



## 13th India-U.S. Track II Dialogue on Climate Change and Energy

20-22 March, 2024

### STATE OF PLAY – BACKGROUND PAPER U.S.

#### Federal Climate Action

#### **NDC Commitments, Emissions and Energy Trends, Federal Climate Measures**

The U.S. is making measurable progress towards its nationally determined contribution (NDC) commitment, and predictions based on the Inflation Reduction Act (IRA) indicate that this goal is within reach (50-52% reduction below 2005 levels in 2030). In 2023, for the first time, the U.S. economy grew (2.4% year-on-year) while estimated emissions fell (1.9% year-on-year) – this decrease was largely driven by a mild winter and declining coal power generation. While this progress is promising, emissions must still decrease rapidly for the U.S. to meet its ambitious goals

In particular, the administration is focused on the rapid decarbonization of the power sector, as part of its [long-term strategy](#) – to achieve net-zero economy-wide greenhouse gas (GHG) emissions no later than 2050. Power-sector decarbonization is viewed as especially important because efficient electrification, when paired with clean electricity, can decarbonize large parts of the transportation, buildings, and industrial sectors. Recognizing the key role of the power sector in overall decarbonization, the [United States has set a goal of 100% carbon pollution-free electricity by 2035](#).

In the [Sunnylands Statement](#), from a November 2023 meeting of U.S. Special Presidential Envoy for Climate John Kerry and China Special Envoy for Climate Change Xie Zhenhua aimed at enhancing joint cooperation on climate action, both countries agreed that their 2035 NDCs would be “economy-wide, include all greenhouse gasses, and reflect the reduction aligned with the Paris temperature goal.” The statement also dedicated a section to the methane reduction actions and targets, which the two committed including in their 2035 NDCs. As it stands, the U.S.’s current methane reduction program is expected to fall short of the mark in terms of achieving the greenhouse gas reduction goals in the current NDC. [An analysis](#) by the Clean Air

Task Force found that a further 3.5 MT of methane reduction is needed to meet NDC GHG reduction goals.

Politically, the White House recently [confirmed that John Kerry will step down](#) from his role as Special Climate Envoy later this spring. [Kerry will be replaced by John Podesta](#), who currently serves as a senior White House adviser on clean energy and oversees the implementation of the IRA. He will continue to serve in this role while also assuming the role of senior adviser to the president for international climate policy. Podesta previously served under the Obama White House as a counselor, helping to coordinate the administration's climate policies and attending global climate negotiations. In the interim period between political roles, Podesta led the U.S.-India Track II Dialogue along with Jamshyd Godrej and Bill Reilly.

### **Emissions and Energy Trends**

Domestically, efforts to reduce greenhouse gas emissions in 2023 saw [mixed results](#) across sectors, with an 8% drop in emissions from the power sector and a 4% drop in residential and commercial buildings emissions, but a 1.6% increase from transportation, and a 1.2% increase in industrial emissions.

In 2023, coal fueled 17% of power generation, marking a record low, and the U.S. Energy Information Administration (EIA) expects electricity generation from coal will continue to decline by 9% in 2024. Natural gas production, however, reached record highs in 2023, and natural gas-fueled electricity generation grew more than twice as fast as renewable generation despite a record year of installations in solar and utility-scale batteries. Despite this, the EIA expects that electricity generation from natural gas will remain unchanged in the coming years. Moving forward, the EIA [expects solar power to be the primary source of growth](#) in the electricity sector, with 36 GW and 43 GW of solar capacity coming online in 2024 and 2025 respectively. In contrast, wind turbine installations were down in 2023 compared to 2022. Supply chain issues and rising project costs due to high inflation caused significant challenges for wind power developers and resulted in a developer canceling a large, two-phase wind project off the coast of New Jersey, despite already having approval for the project. With cooling inflation, 2024 may see the resumption of offshore wind projects. One [project](#) off the coast of Virginia overcame the challenges posed by rising project costs and recently received approval to begin construction. The turbines are expected to come online in 2026 and [power 660,000 homes](#).

Increases in transportation emissions were mostly driven by jet fuel consumption. Airline travel has recovered from pandemic disruptions and the number of seats available on commercial flights is now larger than in 2019. In an effort to reduce emissions from jet fuel, the IRS [released guidance](#) on tax credits for sustainable aviation fuel. The tax credit can be applied to fuel that

reaches a minimum of a 50% reduction in lifecycle greenhouse gas emissions, with additional credit for every percent reduction past 50%. What type of biofuels qualify for the tax credit will depend on the model used to calculate emissions. For example, [under some models](#), corn ethanol would qualify, while under others it would not.

### **Domestic Political Landscape for Energy and Climate Action**

The outcome of the 2024 U.S. elections in November could significantly affect U.S. climate policy. If a Republican President and Congress were to take office, concern will arise about potential backsliding and even reversing recent progress on climate policy. Biden's climate policies are already under intense scrutiny, with the U.S. House of Representatives' Oversight Committee conducting an [investigation in 2023](#) into the Department of Energy's handling of funds from the IRA, the Bipartisan Infrastructure Law (BIL), and the CHIPS and Science Act. However, recent data show that both red and blue states have benefited significantly from IRA and BIL investments, nearly all states have developed climate change plans, new clean energy jobs now far exceed 200,000 and families are lowering their energy bills. All these benefits are likely to dampen interest in weakening many of the provisions now being implemented under the BIL and the IRA to transition the U.S. to a clean energy economy.

For example, in addition to direct government investments in clean infrastructure, the 10-year tax credits from the IRA for private investments in clean energy will likely remain in effect and continue to be utilized by companies eager to invest in clean energy in the US. Despite rhetoric from some politicians, it is extremely unlikely these would be repealed, as a repeal of tax credits has never happened under any Administration.

It is also important to remember that regardless of federal election outcomes, climate action will almost certainly continue at the subnational level. In 2023, among other ambitious states, Michigan, Minnesota, and New Jersey, [set goals](#) to get 100% of their electricity from carbon-free sources by 2040, 2040, and 2035, respectively. Delaware also set the goal of reducing its greenhouse gas emissions by 100% compared to 2005 levels by 2050. Additionally, states including Massachusetts, New Jersey, New York, Oregon, Washington and Maryland, have committed to end sales of internal combustion engine vehicles by 2035.

At the Congressional level, limited action on climate change is occurring. The primary area of focus is on carbon-related trade policy, with [four major bills](#) introduced in Congress related to climate and trade in 2023. The [PROVE IT](#) Act, is a bipartisan effort that calls for a study of the relative emissions intensity of traded goods produced in the U.S. and in other countries. The PROVE IT Act has had some traction, [passing out](#) of the U.S. Senate's Environment and Public Works Committee in January 2024 on a bipartisan basis. Two others, the [Foreign Pollution Fee Act](#) sponsored by Senator Cassidy (R-LA) and the [Clean Competition Act](#) sponsored by Senator

Whitehouse (D-RI), would levy a fee based on the carbon intensity of certain imported goods. The Clean Competition Act would also apply the fee to domestically produced goods. The final bill, the bipartisan [MARKET CHOICE Act](#), proposes a tax on emissions, including certain covered imported products. Only the Clean Competition Act includes a domestic price on carbon. The introduction of carbon and trade focused bills by both Democrats and Republicans indicates a high-level of interest in the issue. However, it remains to be seen if lawmakers can come to a consensus on which policy is best and then leverage enough bipartisan support to pass both chambers of Congress. Even though consensus is not likely to be reached this year, these proposals lay the groundwork for action by future Congresses, as the implementation of the [EU CBAM](#) provides an impetus for ongoing interest in carbon and trade legislation.

Another area of congressional focus has been on permitting reform. Legislation has been introduced on permitting, but it is questionable whether a bill on permitting will pass in 2024. Despite the inclusion of some permitting reforms in the May 2023 [Fiscal Responsibility Act](#), the topic of permitting reform continues to be a point of contention in Congress. Proponents of renewable energy and transmission buildout [argue that more reforms were still needed](#) to ease permitting restrictions on projects. However, some opponents of permitting reform worry that doing so would also [speed up the development of natural gas drilling and pipelines](#). The incoming chair of the House Energy and Commerce Subcommittee on Environment, Manufacturing and Critical Materials, Buddy Carter (R-GA), has said that permitting reform will be his top priority. Carter previously included a measure in the House Republican energy bill that would [accelerate permits for domestic facilities](#) that help augment U.S. energy supply chains. While members of both parties remain [interested in](#) discussing permitting reform, it is unclear whether any proposal can gain enough bipartisan support to become law in 2024.

With the challenges faced in transmission expansion, some utilities have taken other measures to increase their ability to provide electricity from renewable sources. In 2023, the [Southwest Power Pool](#) became the first Registered Transmission Organization (RTO) to have utility members in both the Western and Eastern interconnections, with several utilities from western states joining the organization. This will allow member utilities to progress towards their renewable energy goals while also increasing reliability.

### **Regulatory Action**

In December 2023, the Biden administration took a significant step to mitigate emissions from the Oil and Natural Gas Industry – the largest industrial emitter of methane, by issuing a [final rule](#) that set performance standards for [New, Reconstructed, and Modified Sources and guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review](#). It includes regulation of smaller oil and gas wells, which contribute up to half of emissions from well sites, and phases in a requirement for energy companies to eliminate routine flaring. This rule was followed in

early January 2024 by [a proposed rule](#) to implement the [Waste Emissions Charge](#) that was authorized by the IRA. The proposed Waste Emissions Charge rule [sets a fee on methane emissions that exceed specified limits](#). The fee is proposed to start at \$900 per ton, increasing to \$1,500 per ton by 2026. These rules complement other administration efforts to reduce emissions from the oil and gas sector, including financial and technical assistance to transition to a low-emitting oil and gas sector, and revisions to the Greenhouse Gas Reporting Program. These rules are expected to reduce emissions from the oil and gas sector by almost 40% of today's levels by the late 2020s. However, the rule [faces opposition](#) from the oil and gas industry, with the American Petroleum Institute calling it a "punitive tax." It is unclear when this proposed methane rule will be finalized.

In May 2023, the EPA proposed rules to cut emissions from power plants. The rule would require plants to cut their emissions by [90% between 2035 and 2040](#) or shut down. Critics of the rule say that the carbon capture technology needed to achieve this target is not yet mature enough and the U.S. risks sacrificing grid reliability if this rule moves forward. Proponents argue that the technology is already feasible and that the health and climate benefits outweigh the cost of scaling the nascent industry. However, the rule faces challenges ahead. The fossil fuel industry has indicated that they are prepared to sue the EPA if the standards are finalized [on the basis that it forces a "generation shift,"](#) if power companies are mandated to switch to certain technologies. The Supreme Court struck down the Obama-era Clean Power Plan, which included generation shifts, on the basis that it overreached the EPA's authority. Public comment on the proposed rule closed in August 2023 and a final rule is expected this year.

### **Bipartisan Infrastructure Law Implementation**

In October 2023, the Biden administration announced billions of dollars of investment in the [electric grid](#) (\$3.5 billion), electricity transmission system (\$1.3 billion), [direct air capture](#) (\$1.2 billion), and [clean hydrogen hubs](#) (\$7 billion). BIL Funding has driven an almost 70% increase in public charging stations since President Biden took office. The first round (\$3.46 billion) of [Grid Resilience and Innovation Partnerships](#) (GRIP) program funding was dispersed by the Department of Energy in October of 2023 and the next round of \$3.9 billion for Fiscal Years 2024 and 2025 was announced in November 2023. The GRIP program aims to accelerate the deployment of projects that will help ensure the reliability of power sector infrastructure and funding mechanisms fall into three categories: grid resilience utility and industry grants, smart grid grants, and a grid innovation program. The funding for clean hydrogen hubs will go to [seven regional hubs](#) which are expected to produce more than three million metric tons of clean hydrogen per year, covering one third of the U.S.'s 2030 production target. These hubs are the Mid-Atlantic, Appalachian, California, Gulf Coast, Heartland, Midwest, and Pacific Northwest

Hydrogen Hubs. U.S. leadership and learning from these projects may prove useful as it engages with India and other countries.

## **Inflation Reduction Act Implementation**

The Administration has been actively implementing the IRA's provisions encouraging investment in domestic manufacturing of clean technology, recycling, and research and development, as it seeks to onshore critical industries and reduce supply chain reliance on China. Since the passage of the IRA, [274](#) such projects have been announced.

States across the country are taking steps to facilitate the implementation of the IRA. Nearly two dozen green banks [in at least 15 states](#) including California, Florida, and Pennsylvania, already have green banks, which can serve as the designated entities managing clean energy funds. A further 18 states, including Texas, Georgia, and South Carolina, have proposed opening green banks, which could handle funding from the IRA and finance 'green' projects.

In December 2023, the IRS released proposed [guidance on the IRA's 45V tax credit](#) for clean hydrogen. The 45V provision sets tiered emissions-based tax credits, with the highest tier being \$3/kg for hydrogen that emits no more than 0.45 grams of CO<sub>2</sub>e during production. The guidance details eligibility requirements and the method by which emissions are measured. A [Rhodium Group study](#) predicts that under a medium-growth scenario for clean hydrogen, emissions could fall by 14-45 million metric tons from 2024 to 2035. Currently, natural gas-derived hydrogen costs \$1-\$1.50/kg, while most estimates put the cost of green hydrogen at \$4-\$6/kg, although depending on location and other factors, some estimates are as low as \$3/kg. These prices make green hydrogen that meets the \$3/kg tax credit competitive with conventional, natural gas-derived hydrogen. The Treasury Department will be accepting comments on these proposed guidelines until February 2024 with final guidance to follow at a future, unspecified date.

The Treasury Department is also preparing a set of [technology-neutral tax credits](#) enacted in the IRA. These tax credits would replace the Section 45 production tax credit and Section 48 investment tax credit, which only covered certain technologies. The new tax credits will cover any zero-emission electricity facility, regardless of technology, and will be available for clean energy projects starting construction in 2025.

## **International Engagement**

### **COP28 and the Global Stocktake**

COP28 in Dubai marked the culmination of the first Global Stocktake (GST) under the Paris Agreement. Ahead of COP28, a [GST synthesis report](#) and a [GST technical report](#) were released on global climate action to date, including steps that countries need to take going forward. The

reports found a significant gap between national commitments and what is needed to keep warming under 1.5°C, calling for nations to scale up renewable energy and transition away from fossil fuels.

Among the recommendations of the GST synthesis report, it highlights the importance of international cooperation on climate change with a focus on several global initiatives that it encouraged parties to participate in, including the [Green Grids Initiative](#), the [Energy Transition Council](#), the [Global Methane Pledge](#), and the [Global Carbon Pricing Challenge](#). The U.S. is a donor to the Energy Transition Council and a participant in the Global Methane Pledge.

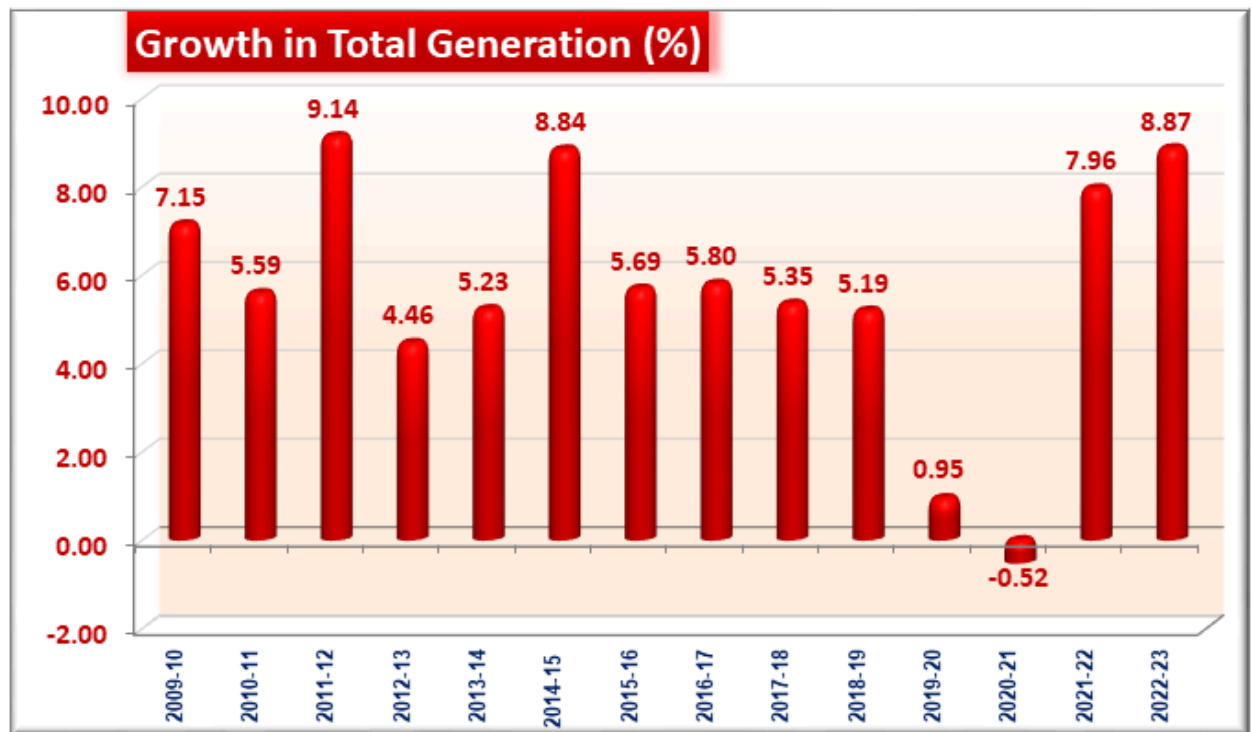
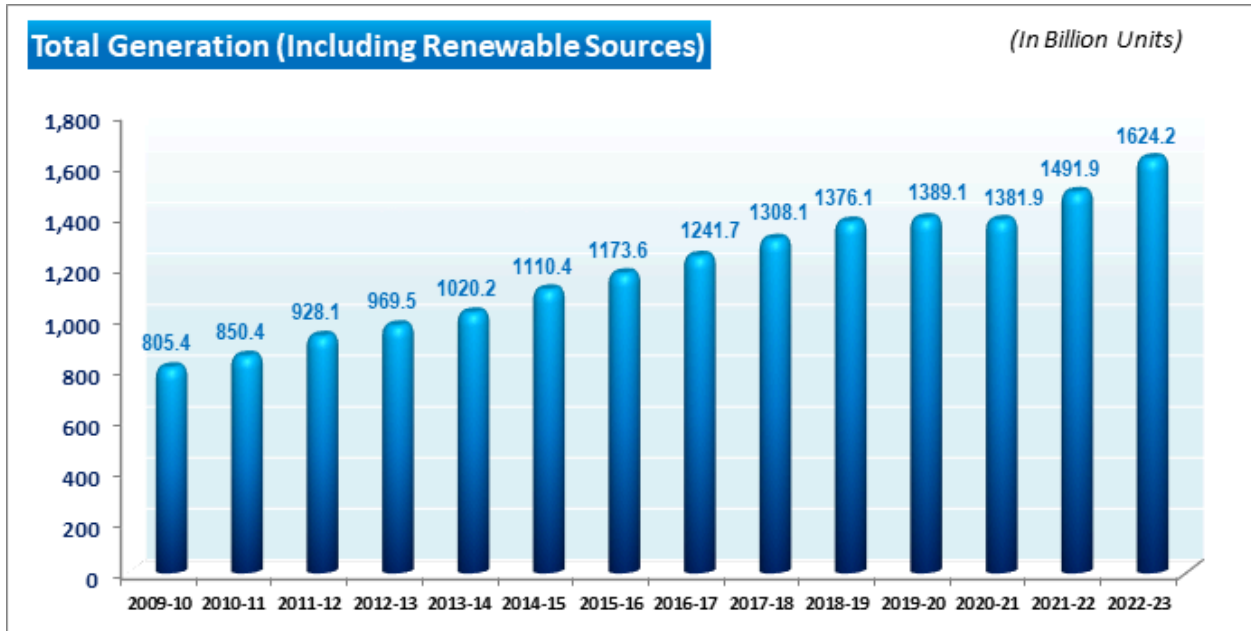
The final GST agreement – which was the centerpiece outcome at COP28 and intended to inform the next round of NDCs – addressed many of the issues raised by the synthesis and technical reports. All delegate countries agreed to transition away from fossils in a just, equitable and orderly manner, develop a wide array of zero- to low-emission technologies, and triple global renewable energy capacity by 2030, with the goal of achieving net zero emissions by 2050, along with actions intended to impact additional sectors and issues, including energy efficiency, transport, land use, and sustainable lifestyles and consumption. The GST outcome also underscored that countries should submit their NDCs well ahead of COP30, noting the need to reduce global emissions 60% by 2035 (the target date for the next round of NDCs), and encouraging countries to submit economy-wide targets that cover all GHGs. The GST decision also highlighted the importance of adaptation, including the COP28 decision on the Global Goal and Adaptation and the loss and damage.

Financing issues remained largely unresolved and will be on center stage at COP29 in Baku, with a key decision to be taken regarding the new climate finance goal ([New Collective Quantified Goal](#), or NCQG) for the period from 2025. The GST outcome at COP28 spelled out the levels of finance needed to achieve the Paris Agreement’s objective on emissions and adaptation, [estimating](#) \$4.3 trillion per year must be invested in clean energy up until 2030, increasing thereafter to \$5 trillion per year up until 2050. Adaptation finance needs were estimated to be \$215–387 billion annually up until 2030.

Other accomplishments from COP28 included a pledge signed by 123 countries to [triple renewable energy and double energy efficiency](#) globally by 2030, in line with efforts to ensure a 1.5°C-aligned power sector, including ending new unabated coal capacity globally. Notably, neither India nor China were among the signatories. The U.S. also signed on to the [Declaration on Sustainable Agriculture, Resilient Food Systems, and Climate Action](#), which commits to scaling-up adaptation and resilience activities, promoting food security, supporting agriculture and food systems workers, strengthening the integrated management of water in agriculture and food systems, and maximizing the climate and environmental benefits associated with agriculture and food systems.

## STATE OF PLAY – BACKGROUND PAPER INDIA

### Emissions and Energy Trends





Source: <https://powermin.gov.in/en/content/power-sector-glance-all-india>

1.Total Installed Capacity (As on 31.05.2023) - Source : Central Electricity Authority (CEA)

INSTALLED GENERATION CAPACITY (SECTOR WISE) AS ON 31.05.2023

Installed GENERATION CAPACITY(FUELWISE) AS ON 31.05.2023		
CATEGORY	INSTALLED GENERATION CAPACITY(MW)	% of SHARE IN Total
Fossil Fuel		
Coal	205,235	49.1%
Lignite	6,620	1.6%
Gas	24,824	6.0%
Diesel	589	0.1%
Total Fossil Fuel	2,37,269	56.8 %
Non-Fossil Fuel		
RES (Incl. Hydro)	173,619	41.4%
Hydro	46,850	11.2 %
Wind, Solar & Other RE	125,692	30.2 %
Wind	42,868	10.3 %

Solar	67,078	16.1 %
BM Power/Cogen	10,248	2.5 %
Waste to Energy	554	0.1 %
Small Hydro Power	4,944	1.2 %
Nuclear	6,780	1.6%
Total Non-Fossil Fuel	179,322	43.0%
Total Installed Capacity (Fossil Fuel & Non-Fossil Fuel)	4,17,668	100%

#### Policy Initiatives / Decision Taken

- Performance of Electricity Generation (Including RE)

The electricity generation target (Including RE) for the year 2023-24 has been fixed as 1750 Billion Unit (BU). i.e. growth of around 7.2% over actual generation of 1624.158 BU for the previous year (2022-23). The generation during 2022-23 was 1624.158 BU as compared to 1491.859 BU generated during 2021-22, representing a growth of about 8.87%.

Total Generation and growth over previous year in the country during 2009-10 to 2023-24:

Year	Total Generation (Including Renewable Sources) (BU)	% of growth
2014-15	1,110.392	8.84
2015-16	1,173.603	5.69
2016-17	1,241.689	5.80

2017-18	1,308.146	5.35
2018-19	1,376.095	5.19
2019-20	1,389.102	0.95
2020-21	1,381.855	-0.52
2021-22	1,491.859	7.96
2022-23	1,624.158	8.87
2023-24*	286.176	-0.72

\*Up to May 2023 (Provisional), Source: CEA

The electricity generation target for the year 2023-24 was fixed at 1750 BU consisting of 1324.110 BU Thermal; 156.700 BU Hydro; 46.190 Nuclear; 8 BU Import from Bhutan and 215 BU RES (Excl. Large Hydro).

#### **Climate mitigation and adaptation in the Interim Budget 2024**

For context, the budgetary Allocations for the Ministry of New and Renewable Energy (in INR crore) over the last seven years has been as follows:

Year	IEBR	Allocation for Central Sector Schemes
2018-19 (A)	10,459	4,403
2019-20 (A)	10,451	3,417
2020-21 (A)	9,506	2,867
2021-22 (A)	15,880	4,143
2022-23 (A)	18,249	7,563

2023-24 (BE)	37,828	10,222
2023-24 (RE)	21,355	7,848
2024-25 (I)(BE)	26,499	12,850

Notes: i) IEBR = Internal and Extra Budgetary Resources. They constitute resources raised by PSUs through profits, loans and equity ii) Central sector schemes include grid-connected Renewable Energy (RE), off-grid RE power, Research & Development programmes and Other supporting programmes.

Source: Compiled by CBGA from Union Budget documents, various years.

The Interim Budget maintains increased allocations for the Union Ministry of New and Renewable Energy (MNRE), reflecting the government’s dedication to initiatives promoting clean energy. In addition to boosting Gross Budgetary Support (GBS), financial support is extended through Internal and Extra Budgetary Resources (IEBR) obtained from Public Sector Undertakings (PSUs). Notably, there is heightened IEBR support for the Indian Renewable Energy Development Agency (IREDA), a crucial PSU collaborating with MNRE. The IEBR for 2024-25 (Interim) is Rs 26,499 crore, showing an increase from the revised estimate of Rs 21,355 crore in 2023-24. Another key announcement which was focused on the aspect of Green Energy was phased mandatory blending of compressed biogas (CBG) in compressed natural gas (CNG) for transport and piped natural gas (PNG) for domestic purposes. This announcement followed through an increased allocation for the total Bio-Energy Component in the current budget of Rs 300 crore which is a considerable increase from the revised estimate of 2023-24 that is of Rs 75 crore.

Budget Allocation for Major Electric Mobility Programmes (Rs crore)							
Schemes	2021-22 (A)	2022-23 (BE)	2022-23 (RE)	2022-23 (A)	2023-24 (BE)	2023-24 (RE)	2024-25 (I)(BE)

FAME India scheme for Electric Vehicles under the Ministry of Heavy Industries	800	2908	2898	2402.51	5171.97	4807.4	2671.33
Production Linked Incentive (PLI) Scheme for Automobiles and Auto Components	0	3	11	5.69	604	483.77	3500
Production Linked Incentive (PLI) Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage	0	3	0.9	1.65	1	12.01	250

*Source: Compiled by CBGA from Union Budget documents, various years.*

The interim budget prioritises schemes aligned with renewable energy capacity highlighting the government’s commitment to climate change mitigation. The allocation of Rs 600 crore in 2024-25 (Interim) for the National Green Hydrogen Mission underscores a deliberate emphasis on the advancement of green hydrogen technologies. The Interim Budget underscores the

government's dedication to strengthening the electric vehicle ecosystem, particularly by increasing allocations for schemes aimed at enhancing manufacturing. This encompasses the Production Linked Incentive (PLI) schemes for the automobile and auto component sectors, along with the introduction of advanced chemistry cell (ACC) battery storage in 2022. The sustained focus on manufacturing schemes is pivotal for expediting the growth of electric mobility. Positive outcomes have resulted from incentives provided to electric vehicle (EV) buyers under the FAME-II scheme, with 1,341,459 EVs incentivized as of January 31, 2024.

Despite the increase in the EV registrations under the Fame II scheme, the budgetary allocation for the scheme has been lower for the upcoming fiscal year. This shift suggests potential changes in priorities or adjustments in resource allocation for the upcoming fiscal year.

The other key announcements in line with India's Green Energy focus are: Rooftop Solarisation Programme with a revamped target of 1 crore household, viability gap funding will be extended to tap into the potential of offshore wind energy starting with an initial capacity of 1 gigawatt, coal gasification and liquefaction capacity of 100 MT to be set up by 2030.

The current interim budget has a larger allocation, announcements highlighting focus towards mitigation measures rather than the adaptation measures. Two key announcements were made during the budget speech of the interim budget which can cater to climate adaptation. The first one is a new scheme to be launched for bio-manufacturing and bio-foundry aiming to provide environment friendly alternatives such as biodegradable polymers, bio-plastics, bio-pharmaceuticals and bio-agri-inputs. However, it is to be noted that this scheme can also have a contribution towards mitigation aspects. The other announcement entails promoting climate resilient activities for blue economy 2.0, a scheme for restoration and adaptation measures, and coastal aquaculture and mariculture with integrated and multi-sectoral approach will be launched. Another adaptation specific scheme which was launched recently in 2023 under the purview of the Union Ministry of Agriculture and Farmers Welfare (MOA & FW) was the [National Mission on Natural Farming](#), it is important to note this as it saw considerable allocation in the current interim budget.

However, if we look at the allocations in the current interim budget, a number of existing adaptation specific schemes are now amalgamated into another comprehensive mission or scheme intervention or by being redirected as secretariat roles to ministries. Some notable examples of significant budgetary components that are either discontinued or subsumed include the National Adaptation Fund, Total-Environment Protection, Management, and Sustainable Development, which were under the purview of the Ministry of Environment, Forest, and Climate Change (MOEFCC). Similarly, the Rainfed Area Development, National Project on Soil Health and Fertility, and Promotion of Agricultural Mechanization for in situ-crop residue management, under the MOA & FW, are now integrated into the [Rashtriya Krishi Vikas](#)

**Yojana.** The existing adaptation specific schemes with continuation and allocations in the current budget are spread across various ministries.

Budget Allocation for Adaptation Specific Schemes across select four ministries (Rs crore)						
Ministry	Schemes	2021-22 (A)	2022-23 (A)	2023-24 (BE)	2023-24 (RE)	2024-25 (I) (BE)
Ministry of Environment Forest and Climate Change	National Coastal Management Programme	28	16	13	43	50
	National Mission for Green India	254	217	220	160	220
	Conservation of Natural Resources and Ecosystems	46	21	47	25	44
Ministry of Agriculture and Farmers Welfare	<i>Rashtriya Krishi Vikas Yojna</i>	1729	5247	7150	6150	7553
	National Mission on Natural Farming	NA	NA	459	100	366
Ministry of Earth Sciences	Atmosphere and Climate Research - Modelling Observing Systems and Services (ACROSS)	247	306	680	550	500

Ministry of Rural Development	Watershed Development Component-Pradhan Mantri Krishi Sinchai Yojana or Integrated Watershed Development Program	938	743	2200	1750	2501
<i>Source: Compiled by CBGA from Budget Documents of previous years</i>						

Loss and Damage financing is now emerging as the third pillar of climate financing internationally, and it covers the larger impacts of climate change induced disasters. India has existing budgetary provisions for disaster resilience allocating funds for disaster management and mitigation through transfers and grants from the Finance Commission. In addition to the established National Disaster Management Fund, a new entity called the National Disaster Mitigation Fund has been formed following the suggestions from the [15th Finance Commission](#). This fund adopts a new approach in devolving funds to State Disaster Mitigation Funds, and the allocations for these funds have an increasing trend. This trend indicates a growing demand for improved disaster responsiveness.

Budget allocations of the funds for disaster management and mitigation in India(Rs Crore)						
Item of Expenditure		2021-22(A)	2022-23 (A)	2023-24 (BE)	2023-24(RE)	2024-25(I)(BE)
Some Important Items of Transfer	Assistance to States in NDRF	7671	1666	..	7000	11474



Finance Commission Grants	Grants-in-Aid for SDRF	17747	16393	19572.8	19573	20550
	Disaster Mitigation Fund	2525	3500	4893.2	4893	5138

*Source: Compiled by Author from Budget Documents of previous years*

The Interim Budget allocations continues India’s focus towards Green Energy. Over the years, the increasing allocation trends towards clean energy initiatives has positively resulted achieving 180.2 Gigawatts of renewable energy capacity. However, the renewable generation capacity from April to December 2023 remains at 21.94 per cent whereas larger dependency still lies on thermal power at 74.93 per cent. This necessitates to focus on not just increasing allocations and efforts towards reaching India’s 500-Gigawatt target by 2030 but also increased efforts towards increasing renewable energy’s generation capacity to strengthen India’s mitigation efforts. This interim budget’s allocation trends have a tilt towards mitigation efforts, but considering India’s population with climate stressed vulnerabilities, sustained policies with appropriate allocations need to be extended to build adaptive resilience. Finally, the operationalisation of the Global Loss and Damage Fund and India’s active participation in the same, realizes the extensive losses due to the climate induced disaster and stresses. The interim budget’s allocations towards disaster management and mitigation are commendable but it is high time to enable Loss and Damage financing. This creates the need for a separate policy framework for climate induced disasters, especially for the most vulnerable populations, as India does not separately have a framework for climate change induced disasters. The inter-sectoral and widely impacting stresses of climate change need balanced allocations and efforts for mitigation, adaptation and disaster resilience as all three remain equally pertinent.

#### **Relevant Legislation passed in the past year**

1. [The Water \(Prevention and Control of Pollution\) Amendment Bill, 2024](#)

The Bill amends the Water (Prevention and Control of Pollution) Act, 1974. The Act establishes the central and state pollution control boards (CPCB and SPCBs) to prevent and control water pollution. The Bill decriminalises several violations, and instead imposes penalties. It will initially apply to Himachal Pradesh, Rajasthan, and the union territories. Other states may pass resolutions to extend its applicability to their states.

2. [The Offshore Areas Mineral \(Development and Regulation\) Amendment Bill, 2023](#)

The Bill amends the Offshore Areas Mineral (Development and Regulation) Act, 2002. The Act regulates mining in maritime zones of India. The Act categorises offshore mining-related activities into: (i) reconnaissance, which involves a preliminary survey to locate mineral resources, (ii) exploration, which includes exploring, proving, or locating mineral deposits, and (iii) production, the commercial activity of the extraction of minerals.

### 3. [The Mines and Minerals \(Development and Regulation\) Amendment Bill, 2023](#)

The Bill amends the Mines and Minerals (Development and Regulation) Act, 1957. The Act regulates the mining sector. For regulation, the Act classifies mining-related activities into: (i) reconnaissance, which involves a preliminary survey to determine mineral resources, (ii) prospecting, which includes exploring, locating, or proving mineral deposits, and (iii) mining, the commercial activity of extraction of minerals.

### 4. [The Forest \(Conservation\) Amendment Bill, 2023](#)

The Bill amends the Forest (Conservation) Act, 1980 to make it applicable to certain types of land. These include land notified as a forest under the Indian Forest Act, 1927 or in government records after the 1980 Act came into effect. The Act will not be applicable for land converted to non-forest use before December 12, 1996. It also exempts certain types of land from the purview of the Act. These include land within 100 km of India's border needed for national security projects, small roadside amenities, and public roads leading to a habitation. The state government requires prior approval of the central government to assign any forest land to a private entity. The Bill extends this to all entities, and allows the assignment to be made on terms and conditions specified by the central government. The Act specifies some activities that can be carried out in forests, such as establishing check posts, fencing, and bridges. The Bill also allows running zoos, safaris and eco-tourism facilities.

## **International Engagements**

### **G20**

As the 2023 G20 Summit concluded, three of the ten key outcome categories in the [New Delhi Leaders' Declaration](#), adopted with consensus, were geared towards achieving emissions reduction and energy transition goals:

- The green development pact: These policy directives focus on resource efficiency and the importance of sustainable consumption; a clean, sustainable, just, affordable, and inclusive energy transition; on sustainable finance; the principles of an ocean-based Blue

Economy; and building disaster resilient infrastructure.

- An action plan for accelerating progress on Sustainable Development Goals (SDGs) that reaffirmed and updated High-Level Principles based on new needs, such as harnessing data for development, financing for accelerating progress on the SDGs, targeted actions on transformative transition areas like digital transformation and a sustainable, inclusive and just transition, gender equality and accountability.
- Reforms for international financial institutions: the Delhi Declaration asks G20 members to pursue reforms of Multilateral Development Banks (MDBs) to address global challenges to maximize developmental impact, building on the [recommendations of the Independent Expert Group on the MDBs'](#) operation models, the scale of financing and system wide strengthening, and the need to fit into changes to the global finance architecture at large.