ENERGY and CLIMATE WATCH

CUTS International

November 2022

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

It is vital to switch from energy systems based on fossil fuels to renewables to lessen reliance on the unpredictable fossil fuel market and combat climate change. Additionally, the use of renewable energy has the potential to increase employment across all regions, particularly in rural areas. It is essential to emphasise India's enormous renewable energy potential to attract international investments and start the Green Energy Revolution. However, the renewable sector requires comprehensive policy and regulatory framework assistance. The push from industry is also necessary to adopt new technologies and rapid 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 the number of 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 State and region, a prerequisite for informed adaptation policy.

Additionally, the newsletter captures power statistics for November 2022 to update the reader on the developments in the power sector. CUTS also covered COP27 activities this month and three bulletins that covered it are provided in the CUTS AT WORK section.

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1. COP27 Establishes historic 'Loss and Damages' Fund

The 27th edition of United Nations Climate Change Conference or Conference of the Parties of the UNFCCC (COP 27), was held in Sharm El Sheikh, Egypt from November 06-20, 2022. It took place under the presidency of Egyptian Minister of Foreign Affairs Sameh Shoukry, with more than 92 heads of state and an estimated 45,000 representatives from 190 countries attending the event. The most significant outcome was the decision to establish and operationalise a loss and damage fund, particularly for nations most vulnerable to the climate crisis.

What is it about?

The COP27 ended with a breakthrough agreement to provide "loss and damage" funding for vulnerable countries hit hard by climate-related disasters. It also emphasised the need to strengthen systematic observations and achieve universal coverage of early warning systems. The cover decision, known as the Sharm el-Sheikh Implementation Plan, was adopted after prolonged negotiations. It reaffirmed the commitment to limit global temperature rise to 1.5 degrees Celsius above pre-industrial levels. However, the final draft did not mention a phase-down of all fossil fuels, a proposal India put forward.

The theme at the Indian pavilion this year was "LiFE – Lifestyle for Environment", which was India's call to lead sustainable lifestyles by reducing consumption. CUTS endorsed this mission through its article which pointed out that India's Mission LiFE initiative can offer a blueprint for individual and collective action towards climate change mitigation through age-old sustainable practices. India also submitted its long-term strategy to move towards low-carbon development to the UNFCCC. The report entitled 'India's Long-Term Low-Carbon Development Strategy' was launched by Union Environment Minister Bhupendra Yadav. The strategies include implementing low carbon measures in electricity systems but consistently developing an "integrated, efficient, inclusive, low carbon" transport system. They aim to decouple emissions from growth and create a low-emission industrial system.

Joint initiatives by the participating countries included a US$230mn support to the Global Goal on Adaptation Fund; the formation of the Global Offshore Wind Alliance; 30x30 Ocean Campaign; Mangrove Alliance for Climate (MAC); Sharm El-Sheikh Methane Reduction Roadmap; Global Shield against Climate Risks Initiative; Action for Water Adaptation and Resilience (AWARE) Initiative and; Climate Responses for Sustaining Peace (CRSP). Despite the righteous intentions behind each endeavor, the success of these campaigns would depend upon unrestricted financial channels, collaboration levels, progress tracking, and evaluation.

In the aftermath of the event, Secretary General of CUTS International, Pradeep Mehta emphasised in news column that to raise money for climate finance and sustainable economic recovery from damages, there's a need to Levy a Tobin tax for the climate loss and damage fund.

2. Haryana Notifies Electric Vehicle Policy 2022

The Haryana government has notified the Electric Vehicle Policy 2022, which aims to promote the manufacturing of electric vehicles (EVs) and their components in the state. The EV Policy seeks to protect the environment, reduce carbon footprint, make Haryana an EV manufacturing hub, ensure skill development in the EV field, encourage uptake of EV vehicles, provide EV charging infrastructure and encourage R&D in EV Technology.

What is it about?

This policy will encourage research and development in the field of electric vehicles as well as strengthen the infrastructure. There are provisions in the policy to reduce the upfront cost of EVs. Under the policy, several incentive programmes like Purchase Incentives for Buyers, Charging and Battery Swapping Station Scheme, Net SGST Reimbursement, Capital Subsidy, Employment Generation Subsidies, Electricity Duty Exemption, Stamp Duty Reimbursement, Patent Fee Reimbursement, R & D Incentives, Human Capacity Building Excellence Centre of Excellence, Seed and Conversion Fund, and Water Treatment Incentive programmes are envisaged.

Haryana EV Policy

3. Odisha Released Renewable Energy Policy 2022

The Odisha government released the Renewable Energy Policy 2022 to add 10,000 MW of renewable energy capacity in the state. It will also provide multiple incentives for developing renewable energy projects. For this, the Ministry of Energy, Industries and MSME executed three Memorandum of Understanding (MoU) with leading CPSUs for an investment worth INR 51,000 crore.

What is it about?

The first MoU was executed between GRIDCO and NTPC Green Energy to develop large-scale on-ground, floating, and pumped solar projects in the State. In the first phase, 1,000 MW pumped storage hydro and 2,000 MW solar projects will be developed with INR 17,000 crore investment. The second MoU was executed between GRIDCO and SJVN to create a 2,000 MW pumped hydro storage project and a 2,000 MW ground-based and floating solar project with a cumulative investment of INR 30,000 crore. The third was executed with NLC to develop large-scale on-ground solar, floating solar, pumped storage hydro and green hydrogen projects in the State.

Initially, 600 MW of solar capacity and 5 million tonnes of green hydrogen production have been planned with an investment of INR 4,000 crore. The MoUs are expected to generate 1,200 direct and 2,600 indirect jobs in the State.

Odisha Renewable Energy Policy

4. Uttar Pradesh Approved the Solar Energy Policy 2022

The Uttar Pradesh government approved the Solar Energy policy 2022, revising its proposed target upwards to 22 GW of solar capacity. The policy offers to achieve 16 GW of solar power projects by 2026-27, which would include 14 GW of utility-scale solar power projects, 6 GW of solar rooftop projects and 2 GW of distributed solar projects. The Uttar Pradesh New and Renewable Energy Development Agency (UPNEDA) would act as a nodal agency for implementing the policy.

What is it about?

The objective of the policy is to reduce the dependence on fossil fuels and achieve 'optimal energy mix' of conventional and renewable power, ensure energy security in the State and provide a hassle-free conducive environment for private sector investment in the field of solar energy generation and storage, and encourage the participation of private sector and provide investment opportunities for harnessing solar energy. Under this project, Uttar Pradesh Power Corporation (UPPCL), through its DISCOMs, will purchase solar energy as per the Renewable Purchase Obligation (RPO) as determined by UPERC. This Policy also aims to promote Solar Energy under:

- Developing solar parks
- Promoting small decentralised grid-connected solar power projects by solarisation of segregated agriculture feeders
- Upgrading solar installations along expressways and Railway tracks
- Encouraging floating/canal top/ reservoir top solar power projects

- Advancing solar energy projects with storage systems
- Raising of rooftop solar projects through net and gross metering mechanism
- Strengthening transmission network for evacuation of solar projects by developing Green Energy Corridor in Bundelkhand region.

UP Solar Energy Policy Draft

5. Uttarakhand Released Draft Solar Power Policy 2022

The Uttarakhand government has released the draft of the Uttarakhand State Solar Policy 2022. The Energy Department will implement the draft solar policy and provide relief to those who will set up to 25 MW solar plants in Uttarakhand. The main objective of this policy is to reach a cumulative capacity of 2,000 MW in the State and increase the share of solar electricity in Discom's energy purchase to 18 percent by 2028.

What is it about?

As per the draft, Uttarakhand can generate up to 2,000 MW of solar power. The State has a capacity of 600 MW for large solar power projects, 250 MW for residential solar, 750 MW for commercial and industrial solar spaces, 350 MW for institutions and 50 MW in the agricultural farmlands. This policy offers an exemption of 100 percent in stamp duty on lease deeds, land purchases, and land use changes. To enhance EV adoption through quality infrastructure, the Government of Uttarakhand will also offer a 50 percent discount on the lease price to those who will set up solar-powered EV charging stations on public lands.

Uttarakhand Solar Power Policy Draft

6. Uttar Pradesh Issued Draft Policy to Promote Green Hydrogen Production

The Uttar Pradesh government has issued the draft Green Hydrogen Policy-2022. The move is a precursor to the rollout of the final policy that would aim to make Uttar Pradesh a 100 percent green hydrogen/ammonia-consuming state by 2035. The policy would also promote green hydrogen/ammonia production, market creation and demand aggregation.

What is it about?

The Uttar Pradesh Green Hydrogen Policy 2022 envisions reducing green hydrogen cost to 2 $/kg and further to 1 $/kg in the long term. Its objective is to achieve 20 percent green hydrogen blending in total hydrogen consumption of the State by 2028 for existing fertiliser and refinery units, reaching 100 percent by 2035. It seeks to provide financial, infrastructural, operational and many other incentives to attract investment in green hydrogen. The policy also aims to set up a "Green Hydrogen Ecosystem Fund" with a vision for raising a corpus through green cess, which shall be instituted to support small infrastructure projects and ecosystem development.

Uttar Pradesh Green Hydrogen Policy Draft

CUTS AT WORK
CUTS covered COP27 through its three bulletins with each bulletin providing details on event proceedings at the start, through the midway and at the conclusion of the event. • **Curtain-raiser before the start**: Click here • **Mid-way update**: Click here • **Post-conclusion takeaways**: Click here

Power Statistics for November 2022

Installed capacity (GW)	Thermal		RE		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					
408.714	235.99	57.74	165.94	40.60	71%	13%	187.04	186.9	0.1%

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