

We welcome you to the ninth edition of our monthly newsletter on energy and climate change. It consists of significant developments 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, comprehensive policy and regulatory framework assistance is required for the renewable sector. The push from industry is also necessary to adopt new technologies and make a 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 states and regions, a prerequisite for an informed adaptation policy.

Additionally, the newsletter captures power statistics for February 2023 to update the reader on the developments in the power sector. CUTS organised a Regional Meeting in New Delhi on March 02, 2023, to deliberate on and disseminate the findings of the project entitled "Enabling a Political Economy Discourse for Multimodal Connectivity in Bangladesh, Bhutan, India, Nepal Subregion (M-Connect)". A brief of this event is discussed in the CUTS AT WORK section.

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1. Rajasthan Budget Aims for 11 GW of Renewable Energy in FY 2023-24



Rajasthan government in its annual Budget 2023-24 announced a multiple incentives for the solar and renewable energy sector aligning with the focus on battling climate change and attracting new investments. Rajasthan has a target to install 11 GW of renewable-based generation projects in the next financial year. These decisions were taken to expand the sector and attract new investments.

What is it about?

Rajasthan would provide concession in stamp and land tax duty to renewable energy developers planning to set up projects in the state. This would result in a reduction in electricity duty on solar energy from ₹0.60/kWh to ₹0.40/kWh, which is expected to benefit residential net metering consumers. Projects will also get 100% exemption on land tax for Seven years. Further, banking, wheeling and transmission charges would be waived for captive solar power projects. Also, investors can establish captive solar power projects of capacity above the contracted demand to fulfill their power requirements.

The state has proposed to set up the Bhadla-Bikaner bulk power corridor to evacuate renewable power from the region. An integrated Real-Time data and Command Centre-based on advanced data analytics will be established to have a proper account of energy generation and demand. This will cost around ₹750 million.

The state has announced plans to start an Integrated Resource Recovery Park, which will help recycle waste materials. Also, the recently Rajasthan government signed memorandums of understanding for nearly ₹1.23 million for Renewable energy projects under the Invest Rajasthan Programme. The agreements were signed for 14 projects proposed by both the public sector and private companies in the renewable energy sector.

[Read in detail](#)

2. Tamil Nadu Releases Electric Vehicle Policy 2023



The Tamil Nadu government introduced a new electric vehicle (EV) policy addressing key aspects to ensure the development of a robust EV ecosystem in the State. The policy addresses supply- and demand-side measures, charging infrastructure, ecosystem development and policy implementation mechanism. It aims to attract ₹500 Billion worth of investment in EV manufacturing, the creation of 1.5 lakh new jobs during the policy period.

What is it about?

As per the new policy, EV projects will be provided with a 100 percent exemption on electricity tax for five years on power purchased from the Tamil Nadu Generation & Distribution Corporation Limited (TANGEDCO) or generated and consumed from captive sources.

As part of employment generation, EV projects will be provided with an employment incentive in the form of the reimbursement of the employer's contribution to the EPF -- a maximum of INR 48,000 per employee and residents of Tamil Nadu for all new jobs created during the policy period.

The policy offers financial support to companies who wish to transition/diversify into EV manufacturing for upskilling their workforce. The government has also decided to waive road tax, registration charges and permit fees for EVs. It will also revise the power tariff for public charging stations and offer incentives to charging and battery-swapping stations.

[Read in detail](#)

2. 5.9 million tonnes of Lithium Reserves Found in Jammu & Kashmir



The Geological Survey of India found 5.9 million tonnes of lithium reserves in the Reasi district of Jammu & Kashmir. This may be the seventh-largest deposit of lithium, accounting for roughly 5.7 percent of all the reserves in the world. Lithium is considered a strategic element because of its use on batteries used in EVs. The finding of the reserves is being considered as a game-changer in India's transition towards green

What is it about?

With the demand for EVs increasing, the debate over global reserves of lithium has been gaining momentum. Apart from EVs, lithium also finds use in the medical sector and electronics devices, solar panels, and other renewable technologies needed for the transition to clean energy. The discovery could usher in a new era not only for India but also for the world.

China is the largest market for EVs, it controls both the supply and demand side of the lithium industry. It controls over half the global lithium processing and almost 75 percent of cell components and battery cell production in the world.

The proliferation of EVs could mean India becoming dependent on China. J&K's reserves, however, provide a major opening for India to be self-reliant. The discovery of a massive reserve in India now sparks hope for the country, which has largely remained import-dependent on the mineral.

[Read in detail](#)

4. Karnataka and Gujarat Ranked Top Performing States in Clean Energy



The Indian states of Karnataka and Gujarat are making the most progress in overall preparedness and commitment in the transition to clean electricity, a joint report from the Institute for Energy Economics and Financial Analysis (IEEFA) and Ember showed.

The report analyses 16 Indian states, which together account for 90 percent of the country's annual power requirement, across four dimensions. The dimensions track a state's preparedness to shift away from fossil fuel-based power, its ability to incentivise greener market participation, its power system's reliability and policies pushing for power sector decarbonisation.

What is it about?

Based on this analysis, the report authors devised the states' electricity transition (SET) scoring system, which measures the performance of the different states in the transition to clean electricity. The report outlines focus areas for states to improve their preparedness for transition, such as exploiting wind and solar generation potential and deploying more energy storage solutions, such as batteries and pumped hydro, for better renewable energy integration.

The report finds that the states need to develop a more holistic and circular approach towards handling solar panel, battery and EV waste. It also highlights that several states must also bridge the gap between the intent of their electricity transition policies and implementation.

[Read in Detail](#)

5. Fossil Fuels Contribute 20 percent of India's Inflation



According to a report published by Cambridge Econometrics 'Fossil Fuel Prices and Inflation in India', Fossil fuel-related items – transport and household energy – contributed about 20 percent to India's annual rate of inflation between April-May 2022. This is despite the fact that the Indian government budgeted the equivalent of about 0.5 percent of GDP to shield households from the full impact of global fossil fuel price hikes.

What is it about?

According to the report, between January 2021-August 2022, fuel and power prices rose nearly five times faster (57 percent) than overall consumer prices in the country (12 percent). This was reflected in consumer spending. Households in the Delhi region, for instance, are estimated to have spent 25 percent more on fuels and electricity in 2022 than in 2021, and nearly 50 percent more – around ₹4,100 – than in 2020. For rural households, this was even more pronounced “given their higher spending on energy in proportion to their income.”

While the subsidies for renewable energy have gone up over the last year alone, the support for fossil fuels is still four times what renewable energy projects receive in India. Fossil fuel-based energy carriers are fully regulated through tariffs, taxes, subsidies and price caps, making it difficult to fully estimate the complete benefits of renewable energy in India.

[Read in Detail](#)

6. Indian Government Asks Imported Coal-Based Power Plants to Run at Full Capacity



With electricity demand expected to peak this summer, the Power Ministry has directed all thermal plants using imported coal to operate at full capacity from March 16, 2023-June 15, 2023 to avoid electricity shortage. The direction under Section 11 of the Electricity Act came amid rising power demand due to higher-than-normal temperature in several parts of the country. The country's peak power demand is estimated to touch 230 GW in 2023.

What is it about?

To manage the rising power crisis in the country, the government has invoked Section 11 of the Electricity Act, asking all imported coal-based projects to generate electricity. This order shall remain valid for the generation and supply of power from March 16, 2023, to June 15, 2023, stated a notice sent to 15 thermal plants that use imported coal. The 15 imported coal-based (ICB) power plants include Tata Power's and Adani Power's plants in Mundra in Gujarat; Essar power plant in Salaya; JSW Ratnagiri; Tata Trombay; Udupi Power; Meenakshi Energy; and JSW Torangallu. This will ease the pressure on domestic call supply and also ensure that all the plants are available during the peak demand period.

[Read in Detail](#)

CUTS AT WORK

CUTS International, with support from the United Kingdom's Foreign, Commonwealth and Development Office is implementing the project entitled "Enabling a Political Economy Discourse for Multimodal Connectivity in the Bangladesh, Bhutan, India, Nepal Subregion (M-Connect)" in partnership with Unnayan Shamannay, (Bangladesh), Bodhi Media and Communications Institute, (Bhutan), and Nepal Economic Forum.

Under this project CUTS organised a Regional Meeting in New Delhi on March 02, 2023, to deliberate on and disseminate the project's findings among the key stakeholders, particularly policymakers, to pave the way for achieving positive impacts with respect to both "ease of doing business" and "ease of living" through the necessary project, policy, process and delivery interventions for not only making the subregion better integrated in terms of having functional transport corridors but also transforming them to economic corridors.

"Transport connectivity should be the main building block for intra-regional trade and cooperation in the BBIN subregion and this must cover different modes of transportation. Under our work on multimodal connectivity in BBIN subregion, we have not looked at road connectivity in silos, but gone much beyond that," said Bipul Chatterjee, Executive Director, CUTS International.

The report has identified that several multimodal connectivity options are already present in this subregion and they need to be nurtured to realise their potential to double intra-regional trade in this subregion from the current level of US\$20bn. In his introductory remarks, Didar Singh, Former Secretary of Overseas Affairs, Government of India and Distinguished Fellow, CUTS International, mentioned that political economy is the most important aspect that enables the policy-making process and its proper understanding is the way forward for multimodal connectivity in the BBIN subregion.

"Various outputs prepared under the project such as country-specific policy recommendations are vital to achieving inclusive growth in the BBIN subregion," stated Sutapa Choudhury, Deputy Head, Indo-Pacific Regional Department, India and Indian Ocean Directorate, Foreign, Commonwealth & Development Office, United Kingdom.



[Read in Detail](#)

Power Statistics for February 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					
411.64	236.46	57.44	168.39	40.90	78.03%	18.92%	209.85	209.66	0.1%