

Time To Triple

CLIMATE GROUP
RE100



Introduction

At COP28, 133 countries committed to tripling globally installed renewable capacity by 2030.

The pledge called for 11,000 gigawatts (GW) of electricity. That's enough to power 1,000 cities the size of New York or charge 110 million electric vehicles. It's the equivalent of 22,000 average coal-fired power plants, 489 Three Gorges Dams or 110,000 large-scale solar farms.

In 2023, renewables reached a new record by providing 30% of global electricity demand. To deliver the tripling of renewables, an average of \$2 trillion a year is needed in the power system, every year, up until 2030. Considering in 2022 \$7 trillion was spent on fossil fuel subsidies, the global economy is more than up to the task.

While the tripling of renewables is a global goal, many countries that signed the pledge are not using enough renewable electricity domestically to fill the needs of businesses and consumers or meet the Nationally Determined Contributions these governments have set out. Recent research has pointed out that when put together, national 2030 wind targets will surpass doubling global wind capacity, but miss the tripling increase needed to meet the overall global goal.

For too many countries around the world policy barriers continue to stop them from fully capitalising on their renewable resources and the substantial economic benefits of the renewables roll out.

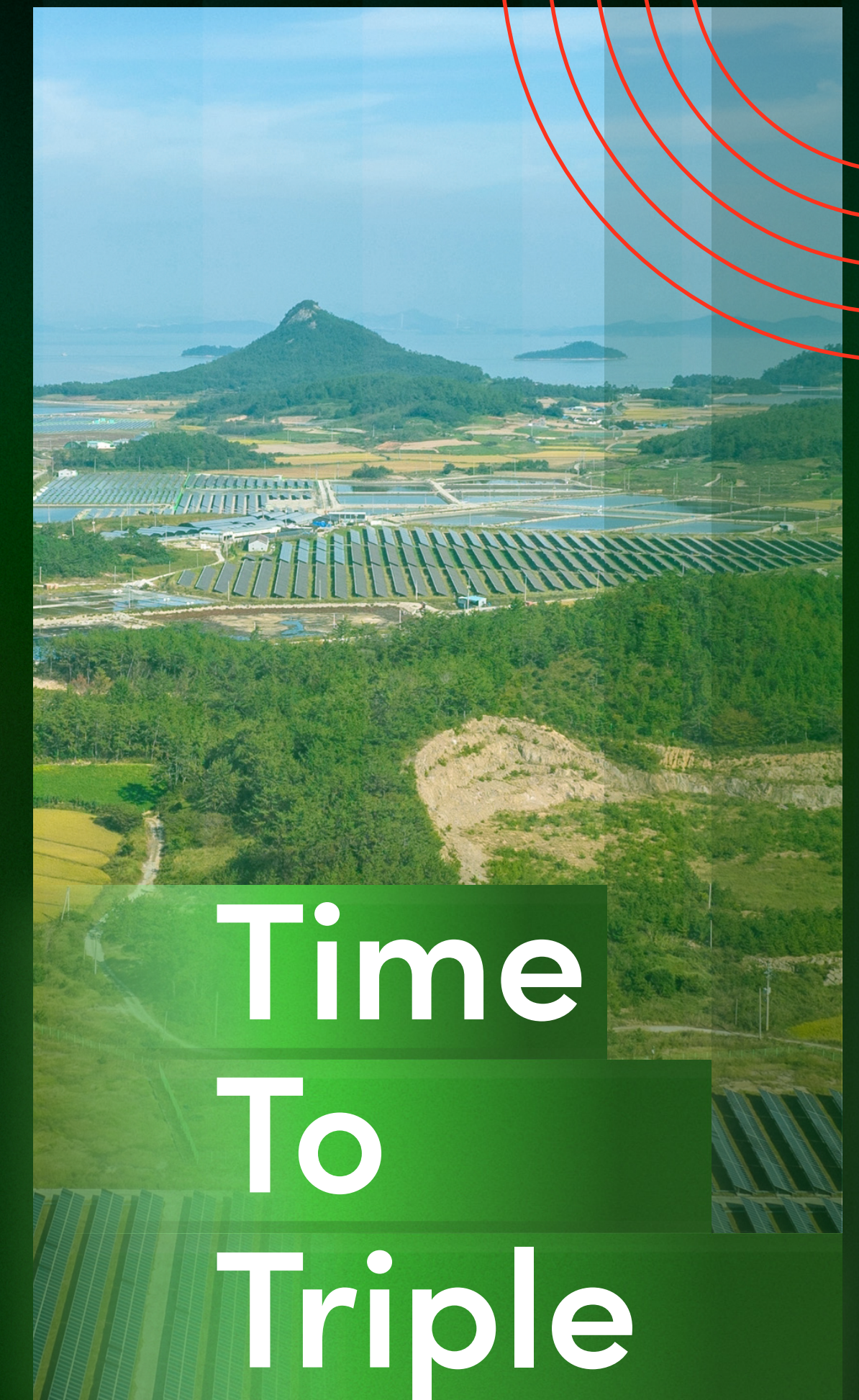
Policy barriers and restrictions typically fall under three categories.

- The availability of renewable electricity
- The accessibility of this electricity
- The affordability of renewable electricity

These barriers not only hinder a country's international commitments, but also its net zero goals, its energy security, and ignore the calls from businesses seeking to use renewables across their operations.

Here we're focusing on several countries around the world because of the challenges corporates have in sourcing renewables in these markets. We look at the opportunities and challenges for renewables in these countries, alongside the difficulties they face in their current energy supply mix in moving away from fossil fuels. If the world is to triple its renewable energy capacity, even those countries that didn't sign the pledge need to play their part in reducing fossil fuel usage.

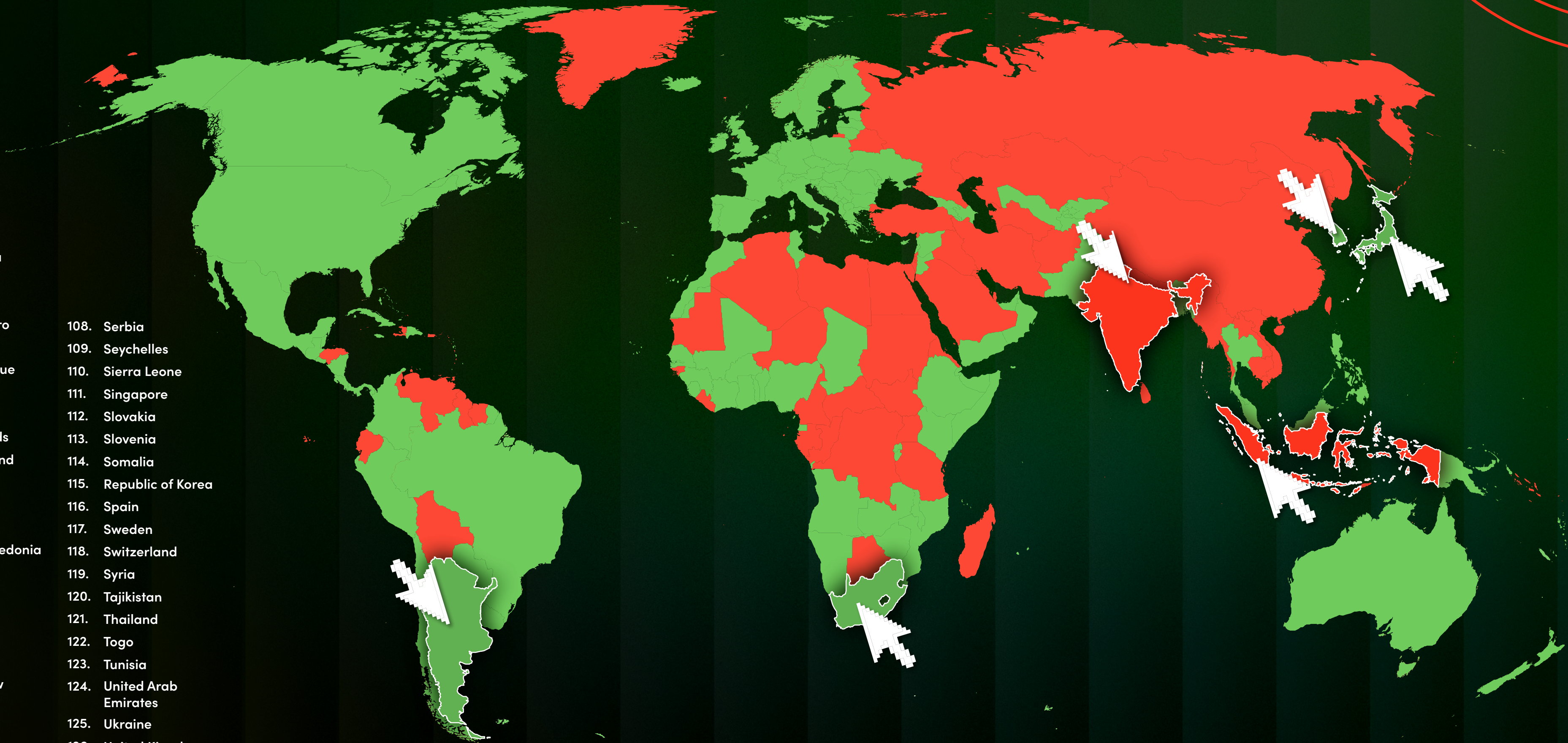
CLIMATE GROUP
RE100



Map

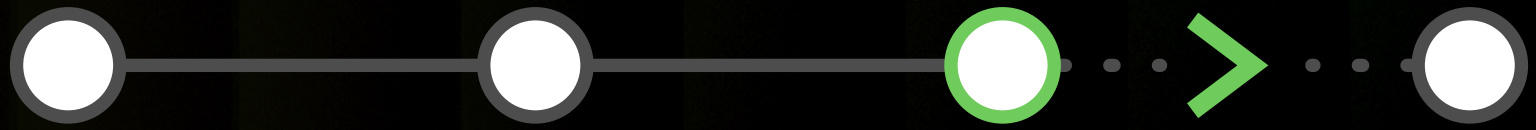
Pledge signatories

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The boundaries and names on the maps used in this report follow those of the UN. They do not necessarily reflect RE100's acceptance, endorsement or position.

	Pledge Signatories		Non-Pledge Signatories
	Pledge Signatories Case Studies		Non-Pledge Signatories Case Studies



Map

Pledge signatories

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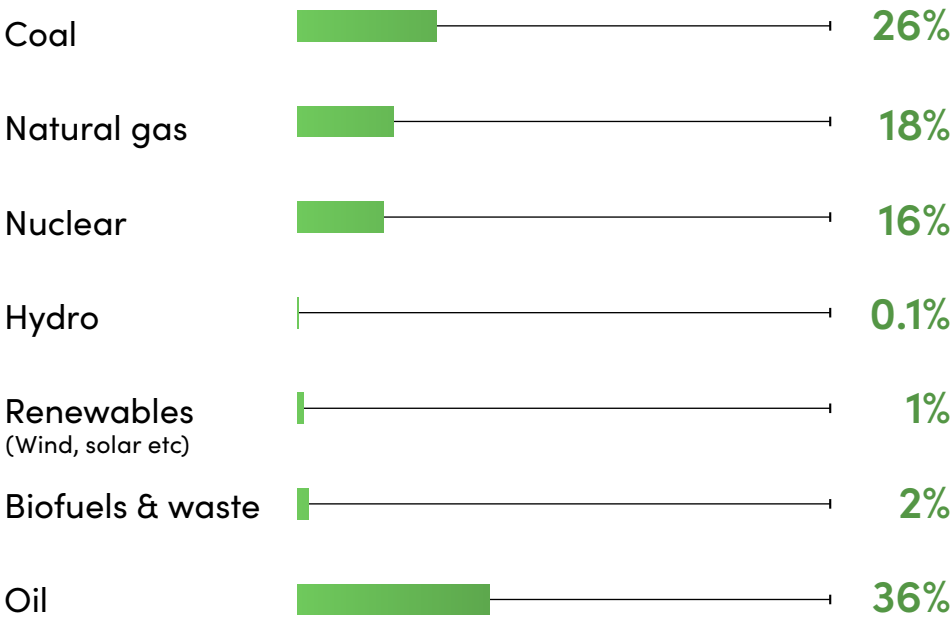
Luxembourg



South Korea

COP28 pledge signed:

IEA Total Energy Supply Breakdown – 2022:



Net zero target: 2050

Profile:

South Korea is **regularly cited** as one of the top two most challenging places in the world for companies to source renewable electricity. The government has been placing a heavy emphasis on nuclear power, as reflected in the more substantial targets for nuclear energy compared to renewables for both 2030 and 2038 in the 10th Basic Plan for Electricity Supply and Demand (and the draft of the 11th Basic Plan). The renewable energy target in this plan is nearly 10% lower than what South Korea pledged in its Nationally Determined Contribution (NDC) in 2021. As an export economy, Korea must look to make renewables more available as corporates with global supply chains are increasingly requiring their suppliers to adopt renewables to help mitigate Scope 3 emissions. Failing to do this will limit the country's economic potential as businesses move to more pro-renewables environments. The South Korean government needs to show greater ambition with its renewable energy plans, having lowered South Korea's 2030 renewable energy target to one of the lowest in the G20.

Key stats:

- RE100 members source **only 9%** of their electricity from renewables in South Korea, compared to the global average of 50%.
- 40% of RE100 members** operating in South Korea reported facing procurement barriers. In particular, the high cost/limited supply of renewables, and lack of procurement options.
- There's the **potential for 624GW** of generation capacity to come from offshore wind.
- Through corporate commitments alone, **10% of South Korea's** current total annual electricity demand is committed to being 100% renewable.

RE100 policy recommendations:

- Enable renewables to compete on an equal footing to fossil fuels.
- Increase the renewable energy target.
- Remove obstacles to improve the accessibility of Power Purchase Agreements (PPAs).
- Enhance grid flexibility and fairness for renewable electricity generators.
- Improve the renewables investment environment for PPAs.
- Enhance transparency, sustainability and additionality of renewable electricity certificates.

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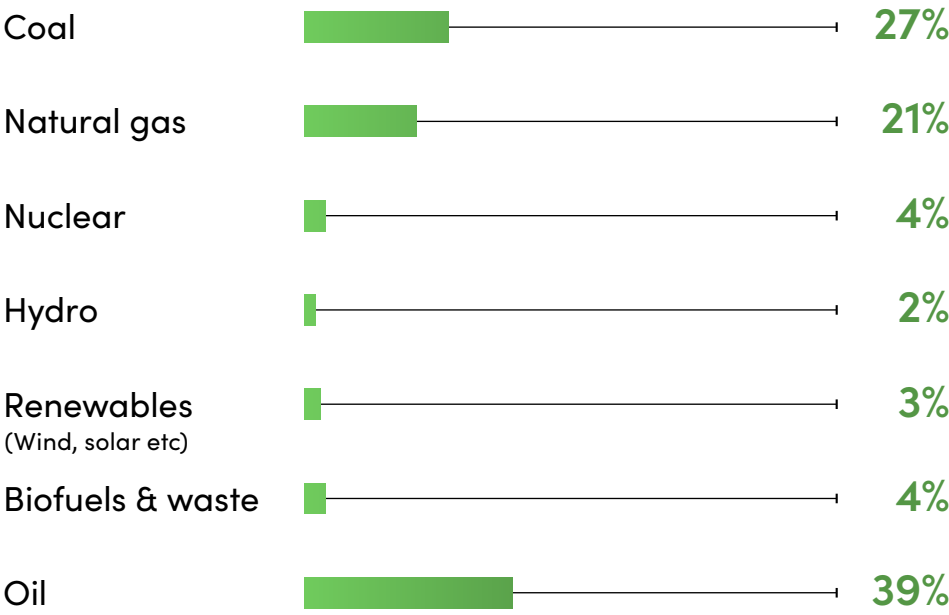
Luxembourg



Japan

COP28 pledge signed:

IEA Total Energy Supply Breakdown – 2022:



Net zero target: 2050

Profile:

Japan is heavily reliant on imported fossil fuels, jeopardising its energy transition and [energy security](#). Japan is the [world's number one importer](#) of liquified natural gas and spends between [US \\$140-230 billion a year](#), or between ¥21-34 trillion Japanese Yen, on fossil fuel imports. With the lowest amount of clean electricity of any G7 country, Japan runs the risk of falling behind in the global clean energy race. Japan could meet its electricity needs by [spending just 2%](#) of what it currently does on fossil fuels, on renewables. Private and public investment should be focused on renewables, particularly offshore wind, rooftop solar, and battery storage. As the only G7 country in the Asia-Pacific region, Japan can be a leader in the green transition.

Key stats:

- [BloombergNEF estimates](#) in a net zero world, only 5% of Japan's land mass is needed to reach onshore wind and solar targets.
- There's almost [3,000 square miles](#) of available rooftop space for roof-mounted solar panels alone.
- Offshore wind has the potential to provide [1.7 times](#) more electricity than Japan's primary energy supply.
- Due to Japan's low self-sufficiency ratio, it has spent more than three times the amount on financing international fossil fuels than it has on clean energy, [nearly \\$7 billion](#), or ¥1.5 trillion, a year between 2020 and 2022.

RE100 policy recommendations:

- Implement policies promoting transparent and fair electricity prices.
- Establish a target to triple installed renewable energy capacity from 121GW in 2022 to 363GW by 2035, at the latest.
- Improve access to Physical and Virtual Corporate Power Purchase Agreements (PPAs).
- Prioritise grid upgrades and operational improvements to speed up the connection time for new renewable's projects.
- Mobilise 17.9-18.1 trillion Yen in public and private investment from 2025-2030 towards renewable electricity and related technologies.
- Simplify the Non-Fossil Certificates (NFCs) issuing, tracking and certifying system.

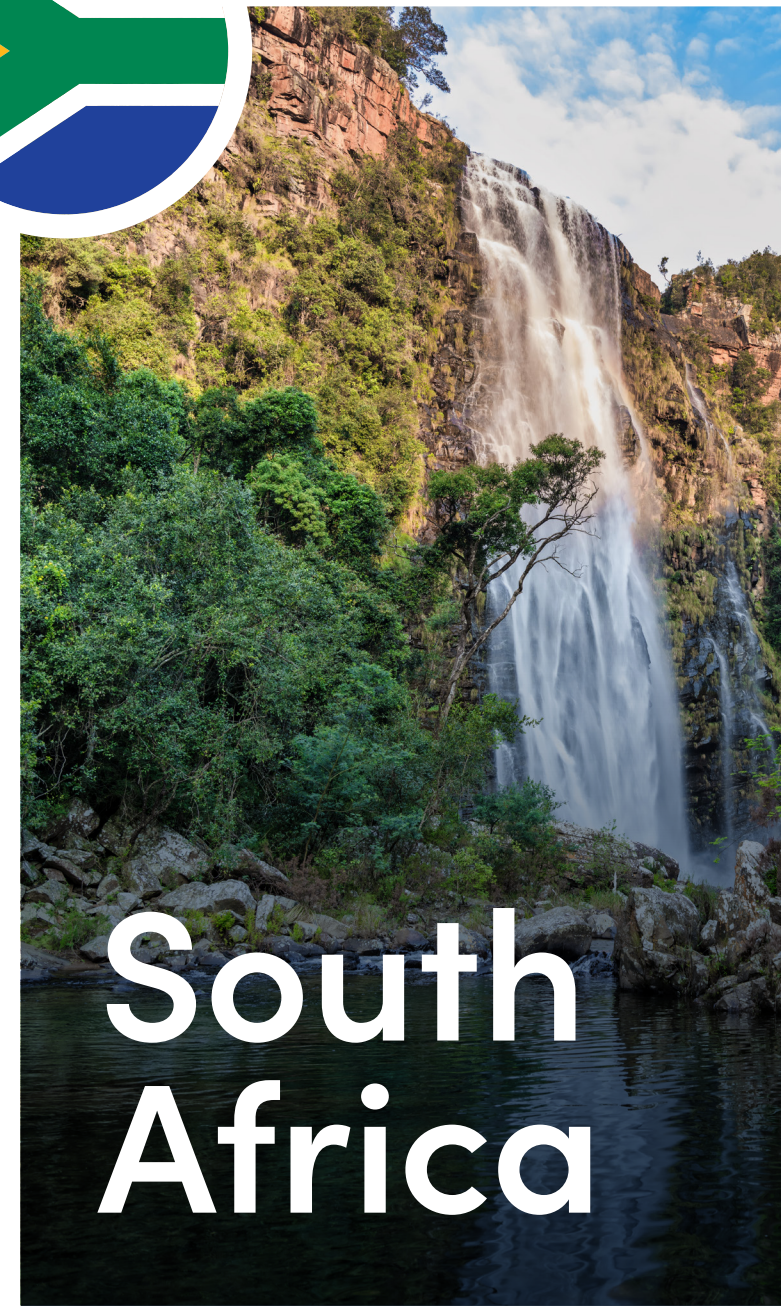


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- Non-Pledge Signatories Case Studies

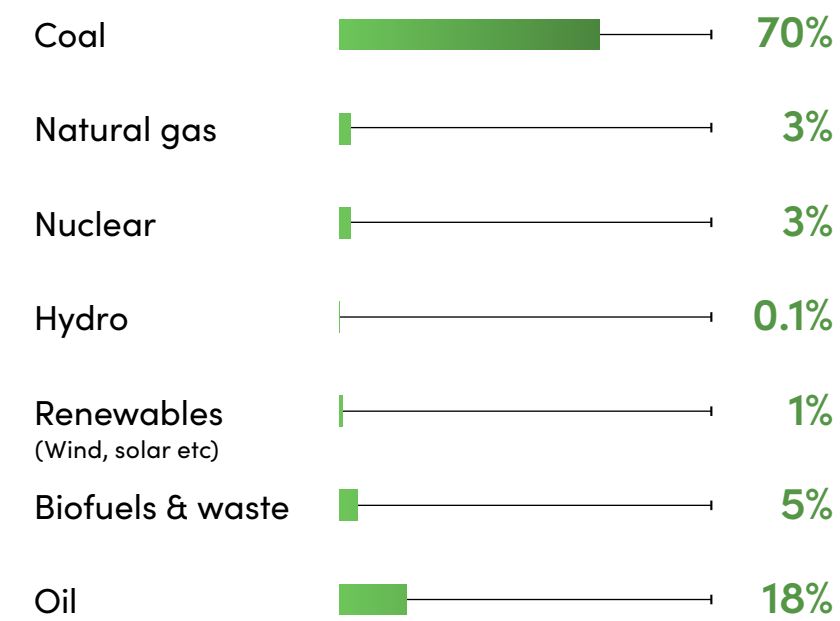
Map

Pledge signatories



COP28 pledge signed:

IEA Total Energy Supply Breakdown – 2021:



Net zero target: 2050

Profile:

South Africa's energy system is beset with problems, from rolling blackouts, aging infrastructure that isn't being replaced and grid capacity issues. While having notable renewable electricity potential, thanks to strong winds and abundant sunshine, grid limitations mean that currently only 30GW of renewables can be added to the grid - far short of the 190GW needed by 2050 to reach net zero.

Key stats:

- South Africa's energy crisis is costing the economy as much as USD \$51 million a day.
- According to the government's own estimates, 650,000 jobs were lost in 2022 due to 'loadshedding'.
- The country has over 2,500 hours of sunshine per year, making it ideally suited to large-scale solar projects.

Pledge Signatories

Pledge Signatories
Case Studies

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Pledge signatories

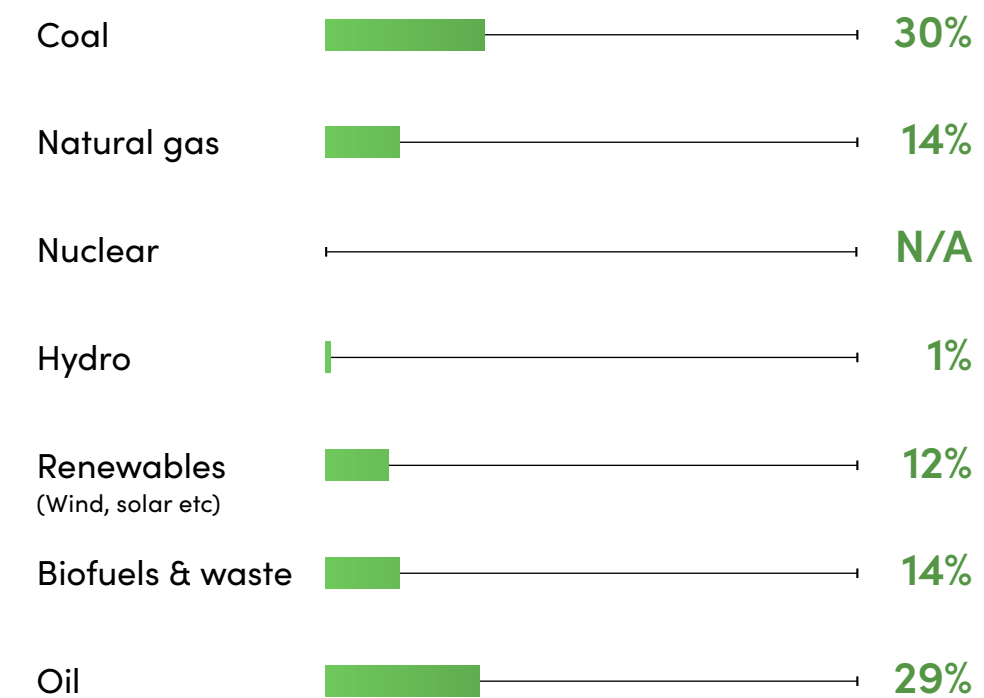
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Indonesia

COP28 pledge signed: **✗**

IEA Total Energy Supply Breakdown – 2021:



Net zero target: 2060

Profile:

As an archipelago of more than 17,000 islands and islets, Indonesia has challenges in building sufficient grid capacity and appropriate transmission and distribution networks to fully supply its 278 million citizens and burgeoning economy. At the end of 2022, Indonesia completed its Energy Transition Mechanism (ETM) to accelerate the energy transition and increase energy infrastructure, and Just Energy Transition Partnership (JETP), mobilising USD \$20 billion to support a just energy transition in the country. The country has a long way to go with less than 0.5% of the country's renewable potential fulfilled at the end of 2021. Issues around availability, accessibility and regulatory restrictions have been identified as the three primary barriers corporates are facing.

Key stats:

- Indonesia is home to 40% of the world's potential geothermal resources, with nearly 24GW of potential energy. It currently uses a little over 2GW, thereby missing the economic opportunities of this untapped resource for willing corporate buyers.
- One of the top 10 fossil fuel emitting countries.
- By the end of 2022, Indonesia had nearly 19GW of coal power under construction.
- Home to the region's largest floating solar farm, saving 200 hectares of land from being cleared, it provides up to 100 jobs.

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The Signatories

Non-Pledge Signatories

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Non-Pledge Signatories

Case Studies

Map

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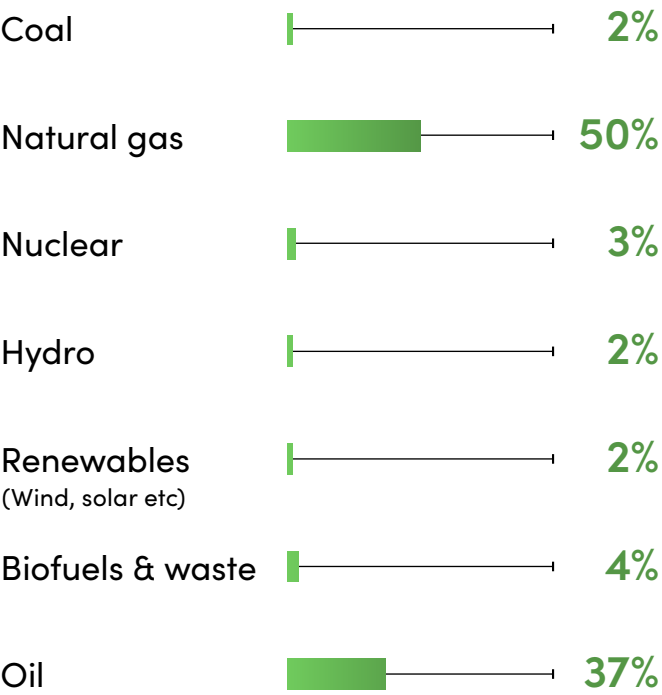
133. Zimbabwe



Argentina

COP28 pledge signed:

IEA Total Energy Supply Breakdown – 2022:



Net zero target: 2050

Profile:

Argentina plans to have 57% of its electricity generation coming from renewable sources by 2030, according to its [National Energy Transition Plan](#). The country's ongoing energy problems are partly due to local refinery issues and delays of imports. By moving to an energy system reliant on a mixture of renewable energies, Argentina can improve its domestic energy security and minimise the risks associated with fossil fuel imports, especially the volatility in market pricing.

Key stats:

- Argentina is the largest natural gas producer in Latin America and the second-largest producer of lithium, a crucial mineral for manufacturing battery storage systems and, consequently, essential for the energy transition.
- Argentina has a total installed capacity of 5GW in renewable energy sources. Wind energy is the predominant technology [representing 63% of the total renewable generation capacity](#) in Argentina.
- Argentina has not made significant investments in its grid network for [a quarter of a century](#), despite looking to establish 5,000 kilometres of new transmission lines to support its renewable ambitions.

Pledge Signatories

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Non-Pledge Signatories

Non-Pledge Signatories Case Studies



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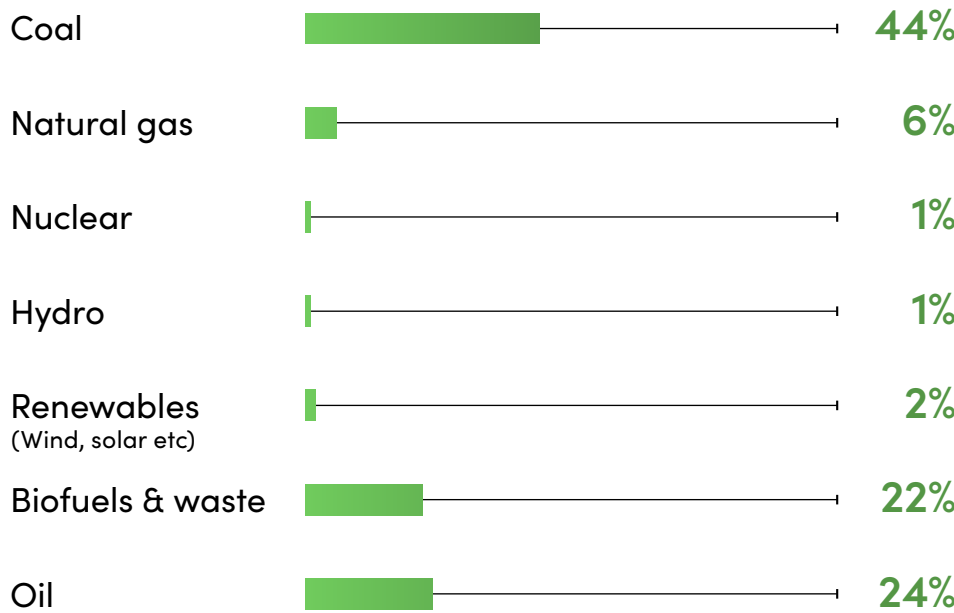
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COP28 Pledge signed: ✗

IEA Total Energy Supply Breakdown – 2021:



Net zero target: 2070

Profile:

India is the third largest energy consumer in the world. Energy demand has doubled since 2000 and is set to continue growing, primarily being met by fossil fuels. As much as 80% of the electrical energy supply is by coal, oil and solid biomass. On the other hand, India is witnessing progressive policy changes like its Green Energy Open Access policy which is supporting the deployment of renewables in the country. The federal Ministry of Power recently constituted a group for the “Development of Electricity Market in India”. It proposed a roadmap for the Indian electricity market which emphasises the importance of new renewable energy and market mechanisms to deploy it.

Key stats:

- India’s updated NDC targets includes meeting 50% of its electric power from non-fossil sources by 2030.
- The solar and wind sectors employed 165,000 workers as of 2022.
- India ranks 4th in the world for installed renewable energy capacity.
- Despite its renewables growth, coal use in India continues to rise with some forecasts predicting demand increasing to 1.5 billion metric tons over the next six years.

RE100 policy recommendations:

- Remove regulatory barriers to facilitate the uptake of corporate renewable electricity sourcing.
- Provide a credible and competitive green tariff program.
- Support a credible and transparent system for issuing, tracking and certifying competitively priced Renewable Energy Certificates.
- Promote direct investments in onsite and offsite renewable electricity projects.
- Create an electricity market structure that allows for direct trade between corporate buyers and renewable electricity suppliers.
- Create market-based incentives for utilities to facilitate corporate renewable sourcing.

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Conclusion

Countries around the world committed to tripling globally installed renewables by 2030. The latest findings from the International Energy Agency (IEA) show that with current policies and actions the world will **fail to meet its commitments.**

Based on analysis of all existing policies, plans and estimates for almost 150 countries, it's estimated that only 8,000GW of the 11,000GW we need will be installed by 2030, demonstrating a clear ambition gap between the pledge and realities on the ground.

Despite some progress towards the tripling goal, more must be done to shake the global addiction to fossil fuels. Some countries have made more progress than others, notably in Europe and North America where capital for energy projects is easier to come by. As the map shows, this is a global goal and more needs to be done around the world to provide access and opportunities for renewable energy projects to take hold.

To help achieve the global goal of tripling renewables, for countries to improve their energy security and maximise the economic opportunities within the energy transition, we recommend that governments:

- Incentivise and increase supply to ensure sufficient availability of renewables.
- Establish an enabling regulatory environment for corporate sourcing and accessibility of renewables.
- Create a level playing field to ensure the affordability of renewables.

Continuing to promote fossil fuels, at the expense of renewables, or by not adequately supporting renewables through policies and market structures, is a dead-end road. The time of cheap fossil fuels is over. The transition to renewable electricity is the gold rush of the 21st century. Now is the time for countries to increase their ambition and commit to tangible action to rapidly scale up renewable electricity. Now is the time to triple.



CLIMATE GROUP
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