

POWER UP FOR CLIMATE JUSTICE:



FINANCING AND IMPLEMENTING
A 1.5°C- ALIGNED GLOBAL
RENEWABLES TARGET

350

ACKNOWLEDGEMENTS

This report was developed and authored by Andreas Sieber, and edited by Pascale Hunt, with contributions and support provided by 350.org colleagues including Cansin Leylim and Joanna Kuper and design by Lully Duque.

Power Up for Climate Justice draws on many areas of valuable research conducted by organizations such as Ember: namely the research of Dave Jones, Climate Analytics, International Energy Agency, and the International Renewable Energy Agency.

Citation: 350.org (2023). Power Up for Climate Justice: Financing and Implementing a 1.5°C Aligned Global Renewables Target.

Available for download: <http://350.org/report-powerupforclimatejustice>

All reasonable efforts have been made to ensure the data presented in this report is accurate, reflects the most up to date information available, and is properly sourced.

About 350.org

350.org works on grassroots campaigns across the globe, leveraging people power — individuals working together in pursuit of a common goal — to dismantle the influence and infrastructure of the fossil fuel industry and to power up clean systems rooted in justice.

To build a more sustainable and just future, we collaborate with communities at the frontline of the climate crisis, those who have historically contributed the least emissions but are feeling the worst effects. We campaign and organize to show the world we really want, in pursuit of energy justice and distributed renewable energy solutions that will move us away from fossil fuels, for good.

Over the past 15 years, we have mobilized with people around the world to confront injustice and challenge our fossil-fuelled economic systems. Together, we have achieved extraordinary things, from getting millions of people onto the streets worldwide, to moving trillions of dollars away from the fossil fuel industry, to stopping dirty coal, oil and fossil gas plants and pipelines. We take on ambitious fights — and we often win!

As we approach the UN Climate Talks (COP28) in Dubai, a global renewable energy target in line with limiting global heating to 1.5°C above pre-industrial levels has become the central tenet of negotiations and is positioned to be adopted.

However, a renewable energy agreement at COP28 will only constitute a meaningful step towards climate justice if it is accompanied by a clear roadmap for implementation. This must include equitable mechanisms and commitments in the financial and policy realms, as well as an urgent and equitable phase out of fossil fuels. Without these, any agreement would represent a hollow, 'easy win' for the COP28 President Al Jaber, and risk allowing polluting countries to hide behind a renewables goal while continuing to emit fossil fuels.

The following report illustrates the need for a comprehensive, measurable, and justice-led global renewable energy target and presents the key financial and policy guardrails and recommendations that must accompany its implementation.

TABLE OF CONTENTS

05

INTRODUCTION

09

1. QUALITATIVE REQUIREMENTS FOR A GLOBAL RENEWABLE ENERGY TARGET

- | | |
|---|----|
| 1.1 TRIPLING INSTALLED RENEWABLE ENERGY CAPACITY TO OVER 11 TW BY 2030 AND INSTALLING 1.5 TW PER YEAR FROM 2030 ONWARDS | 10 |
| 1.2 ALONGSIDE A RENEWABLE ENERGY TARGET, A COMPLETE FOSSIL FUEL PHASEOUT IS CRITICAL TO LIMIT GLOBAL HEATING TO 1.5°C. | 11 |

13

2. FINANCING A GLOBAL RENEWABLE ENERGY TARGET

2.1 FINANCIAL BARRIERS TO THE ENERGY TRANSITION	16
2.1.1 DEBT IN THE GLOBAL SOUTH	16
2.1.2 THE INEQUITABLE COST OF CAPITAL IN THE GLOBAL SOUTH	16
2.2 OPPORTUNITIES TO UNLOCK FINANCE FOR THE ENERGY TRANSITION	17
2.2.1 DEBT CANCELLATION	17
2.2.2 THE PROVISION OF CONCESSIONAL FINANCE WITHOUT INCREASING UNSUSTAINABLE DEBT LEVELS	18
2.2.3 THE SIGNIFICANT SCALE-UP OF GRANTS	19

23

3. A COMPREHENSIVE COP28 ENERGY PACKAGE AND RENEWABLES GOAL

25

CONCLUSION

27

GLOSSARY OF TERMS

INTRODUCTION

This year's UN Climate Talks (COP28) will take place after yet another year of record breaking extreme weather, with 2023 projected to be the world's hottest year in history¹ after five consecutive months of record-breaking temperatures. This year monsoons in India have claimed the lives of more than 2000 people², South Korea and Japan saw unprecedented levels of flooding³, widespread heat-waves spread through Europe⁴, and wildfires raged through North America⁵. As the world grapples with runaway climate chaos, widespread human needs and rights deprivation, geopolitical instability, and violent conflict, it is time for a collective wake up call.

Limiting global heating to 1.5°C⁶ was a central tenet of the 2015 Paris Agreement, adopted by 196 parties at the UN Climate Conference (COP21) – the first legally binding⁷ global treaty on climate change. Three years later, in 2018, the Intergovernmental Panel on Climate Change

(IPCC)⁸ issued its ***Special Report: Global Warming of 1.5°C***⁹, which outlined how human-induced increased average surface temperatures had ***already*** led to more frequent and severe impacts to organisms and ecosystems, including through land and marine heatwaves, heavy precipitation events, and drought¹⁰.

Since then, scientific consensus has continued to emphasize the critical importance of the 1.5°C threshold. Although far from safe, it is much safer than 2 degrees or more of temperature rise, and thus should be seen as an absolute maximum for people and the planet¹¹.

It has now been eight years since the Paris Agreement, and the 1.5°C target is in danger: our current policy trajectory sees us hurtling towards a grim, 3°C warming scenario.

Despite unprecedented challenges, 1.5°C is still within our grasp – while communities around the world are rallying in unprecedented numbers for urgent and decisive action, demanding a swift departure from polluting, economically unsustainable fossil fuels and the rapid embrace of a just renewable energy transition – a promising path forward has emerged: a global renewable energy target that can reroute our current trajectory and steer the world toward meeting the critical 1.5°C limit.

1 Climate change experts warn 2023 will be hottest year on record. BBC News, <https://www.bbc.co.uk/newsround/67357316#>

2 Over 2,000 Dead In India During Monsoon. Entire Himachal Declared 'Natural Calamity Affected Area'. ABP Live, <https://news.abplive.com/news/india/monsoon-fury-2023-over-2-000-people-dead-in-india-entire-himachal-pradesh-declared-natural-calamity-affected-area-bihar-tops-casualties-1623908>

3 Soaring temperatures to record rainfall: Asia reels as climate crisis takes hold. CNN, <https://edition.cnn.com/2023/07/17/asia/climate-extreme-weather-floods-korea-japan-china-india-intl-hnk/index.html>

4 The European heatwave of July 2023 in a longer-term context. Copernicus, <https://climate.copernicus.eu/european-heatwave-july-2023-longer-term-context>

5 North America's summer of wildfire smoke: 2023 was only the beginning. The Conversation, <https://theconversation.com/north-americas-summer-of-wildfire-smoke-2023-was-only-the-beginning-210246>

6 From here on, 1.5°C refers to 1.5°C above pre-industrial levels.

7 The Paris Agreement. UNFCCC, <https://unfccc.int/process-and-meetings/the-paris-agreement>

8 Intergovernmental Panel on Climate Change (2018). Global Warming of 1.5C. IPCC. <https://www.ipcc.ch/sr15/>

9 United Nations Convention on Climate Change (2023). The Paris Agreement. United Nations Climate Change. <https://unfccc.int/process-and-meetings/the-paris-agreement>

10 Ibid.

11 Ibid.





However, despite having garnered support among significant decision makers, the target alone is not enough. There is a real risk that a global renewable energy target will be rendered half-empty if it is not accompanied by the necessary mechanisms, processes, and political commitments to realize a just energy transition.

For it to holistically address global energy needs and redress fossil fuel dependency the target must contain provisions for the following quantitative goals:

1. By 2030, to have tripled fair, safe and clean (figure 1/principles/guardrails) renewable energy capacity to over 11 terawatts (TW), and from 2030 onwards, add a yearly deployment of 1.5 TW of renewable energy capacity;
2. By 2030 at the latest to have doubled yearly *energy efficiency gains*.
3. By 2050, to have achieved a complete, just, and equitable phase out of all fossil fuels (coal, oil and gas), and by 2030, to have reduced greenhouse gas emissions by 42% relative to 2019 levels.

Of equal importance to the quantitative requirements for a global renewable energy target, are the qualitative aspects and their implementation. This report looks at the proposal for a global renewable energy target through a holistic, needs and justice-based lens: how the target must be designed, the key financial barriers and how to address them, and crucial associated principles and guardrails for renewable energy deployment so that it benefits the global community equitably, particularly communities in the Global South.

The Paris Agreement is the landmark multilateral framework to stop climate change, and COP28 – which includes the [Global Stocktake](#) of whether the world is on track to meet this target – is a pivotal moment to achieve its intended goal: limiting global heating to no more than 1.5°C.

QUALITATIVE REQUIREMENTS FOR A GLOBAL RENEWABLE ENERGY TARGET

A global renewable energy target must represent a robust and realistic reflection of what the world needs to stay below 1.5°C, including a clear pathway for support and implementation. This chapter will outline the factors that must be agreed upon as a foundation for a global renewable energy target at COP28.

To meet global energy demands, we need an ambitious, measurable renewable energy target to provide governments with a benchmark for renewables deployment – a ‘pace setter’ for the global energy transition, informing critical decisions at national and international levels. But in order for a renewable energy target to play a role in limiting global heating to 1.5°C, it must be accompanied by a swift, equitable phase out of fossil fuels by 2050. Without a clear roadmap to achieve these goals in tandem, any renewable energy goal will be rendered hollow.

The details of a renewable energy target are of critical importance: they will serve the function of informing decisions regarding planning permissions, land use, and grid connections, while setting tangible targets towards which finance must be raised, redirected, and redistributed. They will also provide clarity at the international level on the multilateral support needed to enable growth in renewable energy and energy access, particularly in the Global South outside of China¹².

This report presents the case – supported by numerous experts, organizations and researchers – for an ambitious global renewable energy target that would see the world phase out fossil fuels by reaching 11 TW of total renewable energy capacity by 2030, and adding 1.5 TW of global renewable energy capacity per year from 2030 onwards: 1.5 TW for 1.5°C¹³.

12 In the context of investment in renewable energy, references to the Global South refer to the Global South outside China.

13 This target is a goal that has been developed and endorsed by various groups within the climate movement including such as CAN International and Ember among many others like 350.org.

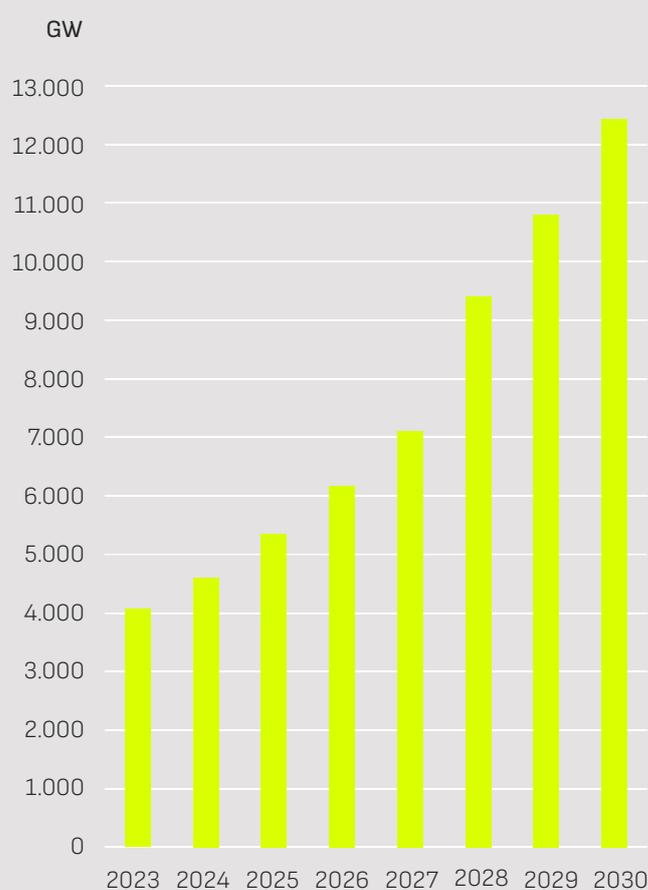
1.1 TRIPLING INSTALLED RENEWABLE ENERGY CAPACITY TO OVER 11 TW BY 2030 AND INSTALLING 1.5 TW PER YEAR FROM 2030 ONWARDS

Tripling renewable energy capacity is a goal that is at once bold, pragmatic, and achievable. Two reports—the *International Renewable Energy Agency’s (IRENA) World Energy Transition Outlook 2023: 1.5 Pathway*¹⁴ report and the International Energy Agency’s (IEA) 2023 *Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach*¹⁵-- provide the most authoritative projections for renewable energy deployment needs. Both scenarios project that by 2030, more than 11 TW of global renewable energy capacity – 11,174 gigawatts (GW) and 11,008 GW respectively – is needed. These equate to an approximate tripling of current total renewable energy capacity – which had reached 3,372¹⁶ GW at the end of 2022.

At the end of 2023, according to IEA estimates¹⁷ installed global renewable energy capacity will reach 4,068 GW, after a record addition of 440 GW within a year – a 33% increase in added capacity compared to 2022; 24% more than was predicted in early 2023; and double what was expected in 2020. This increase is partly attributable to the sudden implementation of renewables-friendly policies linked to Russia’s invasion of Ukraine.

Reaching 11 TW of renewables capacity by 2030 will require adding approximately 7 TW – about 1 TW per year for the next seven years. However, reaching 1 TW of deployment per year from the current yearly installation rate of 440GW per year is not realistic. Instead, we can expect to see installation rates growing at a slower, but accelerating rate.

GROWTH RATE OF GW CAPACITY PER YEAR



14 World Energy Transition Outlook 2023: 1.5 Pathway. International Renewable Energy Agency, https://mc-cd8320d4-36a1-40ac-83cc-3389-cdn-endpoint.azureedge.net/-/media/Files/IRENA/Agency/Publication/2023/Jun/IRENA_World_energy_transitions_outlook_v1_2023.pdf?rev=cc4522ff897a4e26a47906447c74bca6

15 Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach. International Energy Agency, <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach>

16 Record Growth in Renewables Achieved Despite Energy Crisis. International Renewable Energy Agency, <https://www.irena.org/News/pressreleases/2023/Mar/Record-9-point-6-Percentage-Growth-in-Renewables-Achieved-Despite-Energy-Crisis#:~:text=Abu%20Dhabi%2C%20United%20Arab%20Emirates,year%20was%20produced%20by%20renewables.>

17 Renewable Energy Market Update - June 2023. International Energy Agency, <https://www.iea.org/reports/renewable-energy-market-update-june-2023>

1.2 ALONGSIDE A RENEWABLE ENERGY TARGET, A COMPLETE FOSSIL FUEL PHASEOUT IS CRITICAL TO LIMIT GLOBAL HEATING TO 1.5°C.

Assuming a growth rate of approximately 15% added capacity per year for the rest of the decade, we can still reach over 11 TW by 2030. This scenario would see us adding less than 1 TW per year in the near-term, but reaching a point of adding 1.5 TW per year by 2030¹⁸. This calculation builds in particular on the work of the climate and energy think tank Ember¹⁹. It is further supported by a 2023 study by climate think tank Climate Analytics²⁰, which projects a yearly installment of 1.5 TW of solar and wind power by 2030 to be in line with the goals of the Paris Agreement. Other factors, including rapid speed of electrification for communities with low energy access, and increasing global energy demand, further lead experts to predict renewables installment to peak in the 2030s.

These analyses assume energy efficiency will improve twice as fast as current rates²¹, increasing from 2% to 4% yearly, highlighting that improving energy efficiency is a crucial addition to a global renewable target in line with keeping temperature rise to 1.5°C.

The science is clear: to limit global heating to 1.5°C, while significantly scaling up renewable energy while doubling our yearly energy efficiency gains, we must phase out all fossil fuels – coal, oil, and gas.

Currently, three quarters of global greenhouse gas emissions come from burning fossil fuels. Increasing global calls for the rapid replacement of fossil fuels will influence the rate of renewables expansion, and concurrently, renewables expansion will be a key driving²² force in reducing demand for and displacing fossil fuels. Evidence shows that renewable energies outperform oil, coal, and gas²³ not only in terms of global carbon dioxide emissions but also economically. Demand for for all fossil fuels is expected to peak this decade²⁴. However, phasing out fossil fuels at the speed and scale needed to keep global warming to 1.5°C requires a clear, managed decline and implementation plan.

The shift away from fossil fuels must be complete by 2050; we must begin a rapid phase out this decade, resulting in a 43% reduction²⁵ in emissions by 2030 compared to 2019. Fossil fuels will decline – the responsibility for policymakers is to ensure this decline happens at the speed necessary, avoids stranded assets²⁶, and facilitates a just transition.

18 This analysis builds in particular on the work of the climate and energy think tank Ember <https://ember-climate.org>.

19 <https://ember-climate.org>.

20 At least 1.5 TW of new wind and solar capacity needed each year by 2030 to meet 1.5°C limit sustainably. Climate Analytics, <https://climateanalytics.org/latest/at-least-15-tw-of-new-wind-and-solar-capacity-needed-each-year-by-2030-to-meet-15c-limit-sustainably/>

21 Global energy efficiency progress is accelerating, signalling a potential turning point after years of slow improvement. International Energy Agency, <https://www.iea.org/news/global-energy-efficiency-progress-is-accelerating-signalling-a-potential-turning-point-after-years-of-slow-improvement>

22 Executive Summary. Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach. International Energy Agency, <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach/executive-summary>

23 The momentum of the solar energy transition. Nature Communications, <https://www.nature.com/articles/s41467-023-41971-7>

24 Executive Summary. Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach. International Energy Agency, <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach/executive-summary>

25 Climate Plans Remain Insufficient: More Ambitious Action Needed Now. UNFCCC, <https://unfccc.int/news/climate-plans-remain-insufficient-more-ambitious-action-needed-now>

26 Stranded assets refer to investments that lose their value prematurely due to external factors, making them unprofitable or obsolete. Fossil fuel projects in particular become stranded assets as the world shifts towards cleaner energy sources and climate policies; as the International Energy Agency projects the peaking of all fossil fuels in this decade, many fossil fuel investments are at risk of becoming stranded assets.

**PRINCIPLES AND GUARDRAILS
TO ENSURE JUST AND EQUITABLE
RENEWABLE ENERGY**

- **Energy Justice:** Addressing energy poverty and ensuring that energy access is not only universal but also gender-sensitive, equitable, and sufficient to meet basic needs of all people.
- **Efficiency and Equity:** Curbing wasteful and excessive, unnecessary energy use, while providing sufficient energy to all people within and across countries – across production and consumption.
- **Transparency and Inclusion:** Crafting energy systems that are transparent, democratic, and free from discrimination while championing energy sovereignty, local ownership, and the fostering of dignified employment.
- **Sustainable Resource Stewardship:** Upholding well-managed usage and safeguarding of land, water, and marine resources. Recognizing and safeguarding ecologically sensitive areas, as well as prioritizing and establishing policies around prime agriculture and water resources for food and health. Addressing any harm through remediation and responsible governance.
- **Mitigating Resource Extraction Impact:** Diligently working towards minimizing the necessity for, and consequences of, extracting critical minerals indispensable for the renewable energy transition through policies and regulatory systems over the extraction, mining, processing and trade. Upholding principles of circular solutions and reducing raw materials usage.
- **Guardianship of Rights and Participation:** Upholding and preserving essential human rights, including the Right to Free, Prior, and Informed Consent of Indigenous Peoples and facilitating participatory decision-making.
- **Safeguarding Ecological Vitality:** Ensuring ecological preservation, regeneration, and restoration of biodiversity and ecological integrity by recognizing ecologically sensitive areas, and prioritizing sustaining essential ecosystems of conserved areas above energy generation, conducting regulatory environmental impact assessments of areas for energy development, and when unavoidable impacts occur, set mechanisms to regenerate and restore ecosystems.
- **Financial Equity and Climate Responsibility:** Ensuring adequate and just climate financing from wealthier nations, without burdening lower-income countries with new debt stemming from investments in renewable energy. When private funds are mobilized, regulations to ensure transparency, fairness, adherence to social and environmental principles, and affordability must be in place.

FINANCING A GLOBAL RENEWABLE ENERGY TARGET

An agreement at COP28 must underpin the tripling of renewables with tangible political commitments and processes to unlock the finance required. This chapter will begin by providing an analysis of the money needed to facilitate the energy transition. It will then outline current barriers to attaining this, before presenting opportunities to address these gaps through financial instruments and the redirection of finance from existing sources.

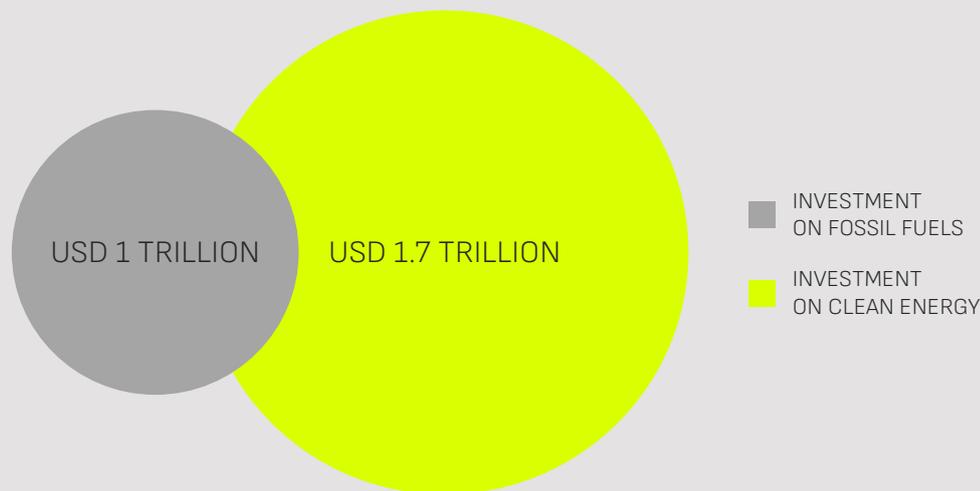
To power up renewables swiftly, we need to deliver finance equitably, rapidly, and at scale, both within and between countries. In their 2023 leaders communiqué, the G20 heads of state agreed on the need to invest approximately USD \$4 trillion by 2030²⁷ to meet the goal of tripling renewable energy capacity by 2030. While this is a significant amount, it should be viewed as an investment in the truest sense of the word, as the social, health, ecological, and financial opportunity costs of *not investing* are disastrous – particularly for the most climate-vulnerable communities least responsible for the climate crisis. The IPCC has clearly illustrated that investment into renewable energy and energy efficiency is the cheapest and most effective short-term and mid-term technological pathway to staying below 1.5°C²⁸.

27 G20 New Delhi Leaders' Declaration, https://www.g20.org/content/dam/gtwenty/gtwenty_new/document/G20-New-Delhi-Leaders-Declaration.pdf

28 IPCC 6th Assessment Report Summary for Policymakers 2023, page 27 https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf

The most recent IEA analysis shows that in 2023, investment in clean energy²⁹ is estimated to reach a record USD \$1.7 trillion³⁰; outpacing fossil fuels by \$700 billion, or 1.7 to 1 – the largest ever gap. But the achievement of a global renewables target largely depends on unlocking finance so that it is available in the Global South³¹, where investment in renewable energy has remained flat since the Paris Agreement.

INVESTMENT BUDGET ON ENERGY SECTOR IN 2023



In 2022, only \$260 billion³² was invested in the Global South despite it being home to approximately 5 billion people. According to the IEA, to stay on track for 1.5°C of global heating, and meet these energy needs, investment in the Global South needs to rise to around \$1.9 trillion annually – a sevenfold increase.

The table below is based on data from the IEA and provides a breakdown of historic renewables investment and projected annual average investment needs for 2026–2030 and 2031–2035. This 350.org report provides further analysis by comparing historical growth over the past seven years with estimated investment growth needed by 2030. In doing so, this report calculates growth needs according to the assumption of a relatively rapid uptake in renewable energy investment in the next few years, leading to a conservative estimate of projected growth needs by 2030. As such, the projected needs in investment growth detailed here should be viewed as a minimum. We estimate that by 2030, that across emerging market and developing economies, financial investment into renewable energy must have reached 187.4% growth.

29 This is a broad application of ‘clean energy’ that includes some technologies and forms of energy generation that we 350.org does not endorse.

30 This IEA data does not only include renewable energy and related technologies and therefore has to be evaluated with care as actual renewable finance and related investments are lower than this number, but it provides a useful overview and approximate value.

31 In the context of renewable energy finance, in this chapter, the Global South refers to Global South countries outside China.

32 Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies. International Energy Agency, <https://www.iea.org/reports/scaling-up-private-finance-for-clean-energy-in-emerging-and-developing-economies>

	HISTORICAL			ANNUAL AVERAGE REQUIRED		GROWTH REQUIRED
	2015	2022	GROWTH	2026-30	2031-35	BY 2030
Total EMDEs (Emerging Market and Developing Economies)	538	773	43.5%	1784-2222	2119-2805	187.4%
China	287	511	78%	730-853	850-947	66.9%
Southeast Asia	28	30	7.1%	171-185	208-244	500%
India & other Asia	76	82	7.9%	321-348	418-427	324%
Africa	26	32	23%	160-203	207-265	534%
Latin America	63	66	4.7%	150-243	209-332	268%
Middle East & Eurasia	57	52	-8.7%	233-390	303-550	650%

**Figures are in billions of USD. Source: IEA 2023³³; estimates for needed investment growth by 350.org.*

While the 2023 G20 leaders' acknowledgement of the \$4 trillion in investment needed by 2030 to implement renewable energy systems is a significant milestone, the declaration also stated an explicit strategy to achieve the tripling of renewables investment "within existing policies" – an impossible feat.

Under today's policies, the World Energy Outlook 2022³⁴ projects 660 million people will remain without access to electricity in 2030, 85% of whom will be in Africa. In 2022, the World Energy Agency found for the first time since data has been tracked that the number of people without access to energy is increasing³⁵.

It is clear that to meet the goals of an ambitious global renewable energy target will require significant large-scale finance programs. While overall investment into renewables is increasing, and should be celebrated, without a significant shift in the global finance architecture, the transition cannot occur at the scale and speed necessary, nor be equitable.

33 Scaling Up Private Finance for Clean Energy in Emerging and Developing Economies. International Energy Agency, <https://www.iea.org/reports/scaling-up-private-finance-for-clean-energy-in-emerging-and-developing-economies>

34 World Energy Outlook 2022, International Energy Agency. <https://www.iea.org/reports/world-energy-outlook-2022>

35 For the first time in decades, the number of people without access to electricity is set to increase in 2022. International Energy Agency, <https://www.iea.org/commentaries/for-the-first-time-in-decades-the-number-of-people-without-access-to-electricity-is-set-to-increase-in-2022>

2.1 FINANCIAL BARRIERS TO THE ENERGY TRANSITION

While finance is the key to unlocking a rapid energy transition at scale, it can also present significant barriers. Overcoming these is critical to progress.

The global financial system carries a heritage of colonialism, extractivism and bias against the world's poorest people. It is a system that continues to produce myriad disadvantages for the Global South, including cycles of debt and a higher relative cost of capital. These barriers significantly hinder investment in renewable energy. As a result, investment into renewables in the Global South needs to increase at an accelerated rate in comparison to the Global North, and requires a crucial combination of favorable domestic policies and international support.

2.1.1 DEBT IN THE GLOBAL SOUTH

The Global South is significantly burdened by debt resulting from the unjust global financial system, the lingering effects of colonialism and imperialism. Many countries face fiscal constraints and high interest rates which reduce incentives and impact their ability to invest in renewables.

Currently, countries in the Global South spend five times more on debt repayments³⁶ than on addressing the impacts of the climate crisis.

Enabling the domestic energy transition at scale and speed will require public investment in renewable energy incentives, a skill up of workforces, and significant infrastructure. It is therefore crucial for just energy transitions in the Global South to cancel external debt at scale, to facilitate the equitable pursuit of renewable energy development, climate mitigation and adaptation, and be consistent with the principles of climate justice.

2.1.2 THE INEQUITABLE COST OF CAPITAL IN THE GLOBAL SOUTH

One of the deep structural inequalities that prevents Global South countries from upscaling renewable energy technologies is the inequitable cost of capital. While the interest rate to finance renewable energy in Global North countries has historically been around 3-4%, it usually exceeds 10% in the Global South. As a result, in high-income countries, 81% of green investment is funded by the private sector, while in emerging and developing countries, the private share is a mere 14%³⁷.

This reality is particularly evident in Africa, a continent that is home to three-fifths of the top solar sites in the world but where, in the last two decades, just 2% of global investments in renewable energy were made³⁸.

The cost of capital is unfairly biased against the Global South, with financial markets punishing those who want to invest in renewable energy in emerging and low-income countries. Although interest rates at the project level – considered micro-risks by lending institutions – tend to be lower in developing economies, investment in them carries an additional cost³⁹ as simply being located in a developing country is considered a macro-risk.

The economist and Special Advisor to the Prime Minister of Barbados, Avinash Persaud, has laid out these stark differences by comparing the cost of capital in a selection of emerging economies with the EU:

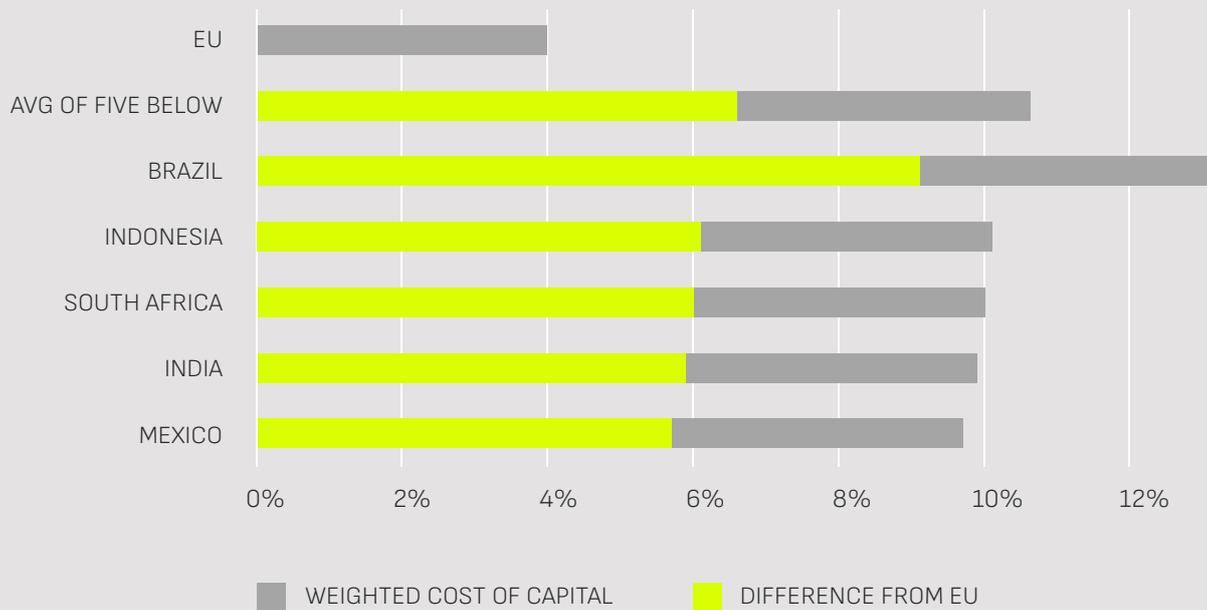
37 Avinash Persaud 2023: Unblocking the green transformation in developing countries with a partial foreign exchange guarantee <https://www.climatepolicyinitiative.org/wp-content/uploads/2023/06/An-FX-Guarantee-Mechanism-for-the-Green-Transformation-in-Developing-Countries.pdf>

38 Ibid.

39 Higher cost of finance exacerbates a climate investment trap in developing economies. Nature Communications, <https://www.nature.com/articles/s41467-021-24305-3>

36 The debt and climate crises: Why climate justice must include debt justice. Climate Network

COMPARATIVE COST OF CAPITAL (2021) FOR A UTILITY-SIZED SOLAR FARM BETWEEN DEVELOPED COUNTRIES AND INDUSTRIALIZING DEVELOPING COUNTRIES



2.2 OPPORTUNITIES TO UNLOCK FINANCE FOR THE ENERGY TRANSITION

2.2.1 DEBT CANCELLATION

The cancellation of external sovereign foreign debt is a necessary initial step to free up the significantly constrained fiscal space of Global South. This includes all forms of sovereign debt – owed to foreign governments and public institutions (bilateral creditors), the IMF, World Bank or other multilateral creditors as well as private institutions such as banks and hedge funds.

Debt cancellation will enable governments to provide the framework to support the power up of renewables and provide clean energy access to their people⁴⁰. While COP28 itself cannot make these decisions, the negotiated outcome at COP28 should recognize these constraints and call on relevant bodies and fora to cancel external debt in order to enable climate action.

⁴⁰ This notably includes Chinese creditors who for a decade have overtaken the Paris Club in their volume of lending, see e.g. Financial Times 2020: <https://www.ft.com/content/f7157356-e773-47c4-b05d-8624a5ccfd03>

In 2022, the so-called Bridgetown Initiative⁴¹, spearheaded by Barbados Prime Minister, Mia Mottley, led to a crucial and overdue discussion about financial system reform. Held in Paris in July 2023, the Summit for a New Global Financing Pact⁴² sought to address deep-rooted inequities. However, world leaders gathered there failed to deliver more than a tiny fraction of the trillions of dollars needed to finance the transition to fair and clean renewable energy systems.

⁴¹ The Bridgetown Initiative, A climate and development plan for COP27. E3G, <https://www.e3g.org/news/the-bridgetown-initiative-a-climate-and-development-plan-for-cop27/>

⁴² THE PARIS PACT FOR PEOPLE AND THE PLANET. Paris Pact for People and the Planet, <https://nouveaupactefinancier.org/en.php>



2.2.2 THE PROVISION OF CONCESSIONAL FINANCE WITHOUT INCREASING UNSUSTAINABLE DEBT LEVELS

The inequalities inherent in cost of capital is a key barrier to renewables development in the Global South. One form of redress for this barrier is the provision of concessional finance, something that has too often been obscured in climate finance discourse, as an [Oxfam study](#) exposed in 2002⁴³. Estimates predict the need for \$100 billion in yearly concessional finance to unlock the [projected](#) \$1,14 trillion in private investment needed for the global energy transition by 2030⁴⁴.

It is crucial that lenders, such as multilateral development banks, ensure these instruments are **highly concessional** and don't induce further unsustainable external debt. Furthermore, priority must be given to community-owned and domestically-owned projects.

Rich countries must go significantly beyond a "recapitalization" of development banks – a process which essentially amounts to balance sheet optimization through the restructuring of debt and equity ratios, but doesn't provide the much-needed new and additional money. What is needed is additional money on the table: and critically, **the estimated \$100 billion requirement in concessional finance for the global energy transition must be accounted for in grant equivalent.**

43 Climate Finance Short Changed: The real value of \$100 billion commitment in 2019-20. Oxfam, <https://oxfamlibrary.openrepository.com/bitstream/handle/10546/621426/bn-climate-finance-short-changed-191022-en.pdf;jsessionid=AD31A27BB1E3A13D01EB2E4257F36A8A?sequence=7>

44 <https://www.iea.org/reports/scaling-up-private-finance-for-clean-energy-in-emerging-and-developing-economies>



2.2.3 THE SIGNIFICANT SCALE-UP OF GRANTS

While concessional finance – if applied in the right way – can play a crucial role in unlocking private finance to help power up the energy transition, it is insufficient on its own. It must be further supported by public finance.

Grids and transmission lines are predominantly paid for by public finance, and clearly illustrate why public and private investments are heavily interdependent, as private investment requires functioning grids. Globally, more than 55% of households without access to electricity will require mini-grid and off-grid solutions⁴⁵. While decentralized renewable energy holds immense potential to address global electricity needs, it is not expected to be considered profitable enough to attract sufficient private-sector investment at the scale required. Grids and access are just two examples of necessary investments at scale, which will need the support of grants, even with significant debt cancellation.

Of the \$1.9 trillion in total yearly investment needed for the energy transition in the Global South, an estimated 40%⁴⁶ must come in the form of public finance, approximately \$760 billion per year. Reaching \$760 billion per year will require an additional \$500 billion in yearly public investment – if this \$500 billion is highly concessional (reflected by a 40% grants ratio), then a further \$200 billion will be needed in yearly grants.

To summarize: to facilitate the global renewable energy transition, we need debt cancellation at scale, \$100 billion in concessional finance per year, and \$200 billion in grants per year.

45 Solar Mini Grids Could Power Half a Billion People by 2030 – if Action is Taken Now. World Bank, <https://www.worldbank.org/en/news/press-release/2022/09/27/solar-mini-grids-could-power-half-a-billion-people-by-2030-if-action-is-taken-now>

46 Executive Summary, World Energy Investment 2021. International Energy Agency, <https://www.iea.org/reports/world-energy-investment-2021/executive-summary>

PRINCIPLES AND GUARDRAILS TO ENSURE FINANCING TO POWER UP RENEWABLES

- **Public financing:** will be paramount in the rapid, just and equitable transition to 100% renewable and democratic energy systems. Public finance plays an essential role in decreasing the cost of capital for renewable energy investments in emerging economies to be able to transition and 'leapfrog' dirty development.
- **Finance needs to flow from those who have caused the climate crisis to those who have not:** The most impacted communities must be supported to attain affordable and modern renewable energy, without being hindered by debt. Historically-polluting groups and countries should finance the energy transition as per common but differentiated responsibilities and respective capabilities.
- **Needs based finance:** Both investments in, and support for, renewable energy must be needs-based, built on the scientific boundaries to keep global heating warming below 1.5°C and support the needs of vulnerable communities. This is particularly the case for renewable projects that are not considered profitable or invested in at scale and speed necessary for market conditions.
- **Social Ownership:** Encouraging community ownership of renewable energy projects, allowing local residents to benefit from both the energy produced and the financial returns. Transferring ownership and control of renewable energy infrastructure from private monopolies to communities and the public sector or small and medium enterprises, will allow for electricity to be produced close to where it would be consumed, and communities and workers to directly benefit from improved energy access and governance.
- **Enhance Livelihoods:** Investing in renewable energy projects should not only reduce carbon emissions but also stimulate economic growth and employment opportunities. Investments that create local jobs, particularly especially in economically disadvantaged regions should be prioritized. 2.2.4 Redirecting finance from existing sources
- As outlined above, the energy transition will require significant amounts of both private and public finance. In particular, for additional finance to enable \$100 billion in additional concessional finance and \$200 billion in grants, innovative ways to source finance are needed.

There are myriad ways to achieve this. It is incorrect to claim, as is so often done, that there is not enough money to finance the global energy transition.

Some possible sources and mechanisms to harness existing finance include:

- 1. Taxing fossil fuel company profits.** Fossil fuel companies have just announced⁴⁷ a new set of obscene profits on the back of unprecedented costs to consumers. In 2022, TotalEnergies and Exxon alone made a combined \$56 billion in profits⁴⁸, enough to power all households in Kenya, South Africa, Uganda, and Tanzania with solar energy four times over⁴⁹. Governments should tax the profits of fossil fuel companies in their respective jurisdictions, for example through, at a minimum windfall taxes, and redirect the funds towards renewables investment.
- 2. Redirecting fossil fuel subsidies towards renewables.** In 2022, G20 countries provided \$1.4 trillion in direct subsidies⁵⁰ to fossil fuel companies, and global fossil fuel consumption subsidies doubled from the previous year to an all-time high of \$1 trillion. If these subsidies were redirected, this alone would be enough to triple the totalled installed electricity on the African continent with renewable energy⁵¹.
- 3. Redirecting investment from new and existing fossil fuel projects to renewable projects.** Governments must redirect financial resources on both local, national, and global scales, through all financial mechanisms possible, ensuring equitable distribution of support to make this switch to renewables benefit people everywhere across the globe. Historically responsible countries in particular must pay their climate debt to climate vulnerable countries who bear the most significant climate impacts without the necessary funds for adaptation and renewables development.
- 4. By creating a Wealth Tax:** The wealthiest 3000 people work at the “edge of legality”⁵². Studies have shown that taxing it by just 2% – significantly below what such wealth is expected to provide in yearly returns – would provide \$250 billion each year⁵³.

47 BP posts profits of \$3.3bn as oil prices rise again. BBC News, <https://www.bbc.com/news/business-67264120>

48 **Big Oil rakes in record profit haul of nearly \$200 billion, fueling calls for higher taxes.** CNBC, <https://www.cnbc.com/2023/02/08/big-oil-rakes-in-record-annual-profit-fueling-calls-for-higher-taxes.html>

49 A study of household electricity demand and consumption patterns in Nairobi. University of Nairobi Research Archive, <http://erepository.uonbi.ac.ke/handle/11295/4184#:~:text=The%20average%20annual%20electricity%20consumption,maximum%20demand%20is%203.6kW>

50 Fanning the Flames: G20 provides record financial support for fossil fuels. International Institute for Sustainable Development, <https://www.iisd.org/publications/report/fanning-flames-g20-support-of-fossil-fuels#:~:text=Fossil%20fuel%20subsidies%20from%20G20,at%20least%20USD%201%20trillion.&text=G20%20countries%20announced%20USD%20265,between%202020%20and%20June%202023>

51 Current installment: <https://www.iea.org/reports/fossil-fuels-consumption-subsidies-2022>; otherwise, the same caveats apply as to the comment above.

52 EU-funded report calls for wealth of super-rich to be taxed, not income. Guardian, <https://www.theguardian.com/business/2023/oct/22/eu-funded-report-calls-for-wealth-of-super-rich-to-be-taxed-not-income#:~:text=Billionaires%20have%20been%20operating%20on,EU%20tax%20policy%20has%20claimed.>

53 Global Tax Evasion Report 2024. EUTAX Observatory, <https://www.taxobservatory.eu/publication/global-tax-evasion-report-2024/>

5. By re-channelling Special Drawing Rights (SDRs) to fund developing countries' climate needs. SDRs are an international reserve asset created by the International Monetary Fund (IMF) to supplement its member countries' official reserves. SDRs are allocated to IMF member countries based on their IMF quotas and can be rechanneled to the scale of hundreds of billions.

6. Making use of large-scale infrastructure initiatives: In addition to private finance, policymakers can draw on existing sources of finance including large scale infrastructure initiatives which hold hundreds of billions of dollars, for example, the G7 Partnership for Infrastructure Development or the Chinese Global Development Initiative.

SOURCE	WHAT IS IT / HOW IT WORKS	POTENTIAL SCALE	RELEVANT ACTORS / FORA
SPECIAL DRAWING RIGHTS	Reserve asset created by the IMF; allocated based on the IMF quota, could be reallocated	100bn-500bn+	National governments in the global North, their central banks and finance ministries; IMF/WB
FOSSIL SUBSIDY REFORM	Phasing out ff subsidies and reinvesting it	1.4th (direct ff subsidies in 2022);	Financial ministries, G7 & G20; Coalition of fin mins
TAXING THE RICH	Taxing the income / wealth: taz of up to 5% on the world's multimillionaires /billionaires could raise \$1.7tn p.a.	10s of bn -3tn	National govts, finance ministries, unlikely to be earmarked;
FINANCIAL TRANSACTION TAX	Taxing financial transactions and bonds; e.g. 0.1% FTT would raise 77bn in US alone	500bn+	National governments, finance ministries
SHIPPING / AIR TRAVEL LEVY	E.g. cost per ton of carbon emitted	10bn-100+bn	IMO
POLLUTER PAYS	Windfall tax, taxing upstream production, taxing ff profits	10-300bn	National governments, but coordination necessary
CLIMATE FINANCE & AID	Climate finance and aid provided by rich countries and countries in position to do so	100bn+	National governments, EU;
BIG INFRASTRUCTURE INITIATIVES	Belt & Road Initiative & Global Development Initiative of China or G7 Partnership for Global Infrastructure Investment	Several 100bn	Chinese gov or G7
PRIVATE FINANCE	(VENTURE) PRIVATE CAPITAL	TRILLIONS	PRIVATE INVESTORS, FONDS

A COMPREHENSIVE COP28 ENERGY PACKAGE AND RENEWABLES GOAL



The world's most vulnerable communities and ecosystems are relying on COP28 to deliver a credible, science-based and equitable response to the climate crisis. To this end, the Summit must secure a 43% equitable reduction in global greenhouse gas emissions by 2030, through an agreement to phase out fossil fuels and a comprehensive package to power up renewable energy. If this is the COP to "course correct", no outcome will be credible without a centerpiece decision to achieve these twin goals.

At the 2022 COP27 Summit a handful of countries – Iran, Saudi Arabia and Russia – opposed language⁵⁴ to phase out all fossil fuels. To prevent COP28 President Al Jaber hiding behind the same few blockers with vested interests, it is crucial governments establish an international action plan for the redistribution of funds from fossil fuel profits, subsidies, and investments into renewables development – particularly in climate-vulnerable countries in the Global South.

54 Late-night fossil fuel fight leaves bitter taste after Cop27. Climate Change News, <https://www.climatechangenews.com/2022/11/24/late-night-fossil-fuel-fight-leaves-bitter-taste-after-cop27/>

A global renewables goal is a likely outcome of COP28.

A reminder that to be meaningful, this target must be comprehensive and include the following non-negotiables:

1. By 2030, to have tripled fair, safe and clean (figure 1/principles/guardrails) renewable energy capacity to over 11 terawatts (TW), and from 2030 onwards, add a yearly deployment of 1.5 TW of renewable energy capacity;
2. By 2030 at the latest to have doubled yearly **energy efficiency gains**.
3. By 2050, to have achieved a complete, just, and equitable phase out of all fossil fuels (coal, oil and gas), and by 2030, to have reduced greenhouse gas emissions by 43% relative to 2019 levels.

Furthermore, it is essential that a global renewable energy target and complementary mechanisms be formally enshrined in the COP28 decision text with legal status under the purview of the UN Framework Convention on Climate Change (UNFCCC) process. Too often, COP outcomes fall into the form of voluntary pledges which rely on parties' stated good will and ultimately fail to be implemented.

In addition, it is essential that both global renewable energy target and fossil fuel phaseout commitments at COP28 be rooted in proven solutions like wind and solar power which hold the highest mitigation potential and are the most economically feasible pathways to displacing fossil fuels. There is no room for dangerous distractions and unproven technologies such as Carbon Capture and Storage, nuclear energy, ammonia co-firing, which do not address the root causes of the climate crisis, and often cannot be implemented at scale.

For a global renewables target to become reality, COP28 must underpin this decision with concrete political commitments, signals and processes to implement it, including:

1. Call on all parties to include quantitative renewable energy targets in line with reaching 11,000 GW of renewable energy capacity globally by 2030 in their updated Nationally Determined Contributions;
2. Urge bilateral, multilateral, and private creditors to cancel all unsustainable and unjust debt urgently, with a view to addressing climate-related needs;
3. Decide that developed country parties and those with the capacity to do so collectively provide additional concessional finance for renewable energy to at least \$100 billion per year accounted for in grant equivalent, including but not limited to providing additional resources to multilateral development banks and multilateral climate funds;
4. Urge parties, multilateral development banks, and non party stakeholders in particular financial institutions, to quintuple the proportion of finance and investments in renewable energy by 2030;
5. Urge all countries and in particular the G7 to reform fossil fuel subsidies to broader economy-wide just transition plans and provide support to developing countries to implement it;
6. Call on the Standing Committee on Finance to provide an assessment of the grant finance needs to provide clean and equitable energy access for all by 2030 and urge developed country parties to provide such finance.

CONCLUSION

On the eve of COP28, towards the end of what is predicted to be the Earth's hottest year in recorded history, we stand on a precipice. Eight years ago, at COP21 in Paris, a collective decision was made to limit global heating to 1.5°C – a limit which, if we do not course correct urgently, will certainly be breached. The likely outcome of the COP, that of a global renewables goal, provides a lighthouse of hope in our battle against climate chaos.

This report has presented the case for a global renewable energy target that contains provisions for reaching over 11 TW of renewable energy capacity by 2030 and adding 1.5 TW yearly from onwards; a doubling of energy efficiency; and a complete fossil fuel phaseout. This package of measures is endorsed by eminent scientists, think tanks and organizations across the climate and energy sector.

We have complemented this with a series of recommendations that would see this target be implemented equitably through the lens of climate justice. The Global South contains not only the most climate-vulnerable communities, but is severely underfinanced when it comes to renewable energy development. This report has analyzed these barriers and presented the case that to achieve the proposed global renewable energy target by 2030, massive growth in financial investment into renewable energy is required in the Global South outside China, from both private and public sources.

We've further recommended additional mechanisms and highlighted innovative sources of the needed finance. COP28 must agree on a global renewable target and call for the mechanisms to underpin and implement this target: Debt cancellation at scale is suggested as a means by which to redress the debt burden faced by Global South countries that prevents the adequate investment into renewable energy development; \$100 billion in concessional finance per year in the form of grant equivalent to unlock the \$1,14 trillion in private finance needed and an additional \$200 billion in public grants to reach the required \$760 billion per year for the global energy transition. Money can be redirected from existing sources to fund the just transition, for example through taxing fossil fuel companies' profits or redirecting fossil fuel subsidies towards renewables.

Finally, in order for COP28 to result in the course-correction that is required to stay below 1.5°C, this report reiterates the requirements of the proposed global renewable energy target and outlines further demands for the final decision text: it must be underpinned by a legal framework, rely solely on proven renewable energy technologies like wind and solar, and include commitments by all parties to the conference to implement the mechanisms and conditions necessary to facilitate the success of a global renewable energy target and a just transition away from fossil fuels.

The way forward is through a global renewable energy target combined with the rapid and complete phaseout of fossil fuels – COP28 provides a unique and urgent opportunity to make this a reality.

**POWER UP:
DEMANDING CLIMATE ACTION**

The impacts of climate change affect all of us, but not equally – the Global South experiences these impacts disproportionately while having contributed the least to the crisis. While 1.5°C is still within our reach, the time for decisive action is now, and people all over the world are demanding leaders deliver meaningful action to address climate change, one of the greatest challenges of our time.



Power Up is an initiative led by 350.org and partners worldwide that is uniting local movements, groups, and communities to spotlight the transformative power of renewable solutions and people power in the fight against the fossil fuel industry. As global leaders prepare to convene at the UN climate talks, actions have been taking place across the world since November 3rd and will continue until December 9th: demanding governments shift money and political power toward community-centered wind and solar projects.

Kicking off a month of actions for climate solutions under the banner of Power Up, the weekend from Friday 3 to 5th of November saw a display of international solidarity as citizens, activists, and organizations from Argentina to Zanzibar in over 200 locations spanning 63 countries came together for a long weekend of global action. Led

by communities worldwide, the Power Up events sent a resounding call to address the climate crisis, highlighting sustained demands for immediate and comprehensive climate solutions rooted in social justice from world leaders.

This first wave of actions in the month-long drumroll towards the UN Climate Talks in December (COP28), with a global day of action scheduled for December 9th, saw a groundswell of support with individuals and communities from diverse backgrounds converging to demand positive change. From bustling urban centers to remote villages, participants united under the common goal of powering up a sustainable, climate-resilient future.

Find out more at <http://globalpowerup.org>

GLOSSARY OF TERMS

COP – Conference of the Parties under the United Nations Framework Convention on Climate Change.

Climate justice – Communities less responsible for the climate crisis are often the most affected by it. Climate justice is the process of fixing that, including historical reparations and system change to avoid imposing burdens on those or new communities. This goes beyond the energy system.

EMDE – Emerging Market and Developing Economies.

G7 – An intergovernmental group consisting of seven major economies and the European Union (EU).

G20 – An intergovernmental forum comprising 19 sovereign countries, the EU, and the African Union.

Global South – In 350, we use the term “Global South” as a general denomination to the part of the world that has been most impacted by colonialism and neo-colonialism and, consequently, also by the climate crisis. When we refer to “Global South”, we are referring mostly to areas located in Africa, Asia, Oceania and Latin America.

Global Stocktake – The Global Stocktake is a fundamental component of the Paris Agreement which is used to monitor its implementation and evaluate the collective progress made in achieving the agreed goals.

GW – Gigawatt of energy.

IEA – International Energy Agency.

IFIs – International Financial Institutions.

IMF – International Monetary Fund.

IPCC – Intergovernmental Panel on Climate Change.

IRENA – International Renewable Energy Agency.

Just transition – Just transition builds on the energy transition concept and adds a framing of “justice” to its definition while focusing on marginalized communities, workers, and people impacted by the climate crisis in an equitable way.

MDB – Multilateral Development Bank.

Paris Agreement – The Paris Agreement, often referred to as the Paris Accords or the Paris Climate Accords, is an international treaty on climate change. Adopted in 2015, the agreement covers climate change mitigation, adaptation, and finance.

TW – Terawatt of energy.

UNFCCC – United Nations Framework Convention on Climate Change.

WB – World Bank.



POWER UP FOR CLIMATE JUSTICE

♻️350