



July 2022

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

To reduce reliance on depleting fossil fuel supplies and mitigate the effects of climate change, it is essential to transition away from energy systems based on fossil fuels toward renewable resources. Furthermore, the utilisation of renewable energy has the potential to boost employment across each level, especially in rural areas. By highlighting India's huge potential for renewable energy, it would be possible to attract foreign investment and initiate the Green Energy Revolution. The renewable energy industry, however, faces significant challenges. The market for renewable energy needs clear rules and legal procedures to maximise its potential since the adoption of renewable technology is hindered by the lack of comprehensive regulations and regulatory frameworks.

Similarly, climate change is another topic showcased in this newsletter. India is particularly susceptible to the effects of climate change because of its high population density, extensive regional and temporal rainfall variability, and high poverty rates. There has been a noticeable regional diversity in rainfall patterns, an increase in the number of hot days and the mean surface of air temperature, melting of the glaciers, and rising sea levels. For effective adaptation policies, India would require better climate models to forecast calamities accurately at regional and state levels.

This newsletter focuses on news related to the renewable energy sector in India and the effect of climate change worldwide. It captures power statistics for July 2022 to update the reader regarding the development in the power sector.

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## 1. Chhattisgarh Government Approves Electric Vehicle Policy



The Electric Vehicle (EV) Policy strives to safeguard the environment, create jobs, and develop the state as a manufacturing centre. It will promote the use of EVs to counter rising fuel prices. The policy has a provision for remission of road tax and registration fees. The government has a five-year goal and wants 15 percent of all new vehicle registrations for personal or business usage as EVs by 2027.

### What is it about?

All EVs purchased within the first two years of the start of this policy will be completely exempt from road taxes. There will be a 50 percent road tax exemption for vehicles purchased in the next two years. However, EVs purchased in the fifth year will have a 25 percent rebate. The state government will contribute 25 percent of the cost of plant and equipment to advance EV manufacturing. To draw manufacturers, it will grant 500 –1,000 acres of land to construct an EV park. The state has set aside SGST reimbursement for EV manufacturers for the policy period. [Read in detail](#)

## 2. Prime Minister Launches National Rooftop Solar Portal



Prime Minister Narendra Modi launched the [National Portal for Rooftop Solar](#) on July 30, 2022, to enable online tracking of the installation process of the rooftop solar plants. The portal will assist in tracking progress from application registration and installation to the distribution of subsidies. The portal was launched under the Ujjwal Bharat Ujjwal Bhavishya – Power @2047 programme.

### What is it about?

The Prime Minister inaugurated the Ministry of Power's flagship "Revamped Distribution Sector Programme" with an expenditure of ₹3.03tn for five years starting from FY 2021-22 to improve operational efficiency and financial viability of the distribution sector. As an outcome of the initiative, distribution companies (Discoms) will have the financial means to upgrade and modernise their distribution networks, thereby enhancing supply reliability and quality. Additionally, it envisages installing 250 million smart prepaid metres. [Read in detail](#)

### 3. Renewable Purchase Obligations to Increase for Power Distribution Companies



According to the Electricity Act of 2003, the State Electricity Regulatory Commissions (SERCs) must set a minimum percentage of a Discoms' total electricity consumption sourced from renewable sources. According to a new trajectory announced by the government, states must supply 25 percent of their electricity needs from renewable sources in the current year and gradually increase to 47 percent in the following eight years.

#### What is it about?

The Renewable Purchase Obligation (RPO) specified by the Union Power Ministry for the last three financial years was 17.5 percent in FY20, 19 percent in FY21, and 21 percent in FY22, respectively. However, compliance by state Discoms has been very low. The government has established different trajectories for wind power, hydropower, energy storage, and other energy sources. [Read in detail](#)

### 4. NTPC Commissions India's Largest Floating Solar Project of 100 MW



The 100 MW floating solar project at Ramagundam, Telangana, is the largest floating solar project in the country, with cutting-edge PV technology and eco-friendly features. The reservoir project spanned 500 acres and was built at ₹423 crores by BHEL as an EPC (Engineering, Procurement and Construction) contract.

#### What is it about?

This project is distinctive in that all the electrical apparatus - the inverter, transformer, HT panel, and SCADA are also mounted on floating platforms made of Ferro cement. The system is anchored at the bottom using concrete blocks that are dead weights. The power plant's floating solar panels would slow the evaporation of water from the reservoir by 32.5 lakh cubic metres annually. The body of water beneath the solar panels would also help maintain the lower ambient temperature, increasing output and efficiency. [Read in detail](#)

## 5. Extreme Heatwaves to Render Nuclear Power Plants Useless



The recent heatwaves in Europe and UK have brought to light a severe flaw in the present nuclear reactors that will only worsen as climate change progresses and may eventually render certain nuclear reactors inoperable. Golfech nuclear power station in France had to shut down six nuclear reactors due to the intense heatwave.

### What is it about?

The recent heat wave resulted in raising the water intake temperature. This meant less cooling for the nuclear reactors as the river's thermal capacity had already been surpassed, and adding to it would harm the environment. This rendered the six nuclear reactors to remain shut despite the ongoing energy crisis prevailing all across Europe. [Read in detail](#)

## 6. 6,000 Fatalities and ₹600bn Washed Away in Rains in Last 3 Years



In the last three years, floods have claimed the lives of nearly 6,000 people and caused damages totalling ₹590bn crores or roughly one-third of the country's infrastructure budget for the road and highways sector. This is due to climate change increasing the risk of extreme weather events like flooding, affecting the most vulnerable population in South Asia.

### What is it about?

Several states in the country saw massive floods this monsoon due to extreme rainfall events, and it was becoming a regular phenomenon and expected to intensify in coming years. The Arabian Sea is experiencing an increase in ocean surface temperatures of up to 1.2-1.4<sup>0</sup>C, which has led to a 50 percent increase in strong cyclones and a 3-fold increase in heavy rainfall events that have caused floods in India. If carbon emissions are not curbed, climate estimates show that the Indian Ocean might warm up by 3.8<sup>0</sup>C by the end of the century. [Read in detail](#)

## CUTS AT WORK

CUTS organised a stakeholder consultation on "Accelerating Electric Vehicle Adoption in Rajasthan: Challenges & Way Forward" at Jaipur, Rajasthan, on July 29, 2022. Participants in the event included government stakeholders (electricity regulator, state industrial development corporation, and power distribution company), EV component manufacturers, charging network operators, auto dealers and financiers. The event focussed on generating ideas for promoting EV infrastructure in Rajasthan through policy-level support, expanding charging infrastructure, indigenisation of EV manufacturing, R&D innovations, better financing mechanism etc.

Link for the event: [EVs in Rajasthan](#)

## Power Statistics for July 2022

Installed capacity	Thermal		RE		Thermal power penetration in the generation mix	RE power penetration in the generation mix	Peak demand	Peak demand met	Shortage
	Capacity	As a percent of the total installation	Capacity	As a percent of the total installation					
403.76 GW	236.06 GW	58.46	160.91 GW	39.85	68.42%	13.77%	212.65 GW	211.85 GW	0.4%