Solar Energy in Latin America: Today and Tomorrow

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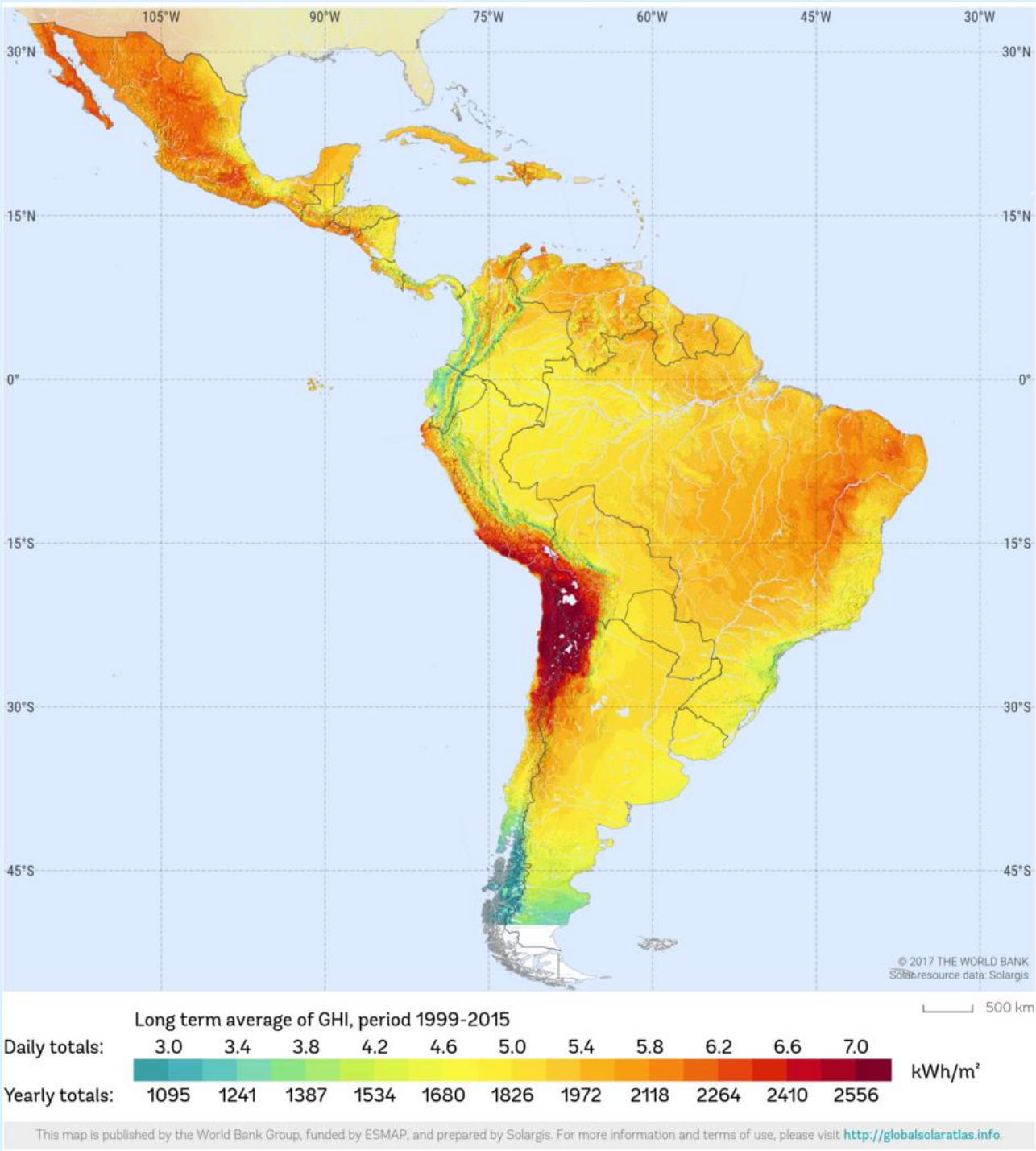


Latin America and its role in the energy transition

- World's largest lithium reserves (~50%) → "lithium triangle"
- Leading copper producer (~50%) and high nickel reserves (~25%)
- Exceptional solar and wind potential → green hydrogen exporter
- Abundant hydro, geothermal (untapped potential) and bioenergy (~27%)

Renewable energy status

Primary energy mix

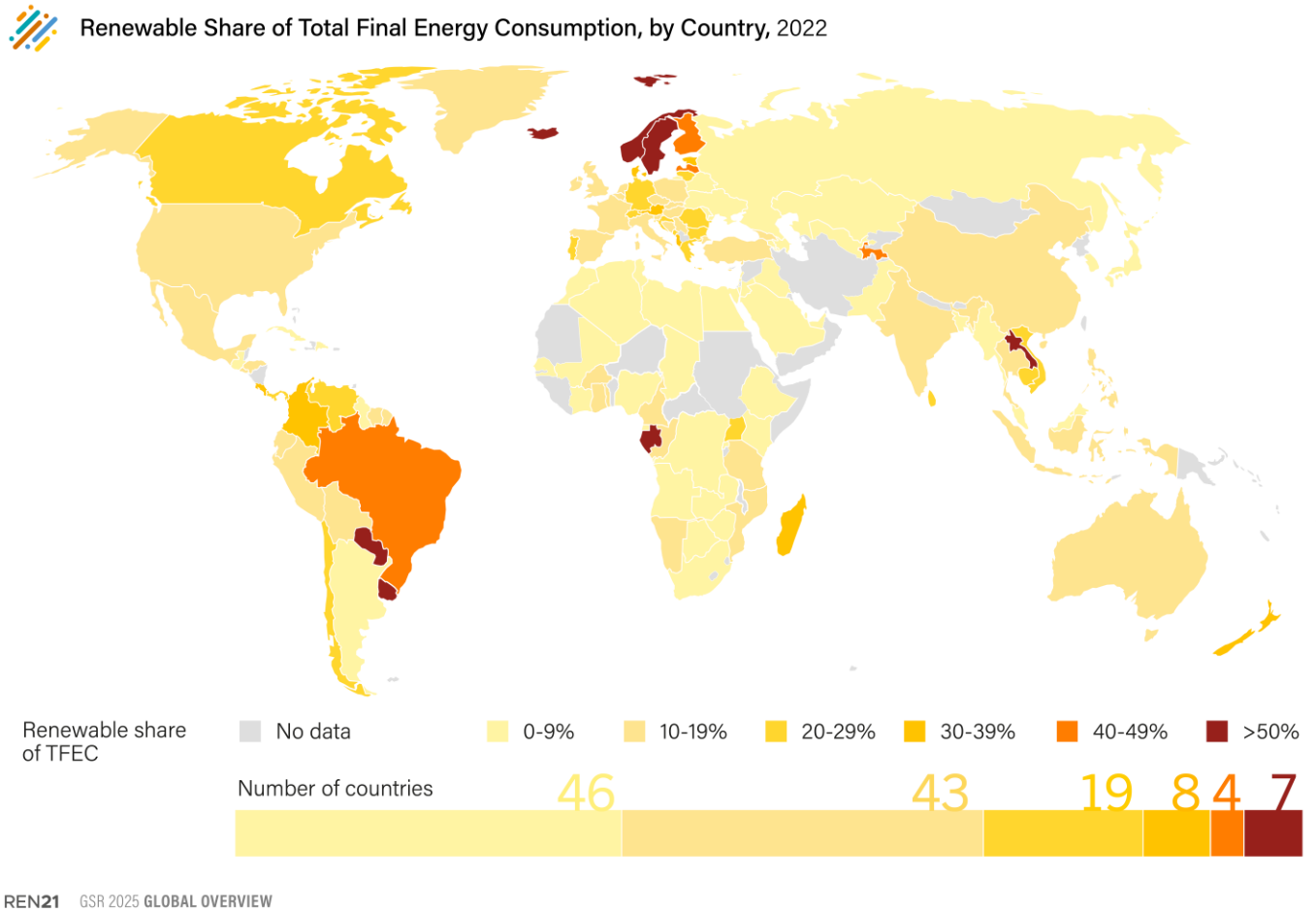
- 30% renewables (vs ~15% global)

Electricity mix

- ~62% renewable electricity (vs ~32% global)
- Hydro dominant – solar and wind accelerating

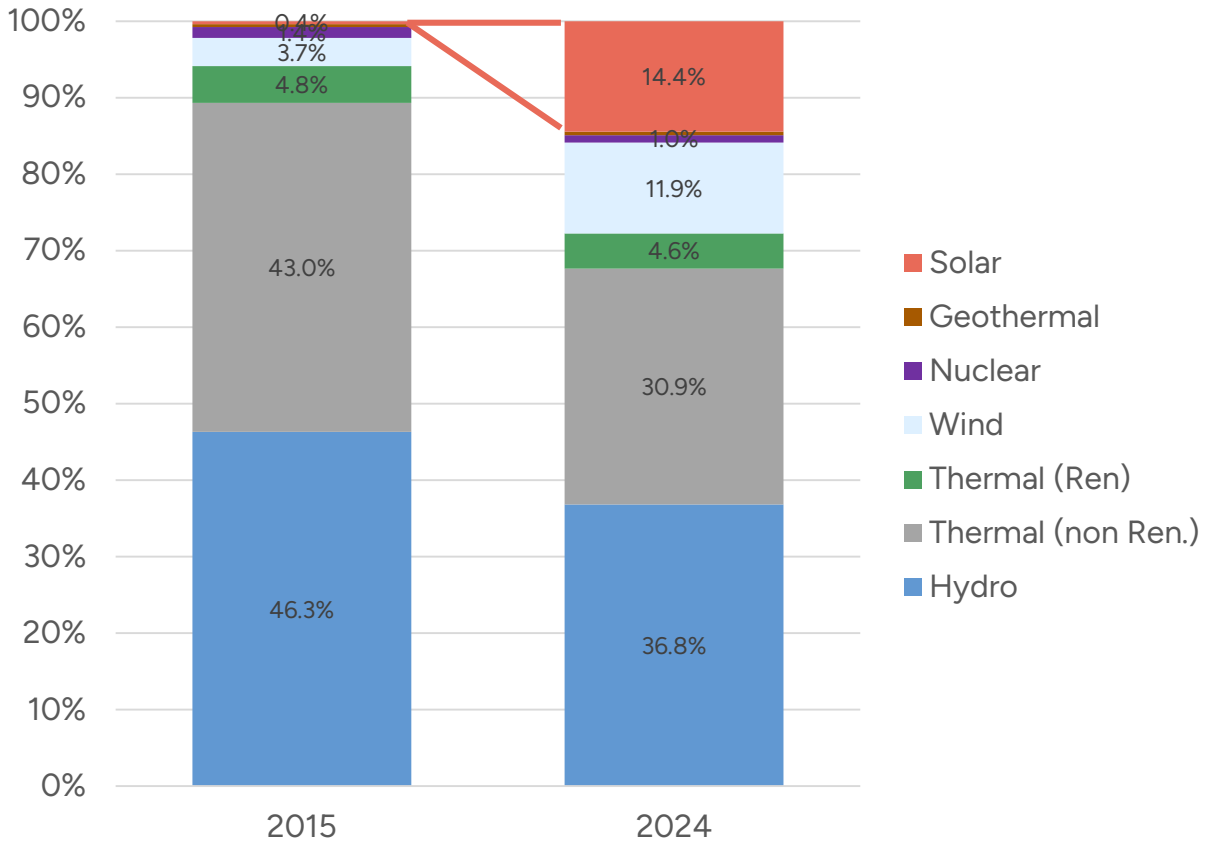
Trend

- Strong power-sector decarbonization
- Slower electrification of transport and industry



Role of solar in Latin America

- Total installed solar capacity – from virtually 0% in 2015 to 14% in 2024



80 GW

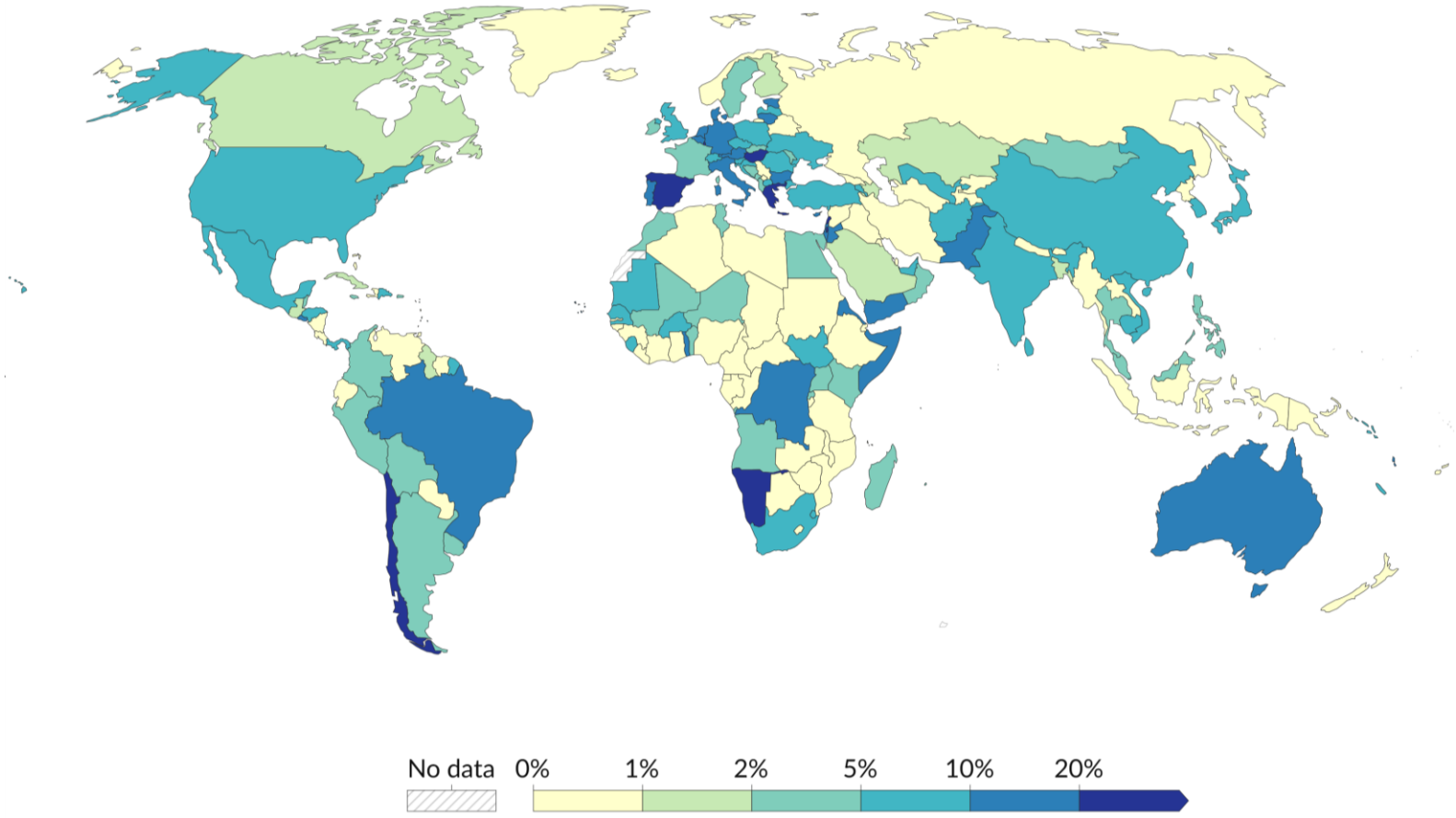
Installed capacity 2015-2024

~43% of total

Share of electricity production from solar, 2024

Measured as a percentage of total electricity produced in the country or region.

Our World in Data



Data source: Ember (2025); Energy Institute - Statistical Review of World Energy (2025)

OurWorldinData.org/energy | CC BY

Leading the solar revolution

1. Chile (22%)
2. El Salvador (17%)
3. Brazil (10%)

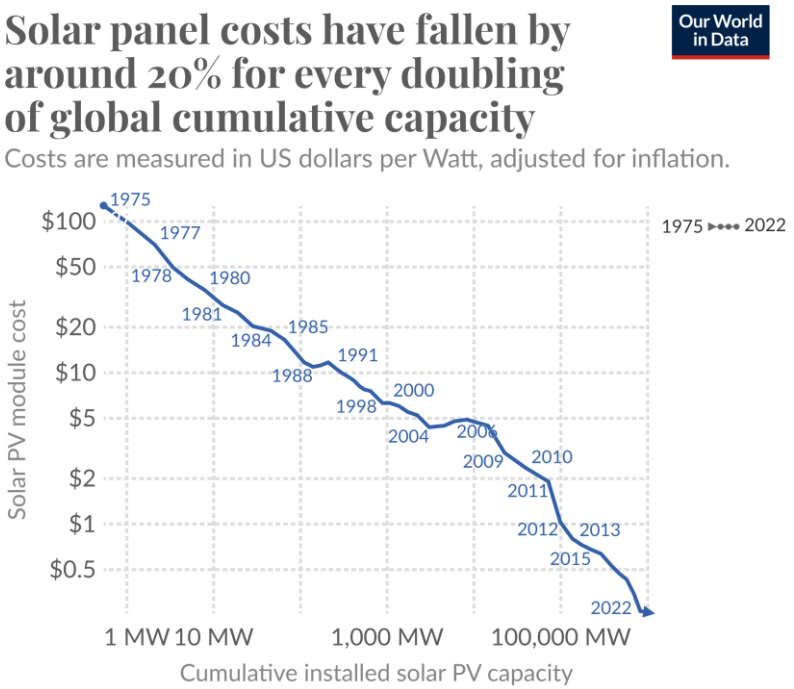
~6-7%
in 2024

Solar is too strong to stop

- Solar is now the cheapest form of energy in history
- There is technology maturity and constant efficiency improvements

But it can be slowed down....

- Politically unstable region
- Priorities shift with each incoming administration
- Uncertainty deters long-term investment



Data source: IRENA (2023); Nemet (2009); Farmer and Lafond (2016)

Uruguay as an example to follow

Problem

- Hydro dependence and lack of investment in new energy production
- Exposure to droughts, imports and price volatility (cost overruns ~2% GDP)

Solution

- Cross-party long-term energy strategy agreement (2005-2030)
- Not to fight climate change → to support energy security and access to reliable and cheap electricity
- Competitive renewable energy auctions backed by state-utility planning and long-term PPAs

The result?

- Almost 100% renewable electricity (~98%) with as much as 50% coming from VRE
- Net exporter of electricity
- 2022 drought “worst in decades” → VREs stepped up
- Ongoing discussions for 2nd Energy strategy agreement to support “2nd Energy Transition”

Forbes

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By Ken Silverstein, Senior Contributor. Ken Silverstein covers global energy... Follow Author

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TOPSHOT - Three birds fly past a wind farm near the city of Florida, about 100 km north of Montevideo, as a storm darkens the sky in the afternoon on February 8, 2018. (Photo by Mariana SUAREZ / AFP) (Photo by MARIANA SUAREZ/AFP via (... More

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