

November 2023

We welcome you to the November 2023 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 November 2023 to update the reader on the developments in the power sector. CUTS International is going to organise a COP 28 side event on 'Creating a Fund of Funds: Paving the Path Beyond the Loss and Damage Fund.' A brief description of the side event is discussed in the CUTS AT WORK section.

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## 1. Haryana Notifies Draft Solar Power Policy, 2023



The Haryana New and Renewable Energy Department (HAREDA) has issued the draft of the 'Haryana Solar Power Policy, 2023.' The policy aims to achieve a total solar capacity of 6 GW by 2023, comprising 1.6 GW from rooftop solar, 3.2 GW from utility-scale solar (with or without energy storage), and 1.2 GW through the solarisation of irrigation pumps.

It also encourages the development of solar energy-based EV charging infrastructure, under the guidelines and standards set by the Haryana Electricity Regulatory Commission (HERC) regulations

### What is it about?

The draft policy places significant emphasis on rooftop solar projects, ground-mounted solar initiatives, and the solarisation of irrigation systems. Unlike the previous Solar Power Policy of 2016, which did not address battery storage, the new policy focuses on including solar power projects with or without storage systems, as well as integrating solar projects with other renewable resources like hybrid projects. It encourages the implementation of large-scale solar projects, especially on canal tops, banks and various water bodies. Additionally, it highlights the potential for government subsidies on storage systems for utility-scale solar power projects intended to supply power to distribution companies (DISCOMs).

Maintaining continuity, the policy retains the provision of allocating 20 per cent of the total capacity of ground-mounted MW-scale solar power projects for small generators with capacities up to 2 MW.

The policy incorporates both net and gross metering arrangements, with the state government exploring the possibility of providing a capital subsidy to incentivise rooftop solar installations. Furthermore, the Haryana government aims to encourage decentralised and off-grid applications, develop solar-powered EV charging stations, and support innovative billing systems in areas with limited roof space.

The primary goals of the draft policy include enhancing the contribution of solar energy to Haryana's power mix, encouraging private sector involvement, integrating new technologies, and promoting solar power integration in agriculture.

[Read in detail](#)

## 2. Delhi Announces the Motor Vehicle Aggregator and Delivery Service Provider Scheme



The Delhi government has announced the Motor Vehicle Aggregator and Delivery Service Provider Scheme. The scheme establishes clear and stringent guidelines for the transition of commercial to electric vehicles (EVs).

Under the scheme, there is a commitment to transitioning the entire commercial vehicle fleets of aggregators, delivery service providers, and e-commerce entities in Delhi to EVs by 2030, following a phased approach.

### What is it about?

The Motor Vehicle Aggregator and Delivery Service Provider Scheme in Delhi outline ambitious targets for the integration of EVs in the fleets of aggregators and delivery service providers. The scheme specifies that, for aggregators, the goal is to achieve 100 per cent electric 2-wheelers in the new fleet, while 3-wheelers are expected to reach 10 per cent EVs within six months, 50 per cent in two years, and 100 per cent in four years. For 4-wheelers, the targets include 5 per cent EVs in six months, 50 per cent in three years, and full electrification in five years for new fleets. The comprehensive mandate extends to the entire fleet of both existing and new aggregators, requiring a transition to EVs by April 01, 2030.

Similarly, the scheme sets specific targets for delivery service providers, specifying a 10 per cent introduction of EVs in 2-wheelers and 3-wheelers within six months, 50 per cent in two years, and complete electrification in four years. For 4-wheelers in the delivery sector, the targets encompass 5 per cent EVs in six months, 50 per cent in three years, and 100 per cent in five years. Mirroring the requirements for aggregators, the entire fleet of delivery service providers, both old and new, must transition to electric vehicles by April 1, 2030.

The scheme further highlights its commitment to enforcing compliance through substantial monetary penalties ranging from ₹5,000 to ₹100,000 per violation. Operators, both existing and new, are required to obtain a licence within 90 days of the scheme's notification or before commencing operations. The licences, valid for five years, carry annual fees, with zero fees applicable for EVs. Additionally, a 50 per cent rebate is offered for vehicles less than two years old.

Notably, this scheme is the first in India to outline phase-wise electrification targets for operators in the aggregator space.

[Read in detail](#)

### 3. BEE issues Draft Compliance Mechanism for Carbon Credit Trading Programme



The Bureau of Energy Efficiency (BEE) has issued a draft detailing the procedures for a compliance mechanism under the Carbon Credit Trading Programme in India.

The draft includes eligibility criteria and procedures for accrediting carbon verification agencies, as well as a detailed procedure for compliance mechanisms under the Carbon Credit Trading Scheme (CCTS).

#### What is it about?

The document outlines the compliance mechanism, greenhouse gas (GHG) emission intensity trajectory, verification process, and issuance of carbon credits. The proposed unified carbon market mechanism, the Indian Carbon Market (ICM), will mobilise new mitigation opportunities through the demand for emission reduction credits by private and public entities. The ICM is established under the purview of the Energy Conservation Act, 2001, and the Environment (Protection) Act, 1986. The Carbon Credit Trading Scheme, 2023, has been notified by the Central Government under the powers conferred by clause (w) of Section 14 of the Energy Conservation Act, 2001 (52 of 2001).

The scheme defines the Indian carbon market, where a national framework is established to reduce, remove, or avoid GHG emissions from the Indian economy by pricing the GHG emission reduction through the trading of carbon credit certificates. The CCTS envisages the Compliance Mechanism, whereby the registered entities that are notified under the compliance mechanism are called 'Obligated Entities'. The Ministry of Environment, Forestry, and Climate Change shall notify the GHG emission intensity targets in terms of tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) per unit of the equivalent product for each cycle of the defined trajectory for the considered obligated entities.

[Read in detail](#)

## 4. Clean Energy Surpasses Fossil Fuels in Global Job Market



The International Energy Agency (IEA) released the World Energy Employment 2023 report. The report disclosed that the clean energy sector, with 35 million jobs globally, has surpassed traditional fossil fuel industries in job creation, compared to the 32 million jobs created by fossil fuels.

It also stated that clean energy employment has not only taken the lead but is also growing at a rate exceeding 3.6 times that of fossil fuel jobs.

### What is it about?

The IEA report highlights that clean energy industries globally added 4.7 million jobs, surpassing the slower recovery of fossil fuel jobs following layoffs in 2020. Fossil fuel employment remains approximately 1.3 million below pre-pandemic levels, but the burgeoning opportunities in the clean energy sector outweigh the job losses in fossil fuels. India experienced a resurgence in fossil fuel employment, surpassing pre-pandemic 2019 levels. Simultaneously, the country ranked fourth globally in generating new clean energy jobs. The report emphasises that India and West Asia were the only major regions witnessing growth in both clean energy and fossil fuel employment from 2019-2022.

Overall, India ranks third globally in the number of workers in the energy sector, following China and the Asia-Pacific regions. China leads in both the greatest increase in clean energy jobs and the most significant decline in fossil fuel employment, reflecting the sheer scale of its energy sector. The report attributes over half of the clean energy job growth since 2019 to five sectors: solar photovoltaic (PV) cells, wind, EV and battery manufacturing, heat pumps, and critical mineral mining. These sectors collectively employ around 9 million workers, each experiencing over six per cent annual growth.

Solar PV, with approximately 4 million jobs, stands as the largest among these sectors, while the manufacturing of EVs and batteries constitutes the primary source of growth, contributing over 1 million jobs globally since 2019. Most of these new jobs are in construction and manufacturing, representing more than half of all energy jobs and growing by 2.6 million positions since 2019.

[Read in detail](#)

## 5. UNEP Releases the Adaptation Gap Report 2023



The United Nations Environment Programme (UNEP) released the Adaptation Gap Report, 2023. The report focuses on adaptation finance and the availability of funds to carry out adaptation projects.

According to the report, developing countries collectively require a minimum of US\$215bn annually throughout this decade for substantial adaptation work. However, the funding allocated for adaptation projects in 2021 amounted to a mere US\$21bn, reflecting a 15 per cent decline from previous years

### What is it about?

The 2023 Adaptation Gap Report released by UNEP highlights the critical disparity between the financial requirements for climate adaptation in countries, predominantly developing and least developed, and the actual financial support they receive, termed the Adaptation Gap. The major findings of the report highlight the considerable discrepancy in adaptation finance needs, estimated to be 10-18 times higher than the present finance flows. To address this disparity, the report urges developed countries to amplify their climate finance commitment to adaptation, advocating for a doubling of financial support from 2019 levels by the year 2025.

Furthermore, the report warns of a significant escalation in adaptation costs by 2050, particularly in areas, such as coastal protection due to rising sea levels. Urgent climate action is emphasised across three major domains: mitigation, adaptation, and addressing loss and damage. The expanding adaptation finance gap necessitates an immediate increase and enhancement of budget tagging and tracking to seamlessly integrate adaptation into budget planning.

A critical oversight highlighted in the report pertains to the action plan on loss and damage, which has neglected non-economic losses, including the preservation of cultural heritage and indigenous knowledge. To address this, the report recommends mobilising private investments through innovative methods, such as resilience bonds and insurance.

The report also revealed that only 2 per cent of gender-tagged international adaptation finance is gender-responsive. The report advocates leveraging remittances, which substantially contribute to gross domestic product, and emphasises the importance of financing small and medium-sized enterprises (SMEs). Encouraging SMEs to provide adaptation-relevant products and services emerges as a strategic approach to addressing this gender-responsive finance gap.

[Read in detail](#)

## 6. UNEP Release Emission Gap Report, 2023



The UNEP released the Emissions Gap Report 2023. The report assesses the gap between the current state of GHG emissions and the goals set by the Paris Agreement.

To align with the targeted 1.5-2°C limit, the report stresses the imperative for substantial emission cuts ranging from 28-42 per cent by 2030.

### What is it about?

In terms of global emission trends, the report discloses that GHG emissions reached an alarming record of 57.4 Gigatonnes of Carbon Dioxide Equivalent (GtCO<sub>2</sub>e) in 2022, reflecting a 1.2 per cent increase from the previous year. Notably, fossil CO<sub>2</sub> emissions, constituting two-thirds of global emissions, grew between 0.8-1.5 per cent in 2022, primarily contributing to the overall increase. The G20 countries collectively account for 76 per cent of global emissions, showcasing varying trends among members.

Among the major economic sectors contributing to emissions, energy supply emerged as the largest source, followed by industry, agriculture, transport, and buildings. While implementing unconditional Nationally Determined Contributions (NDCs) could limit the temperature rise to 2.9°C, the report highlights that if current policies persist, global warming is projected to reach 3°C above pre-industrial levels by the century's end.

Despite countries making Net-Zero Pledges, the report reveals that none of the G20 countries are reducing emissions at a pace consistent with their targets. Even under the most optimistic scenario, the likelihood of limiting warming to 1.5°C is only 14 per cent. Policy progress since the Paris Agreement has reduced the implementation gap, yet nine countries updating their NDCs are deemed insufficient. The report calls for further reductions to establish cost-effective pathways for limiting global warming to 1.5°C.

In response to these findings, the report recommends global, low-carbon development transformations, especially focusing on the energy transition. It highlights the need for countries with greater emission capacity to take more ambitious action and provide financial and technical support to developing nations. Furthermore, it stresses the importance of pursuing low-emission growth trajectories in low- and middle-income countries, which already account for over two-thirds of global emissions.

[Read in detail](#)

## 7. Government Announces Mandatory Blending of Compressed Bio-Gas in CNG & PNG



The Minister of Petroleum & Natural Gas and Housing & Urban Affairs, Hardeep Singh Puri, announced the introduction of the CBG Blending Obligation (CBO) by the National Biofuels Coordination Committee (NBCC).

The CBO, chaired by the Union Petroleum Minister, entails a phased mandatory blending of CBG in the CNG (Transport) & PNG (Domestic) segments of the City Gas Distribution (CGD) sector.

### What is it about?

In a major step towards enhancing the use and adoption of CBG, the NBCC, chaired by the Union Petroleum Minister, announced the introduction of a phased mandatory blending of CBG in the CNG (Transport) & PNG (Domestic) segments of the CGD sector. The key objectives of the CBO are to stimulate demand for CBG in the CGD sector, import substitution for Liquefied Natural Gas (LNG), promote a circular economy, and assist in achieving the target of net-zero emissions, etc.

Highlighting the key outcomes of the CBO, Puri said that it will encourage investment of around Rs.37,500 crores and facilitate the establishment of 750 CBG projects by 2028-29. Discussions also took place for promoting the production of ethanol from maize with all stakeholders, especially with the Department of Agriculture and the Department of Food and Public Distribution (DFPD), to make it a prominent feedstock in the coming years.

It was discussed that in the last few years, there has been an increase in maize cultivation area, yield per hectare, and production. Work has been initiated by this Ministry in consultation with the Department of Agriculture and DFPD to further develop high starch-yielding varieties, improve the quality of maize-dried distillers grain solids by removing aflatoxins, and expedite the registration of new seed varieties with high starch. To further promote maize training programmes for distillers with seed companies, initiatives have also been undertaken.

[Read in detail](#)



## CUTS AT WORK

CUTS will be organising a COP28 side event titled 'Creating a Fund of Funds: Paving the Path Beyond the Loss and Damage Fund' on December 10, 2023. The forthcoming event is set to deliberate on critical aspects of climate change and biodiversity loss, recognising the urgency to bridge financial gaps for sustainable solutions.

CUTS has launched a global initiative that advocates for 'Innovative Finance for Climate and the Planet' to bridge the prevailing global financing gaps. This initiative will drive discussions on how the implementation of innovative tools, including green bonds, sustainability-linked loans, tailor-made blended finance solutions, and ecosystem-driven investments, can be scaled up to deliver actionable outcomes to advance progress on climate and biodiversity goals. However, it asserts that instead of relying solely on the usage of the Loss and Damage Fund, which lacks consensus and recent developments, a more effective strategy would be to create a 'Fund of Funds.'

The speakers for the event are Sajeev Nair, Regional Director and Board Member, CUTS International, Lusaka, and Nairobi; Martha Getachew Bekele, Africa Lead for Delivery Quality and Impact, Development Initiatives; and Brian Omenyi, National Coordinator, Sustainable Energy Access Forum, Kenya; Lydia Chibambo, Programme Officer, Energy Gender, Zambia Climate Change Network; and Rowen Jani, Programme Officer, World Wide Fund for Nature, Zambia.

The session themes for the event will be:

- Tailored Blended Finance Solutions for Climate Adaptation Investments in Biodiversity for Long-Term Green Returns
- Financial Inclusion and Climate Resilience in the Global South
- Unlocking Private Capital for Sustainable Development in Developing Nations
- Empowering Vulnerable Nations: Advancing Climate and Biodiversity Finance for Least Developed Countries
- Sources of Fundraising and Optimising Funds

Read more about the event here: <https://tinyurl.com/hp4b463z>

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1. **Montek Singh Ahluwalia**, Committee Chair (former Deputy Chairman of the Planning Commission of India), New Delhi, India
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14. **Vera Songwe**, Co-Chair of the High Level Expert Panel on Climate Finance, Washington, D.C., USA
15. **Counting...**

To bring this initiative to fruition, we must persuade the international community. We earnestly believe that building a family of global citizens conscious of their responsibility to the environment could play an immense role in our quest to deliver impactful and innovative solutions to address the challenges of climate change and biodiversity losses.

Join us in this endeavour to deliver on commitments to Mother Nature, as there is no Planet B!

Please write to: [IFCP@cuts.org](mailto:IFCP@cuts.org), endorsing our campaign.

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**CAMPAIGN** G20 40CUTS  
**INNOVATIVE FINANCE FOR CLIMATE AND THE PLANET**  
Delivering on Commitments to Mother Nature

### Power Statistics for November 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					
425.53	239.07	56.18	178.98	42.06	78.74%	17.90%	222.16	221.53	0.3%