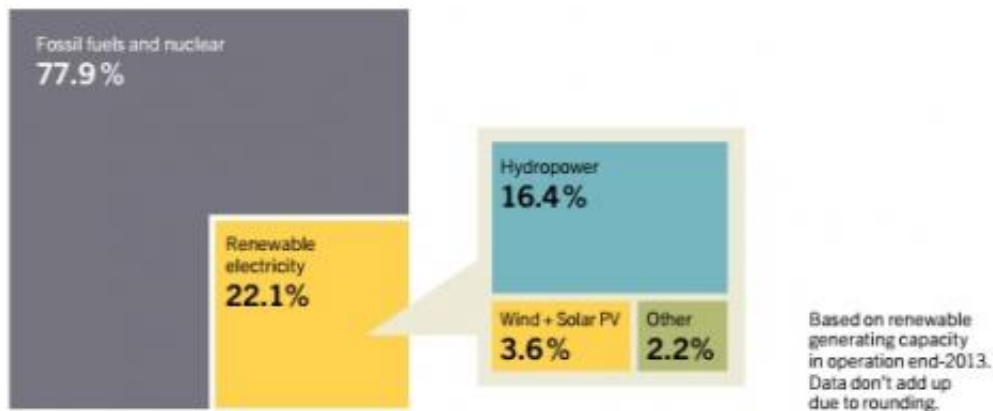
Those 95 developing nations today make up the vast majority of the 144 countries with renewable energy support policies and targets in place, says REN21's Renewables 2014 Global Status Report. And the rise of developing world support contrasts with declining support and renewables policy uncertainty and even retroactive support reductions in some European countries and the United States.

Launched at the UN-hosted Sustainable Energy for All in New York, the 2014 report credits support policies with a central role in driving global renewable energy capacity to a new record level last year—1,560 gigawatts (GW), up 8.3% from 2012. More than one-fifth—22%—of the world's [power](#) production now comes from renewable sources.

According to REN21: "Markets, manufacturing, and investment expanded further across the developing world, clearly illustrating that renewables are no longer dependent upon a small handful of countries."

In 2013, an estimated 6.5 million people worldwide worked directly or indirectly in the renewable energy sector.

**Estimated Renewable Energy Share of Global Electricity Production, End-2013**



This image shows the estimated renewable energy share of global electricity production. Credit: REN21

Available publicly from June 4 (<http://www.ren21.net/gsr>), REN21's Renewables 2014 Global Status Report is the world's most frequently-referenced report on the renewable energy market, industry and policy developments.

Among highlights:

- Overall last year, renewables accounted for more than 56% of net additions to global power capacity.
- Hydropower rose by 4% to approximately 1,000 GW in 2013, accounting for about one-third of [renewable power](#) capacity added during the year. Other renewables collectively grew nearly 17% to an estimated 560 GW.
- Renewable energy provided 19% of global final energy consumption in 2012, and continued to grow in 2013. Of this total share in 2012, modern renewables accounted for 10% with the remaining 9% coming from traditional biomass the share of

which is declining.

- Useful heat energy from modern renewable sources accounted for an estimated 4.2% of total final energy use; hydropower made up about 3.8%, and an estimated 2% was provided by power from wind, solar, geothermal, and biomass, as well as by biofuels.
- For the first time, more solar PV than wind power capacity was added worldwide, accounting for about one-third of renewable power capacity added during the year.
- Even as global investment in solar PV declined nearly 22% relative to 2012, new capacity installations increased by more than 32%. The solar PV market had a record year, adding more than 39 GW in 2013 for a total of approximately 139 GW. China saw spectacular growth, accounting for nearly one third of global capacity added, followed by Japan and the United States.
- China, the United States, Brazil, Canada, and Germany remained the top countries for total installed renewable power capacity. China's new renewable power capacity surpassed new fossil fuel and nuclear capacity for the first time.
- In the European Union, 2013 marked the sixth consecutive year in which renewables represented the majority of new electricity generating capacity. The 72% share in 2013 is in stark contrast to a decade earlier, when conventional fossil generation accounted for 80% of new capacity in the EU-27 plus Norway and Switzerland.
- Renewables are achieving high levels of penetration in several countries. For example, throughout 2013, wind power met 33.2% and 20.9% of electricity demand in Denmark and Spain, respectively; in Italy, solar PV met 7.8% of total annual electricity demand.
- Growing numbers of cities, states, and regions seek to transition to 100% renewable energy in either individual sectors or economy-wide. For example, Djibouti, Scotland, and the small-

island state of Tuvalu aim to derive 100% of their electricity from renewable sources by 2020. Among those whom have already achieved their goals are about 20 million Germans who live in so-called 100% renewable energy regions.

- Uruguay, Mauritius, and Costa Rica were among the top countries for investment in new renewable power and fuels relative to annual GDP.
- Wind power was excluded from one of Brazil's national auctions because it was pricing all other generation sources out of the market.
- More than 35 GW of wind power capacity was added in 2013, totalling just more than 318 GW. However, despite several record years, the market was down nearly 10 GW compared to 2012, reflecting primarily a steep drop in the U.S. market. Offshore wind had a record year, with 1.6 GW added, almost all of it in the EU. Heating and cooling from modern biomass, solar, and geothermal sources account for a small but gradually rising share of final global heat demand, amounting to an estimated 10%.
- Denmark banned the use of fossil fuel-fired boilers in new buildings as of 2013 and aims for renewables to provide almost 40% of total heat supply by 2020.
- Robust policies coupled with continuing technological advances, falling prices, and innovations in financing have made renewables increasingly affordable for a broader range of consumers worldwide. Global new investment in renewable power and fuels was at least USD 249.4 billion in 2013 down from its record level in 2011.

REN21's 2014 report says policy mechanisms continue to evolve. In 2013, feed-in policies in many countries shifted towards premium payments in the power sector, and continued to be adapted for use in the heating sector. New policies advanced or managed the integration of

high shares of renewable electricity into existing power systems, including support for energy storage, demand-side management, and smart grid technologies.

"Global perceptions of renewable energy have shifted considerably," says Arthouros Zervos, Chair of REN21.

"Over the last 10 years, continuing technology advances and rapid deployment of many renewable energy technologies have demonstrated that the question is no longer whether renewables have a role to play in the provision of energy services, but rather how we can best increase the current pace to achieve a 100% renewables future with full energy access for all."

"For this to become reality, current thinking needs to change: continuing the status quo of a patchwork of policies and actions is no longer sufficient. Instead, technology developments, finance models as well as stable and predictable [renewable energy](#) policies need to be systematically linked across the public and private sectors in order to support and drive the transition process."

Says Christine Lins, Executive Secretary, REN21: "The past decade has set the wheels in motion for a global transition to renewables, but a concerted and sustained effort is needed to achieve it. With increasingly ambitious targets and innovative policies, renewables can continue to surpass expectations and create a clean energy future."

Provided by Terry Collins Assoc

Citation: With developing world's policy support, global renewable energy generation capacity jumps to record (2014, June 3) retrieved 26 April 2024 from <https://phys.org/news/2014-06-world-policy-global-renewable-energy.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.