



April 2023

We welcome you to the eleventh edition of our monthly newsletter on energy and climate change. It consists of significant developments worldwide in India's energy and climate change space.

Switching from energy systems based on fossil fuels to renewables is vital to lessen reliance on the unpredictable fossil fuel market and combat climate change. Additionally, renewable energy can increase employment across all regions, mainly rural areas. It is essential to emphasise India's enormous renewable energy potential to attract international investments and start the Green Energy Revolution. However, comprehensive policy and regulatory framework assistance is required for the renewable sector. The push from industry is also necessary to adopt new technologies and rapidly transition to a non-fossil-based energy ecosystem.

Similarly, we are also focusing on the issue of climate change in this edition. India's high population density, large spatial and temporal variability in rainfall, and high poverty rates make it particularly vulnerable to the impacts of climate change. There has been an increase in the national mean surface air temperature and hot days, significant regional variations in rainfall patterns, measurable melting of Himalayan glaciers, and rising sea levels. India will need better climate adaptability models to predict impacts on states and regions, a prerequisite for an informed adaptation policy.

Additionally, the newsletter captures power statistics for April 2023 to update the reader on the developments in the power sector. CUTS organised a webinar on the theme 'Universal Financial Transactions Tax for Climate Finance' on April 21, 2023, to deliberate on one of the solutions towards generating resources for the Loss and Damage Fund to combat climate change. It was an attempt to reflect on one of the solutions towards developing resources for the Loss and Damage Fund to combat climate change. A brief of this event is discussed in the CUTS AT WORK section.

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## 1. Government Promotes the Development of Pumped Storage Projects



The government released the final guidelines to promote the development of pumped storage projects in the country as they are non-polluting and more environmentally friendly. As per the guidelines, the state governments may allot project sites to developers through various ways, including competitive bidding, tariff-based competitive bidding process and on a nomination basis to Central Public Sector Units (CPSUs) and state Public Sector Units (PSUs).

### What is it about?

The notification mandates the construction work to start within two years from the date of allotment of the project, failing which allotment of the project site will stand cancelled. However, a one-year relaxation may be granted on a conditional basis. Pumped storage projects (PSPs) allow the necessary scale of storage and have a long service life exceeding 40-50 years, and incur a low cost of delivered energy over the life of the projects.

PSPs are also non-polluting and are more environmentally friendly, and account for over 95 percent of installed global energy storage capacity, as per the notification. Moreover, pumped hydro projects are estimated to store up to 9,000 GWh of electricity worldwide. Possible relaxation may include exempting land acquired by off-the-river PSPs from payment towards stamp duty and registration fees and providing a concessional rate to the developers on an annual lease rent basis on government land.

[Read in detail](#)

## 2. Tesla Power USA Ties up with Indian Oil Corporation Limited



Tesla Power USA and Indian Oil Corporation Limited (IOCL) announced a national strategic alliance that will bring about innovation in battery distribution and sales. The partnership will enable Tesla Power USA batteries to sell and service their batteries at over 36,000 IOCL petrol pumps across India.

It will provide availability and convenience to purchase and service automotive batteries. This will be the first national-level tie-up with Indian Oil Corporation for battery distribution.

### What is it about?

Tesla Power USA batteries will be available at the IOCL fuel pumps in the Delhi-NCR region, which will expand to other states. The success of this partnership will pave the way for the replication of the TBA concept pan India in a phased manner. This is the first time automotive batteries will be available on a large scale at petrol pumps, similar to the Western markets. Tesla Power currently has over 5000 distribution points in India, which we aim to double in 2023. Adding IOCL petrol pumps could offer Tesla Power USA a distribution reach of over 40,000.

[Read in detail](#)

### 3. Government to Add 250 GW Renewable Energy Capacity in the Next Five Years



The government announced a plan to add 250 GW of renewable energy capacity in the next five years to achieve its target of 500 GW of clean energy by 2030. The government has invited bids for 50 GW of renewable energy capacity annually for the next five years, i.e., from fiscal 2023-24 to fiscal 2027-28.

These annual bids of interstate transmission-connected renewable energy capacity will also include the setting up of wind power capacity of at least 10 GW annually.

### What is it about?

The Ministry of New and Renewable Energy (MNRE) has declared a quarterly plan of the bids for FY24, which comprises bids for at least 15 GW of renewable energy capacity in each of the first and second quarters of the current financial year, and at least 10 GW in each of the third and fourth quarters (October-December 2023 and January-March 2024 respectively).

Solar Energy Corporation of India Ltd (SECI), NTPC Ltd and NHPC Ltd are notified by the government as Renewable Energy Implementing Agencies (REIAs) for calling such bids. The targeted bid capacity for FY24 would be allocated among the four REIAs. The REIAs would be permitted to bring out the bids for solar, wind, solar-wind hybrid, RTC RE power, and others – all with/ without storage, as per their assessment of the RE market or as per directions of the government.

[Read in detail](#)

[REIAs-wise Bidding Calendar for FY 2023-24](#)

## 4. BIS Rolls Out Standards and Tests for Electric Vehicle Charging Infrastructure



The Bureau of India Standards (BIS) has issued standards and tests for Electric Vehicle (EV) charging infrastructure and criteria for battery swapping systems. It also specifies the requirements for a battery swap system's safety.

The standards aim to ensure global standardisation and compatibility for EV charging infrastructure and that EV charging systems are safe, reliable, and interoperable with various vehicles and charging network providers.

### What is it about?

The series comprises 10 parts, which define the charging modes, communication protocols, electrical safety, and performance test requirements for EV charging systems. These standards are a part of overall Green Standards formulated by the BIS in accordance with global rules. BIS has also developed rules for raw materials for construction (such as fly ash, construction and demolition waste, cement, and fly ash bricks), waste disposal (such as plastic waste recycling), agriculture (organic farming process), and renewable energy (wind turbines, energy-efficient motors, and solar PV modules) as part of the Green Standards.

[Read in Detail](#)

## 5. Adaptation Without Borders publishes The Global Transboundary Climate Risk Report 2023



This report by Adaptation Without Borders is the first collection of evidence on - largely unrecognised - risks that undermine effective responses to climate change: a 'blind spot' in climate policies and solutions.

This report combines the best available knowledge, drawing on a wealth of case studies, in three parts: The state of knowledge on transboundary climate risks, Assessing 10 globally significant transboundary climate risks and The solution space to managing transboundary climate risks.

## What is it about?

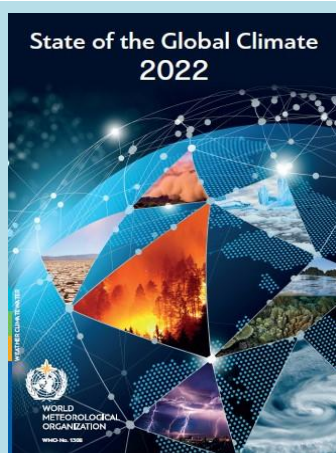
The report contains some key messages regarding the transboundary climate risks. These are triggered by a climate hazard in one country, cross borders, continents and oceans to affect communities on the other side. So do the consequences of some adaptation actions. In an increasingly interconnected world, these risks are transmitted through shared natural resources, ecosystems, trade links, finance, and human mobility. Transboundary climate risks are expected to increase as global warming accelerates to threaten entire societies and economies.

No country is immune: transboundary climate risks can affect any country at any time, regardless of its level of development. They combine with non-climate drivers such as poverty and conflict to undermine our collective well-being. Transboundary climate risks impact the poorest and most vulnerable people, exacerbating inequities and the root causes of their vulnerability. Evidence shows that transboundary climate risks are a global concern, yet the international, regional and local mechanisms to adapt to climate change still need to be equipped to meet this common challenge.

We need a global response to transboundary climate risks to build collective resilience to climate change.

[Read in detail](#)

## 6. World Meteorological Organization Releases 'State of the Global Climate 2022' Report



WMO released its annual State of the Global Climate report, which shows that the last eight years were the eight warmest on record and that sea level rise and ocean warming hit new highs. Record levels of greenhouse gases caused "planetary scale changes on land, in the ocean and the atmosphere".

The organisation says its report calls for "deeper, faster emissions cuts to limit global temperature rise to 1.5 degree Celsius" and "massively scaled-up investments in adaptation and resilience, particularly for the most vulnerable countries and communities who have done the least to cause the crisis".

## What is it about?

WMO highlights the importance of investing in climate monitoring and early warning systems to help mitigate the humanitarian impacts of extreme weather. The report also points out that today, improved technology makes the transition to renewable energy "cheaper and more accessible than ever". WMO's new figures show that global temperatures have continued to rise, making 2015 to 2022 the eighth warmest ever since regular tracking started in 1850. WMO notes that this was despite three consecutive years of a cooling La Niña climate pattern.

According to the report, "melting of glaciers and sea level rise - which again reached record levels in 2022 - will continue for up to thousands of years". WMO further highlights that "Antarctic sea ice fell to its lowest extent on record, and the melting of some European glaciers was, literally, off the charts". Sea level rise, which threatens the existence of coastal communities and sometimes entire countries, has been fuelled not only by melting glaciers and ice caps in Greenland and Antarctica but also by the expansion of the volume of oceans due to heat. WMO notes ocean warming has been "particularly high in the past two decades".

[Read in Detail](#)

## CUTS AT WORK

As part of a global initiative by CUTS International, on the eve of World Earth Day, a webinar on the theme 'Universal Financial Transactions Tax for Climate Finance' was organised on April 21, 2023. It was an attempt to deliberate on one of the solutions towards generating resources for the Loss and Damage Fund to combat climate change. The webinar witnessed the participation of experts with a diverse range of views as they comprehensively examined the feasibility of a Universal FTT and its opportunities and challenges.

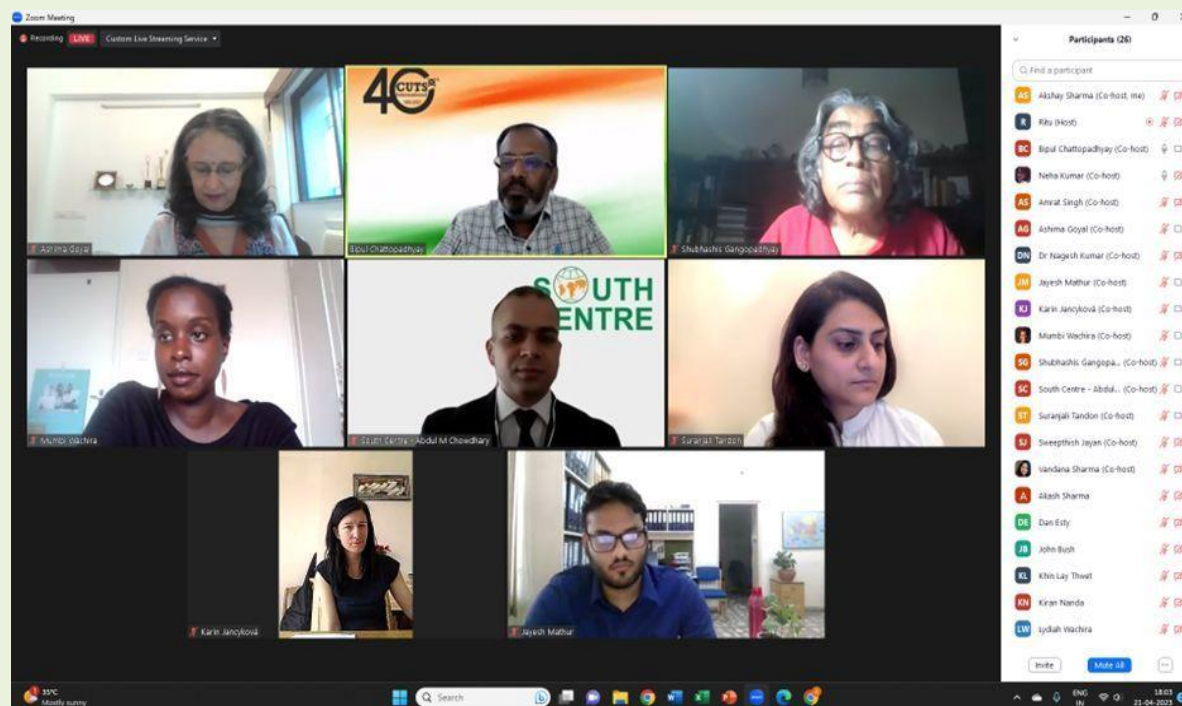
Moderating the programme, Bipul Chattopadhyay, Executive Director of CUTS International, said: "While an agreement to set up a Loss and Damage Fund at the COP 27 Summit, in November 2022, was hailed as a landmark decision, there is uncertainty over where this Fund will draw its resources from. Against the backdrop of this uncertainty, a universal FTT may well be contemplated as one of the solutions to meet a part of the requirements. As the costs of inadequate climate action continue to soar, a universal FTT, backed by strong political will, could play an influential role in bridging this gap."

The panellists also discussed past attempts to push for a global FTT and why they failed, including at the 2011 G20 Summit in France. Fears of a spill-over effect beyond borders and reluctance of countries to forego their 'sovereign right to tax' were key factors building up opposition against such initiatives. Panellists also argued that a universal FTT must also focus on the need to reduce arbitrage, which creates volatility and is responsible for escalating the costs of borrowing.

All panellists urged CUTS to take this initiative forward to the G20 and at the global level. Key takeaways will be used to build on the enriching exchange of views. They agreed to remain engaged in future deliberations on what, why and how to address the global challenge of climate finance.

The event brought together experts, including Nagesh Kumar, Director and Chief Executive of the Institute for Studies in Industrial Development; Ashima Goyal, Emeritus Professor, Indira Gandhi Institute of Development Research, Mumbai; Abdul Muheet Chowdhary, Senior Programme Officer, South Centre, Geneva, Mumbi Wachira, Lecturer, Strathmore University, Nairobi, Shubhashis Gangopadhyay, Managing Trustee and Research Director,

India Development Foundation, Karin Jancykova, Programme Officer, KAS Multinational Development Policy Dialogue, Neha Kumar, Head, South Asia Programme, Climate Bonds Initiative and Suranjali Tandon, Assistant Professor, National Institute of Public Finance and Policy.



[Read in Detail](#)

### Power Statistics for April 2023

Installed capacity (GW)	Thermal		RE (including large hydro)		Thermal power penetration in the generation mix	RE power penetration in the generation mix	Peak demand (GW)	Peak demand met (GW)	Shortage
	Capacity (GW)	As a % of the total installation	Capacity (GW)	As a % of the total installation					
416.05	237.26	57.02	172.09	41.36	78.88%	18.16%	209.36	208.92	0.2%



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