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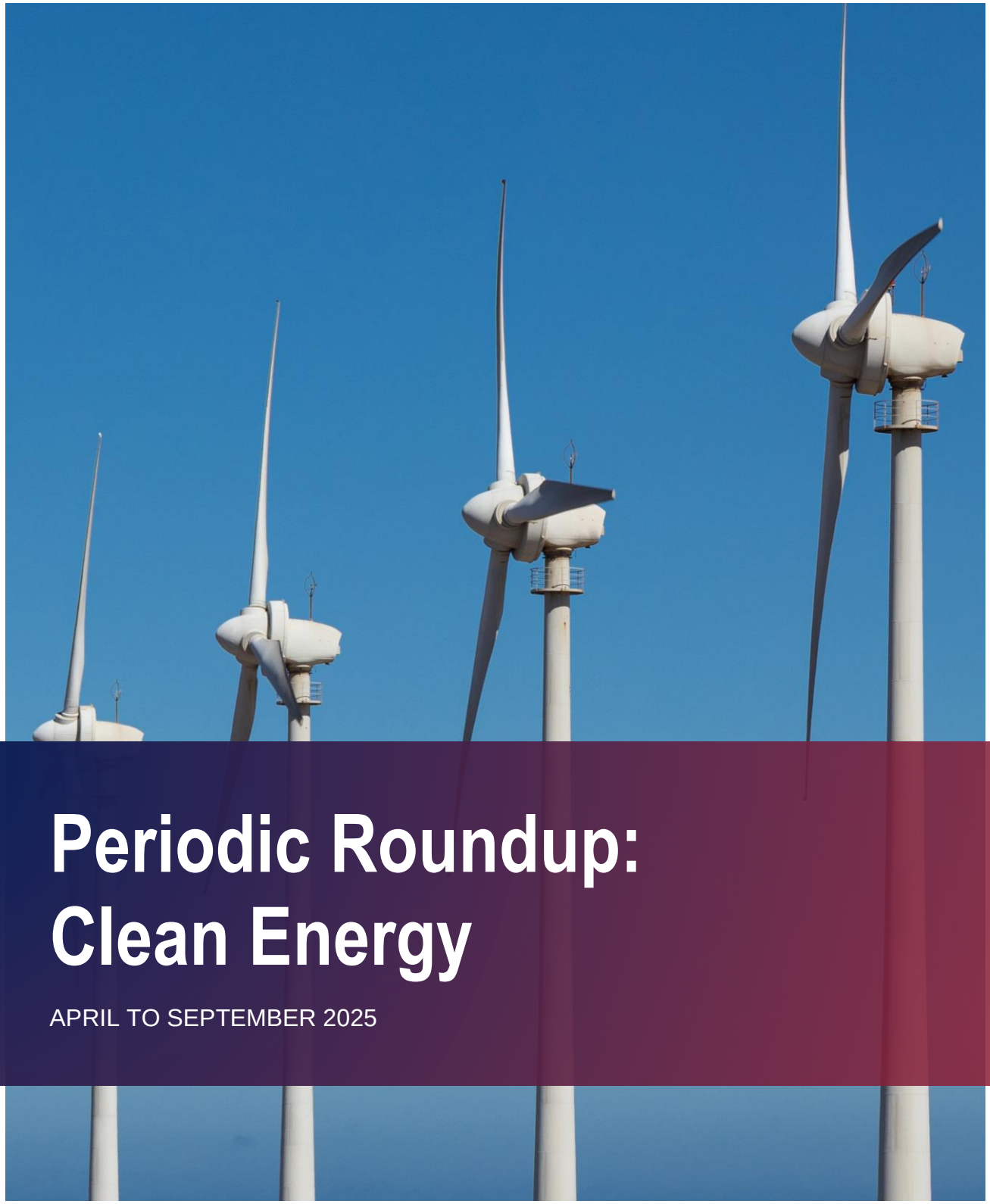

Periodic Roundup: Clean Energy

APRIL TO SEPTEMBER 2025

Executive Summary

The latest Issue of our Roundup Series on Clean Energy covers the six-month period between April and September 2025. The period under review witnessed various regulatory changes in India with respect to clean energy, both at the Central and State levels. This Issue tracks and analyzes key developments in connection with the following:

- Solar generation
- Wind generation
- Green hydrogen/ ammonia production
- Electric vehicles (EVs)
- Tariffs
- Connectivity
- Nuclear energy
- Biogas/ biofuels
- Miscellaneous

UPDATES

- Regulatory and legislative updates have been provided as follows: (1) thematically (i.e., under the heads of Solar generation, Wind generation, Green Hydrogen/ Ammonia production, etc.), and (2) reverse chronologically.

- Within every theme, Central and State Government updates are listed separately. Further, State-level updates have been alphabetically ordered, based on the name of the State in respect of which a thematic update relates.

- Links to primary sources are embedded in item headings and/or have been provided in-line.

OTHER PUBLICATIONS

- For a discussion on the use of land for clean energy projects in India, see our note here.

- For a discussion on exemptions from non-agricultural use certificate and non-agricultural tax for solar and wind energy power generation projects in Maharashtra, see our note here.

- For an overview of proposed changes to the Indian regulatory framework with respect to integrating virtual power purchase agreements (VPPAs) into the power market, see our note here. For a deep dive into the draft guidelines for VPPAs, see our note here.

- For an overview of key legal due diligence considerations with respect to investment in renewable energy projects, see our note here.

- For a discussion on India's new maritime laws, see here.

- For quarterly roundups on environmental law, see Issues 1 and 2 of our Environmental Law newsletter here and here.

- For a discussion on implementing the Environment (Construction and Demolition) Waste Management Rules, 2025 by project developers, including an analysis of key provisions in such rules from the

perspective of infrastructure and real estate developers and contractors, as well as considerations for risk allocation, see our note here.

- For an overview of electricity consumer rights in relation to energy storage systems under draft amendments to the Electricity Rules, 2005, see our note here.

- For an overview of regulatory initiatives on Environment, Social and Governance (ESG)-related disclosure requirements in India, including an examination of evolving ESG disclosure frameworks implemented by various regulators and the gaps that such initiatives seek to fill, as well as proposed solutions to enhance such frameworks, see our note here.

- For an evaluation of the operational framework for ESG debt securities, including an analysis of changes to the existing regulatory regime introduced by the Securities and Exchange Board of India (SEBI) pursuant to its circular dated June 5, 2025, as well as key concerns for relevant stakeholders in this regard, see our note here.

Contents

Solar Generation

CENTRAL

ALMM

MNRE proposes an amendment to the ALMM Order for implementation of ALMM for Solar Wafers

September 12, 2025: Pursuant to an office memorandum dated September 12, 2025, the Ministry of New and Renewable Energy ("**MNRE**") proposed an amendment to the Approved List of Models and Manufacturers ("**ALMM**") Order for the implementation of ALMM for solar wafers. Such List-III for solar wafers under ALMM, intended to be effective from June 1, 2028 ("**Effective date**"), will be issued in accordance with the proposed amendment.

All projects falling under ALMM purview have to mandatorily source solar modules from ALMM List-I. Such modules must also use solar cells from ALMM List-II, and such cells, in turn must use solar wafers from ALMM List-III. Thin film technology-based modules enlisted in ALMM List-I and manufactured in integrated solar module manufacturing units will be deemed compliant with the requirement of using wafers from ALMM List-III and cells from ALMM List-II.

The ALMM for solar wafers will not be issued unless it contains at least three wafer manufacturing units which must operate independently with an aggregate wafer manufacturing capacity of 15 GW/year.

For enlistment in ALMM List-III, the wafer manufacturer must also possess ingot manufacturing capacity equivalent to the wafer manufacturing capacity that it intends to get enlisted in ALMM.

Projects with the last date for bid submission falling on or before the cut-off date will be exempt from using ALMM-listed wafers. The cut-off date will be one month after the first ALMM List-III for wafers is issued. This exemption applies irrespective of the project's commissioning date. Exemption from using ALMM List-III wafers will extend to projects under which the bid has been submitted or the power purchase agreements ("**PPAs**") signed before the cut-off date, and subsequently, the tender for engineering, procurement and construction is issued. Projects exempt from using ALMM enlisted solar cells will automatically be exempt from using ALMM enlisted wafers.

Projects covered under ALMM with the last date of bid submission falling after the cut-off date must include in their tender a statement that the solar modules, cells, and wafers used must align with the requirements of ALMM Lists-I, II and III, respectively.

From the effective date onwards, separate ALMM lists will be maintained. Such lists are as follows:

- ALMM List-I (a) – for solar photovoltaic ("**SPV**") modules using solar cells and wafers not enlisted in ALMM
- ALMM List-I (b) – for SPV modules using solar cells enlisted in ALMM but wafers not enlisted in ALMM
- ALMM List-II (a) – for SPV cells using wafers not enlisted in ALMM

These lists will contain such SPV modules or cells which would cater to different categories of projects which are exempted from using ALMM enlisted wafers but are mandated to use either ALMM enlisted modules or ALMM enlisted modules and cells.

Net metering projects and open access renewable energy power projects which get commissioned on or after the effective date will have to use Solar PV modules, cells, and wafers from ALMM List-I (SPV modules), ALMM List-II (SPV cells) and ALMM List-III (solar wafers), respectively.

ALMM List-III will apply to behind-the-meter and captive projects owned by government entities if commissioned after the effective date.

Under the proposed amendment, there are no exemptions from provisions related to domestic content requirement ("**DCR**") with respect to the MNRE's programs.

MNRE issues clarification on use of ALMM List – II for Government projects

August 12, 2025: Pursuant to an office memorandum dated August 12, 2025, the MNRE clarified that government solar projects under net metering, behind-the-meter, and open access mechanisms are exempt from using solar cells under ALMM List-II if the bid submission deadline falls on or before the cut-off date of August 31, 2025. The necessary ALMM compliance for such government projects will be limited only to using SPV modules enlisted in ALMM List-I.

However, if such government projects are under any scheme, program, or other initiative where it is mandatory to use domestically manufactured SPV cells and modules, there will be no relaxation in such DCRs.

MNRE issues clarifications to the ALMM

July 28, 2025: Pursuant to an office memorandum dated July 28, 2025, the MNRE clarified that solar projects installed exclusively to charge energy storage systems ("**ESS**") will not be exempted from complying with ALMM requirements. In this regard, the MNRE provided two clarifications, as follows:

First, a solar power plant feeding power to an ESS or charging an ESS, which is directly or indirectly supplying electricity to the grid, will not fall under the category of "behind-the-meter solar power plants solely used for captive consumption by a consumer or group of consumers", and accordingly, are not exempt from ALMM requirements for SPV modules. According to the MNRE, the behind-the-meter classification applies only to projects meant exclusively for captive use by individual consumers or groups of consumers, without any grid interaction.

Secondly, the applicability or exemption of ALMM provisions for solar cells in such configurations depends on the exemption status of the ESS project. The solar project will be exempted from complying with ALMM requirements if the ESS is already exempt. However, if the ESS is not exempt, then the solar project linked to it will also not be eligible for exemption.

MNRE issues clarifications on ALMM mandate for behind-the-meter projects

July 10, 2025: Pursuant to an office memorandum dated July 10, 2025, the MNRE issued a clarification to its previous office memorandum dated December 9, 2024 with respect to implementation of ALMM for SPV modules and cells. Pursuant to such clarification, the MNRE clarified that behind-the-meter projects for captive consumption of government entities or public sector enterprises are mandated to use: (i) ALMM enlisted SPV modules, but are exempt from using ALMM enlisted SPV cells, if commissioned prior to June 1, 2026; and (ii) both ALMM enlisted SPV modules and ALMM enlisted SPV cells if commissioned on or after June 1, 2026.

Other

MNRE extends the timeline for Solar Park Scheme for a period of three years, i.e., up to FY 2028-29

September 17, 2025: Pursuant to an office memorandum dated September 17, 2025, the MNRE extended the deadline for the Development of Solar Parks and Ultra Mega Solar Power Projects ("**Solar Park Scheme**") to March 31, 2029. The original deadline was March 31, 2026.

The timeline has been extended for the purpose of facilitating completion of ongoing parks and clearing committed liabilities, without any additional financial implication for either of such purposes. While ongoing and approved projects can continue until March 2029, any fresh approvals must be secured within the next six months from the current financial year.

The office memorandum also provides that new sanctions/approvals may be accorded for any available capacity under the Solar Park Scheme only until March 31, 2026.

Implemented first in December 2014, the Solar Park Scheme was rolled out to set up at least 25 solar parks and ultra mega solar power projects with 20 GW capacity within five years, starting FY 2014-15. The target was later increased to 40 GW in March 2017, with parks proposed to be set up by FY 2023-24.

MNRE extends the deadline for solar invertors of more than 200 kW to conform to BIS

August 5, 2025: The MNRE extended the date of implementation of the Solar Systems, Devices and Components Goods Order, 2025 ("**Solar Systems Order**") for SPV inverters of more than 200 kW until June 30, 2026 or until further orders, whichever is earlier, based on self-certification.

In January 2025, the Government of India ("**GoI**") released the Solar Systems Order, setting standards under the Bureau of Indian Standards ("**BIS**") for solar modules, inverters, and storage batteries. The order was set to be effective 180 days after its publication in the Official Gazette. Draft guidelines were subsequently released, under which the inverters would be tested in two sequences.

The decision to extend the date of such implementation was taken against the backdrop of limited testing facilities and companies requiring more time to comply. However, the extension does not apply to crystalline silicon terrestrial photovoltaic modules, thin-film modules, or storage batteries.

For the extended timelines to apply, the manufacturer must have valid International Electrotechnical Commission ("**IEC**") certificates corresponding to Indian Standards ("**IS**") relating to power inverters (IS 16221 (Part 2): 2015/ IEC 62109-2: 2011 & IS/IEC 61683: 1999). They must also have certificates corresponding to IS 16221 (Part 2): 2015/ IEC 62109-2: 2011, IS 16169: 2019/ IEC 62116: 2014, and IS 17980: 2022/IEC 62891: 2020 certification for utility-interconnected solar inverters.

MNRE mandates Original Equipment Manufacturers (OEMs) to integrate Inverters with PM Surya Ghar Portal

July 21, 2025: Pursuant to an office memorandum dated July 21, 2025, the MNRE introduced compliance rules for inverters and communicated devices used in rooftop solar ("**RTS**") installations under the PM-Surya Ghar: Muft Bijli Yojana. This government scheme aims to install RTS plants for 10 million households across India with a total target capacity of 30 GW.

The MNRE expressed concerns about the stability of the power grid and cybersecurity risks. Such concerns were related to inverter communication modules that send data to servers located outside India. According to the MNRE, this could be a threat to national energy security, as it may allow unauthorized control and reveal sensitive data about how much electricity is being produced and used. There is also a risk that third-party manufacturers could use this data to manipulate inverter functions, potentially causing power disruptions and creating instability in the grid.

To address these problems, the MNRE has decided on a new approach whereby all data related to RTS systems installed under the scheme will now be stored and managed on a National Software Platform. This platform will be hosted on servers in India and controlled either by the MNRE or another government-approved agency.

As part of this new compliance framework, the MNRE has mandated that all inverter communication devices, such as dongles and data loggers, must use Machine-to-Machine (M2M) SIM communication protocol. Further, all inverter manufacturers supplying devices under the scheme must connect their products to the national servers managed by the MNRE or its authorized agency (the date from which this requirement becomes mandatory will be announced later). The MNRE is also working on a set of guidelines that will be based on open and vendor-neutral communication protocols. These guidelines will help standardize data sharing and security across systems connected to the National Portal.

MNRE releases draft testing and approval guidelines for solar inverters

June 23, 2025: The MNRE issued draft guidelines for series approval of SPV inverters for conducting testing in test laboratories for the implementation of the Solar Systems Order (such draft guidelines, "**Draft SPV Inverter Guidelines**"). The Draft SPV Inverter Guidelines are aimed to facilitate the organization of the approval process by test labs/manufacturers for different models of solar inverters under a common series, especially when changes in design or materials occur. These guidelines apply to SPV-based off-grid, grid-tied, and hybrid inverters.

Pursuant to the Draft SPV Inverter Guidelines, the highest-rated model is required to be tested separately (i.e., separate from low-rated models). One report must be issued covering all lower-rated models in the series. Two samples of the highest-rated model needs to be submitted for testing. Products having different hardware architecture and firmware functionality must be tested separately.

All models under a family must have the same input/output voltage, frequency, number of output phases, printed circuit board ("**PCB**") layout, insulation class, control algorithm, and cabinet design. In the event of any change in the construction materials or components within the product family, the updated product needs to be submitted to the test laboratory for fresh testing.

Manufacturers must submit technical documents along with their samples, including datasheets, single-line diagrams, PCB layouts, actual PCBs, operational lists, firmware details, accessories, etc. Without the documentations, test laboratories should not accept the invertors for testing. If a sample has already been submitted or is in the process of submission, manufacturers must provide an undertaking to comply with the new guidelines for BIS registration.

As a minimum, the products must be marked with details such as trademark of the manufacturer/supplier, model number, serial number, type of voltage, frequency, input output voltage, and ingress protection ratings. If fuse ratings are specified, markings must be placed near the fuse holder.

In the event of test failure, manufacturers are allowed to resubmit a new sample, and only the failed test sequence will be repeated after reviewing component and construction changes. However, only one failure is permitted per test sequence. Any further failure would result in disqualification.

CPCB issues draft guidelines for Solar Waste Collection and Storage

June 4, 2025: The Central Pollution Control Board ("**CPCB**") issued draft guidelines for the safe management of waste related to SPV modules, panels, and cells ("**Draft SPV Waste Management Guidelines**"). The management of SPV modules and cells is covered under Chapter V of the E-Waste (Management) Rules, 2022. It puts the onus of managing solar waste on the manufacturers/producers of solar components, including the storing of waste SPV modules, panels, or cells up to the year 2034-2035, filing of annual returns on the CPCB portal, and ensuring compliances with the guidelines and standard operating procedure laid down by the CPCB.

The objective of the Draft SPV Waste Management Guidelines is to provide technical guidance to transport, handle and store the waste generated from SPV modules, panels, or cells, including their components, consumables, parts, and spares, in an environmentally sound manner which protects health and the environment.

Pursuant to the Draft SPV Waste Management Guidelines, solar waste refers to end-of-life SPV modules, panels, or cells, the whole or a part of which is discarded as waste; rejects and waste generated from manufacturing, refurbishment and the repair process; and solar panels damaged during their transportation, handling, storage, and installation.

The Draft SPV Waste Management Guidelines provide that only authorized handlers should collect solar waste. The guidelines also prohibit the discarding of solar waste in open spaces or its sale to unverified entities. Producers are required to establish collection mechanisms, publicize these systems, and maintain databases of customers and locations to support efficient retrieval of waste panels. Moreover, in the event that the solar waste is sent for final disposal, the sender must comply with the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

In addition, the Draft SPV Waste Management Guidelines deal with the storage and handling of solar waste. In this regard, the guidelines require storage floors to be non-leachable and impervious to prevent groundwater and soil contamination due to potential metal leaching. Further, storage areas should have fire protection systems, emergency exits, and an emergency response plan.

MNRE issues draft guidelines for series approval of SPV Modules for conducting tests in labs

May 27, 2025: On May 27, 2025, MNRE issued draft guidelines for series approval of SPV modules for conducting tests in laboratories for the implementation of the Solar Systems Order (such draft guidelines, "**Draft SPV Module Guidelines**").

The Draft SPV Module Guidelines were issued to help labs or manufacturers in the formation of a series of products for the approval of the product family, including with respect to changes in design and materials, among other things, for testing the performance of SPV modules in test labs. In this regard, the draft guidelines aim to simplify the approval process for several different products with design or material variations for compulsory registration with the BIS for implementation of the Solar Systems Order.

For the purpose of conducting tests pursuant to the Draft SPV Module Guidelines, 12 identical modules must be taken at random from a production batch, including a minimum of 10 SPV modules and two unframed modules as part of such selection for the purpose of testing. All modules within a batch must have the required information, such as details of the manufacturer, model number, unique serial number, nominal wattage, and brand name, if applicable. In the absence of such details, the test lab will not accept the modules for testing. Further, the concerned company must submit bills of material and fabrication at the time of testing. The manufacturer is required to disclose any change in the designs, materials, components, material combinations, or manufacturing process from the last tested batch.

Judgements

APTEL reduces heavy penalty for non-compliance with Renewable Purchase Obligations due to financial condition of the energy producers

September 15, 2025: Pursuant to the Delhi Electricity Regulatory Commission (Renewable Purchase Obligation and Renewable Energy Certificate Framework Implementation) Regulations, 2012 issued by the Delhi Electricity Regulatory Commission ("**DERC,**" and such regulations, "**DERC RPO Regulations**"), all distribution licensees ("**discoms**"), captive users, and open access consumers are obligated to purchase electricity from renewable sources based on the quota specified in the DERC RPO Regulations. Such quota is defined as the minimum percentage of the total consumption of electricity by the concerned entity. Regulation 11 of the DERC RPO Regulations stipulates that the penalty for non-compliance will be as provided under Section 142 of the Electricity Act, 2003 ("**Electricity Act**"). Pursuant to Section 142 of the Electricity Act, the maximum penalty leviable is INR 0.1 million and an additional penalty of up to INR 6,000 for each day of continuous failure to comply.

Pursuant to an order, the DERC had observed that BSES Yamuna and BSES Rajdhani failed to comply with their renewable purchase obligations ("**RPOs**") for the financial years 2012-13 until 2014-15. Accordingly, the DERC had imposed a penalty of INR 0.1 million for each financial year and an additional penalty at the rate of INR 5,000 for each day of continuous failure to comply.

When the DERC order was challenged, the Appellate Tribunal for Electricity ("**APTEL**") modified such order and reduced the penalty to INR 5,000 for each of the financial years starting from 2012-13 to 2014-15. In its decision, the APTEL observed that the reason for non-compliance with RPOs was the financial constraints of the BSES Yamuna and BSES Rajdhani caused by the absence of a cost reflective tariff, as well as the unresolved dues owed to discoms. The APTEL further observed that such financial constraints were the outcome of an improper tariff determination by the DERC, which led to a significant gap between the annual revenue requirements of discoms in Delhi and the revenue generated through tariffs. However, the APTEL refused to provide complete relief from the penalty on the basis of such grounds, as had been sought by the relevant discoms. Accordingly, the APTEL partially modified the impugned order of the DERC.

Supreme Court upholds encashment of bank guarantee under PPA

August 25, 2025: In the matter of *Chamundeshwari Electricity Supply Company Limited v. Saisudhi Energy (Chitradurga) Private Limited*, the Supreme Court of India reversed the orders of the APTEL and

the Karnataka Electricity Regulatory Commission ("**KERC**"), and denied the encashment of a performance bank guarantee ("**PBG**"), as extended under a PPA for a solar power project.

The facts of the case involve a PPA executed between Chamundeshwari Electricity Supply Company Limited ("**CESC**") and Saisudhi Energy (Chitradurga) Private Limited ("**SEPL**") for a solar power project under the KERC's regulatory ambit. Due to a delay in obtaining regulatory approvals from the Karnataka Power Transmission Corporation Limited, which was one of the conditions precedent under the PPA, SEPL failed to complete the evacuation system within the agreed timelines. Due to such delay, CESC encashed the PBG provided by SEPL under the PPA. This encashment was challenged by SEPL before the KERC. The KERC observed that the delay in obtaining regulatory approvals constituted *force majeure* under the PPA and accordingly ordered the restoration of the encashed guarantee. This KERC order was approved by the APTEL.

On appeal, the Supreme Court overturned the orders of both the KERC and the APTEL. The Supreme Court noted that pursuant to the terms of the PPA, any extension in timelines required the approval of CESC. In the event that such approval was not granted and there was a delay in the completion of targets pursuant to the terms of the PPA which was not attributable to CESC, CESC could pursue remedies under such PPA. Further, the Supreme Court noted that no notice of force majeure was served by SEPL, as required under the PPA. The court held that the PPA was a contract negotiated between the parties, and accordingly, its terms superseded any regulatory understanding. Thus, the encashment of the PBG by CESC was within the terms of the PPA and cannot be overturned by a regulatory order.

APTEL orders discoms to pay compensation for a change-in-law event

May 30, 2025: On May 30, 2025, the APTEL directed discoms in Karnataka to refund safeguard duty and Integrated Goods and Service Tax ("**IGST**") incurred by a solar project developer on excess modules installed before the project commissioning date. The APTEL also awarded carrying costs for the additional modules installed.

The appellant was awarded a 50 MW solar project under the 1200 MW Pavagada Solar Park scheme in Karnataka. A PPA was executed between the appellant and Bangalore Electricity Supply Company Limited ("**BESCOM**"), which was later approved by the KERC. On July 30, 2018, the GoI imposed a safeguard duty on the import of solar modules, followed by the levy of IGST. These were imposed after the execution of the PPA, which resulted in an increase of the project cost. Invoking the 'change in law' clause of the PPA, the appellant sought compensation for the safeguard duty, the IGST on such duty, and the carrying cost related to increased working capital. The KERC partially accepted the claim by acknowledging safeguard duty as a change in law, but restricted compensation to only those modules which were needed to achieve the minimum guaranteed capacity utilization factor ("**CUF**"). However, the appellant had already achieved more than the minimum guaranteed CUF before the commercial operation date of the project. The KERC denied relief for modules installed beyond what was required to meet the minimum CUF and rejected the claim for carrying cost on the expenditure related to the excess modules.

The APTEL modified the KERC's order and held that since BESCOM had benefited from the additional power generated at lower tariffs, it could not refuse compensation based on technical interpretations of the PPA. The doctrine of approbate and reprobate was cited to emphasize that BESCOM could not accept benefits and then reject related obligations.

The APTEL confirmed that the safeguard duty and IGST were levied post-bid and post-PPA, and accordingly, they constituted change-in-law events under the PPA. As a result, the appellant was entitled to reimbursement of safeguard duty and IGST paid for additional modules. Regarding carrying cost, the APTEL upheld the appellant's right to receive interest from the date of incurring the additional expenditure until actual reimbursement. However, it made the payment of carrying cost subject to the final decision of the Supreme Court in the pending civil appeal related to the matter.

STATE

Andhra Pradesh

AERC issues draft of First Amendment to the AERC (The Grid Interactive Solar Rooftop Photovoltaic Systems under Net/Gross Metering) Regulation, 2023

August 19, 2025: The Andhra Pradesh Electricity Regulatory Commission ("**APERC**") issued a draft of the first amendment to the APERC (The Grid Interactive Solar Rooftop Photovoltaic Systems under Net/Gross Metering) Regulation, 2023 ("**Draft APERC Net Metering Amendment Regulation**"). The Draft APERC Net Metering Amendment Regulation was issued in response to the Integrated Clean Energy Policy of 2024 of Andhra Pradesh (the "**AP Clean Energy Policy**").

The AP Clean Energy Policy aims to achieve 50% total electricity in the state of Andhra Pradesh from non-fossil fuel sources by 2030 and net-zero emissions by 2047. Such aims require a boost to the generation of renewable energy in the state through incentives and simplification of processes relating to renewable energy generation. The AP Clean Energy Policy also proposes the development of renewable economic zones and renewable energy manufacturing zones.

To enable the achievement of such policy goals, the Draft APERC Net Metering Amendment Regulation has introduced the concept of Distributed Energy Resources Aggregators ("**Aggregators**"). The Aggregators are entities acting with a discom to provide aggregation services like distributed generation, energy storage, demand response mechanism, etc. The Aggregators are expected to assist discoms in the promotion of RTS projects for all categories of customers by managing, dispatching, metering, and settling individual distributed energy resources, disbursement of RTS subsidies, empanelment of vendors, etc. The Aggregators will be required to have a commercial agreement with the discom and will be paid a fee for their services.

The Draft APERC Net Metering Amendment Regulation has also introduced virtual net metering and group net metering provisions for rooftop SPV systems. Virtual net metering is a mechanism to export total energy from the grid-interactive rooftop SPV system of a group of consumers, such as a housing society, to the grid through a gross meter. The exported energy will be allocated among members in proportion to their ownership share, and net imports from the grid will be billed at the applicable retail tariff, while surplus exports will be compensated at the feed-in-tariff rates fixed by the APERC. Group net metering is a mechanism under which the rooftop SPV system of an individual consumer at one or more points is adjusted by multiple electricity service connections to arrive at the net imported or exported energy.

In addition, the Draft APERC Net Metering Amendment Regulation requires the submission of applications for establishing a rooftop SPV system through the discom's website, MeeSeva Center, or the National Portal for Solar Rooftop. It also provides the application fee payable based on the capacity of the proposed rooftop SPV system.

Delhi

DERC issues first amendment to net metering for renewable energy guidelines

May 1, 2025: The Delhi Electricity Regulatory Commission ("**DERC**") issued the DERC (Net Metering for Renewable Energy) (First Amendment) Guidelines, 2025 ("**DERC MNRE Amendment Guidelines**") on May 1, 2025.

The DERC MNRE Amendment Guidelines amend certain guidelines under the DERC (Net Metering for Renewable Energy) Regulations, 2014, including by excluding domestic consumers of rooftop solar connections of up to 10 kW under PM Surya Ghar: Muft Bijli Yojna from the requirement to pay application fees and registration charges.

Haryana

Haryana issues draft Second Amendment to the HERC (Rooftop Solar Grid Interactive Systems Based on Net Metering/Gross Metering), Regulations, 2021

2025: The Haryana Electricity Regulatory Commission ("**HERC**") issued a draft of the second amendment ("**Draft HERC Net Metering Amendment**") to the HERC (Rooftop Solar Grid

Interactive Systems Based on Net Metering/Gross Metering) Regulations, 2021 ("**Haryana RTS Regulations**"). The Draft HERC Net Metering Amendment was introduced in light of the PM Surya Ghar Muft Bijli Yojna, which aims to enhance the installation of solar panels by domestic prosumers and provide them with an opportunity to earn from the surplus electricity generated.

The Draft HERC Net Metering Amendment proposes to delete Clause 11.1(a) of Haryana RTS Regulations, which capped the electricity generated from RTS systems to 90% of the electricity consumed by the consumer. Such Clause 11.1(a) permitted a carry forward of the excess electricity generated to only the next billing cycle.

Further, the Draft HERC Net Metering Amendment proposes to add Clause 11.1(g), which provides that the unadjusted net units of electricity will be settled by the discom at 75% of the last discovered tariff of the Solar Electricity Commission of India ("**SECI**") with respect to the respective settlement period. Due to such settlement mechanism, the carry forward energy in each settlement period will be reset to zero.

In the event that a consumer leaves the system, such consumer's unused credits for excess energy will be paid for by the discom at 75% of the last discovered SECI tariff up to the last day of leaving the solar energy sources.

Telangana

Telangana issues draft TERC (Rooftop Solar PV Grid Interactive Systems) Regulation, 2025

August 14, 2025: The Telangana Electricity Regulatory Commission ("**TERC**") released a draft of the TERC (Rooftop Solar PV Grid Interactive Systems) Regulation, 2025 ("**Draft Telangana Rooftop SPV Regulations**") on August 14, 2025. The Draft Telangana Rooftop SPV Regulations deal with the regulatory landscape for grid-connected RTS systems in the state of Telangana, introducing revised capacity limits, updated settlement mechanisms, and new operational models for consumers and prosumers. Such draft regulations are intended to apply to all discoms, eligible consumers, and third-party system owners across Telangana.

The Draft Telangana Rooftop SPV Regulations introduce four distinct arrangements for RTS installations - net metering, gross metering, group net metering ("**GNM**"), and virtual net metering ("**VNM**"). Net metering allows for offsetting of self-consumption against grid supply, while gross metering involves the sale of all generated power to the discom. GNM allows a parent consumer to adjust surplus solar generation against other service connections which they own, whereas the VNM model enables the allocation of generated energy credits to multiple, pre-identified participating consumers. These arrangements may be valid for up to 25 years from the date of grid connection. The Draft Telangana Rooftop SPV Regulations also specify the capacity thresholds for each arrangement.

Pursuant to such draft regulations, for any surplus electricity injected into the grid under any of the proposed arrangements, the consumer will be compensated at a rate equal to the lowest tariff discovered in solar bidding by Telangana state discoms in the preceding financial year.

Under net and gross metering arrangements, consumers are exempt from banking charges, wheeling charges, cross-subsidy surcharge, and additional surcharge. For GNM, consumers will be subject to wheeling charges and losses. For VNM, consumers will be liable for wheeling charges and losses, as well as cross-subsidy and additional surcharges as determined by the TERC.

The Draft Telangana Rooftop SPV Regulations provide for deemed approvals for systems up to 10 kW without a technical feasibility study. For all other systems, the draft regulations require a check of the technical and safety standards, including mandatory anti-islanding protection and automatic disconnection functions for voltage and frequency deviations, to ensure grid stability and safety. Further, all systems must incorporate smart meters with Advanced Metering Infrastructure (AMI) capabilities. Consumers availing of benefits under the Draft Telangana Rooftop SPV Regulations will not be eligible for open access.

West Bengal

West Bengal issues the WBERC (Grid Interactive Rooftop Solar Photovoltaic System for Prosumers) Regulations, 2025

July 31, 2025: The West Bengal Electricity Regulatory Commission ("**WBERC**") introduced the WBERC (Grid Interactive Rooftop Solar Photovoltaic System for Prosumers) Regulations, 2025 ("**WBERC Rooftop SPV Regulations**"). The WBERC Rooftop SPV Regulations became effective from July 31, 2025 and govern grid interactive rooftop SPV systems installed by prosumers of discoms regulated by the WBERC.

The WBERC Rooftop SPV Regulations define a 'prosumer' as a person who consumes electricity from the grid and also injects electricity into it using the same point of supply. Prosumers retain their general consumer status and rights, with the added right to install grid interactive rooftop SPV systems independently or through a service provider. Such systems can be installed on rooftops or other parts of the premises, provided the total installed capacity does not exceed the contracted demand or sanctioned load. Prosumers may choose net metering, net billing, or gross metering mechanisms, and are permitted to include battery storage with their systems. The useful life of a grid interactive rooftop SPV system is 25 years.

Pursuant to the WBERC Rooftop SPV Regulations, applications for net metering, net billing, or gross metering arrangements are required to be made through an online portal or by submitting hard copies to discom offices along with a non-refundable applicable fee. Further, applications for systems of up to 10 kW capacity are deemed accepted without a technical feasibility study. For systems exceeding 10 kW, a technical feasibility study must be completed within 15 days, with the outcome and any associated system upgrade costs communicated within 20 days. If the discom fails to communicate within this timeframe, the application will be deemed to have been accepted. Prosumers must install the system within 180 days of clearance, with a possible extension of 90 days. Prosumers will be responsible for the safe installation, operation, maintenance, and rectification of defects up to the net meter, with the discom responsible beyond that point.

The WBERC Rooftop SPV Regulations require discoms to develop or update detailed procedures compatible with such regulations and to publish them online. The discom must also facilitate system setup by creating an online portal within one month of publication of the WBERC Rooftop SPV Regulations and the displaying of relevant information, including a single point of contact and lists of empaneled service providers.

The interconnection of prosumer systems with the distribution network must conform to technical standards of the Central Electricity Authority ("**CEA**"). The cumulative capacity of grid interactive rooftop SPV systems connected to the distribution network should not exceed 100% of the feeder and/or distribution transformer capacity.

Wind Generation

CENTRAL

MNRE notifies Amendment to Procedure for inclusion/updating of Wind Turbine Models in the Revised List of Models and Manufacturers of Wind Turbines

July 31, 2025: Pursuant to a notification dated July 31, 2025, the MNRE issued an amendment to the procedure for including/updating wind turbine models in the Revised List of Models and Manufacturers of Wind Turbines ("**RLMM**").

Background:

The amendment apply to the erstwhile/existing procedure in this regard, as issued through an office memorandum dated November 1, 2018.

The amendments are as follows:

- The type certificate required to be provided by wind turbine manufacturers and models approved for RLMM are to mandatorily include Blade, Tower, Gearbox, and generator manufacturing facility in India, and the components must be sourced only from such facilities.
- To strengthen cybersecurity, data centers and/or servers are required to be mandatorily located in India. Transferring real-time operational data outside India is prohibited.
- A Research and Development ("**R&D**") center must be mandatorily located in India within six months.

This notification came in furtherance of the a notification dated April 17, 2025, pursuant to which the MNRE issued a draft amendment to the procedure for inclusion/updating Wind Turbine Model in the RLMM for comments from stakeholders.

CEA releases Guidelines for Automatic Weather Stations for Solar and Wind Power Plants

July 7, 2025: Pursuant to a notification dated July 7, 2025, the CEA notified the CEA Guidelines for Automatic Weather Stations for Solar and Wind Power Plants.

Background:

Since solar and wind generation depends on weather conditions, and forecasting errors result in significant financial penalties under the Deviation Settlement Mechanism (DSM), and accurate measurements of critical meteorological parameters are likely to optimize renewable energy generation and improve overall predictability, efficiency, enhance grid reliability, as well as ensure regulatory compliance, the authorities have identified a need to install automatic weather stations ("**AWS**") in solar and wind power plants, further to which the CEA released guidelines for such installations.

The guidelines stipulate the following:

- AWS should be installed at locations within renewable energy project sites.
- For wind power projects, the AWS must be positioned in areas that reflect the true wind regime of the site, including turbulence zones and artificial barriers.
- One AWS per renewable energy plant should be installed for 50 MW and above (or as per the relevant regulation of the appropriate State Electricity Regulation Commission (SERC)).
- Fencing for the AWS site with gate, chain-link fencing, mast specification, rain gauge foundation, earthing for signal ground and lightning arrestor, sensor installation, measuring parameters, technical specifications, system configuration, and data sharing.
- Suitable provisions for testing, calibration and maintenance of AWS will be specified by Indian Meteorological Department (IMD).

MNRE notifies revised guidelines for installation of prototype wind turbine models

June 12, 2025: Pursuant to a notification dated June 12, 2025, the MNRE issued revised guidelines for the installation of prototype wind turbine models, inviting comments from stakeholders.

Background:

These guidelines were issued in supersession of the guidelines previously issued on the same subject, on May 22, 2012, as amended on September 20, 2012 and June 1, 2016, respectively.

These guidelines will be applicable to all wind turbine manufacturers in India who wish to install prototype wind turbine models in the country. They will be implemented by the National Institute of Wind Energy, Chennai ("**NIWE**"). The installation of a prototype wind turbine model is proposed to be allowed only to carry out type testing and for obtaining type certificates from internationally accredited certifying agencies, subject to certain conditions. The guidelines also provide for mandatory operation and maintenance standards. A maximum period of three years from the date of issuance of a recommendation letter from the NIWE has been prescribed, during which period prototype wind turbine models will be allowed to complete testing and obtain type certificates.

This notification came in furtherance of the notification dated April 9, 2025, pursuant to which the MNRE issued draft of the revised guidelines for installation of prototype wind turbine models, inviting comments from stakeholders

Judgments

Guttaseema Wind Energy Company Private Limited v. A.P. State Electricity Regulatory Commission & Anr

May 29, 2025: The APTEL delivered a significant decision in a dispute between Guttaseema Wind Energy Company Private Limited and the Southern Power Distribution Company of Andhra Pradesh Limited regarding the termination of a PPA for a wind power project. The dispute centered around the question of whether such project had achieved its Commercial Operation Date ("**COD**") as per the contractual terms, and whether the discom was justified in terminating the PPA for the uncommissioned capacity. The APTEL's ruling clarifies the interpretation of COD in non-conventional energy projects and underscores the importance of adhering to the agreed intent of contractual provisions. Please see p. 8 of our previous clean energy newsletter (available here) for a detailed update on the matter.

Biogas

CENTRAL

MNRE hikes National Bioenergy Program budget by INR 1.4 billion

September 16, 2025: Pursuant to a letter dated September 16, 2025, the MNRE provided administrative approval for a supplementary budget of INR 1.4 billion for the implementation of the umbrella scheme of the National Bioenergy Program ("**National Bioenergy Program**") for the period starting from FY 2021-22 to FY 2025-26 ("**NBP Phase I**"). With this supplementary allocation, the outlay under NBP Phase I amounts to INR 9.98 billion.

MoPNG issues revised scheme guidelines for providing financial assistance for compressed biogas machinery

July 8, 2025: Pursuant to an office memorandum dated July 8, 2025, the Ministry of Petroleum and Natural Gas ("**MoPNG**") issued revised scheme guidelines for providing financial assistance to Compressed Biogas ("**CBG**") producers for the procurement of biomass aggregating machinery, as follows:

- Maximum financial assistance of 50% of the procurement cost of biomass aggregation machinery or INR 9 million per set (whichever is less) will be admissible as a grant for CBG producers.
- CBG plants utilizing more than 50% biomass as feedstock for a two tons-per-day (TPD) capacity project are eligible for financial support of INR 9 million, whereas CBG plant utilizing less than 50%, but more than 300 MT/annum, of biomass as feedstock can receive financial support of INR 9 million per 3,000 MT of agri-residue requirement.
- The maximum financial assistance will be INR 9 million per project on a pro rata basis.

MNRE issues revision in waste-to-energy guidelines for the biomass program under the umbrella scheme of the National Bioenergy Program

June 27, 2025: Pursuant to an office memorandum dated June 27, 2025, the MNRE issued revised guidelines ("**Revised WTE Guidelines**") for the waste-to-energy schemes issued on November 2, 2022, February 28, 2020, and July 30, 2018, respectively (together, "**WTE Schemes**"), which aim to foster a more efficient, transparent, and performance-oriented ecosystem for bio-waste to energy deployment in India. The Revised WTE Guidelines are designed to enhance the ease of doing business in India by simplifying procedures, expediting financial assistance, and aligning support with plant performance. The Revised WTE Guidelines also provide for, among other things, reduced paperwork and approval requirements across the three stages of a project; release of Central Financial Assistance ("**CFA**") in two stages with the removal of inspection requirements for release of the initial 50% CFA; and changes in parameters for performance inspection before disbursement of the remaining 50%. If a developer fails to operate the plant at 80% capacity, the CFA will be disbursed on a pro rata basis, with no disbursement if the capacity is less than 50%. The Revised WTE Guidelines will apply to all projects sanctioned under the biomass category of the WTE Schemes.

MNRE issues revised guidelines for the biomass program under the umbrella scheme of the National Bioenergy Program for FY 2021-22 to 2025-26 (Phase-I)

June 27, 2025: The MNRE issued revised guidelines for the biomass Program under the umbrella scheme of NBP Phase I pursuant to an office memorandum dated June 27, 2025 (such revised guidelines, "**Revised Biomass Guidelines**"). The Revised Biomass Guidelines, *inter alia*, reduce documentation and simplify approval processes; replace the earlier requirement for a two-year briquette or pellet sale contract with a general sale agreement; and modify the earlier performance inspection period from 18 months from the date of

commissioning to a revised period of within 18 months from the date of commissioning or in-principle approval, whichever is later. The Revised Biomass Guidelines also introduce changes in parameters for performance inspection before disbursement of the CFA. If a developer fails to operate the plant at 80% capacity, the CFA will be disbursed on a pro rata basis, with no disbursement if the capacity is less than 50%. The Revised Biomass Guidelines will be applicable to all projects sanctioned under the biomass category of the National Bioenergy Program.

STATE

Madhya Pradesh

Madhya Pradesh introduces a dedicated biofuel investment and implementation scheme

April 4, 2025: Pursuant to a notification dated April 4, 2025, the New and Renewable Energy Department of the Madhya Pradesh State Government notified a 'Scheme for implementation of Biofuel Projects' ("**MP Biofuel Scheme**") in the state of Madhya Pradesh under the Madhya Pradesh Renewable Energy Policy – 2025 and its associated guidelines. The MP Biofuel Scheme offers, among other things, basic investment promotion assistance for each project, limited to a maximum of INR 2 billion, to be provided in seven equal annual instalments; infrastructure development assistance of 50% and a maximum of INR 50 million for developing power, water, and gas pipelines, and drainage; 50% reimbursement on stamp duty paid for acquisition of private land; 100% exemption from payment of electricity duty on consumption of electricity for a period of 10 years; agricultural land under the jurisdiction of the revenue department at 50% of the circle rate; additional subsidy of 30% by the Madhya Pradesh State Government up to a maximum of INR 2 million per set of equipment, in addition to the subsidy given by the GoI.

Tariff

CENTRAL

MoP amends the Electricity Rules, 2005 to introduce framework for Energy Storage Systems

September 19, 2025: The Electricity (Amendment) Rules, 2025 were notified on September 19, 2025 and came into force upon publication in the Gazette. These amendment rules incorporate specific provisions for energy storage systems ("ESS") into the regulatory framework established under the Electricity Act.

The amended Rule 18(2) of the Electricity Rules, 2005 ("**Electricity Rules**") expressly defines an ESS as a facility that may be deployed either as an independent system or as an integral component of generation, transmission, or distribution infrastructure. Amended Rule 18(4) of the Electricity Rules further clarifies that any generating company, transmission licensee, discom, consumer, system operator, or independent energy storage service provider may develop, own, lease, or operate an ESS. Where an ESS is co-located with a host entity, such as a generating station or licensee, it will share the same legal status as such entity; however if it is situated separately, it would retain the owner's legal status while being treated as a standalone asset for scheduling, dispatch, and related purposes.

Amended Rule 18(5) of the Electricity Rules introduces commercial flexibility by granting ESS developers or owners the option to sell, lease, or rent all or part of their storage capacity to any consumer, utility (generation, transmission, or distribution), load dispatch center, or other parties. Together, these amendments formally integrate energy storage into India's electricity regulatory framework, laying the groundwork for large-scale deployment, efficient grid integration of variable renewable energy, and innovative market arrangements for storage services.

MoP ends the Uniform Renewable Energy Tariff Mechanism - dissolution of 'Solar power central Pool' and 'solar-wind Hybrid central Pool'

August 1, 2025: The Ministry of Power ("**MoP**") issued an office memorandum announcing the dissolution of the uniform renewable energy tariff ("**URET**") mechanism, specifically the "Solar Power Central Pool" and the "Solar-Wind Hybrid Central Pool." The memorandum withdraws the earlier notification regarding the implementation of URET and commencement of the two central pools. The decision comes in light of substantial renewable energy capacity awaiting execution of power sale agreements ("**PSAs**") and the government's objective of expediting deployment of renewable energy projects.

Although the central pools have been formally dissolved, bids received and letters of award issued under the URET mechanism remain valid on a standalone basis. Renewable energy implementing agencies ("**REIAs**") are directed to proceed with execution of PSAs or PPAs with procurers or developers for these bids to ensure continuity of previously awarded projects. The dissolution was primarily motivated by concerns raised by REIAs and developers that procurers were hesitant to sign PSAs under URET due to uncertainty over tariffs for a three-year period. In addition, the government recognized the need to accelerate renewable energy deployment by facilitating timely signing and execution of pending PSAs.

MoP proposes amendment to Bidding Guidelines for Renewable Energy Projects

June 25, 2025: The MoP introduced draft amendments to the 'Guidelines for Tariff Based Competitive Bidding Process' for the procurement of power from grid connected power projects. The changes are applicable to (i) SPV power projects, (ii) wind power projects, (iii) wind solar hybrid projects, and (iv) firm and dispatchable power from grid connected renewable energy power projects with energy systems. The amendments aim to de-risk projects by easing compliance burdens and streamlining regulatory timelines for developers.

The key amendments proposed are as follows:

First, the amendments introduce a mandatory day-for-day extension to the scheduled commissioning and service date if the appropriate commission fails to adopt the tariff or approve the PSA within the specified timeframes, as applicable. This provision formally allocates the risk of regulatory delay, protecting developers from unwarranted liquidated damages.

Secondly, the value of the PBG to be submitted by a generator upon signing a PPA has been reduced from 5% to 3% of the estimated project cost. For wind power projects, the PBG will be the lower of 3% of the estimated capital cost or the upper limit stipulated by the Ministry of Finance. This lowers the upfront capital cost of the developers and improves the commercial viability of the project.

Thirdly, in cases where power is procured through an intermediary procurer and the end procurer is a discom, such discoms will need to file for PPA approval within 30 days of signing it, if prior approval has not been obtained.

MoP issues notification for waiver of ISTS charges for ESS

June 10, 2025: The MoP has issued a notification dated June 10, 2025 ("**June 10 Notification**") which partially modifies various orders that had been previously issued by the MoP with respect to waiver of inter-state transmission charges. Pursuant to the June 10 Notification, the inter-state transmission services ("**ISTS**") charges have been waived off 100% for hydro pumped storage projects ("**PSPs**") for which the construction work has been awarded on or before June 30, 2028.

The June 10 Notification further provides that ISTS charges have been waived off 100% for co-located Battery Energy Storage System ("**BESS**") projects which have been commissioned on or before June 30, 2028. However, if the power is consumed outside the state in which such BESS project has been commissioned, the waiver will apply. A BESS project will be considered as co-located only if the BESS and renewable energy projects are connected to the same ISTS sub-station. Further, there will not be any ISTS charge waivers available for: (a) hydro PSPs which have been awarded after June 30, 2028; and (b) co-located BESS projects which have been commissioned after June 30, 2028.

MoP launches INR 54 billion Viability Gap Funding Scheme for 30 GWh BESS development

June 9, 2025: The MoP notified a comprehensive viability gap funding ("**VGF**") scheme providing INR 1.8 million per MWh support for developing 30 GWh BESS capacity through the power system development fund ("**PSDF**"). The scheme allocates 25 GWh capacity across 15 states for optimizing thermal generation infrastructure and meeting non-solar hour electricity demand.

The VGF will be disbursed in three tranches: 20% on financial closure with bank guarantee submission, 50% on COD, and 30% after completing the first operational year. Projects must be commissioned within 18 months of signing BESS purchase agreements, following tariff-based competitive bidding under Section 63 of the Electricity Act with contract periods of 12-15 years. Eligible entities are required to submit implementation proposals to the CEA within 60 days from the date of notification of the guidelines. Further, the BESS purchase agreement/PPA would need to be executed within 9 months from the date of notification of the guidelines in order for the relevant entity to qualify for VGF support.

The scheme targets grid integration of variable renewable energy sources, addressing the projected requirement of 236 GWh BESS capacity by 2031-32 as India approaches its 393 GW renewable energy installation target by 2030. BESS projects should preferably feature 2-hour discharge duration with 1.5 daily cycles, although eligible entities may adjust specifications based on operational requirements.

MoP enhances financial flexibility for transmission developers

June 5, 2025: Pursuant to a notification dated June 5, 2025, the MoP amended the standard bidding documents comprising the request for proposal ("**RfP**") and the transmission service agreement ("**TSA**") for the procurement of ISTS through the tariff-based competitive bidding process ("**TBCB**,"

and such amendment, "**June 5 Amendment**"). The June 5 Amendment diversifies the acceptable forms of security instruments, allowing developers to use alternatives in addition to traditional bank guarantees. This change is likely to improve capital efficiency and encourage wider participation in transmission projects.

Pursuant to the June 5 Amendment, developers can now furnish either an insurance surety bond ("**ISB**") from an insurer authorized by the Insurance Regulatory and Development Authority of India (IRDAI) , or a payment on order instrument ("**POI**") from specified financial institutions (such as the Indian Renewable Energy Development Agency Limited (IREDA), Power Finance Corporation Limited (PFC), or REC Limited (formerly Rural Electrification Corporation Limited)). The June 5 Amendment defines a POI as an undertaking that has the same legal effect and enforceability as a bank guarantee from a public sector bank.

Both these instruments can be used in lieu of bank guarantees for both the bid bond and the contract performance guarantee. These instruments have been structured as unconditional, irrevocable, and on-demand instruments. The beneficiary can invoke the security by making a written demand, and the insurer or guarantor must pay without protest or the need for proof, ensuring that the security is as robust as a traditional bank guarantee. To ensure standardization, prescribed formats for both ISBs and POIs have been included in the formats of the RfP and the TSA.

MoP amended the Electricity (Late Payment Surcharge and Related Matters) Rules

May 2, 2025: The Electricity (Late Payment Surcharge and Related Matters) (Amendment) Rules, 2025 were notified on May 2, 2025 and came into force upon publication in the Gazette . These rules amend sub-rule (3) of Rule 1 of the Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 ("**Principal 2022 Rules**") by expanding the scope of entities liable to remit late payment surcharge. The original wording involving "generating companies inter-state transmission licensees" has been replaced with "generating companies, transmission licensees," thereby bringing both inter-state and intra-state transmission licensees within the ambit of the Principal 2022 Rules.

MoP clarifies that the 2023 RCO/RPO Notification supersedes the 2019 Capping Order

April 16, 2025: Pursuant to a letter dated April 16, 2025, the MoP issued a clarification confirming that its RPO/renewable consumption obligation ("**RCO**") notification dated October 20, 2023 ("**October 20 Notification**"), as issued under the Energy Conservation Act, 2001 ("**EC Act**"), supersedes all earlier RPO-related notifications, including notification no. 30/4/2018 dated October 1, 2019. The October 20 Notification sets year-wise RPO and RCO targets up to FY 2029-30 starting from FY 2024-25 for all designated consumers, i.e., discoms, open access consumers, and captive power users, mandating minimum shares of non-fossil (renewable) energy in their consumption. The October 20 Notification further states that designated consumers who are open access consumers or captive power users will be required to fulfill their obligation as per the specified total renewable energy target, irrespective of the renewable energy source. With effect from April 1, 2024, all stakeholders are required to comply exclusively with those RPO/RCO targets as set out under the October 20 Notification and any deviation will be treated as non-compliance under the EC Act.

STATE

Andhra Pradesh

Andhra Pradesh notifies the APERC (Terms and Conditions of Tariff Determination from Renewable Energy Sources) Regulation, 2025

September 12, 2025: On September 12, 2025, the APERC notified the APERC (Terms and Conditions of Tariff Determination from Renewable Energy Sources) Regulations, 2025 ("**APERC RE Tariff Determination Regulations**"). The APERC RE Tariff Determination Regulations will remain in force up to March 31, 2030. These regulations are applicable to wind power projects, small hydro projects, biomass power projects, SPV power

projects, floating solar projects, solar thermal projects, etc.

Pursuant to the APERC RE Tariff Determination Regulations, the project-specific tariff will be determined by the APERC on a case-by-case basis. The financial and operational norms, as specified in the APERC RE Tariff Determination Regulations, except the capital cost, will be the ceiling norms while determining the tariffs. The tariff will consist of return on equity, interest on loan, depreciation, interest on working capital, and operation and maintenance expenses. The regulations also specify the specific norms for different kinds of renewable energy projects.

Further, the APERC RE Tariff Determination Regulations provides that any additional energy generated will be charged at 50 paise per unit. However, in the event of a shortfall in energy generation in the preceding year, the applicable shortfall will be paid at the normal tariff as determined by the APERC.

In addition, the APERC RE Tariff Determination Regulations permit an electricity generating company and the licensee to agree on a different tariff. However, the tariff based on norms provided in the APERC RE Tariff Determination Regulations will be the ceiling.

Earlier in May 2025 the APERC issued draft APERC RE Tariff Determination Regulations for comments and suggestions from stakeholders.

Jharkhand

JSERC issues draft of JSERC (Determination of Tariff for Procurement of Power from Solar PV Power Project and Solar Thermal Power Project) Regulations, 2025

September 8, 2025: The Jharkhand State Electricity Regulatory Commission ("**JSERC**") issued a draft of the JSERC (Determination of Tariff for Procurement of Power from Solar PV Power Project and Solar Thermal Power Project) Regulations, 2025 (such draft, "**Draft JSERC Solar Tariff Regulations**") for the purpose of determining tariffs of SPV power projects, solar hybrid projects, and solar with storage projects.

Pursuant to the Draft JSERC Solar Tariff Regulations, the tariff period for applicable projects will be the same as the useful life of such projects. The tariff will be determined through competitive bidding, except in the event of no participation in the bidding process for SPV power projects above 10 MW, in which case the JSERC will determine the tariff. The tariff will consist of capital cost, capacity utilization factor (CUF), auxiliary consumption, return on equity, interest on loan, depreciation, interest on working capital, and operation and maintenance expenses, as provided in the Draft JSERC Solar Tariff Regulations. Auxiliary consumption is defined in the draft regulations as the quantum of energy consumed by auxiliary equipment of generating station and transformer losses.

Further, the Draft JSERC Solar Tariff Regulations provide the mechanism for dealing with extra energy generated in a year. In such situations, the concerned beneficiary will have a right of first refusal for the excess energy. In the event that the beneficiary does not exercise this right, the generating company will sell such excess energy in the market under bilateral or collective transactions. The tariff payable for such energy will be equal to the tariff applicable for the concerned year.

The Draft JSERC Solar Tariff Regulations also permit the generating company and the beneficiary to agree upon a different tariff rate as a commercial decision. However, the tariff calculated on the basis of norms specified in such draft regulations will be the applicable ceiling.

Connectivity

CENTRAL

Transmission

CERC introduces (Connectivity and General Network Access to the inter-State Transmission System) (Third Amendment) Regulations, 2025

August 31, 2025: Pursuant to a notification dated August 31, 2025, the CERC issued the CERC (Connectivity and General Network Access to the inter-State Transmission System) (Third Amendment) Regulations, 2025. Pursuant to such amendment, certain new definitions relating to ISTS have been inserted in the CERC (Connectivity and General Network Access to the inter-State Transmission System) Regulations, 2022, including the definition of solar hours, non-solar hour, solar hour access, non-solar hour access, connectivity grantee, and cluster of ISTS substations. Among other things, the amendment has also inserted/revised provisions relating to procedures for application withdrawals, restructuring/treatment of bank guarantee requirements, and rules for connectivity to ISTS substations.

CERC notifies fourth amendment to ISTS Transmission Charges Regulations

June 26, 2025: Pursuant to a notification dated June 26, 2025, the Central Electricity Regulatory Commission ("**CERC**") issued the CERC (Sharing of Inter-State Transmission Charges and Losses) (Fourth Amendment) Regulations, 2025 ("**ISTS Amendment**"). Among other things, the ISTS Amendment has inserted two new definitions for 'tariff regulations' and 'terminal bay' to the CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020 ("**Principal ISTS Regulations**"), and modified Regulation 13 of the Principal ISTS Regulations, relating to the eligibility criteria and transmission charge waivers for renewable energy generating stations.

No ISTS charges waiver for solar, wind projects commissioned after June 2028

June 26, 2025: Pursuant to a notification dated June 26, 2025, the CERC has issued the CERC (Sharing of Inter-State Transmission Charges and Losses) (Fourth Amendment) Regulations, 2025. Among other things, such amendment has amended Regulation 13 of the CERC (Sharing of Inter State Transmission Charges and Losses) Regulations, 2020, which provides for the periodic phasing out the ISTS charge waiver granted to the renewable energy generating station ("**REGS**") or renewable hybrid generating stations ("**RHGS**") based on wind or solar source, or a combination of wind and solar, in the following manner:

Category	COD	Number of years from COD	% of drawal schedule from identified generating station, to be considered for the methodology of calculating waiver of transmission charges (Annexure-III)
REGS based on wind or solar source or RHGS based wind and solar source	On or before Jun 30, 2025	25 years	100
	Jul 1, 2025 to Jun 30, 2026	25 years	75
	Jul 1, 2026 to Jun 30, 2027	25 years	50
	Jul 1, 2027 to Jun 30, 2028	25 years	25
	After Jun 30, 2028		0

Further, hydro PSP ESS, for which construction work has been awarded on or before June 30, 2028, will be eligible for a waiver of transmission charges for a period of 25 years from the COD, and battery ESS will be eligible for grants of waiver as below:

Category	**Period of COD**	**Number of years from COD**	**% of drawal schedule for drawee distribution intra-state company ("DIC") when seller is ESS, to be considered for the methodology of calculating waiver of transmission charges (Annexure-II)**
Battery ESS connected at a substation where REGS is connected and is charged from such REGS	On or before Jun 30, 2028	12 years	100
Battery ESS connected at a substation where no REGS is connected or Battery ESS is connected at a substation where REGS is connected but Battery ESS is charged from Grid or source other than REGS or any other battery ESS not covered under S.No.1 of this table	On or before Jun 30, 2025	12 years	100
	Jul 1, 2025 to Jun 30, 2026	12 years	75
	Jul 1, 2026 to Jun 30, 2027	12 years	50
	Jul 1, 2027 to Jun 30, 2028	12 years	25
	After Jun 30, 2028	NA	0

CERC issues draft amendment to DSM Regulations

May 10, 2025: Pursuant to a notification dated May 10, 2025, the CERC issued a draft of the CERC (Deviation Settlement Mechanism and Related Matters) (Second Amendment) Regulations, 2025 ("**Draft DSM Amendment**") and invited comments from stakeholders. Among other things, the Draft DSM Amendment seeks to amend Regulation 8 (related to charges for deviation) of the CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 to provide for charges relating to the injection of infirm power into the grid.

STATE

Bihar

BERC issues draft DSM Regulations

August 14, 2025: Pursuant to a consultative paper dated August 14, 2025, the Bihar Electricity Regulatory Commission ("**BERC**") issued a draft of the BERC (Deviation Settlement Mechanism and related matters) Regulations, 2025 to align the existing intra-state deviation settlement regulations with the CERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2024 and its subsequent amendments, wherein the commercial principles for deviation by sellers and buyers have been revised in light of various developments and emerging market realities.

Karnataka

KERC issues deviation settlement regulations

July 15, 2025: Pursuant to a notification dated July 15, 2025, the KERC issued the KERC (Intra-State Deviation Settlement Mechanism and Related Matters) Regulations, 2025 with an aim to maintain the balance between power generation and consumption within the state of Karnataka and minimize deviations from scheduled generation and consumption patterns, thereby ensuring stability and reliability in the supply of electricity, as well as the security and stability of the power grid.

Meghalaya

MSERC issues draft DSM regulations

July 29, 2025: Pursuant to a public notice dated July 29, 2025, the Meghalaya State Electricity Regulatory Commission ("**MSERC**") inviting comments and suggestions from the public stakeholders to a draft of the MSERC (Intra-State Deviation Settlement Mechanism and Related Matters) Regulations, 2025. Pursuant to a notification dated October 27, 2025, the MSERC issued the final regulations on intra-state DSM pursuant to such public consultation.

Odisha

OERC issues draft of deviation settlement regulations

July 29, 2025: Pursuant to a public notice dated July 29, 2025, the Odish Electricity Regulatory Commission ("**OERC**") invited comments/suggestions from stakeholders to a draft of the OERC (Deviation Settlement Mechanism and Related Matters) Regulations, 2025 ("**Draft Odisha DSM Regulations**"). The Draft Odisha DSM Regulations were issued with the aim of ensuring, through a commercial mechanism, that grid users do not deviate from, and adhere to, their schedule of drawal and injection of electricity in the interest of security and stability of the grid. Such draft regulations are proposed to be applicable for: (i) all sellers having an installed generating capacity of 100 kW and above, and scheduling their power through State Load Dispatch Centers ("**SLDCs**"); and (ii) all buyers, including discoms, deemed discoms located in the state, and consumers connected to intra-state transmission services ("**InSTS**") whose drawal is scheduled through SLDCs.

Rajasthan

RVUNL issues draft Intra-STS connectivity procedure

June 12, 2025: The Rajasthan Rajya Vidyut Prasaran Nigam Limited ("**RVUNL**") issued a draft procedure with respect to the grant of connectivity to InSTS, proposed to apply to applications seeking connectivity to the InSTS of state transmission utilities/transmission licensees for a voltage level of 33 kV or above. Such draft procedure issued by the RVUNL outlines, among other things, the eligibility criteria, application process, grid connectivity charges, bank guarantees, and conditions for connectivity.

RERC issued term and condition for GEOA regulations

May 21, 2025: Pursuant to a notification dated May 21, 2025, the Rajasthan Electricity Regulatory Commission ("**RERC**") issued the RERC (Terms and Conditions for Green Energy Open Access

("**GEOA**")) Regulations, 2025 for allowing open access to electricity generated from renewable energy sources (both captive and third party) with respect to the use of InSTS and/or distribution systems of licensees in the state, including such InSTS and/or distribution system/s which are incidental to ISTS.

For more background and context, see pp. 19-21 of our previous newsletter on clean energy here.

Tamil Nadu

TNERC notifies GEOA Regulation

September 18, 2025: Pursuant to a notification dated September 18, 2025, the Tamil Nadu Electricity Regulatory Commission ("**TNERC**") notified the TNERC (Terms and Conditions for Green Energy Open Access) Regulations, 2025 with an aim to provide a framework for open access for renewable energy with respect to the use of InSTS and/or distribution systems of licensees in the state, including InSTS or distribution systems which are incidental to ISTS, for the grant of open access, methodology for the determination of open access and banking charges, etc. for green energy open access customers.

EVs

CENTRAL

E-Mobility

Central Government issues guidelines for rollout of EV charging stations under the PM E-DRIVE Scheme

September 26, 2025: The Central Government has issued operational guidelines for a large-scale rollout of public electric vehicle ("**EV**") charging stations across the country under the PM Electric Drive Revolution in Innovative Vehicle Enhancement ("**PM E-DRIVE**") Scheme. According to the Ministry of Heavy Industries ("**MHI**"), the framework provides a tiered subsidy structure to accelerate the installation of charging infrastructure at government premises, highways, public transport hubs, and commercial complexes. The guidelines, *inter alia*, provide the following:

- government offices, residential colonies, hospitals, and educational institutions will be eligible for a 100% subsidy on upstream infrastructure and EV charging equipment, provided they ensure free public access;
- for high-traffic public locations such as railway stations, airports, bus terminals, metro stations, municipal parking lots, public sector ports, retail outlets of state-run oil companies, and toll plazas operated by the National Highways Authority of India (NHAI) or state governments, the subsidy will cover 80% of upstream infrastructure costs and 70% of the charging equipment costs;
- shopping malls, markets, and roadside facilities along highways and expressways will also qualify for an 80% subsidy on upstream infrastructure; and
- the battery swapping or charging stations set up at any location will be eligible for 80% support on upstream costs.

Eligible government agencies will appoint nodal bodies to aggregate demand, identify high-priority sites, and submit consolidated proposals through a dedicated portal. Further, Bharat Heavy Electricals Limited has been designated as the Project Implementation Agency to oversee deployment. The subsidy will be disbursed in two tranches, linked to compliance and performance benchmarks. The scheme prioritizes cities with populations above one million, state capitals, smart cities, metro-linked satellite towns, and high-density transport corridors.

Central Government proposes Mandatory Acoustic Alert (AVAS) for EVs to enhance pedestrian safety

September 23, 2025: The Ministry of Road Transport and Highways ("**MoRTH**") issued a draft notification requiring all electric cars, buses, and trucks to be equipped with Acoustic Vehicle Alerting Systems ("**AVAS**").

In particular, the MoRTH has proposed to amend the Central Motor Vehicles Rules, 1989 to require electrified vehicles of category M and N to be fitted with AVAS meeting requirements with regard to audibility as specified in AIS-173, as amended from time to time, on and after October 1, 2026 in case of new models, and on and after October 1, 2027 in case of existing models.

With this mandate, the government aims to address safety concerns related to the silent operations of electric vehicles.

MHI notifies amendments to the PM E-DRIVE scheme

August 7, 2025: On March 3, 2025, the MHI had notified amendments to the PM E-DRIVE Scheme to encourage domestic manufacturing and self-reliance in India's EV sector. The amendments introduce stricter localization requirements under the Phased Manufacturing Program ("**PMP**") impacting various categories of EVs, such as electric two-wheelers, three-wheelers, and buses.

The key changes for electric two-wheelers (L1 and L2) and three-wheelers (L5, E-Rickshaws and E-Carts) include the following:

- Key EV components, such as traction battery packs, battery management systems, direct current ("**DC**")-DC converters, vehicle control units, and traction motors, are required to be domestically produced.

- Stringent restrictions have been imposed to prevent imports of battery modules and other essential parts.
- The definition of "manufacturing" has been aligned with the Central Goods and Services Tax (CGST) Act, 2017 to ensure standard compliance for domestic products.
- These conditions came into effect from May 1, 2025.

The key changes for electric buses (M2/M3) include the following:

- Key EV components, such as traction battery packs, electric compressors for braking, charging inlets, and Heating, Ventilation, and Air Conditioning (HVAC) systems are required to be domestically produced within six months from the notification date.
- Battery management system and DC-DC convertors been allowed an additional transition period of 12 months from the notification date.

The PMP for e-ambulances, e-trucks and other new emerging EV categories are proposed to be notified separately.

Pursuant to a notification dated August 7, 2025, the MHI notified additional amendments to the PM E-DRIVE Scheme and decided to extend such scheme by two more years. The scheme, which was originally set to conclude on March 31, 2026, will not run until March 31, 2028, or until its INR 109 billion outlay is fully utilized. If funds for the scheme or its sub-components are exhausted before the terminal date of March 31, 2028, the scheme or its relevant sub-components will be closed, and no further claims will be entertained. However, the terminal date for registered e-2W, registered e-rickshaws and e-carts, and registered e-3W (L5) remains March 31, 2026.

India rolls out first-ever e-Truck Incentive Scheme under PM E-DRIVE Scheme

July 10, 2025: Pursuant to a notification dated July 10, 2025, the MHI launched a scheme to provide financial incentives for e-trucks under the PM E-DRIVE Scheme. This marks the first time that the GoI is extending direct support for e-trucks, aiming to accelerate the country's transition to clean, efficient, and sustainable freight mobility.

Under such scheme, demand incentives will be extended to N2 and N3 category e-trucks, as defined under the Central Motor Vehicles Rules (CMVR), 1989:

- The N2 category includes trucks with a Gross Vehicle Weight ("**GVW**") above 3.5 tonnes and up to 12 tonnes.
- The N3 category covers trucks with GVW exceeding 12 tonnes and up to 55 tonnes.

In case of articulated vehicles, incentives will apply only to the puller tractor of the N3 category.

To ensure reliability and performance, the scheme mandates comprehensive manufacturer-backed warranties. The battery must be covered under a warranty for five years or 0.5 million kilometers, whichever is earlier. The vehicle and motor must have a warranty of five years or 0.25 million kilometers, whichever is earlier. To promote affordability, the incentive amount will depend on the GVW of the e-truck, with the maximum incentive set at INR 0.96 million per vehicle. These incentives will be offered as an upfront reduction in the purchase price and reimbursed to original equipment manufacturers (OEMs) via the PM E-DRIVE portal on a first-come, first-served basis.

According to the MHI, the scheme is expected to support the deployment of approximately 5,600 e-trucks across the country. A dedicated provision for 1,100 e-trucks registered in Delhi has been made, with an estimated outlay of INR 1 billion, aimed at addressing the capital's serious air quality challenges.

Centre notifies guidelines to boost Electric Passenger Car manufacturing in India

June 2, 2025: Pursuant to a notification dated June 2, 2025, the MHI issued operational guidelines in relation to the 'Scheme to Promote Manufacturing of Electric Passenger Cars in India' to boost the domestic manufacturing of electric passenger vehicles. This initiative offers concessional import

duty benefits to incentivize international EV players to invest in local production facilities.

STATE

Chhattisgarh

Chhattisgarh Government notifies amendments to the State Electric Vehicle Policy, 2022

May 29, 2025: Pursuant to a notification dated May 29, 2025, the Chhattisgarh State Government has introduced the following amendments with respect to purchase incentives under Clause 12.1 of the Chhattisgarh State Electric Vehicle Policy 2022 (the "**Chhattisgarh Policy**"):

Revised limits for state subsidy: The State Government of Chhattisgarh will support up to 10% of the cost of the vehicle (excluding tax) or INR 0.1 million (revised from the earlier limit of INR 0.15 million), whichever is lower, for purchase of EVs for five years until 2026-2027. Further, it has been clarified that subsidies will not be given on vehicles above INR 2 million.

Subsidy for hybrid vehicles discontinued: Under the Chhattisgarh Policy, hybrid EVs were earlier eligible to receive 50% of the purchase incentive amount given to a fully electric vehicle. Such benefit has now been discontinued.

Gujarat

5% EV tax relief in Gujarat to boost green mobility until March 2026

April 20, 2025: The Gujarat State Government introduced a 5% vehicle tax exemption for buyers of fully electric vehicles until March 31, 2026. Accordingly, motor vehicle tax on EVs will now be charged an at effective rate of 1% instead of the earlier 6%.

This proposal had been initially announced by the Finance Minister of the Gujarat State Government during the budget speech and is aimed at encouraging green mobility.

Kerala

Kerala issues clarifications on banking adjustments of EV Public Charging Stations with SPV plants

April 28, 2025: The Kerala State Electricity Regulatory Commission ("**KSERC**") issued new clarifications regarding energy adjustment, billing, and the banking of solar power for electricity supplied to EV charging stations, particularly those that have SPV plants.

EV charging stations with SPV installations are now allowed to adjust the energy exported from SPV plants between 9 a.m. and 4 p.m. against the electricity imported during solar hours between 9 a.m. to 4 p.m. during a billing cycle without any charges, including fixed charges, grid support charges, energy adjustments, etc.

Further, electricity exported, if any, from SPV stations during the non-solar hours (4 p.m. to 9 a.m.) are now allowed to be adjusted against electricity imported during non-solar hours in a billing cycle without any charges, including fixed charges, grid support charges, energy adjustments, etc.

Maharashtra

Maharashtra notifies new EV policy for 2025-2030

May 23, 2025: The implementation period for the Maharashtra Electric Vehicle Policy 2021 was up to March 31, 2025. Accordingly, the State Government of Maharashtra rolled out the new Maharashtra Electric Vehicle Policy 2025 ("**Maharashtra EV Policy**") for the period starting from April 1, 2025 to March 31, 2030, which aims for 30% EV penetration by 2030.

The key objectives of the Maharashtra EV Policy are as follows:

- Boost EV Adoption: Increase the adoption of EVs in passenger, commercial, public transport, and city utility vehicle segments through specific purchase subsidies across different vehicle categories.

- Enhance Public Transport Electrification: Transition of public transport buses, shared mobility fleets, and city utility vehicles from Internal Combustion Engines (ICE) to EVs.

- Strengthen EV Charging Infrastructure: Develop a robust EV charging network across the state, ensuring EV accessibility in both urban and rural areas, and across key highways.

- Strengthen EV Manufacturing Ecosystem: Promote EV production, strengthen EV supply chain, focus on battery development, battery recycling, and component manufacturing through incentives and policy support.

- Promotion of R&D: Promote research and development (R&D), innovation, as well as skill and talent development across the EV ecosystem in the state.

- Clean Mobility Transition Model: The policy aims to curb vehicular particulate matter (PM) 2.5 emissions, it is estimated that the policy will help in reducing approximately 325 tonnes of vehicular PM 2.5 emissions, and approximately 1 million tonnes of greenhouse gas (GHG) emissions from the transport sector in the state by 2030.

A Steering Committee has been constituted to monitor and guide the implementation of the Maharashtra EV Policy. This committee will also be supported by a dedicated cell called the "Maharashtra State EV Cell".

Nuclear Energy

CENTRAL

France and Russia show interest in the Indian nuclear energy landscape

September 2025: According to reports (see here, here and here), Russia and France have shown an interest in extending their partnership with India for nuclear energy generation. Delegations from the two countries have expressed a desire to undertake more commercial nuclear energy projects in India.

On the sidelines of the 69th annual session of the General Conference of International Atomic Energy Agency, delegates from the Russian state atomic energy corporation, Rosatom, offered to enhance the localization of large and small nuclear power plants in India. Rosatom has undertaken the construction of the Kudankulam nuclear power plant in Tamil Nadu.

Similarly, in a bilateral special task force on civil nuclear energy meeting in Delhi, France proposed to assist India in small and advanced modular reactors. During Prime Minister Modi's visit to France in February 2025, the two countries had signed a declaration of intent on establishment of partnership on advanced modular reactors and small modular reactors ("**SMRs**").

France and Russia have been proposing a shift from SMRs to large modular reactors. India has been actively pushing for enhancing the adoption and development of SMRs, including through its Nuclear Energy Mission announced in the 2025 Budget. However, France and Russia have been advocating for India to establish large nuclear power plants and have been offering their assistance for such projects. Considering the limited scale of nuclear power in India, France and Russia are arguing in favor of establishing large nuclear power plants to enhance the integration of nuclear power in the Indian energy landscape. Further, considering the limited geographical space available for nuclear power plants in India and the ambitious goals of the Indian government for enhancing reliance on nuclear power, France and Russia have been proposing the establishment of large nuclear power plants.

Consultative Committee of the MoP holds meeting on a "Roadmap for Development of Nuclear Power Generation"

April 28, 2025: During a meeting of the Consultative Committee of the Members of Parliament ("**Committee**") for the MoP, the Union Minister of the MoP recognized the need to enhance the share of non-fossil fuel-based power in the total energy produced and consumed in India to achieve India's net-zero carbon emissions target by 2070. The Union Minister underscored the role of nuclear energy as a non-fossil and stable power source in achieving such target. Currently, the 25 nuclear reactors located in India have a total installed capacity of 8,800 MW. Pursuant to the Viksit Bharat @2047 vision, the Government aims to achieve 100 GW of nuclear energy capacity by 2047.

The current aim to enhance nuclear power capacity faces certain key challenges. *First*, the Atomic Energy Act, 1962 ("**Atomic Energy Act**") and the Civil Liability for Nuclear Damage Act, 2010 ("**CLNDA**") need to be amended to enhance the participation of private sector entities. The Atomic Energy Act currently limits the role of private sector entities to the supply chain. Private sector entities are barred from controlling nuclear power generation in India.

Secondly, the Union Minister of the MoP recognized the need to generate awareness about the safety and benefits of nuclear energy for the purpose of developing positive public perceptions. Currently, the Department of Atomic Energy (DAE) has dedicated units such as SCOPE and PAD which focus on public outreach and generating awareness about radiation contamination and the sustainable nature of nuclear energy. Similarly, the Atomic Energy Regulatory Board (AERB) engages in public awareness initiatives about nuclear and radiation safety.

Thirdly, the Committee identified certain challenges with respect to the establishment of nuclear power plants in relation to high upfront capital costs, costly and complicated land acquisition process, and widespread local opposition to the establishment of such plants. While compensation is awarded to land owners in cash or through employment

opportunities, pursuant to the provisions of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, land acquisition processes in India are often long drawn due to public opposition.

The Union Minister of the MoP also recognized the need to introduce tax concession and long-term financing options, enhance domestic competition in manufacturing, and strengthen local skilled manpower, including for the purpose of enhancing the scale of nuclear power generation in India.

Green Hydrogen/ Ammonia Production

CENTRAL

MNRE issues Scheme Guidelines for Pilot Projects on Innovative GH Production and Utilization in residential, commercial, localized communities

August 4, 2025: The MNRE sanctioned the 'Scheme Guidelines for implementation of Pilot projects for production and use of Green Hydrogen using innovative methods/pathways' ("**Innovative GH Production and Usage Scheme**") on August 4, 2025. A part of the NGHM, this scheme aims to support projects in sectors not covered by previous NGHM schemes, such as residential, commercial, and decentralized applications. These guidelines supersede the previous version notified on November 8, 2024.

For more background and context related to the Innovative GH Production and Usage Scheme, see pp. 15 of our Quarterly Roundup: Clean Energy, Issue 1 of 2025, October 2024 – January 2025, here.

Objectives of the Scheme

- To support innovative models for GH production, including floating solar-based, biomass-based, and wastewater-based production.
- To promote the use of GH and its derivatives as fuel for decentralized applications like cooking, heating, off-grid electricity generation, and off-road vehicles, on a polit basis.
- To validate the technical feasibility and performance of GH in household, commercial, and local community applications.
- To demonstrate the safe and secure use of GH in new sectors.

The scheme aims to identify viable models for decentralized GH production and utilization, providing valuable inputs for future scaling and commercial deployment while establishing a GH ecosystem in new sectors.

Budgetary Outlay

A total of INR 2 billion has been allocated for the scheme until FY 2025-26.

Implementation Methodology

The scheme will be implemented by SIAs designated by the MNRE and is divided into two parts:

1. **Part A:** To fund pilot projects based on biomass and other innovative technologies, with a total financial support of INR 1 billion. The maximum support for each project is capped at INR 250 million.
2. **Part B:** To fund pilot projects from startups developing innovative hydrogen production or utilization technologies, with a total financial support of INR 1 billion. The maximum support for each project is capped at INR 50 million.

Funding and Disbursement

The scheme provides CFA to Executing Agencies, which can include PSUs, private companies, R&D institutions, and startups.

- **Percentage of Cost:** The CFA will cover up to 80% of the total equipment cost for private entities and 100% for government organizations.
- **Disbursement Stages:** The CFA will be released in three stages: 20% on the issue of the Letter of Award, 70% based on milestones, and the final 10% upon project completion.

MNRE revises Scheme Guidelines for setting up Hydrogen Valley Innovation Clusters (HVIC) and GH Hubs

June 27, 2025: The MNRE issued the "Revised Scheme Guidelines for setting up Hydrogen Valley Innovation Cluster (HVIC) and Green Hydrogen

Hubs in India" ("**HVIC and GH Hub Scheme**") on June 27, 2025. Previously, on March 15, 2024, the MNRE had released scheme guidelines for setting up GH hubs in India under the NGHM, which have now been superseded.

The revision was prompted by a decision from the Empowered Group to integrate the HVIC initiative, conceptualized by the Department of Science and Technology ("**DST**"), with the HVIC and GH Hub Scheme. The revised guidelines are now structured into two main components: **Component A** focusing on HVICs and **Component B** on GH hubs.

Component A: Hydrogen Valley Innovation Cluster (HVIC)

This component focuses on implementing four recommended HVICs as pilot projects to serve as precursors to large-scale hubs.

Concept and Objectives

- An HVIC is conceptualized as a small-scale pilot project demonstrating the complete GH value chain, including production, storage, and transportation.
- These clusters are to function as 'living labs' and test beds for innovative technologies, providing experiential learning and insights.
- **Objectives**: The primary objectives of HVICs are as follows:
  - To foster business innovation, develop new business models, and assess techno-economic viability.
  - To create demand for GH by localizing the value chain and securing commitments from end-users.
  - Generating insights to inform the development of policies and regulatory frameworks for the larger NGHM components, including GH hubs.

Implementation and Partnership Model

- **Implementation Agency**: The DST will nominate a Scheme Implementing Agency ("**SIA**") to manage the award, execution, monitoring, and fund disbursement for this component.
- **Selection**: Four HVICs have been recommended for financial support by a National Expert Advisory Committee ("**NEAC**") constituted by the DST, following a two-stage evaluation process.
- **Partnership Model**: HVICs will be implemented in a consortium mode through a Public-Private Partnership ("**PPP**"). Each HVIC will be managed by a newly established, not-for-profit Section 8 company. Consortium partners can include R&D labs, industries, academic institutions, startups, and other entities that can add value to the hydrogen ecosystem.

Funding and Disbursement

A total of INR 1.72 billion is allocated for Component A.

- **Scope**: The CFA can be used for Capital Expenditure (CAPEX) like equipment and electrolyzer procurement, and Operating Expenditure (OPEX) such as manpower and raw materials. The cost of land acquisition is explicitly excluded from the funding.
- **Disbursement Schedule**: The CFA from the NGHM will be disbursed to the Section 8 company in three tranches:
  - **40%**: Upon the issuance of the administrative sanction.
  - **40%**: Upon utilization of 80% of the first instalment and at least 30% expenditure of the industry's contribution.
  - **20%**: Upon the production of the first lot of GH.

Monitoring Framework

A two-tiered monitoring framework is established for Component A

- Steering Committee: Chaired by the Secretary of the DST, this committee will oversee the overall implementation and suggest course corrections.
- Project Appraisal Committee ("**PAC"**): Constituted by the DST, the PAC will monitor, review, and evaluate the HVICs quarterly, and

recommend the release of funds to the MNRE.

Component B: GH Hubs

This component focuses on identifying and developing large-scale, commercially viable hydrogen ecosystems. Component B1 focuses on the preparation of Detailed Project Reports ("**DPRs**"), while Component B2 focuses on recognition of Hydrogen Hubs.

Concept and Objectives

- A Hydrogen Hub is an identified geographical region with a network of hydrogen producers, end-users (both domestic and export), and supporting infrastructure for storage, processing, and transportation.
- The MNRE has planned/announced production capacity of at least 100,000 Metric Tonnes Per Annum (MTPA).
- Hubs may be located inland or near ports to facilitate exports, particularly in regions with existing clusters of refineries or fertilizer plants.
- The scheme encourages leveraging existing infrastructure, and all new infrastructure will be mapped on the PM Gati Shakti portal.
- A key objective is to provide financial support for the preparation DPRs for potential GH hubs.

Implementation and Partnership Model

- The MNRE and its nominated SIA will be the implementing agencies for Component B.

Monitoring Framework:

- A Steering Committee chaired by the Secretary of the MNRE for overall monitoring of Component B.
- A PAC chaired by the Mission Director of the NGHM to evaluate DPR proposals and recommend the sanction of the CFA.

Funding and Monitoring

- An allocation of INR 280 million is available, with a cap of INR 30 million per DPR (Component B1). The guidelines state a preference for supporting one DPR per state.
  - Funds for DPR preparation will be disbursed in three stages:
    1. **30%**: Upon issuance of the administrative sanction.
    2. **40%**: Upon submission of the draft DPR for presentation to the PAC.
    3. **30%**: Upon acceptance of the final DPR.
- The MNRE may also recognize other locations as GH hubs without any financial support, such that they become eligible for other benefits/advantages, if any (Component B2).

Common Provisions

Intellectual Property ("IP"): For HVICs, a consortium agreement governing IP rights is mandatory. For Hydrogen Hubs, the SIA will issue necessary guidelines for safeguarding IP generated under the scheme.

Penalties and General Conditions: If a grant is not used for its sanctioned purpose, the entire amount must be refunded with interest. Project extensions of up to one year may be granted with the approval of the Steering Committee.

MNRE issues GH Certification Scheme

April 29, 2025: Pursuant to a letter dated April 29, 2025, the MNRE released the Green Hydrogen Certification Scheme of India ("**GHCI**") under the National Green Hydrogen Mission ("**NGHM**"). Previously, MNRE had released the draft GHCI on September 27, 2024, for stakeholder feedback.

The draft GHCI was released in furtherance of India's broader strategy under the NGHM to transition to a low-carbon economy and position itself as a global leader in green hydrogen ("**GH**") production. The GHCI aims to provide a comprehensive framework to: (i) establish a standardised mechanism for certifying and regulating GH production in India, and (ii) promote transparency, accountability, and environmental credibility in the sector to strengthen trust among domestic and international stakeholders.

For more background and context related to the draft GHCI, see pp. 20 of our Quarterly Roundup: Clean Energy, Issue 3 of 2024, July – September 2024, here.

Objectives of the GHCI

- **Establishing Standards**: Creating clear guidelines and a detailed methodology for calculating emissions from GHGs during GH production, ensuring that producers adhere to environmental standards.
- **Certification Process**: Setting up a rigorous certification process that guarantees the origin of GH, thereby enhancing its credibility in both domestic and international markets.
- **Monitoring and Reporting**: Establishing monitoring requirements for GH production and creating a robust verification-based approach, including by designating accreditation authorities, as well as by developing a reporting and data tracking system, respectively.
- **Facilitating Exports**: By ensuring adherence to high standards, the GHCI is expected to boost India's GH exports, providing assurance to international buyers regarding the quality and sustainability of hydrogen produced in India.
- **Encouraging Investment**: The GHCI is designed to attract investments in GH production and related technologies, supporting India's goal of becoming a renewable energy hub.

Eligible Pathways

Currently, two primary pathways of GH production have been identified as eligible for certification:

- Electrolysis, and
- Biomass Conversion.

The scheme allows for proposing new pathways, subject to review by the technical committee.

Applicability

A GH Certificate is mandatory if the producer:

- Receives any central/state incentive or concession,
- Sells or uses hydrogen in India, or

- Partially sells in India and exports the rest.

  Exemptions:
  - Facilities producing less than or equal to 10 tons per year are exempted. However, they can apply voluntarily.
  - 100% export-oriented producers with no incentives/concessions are exempt from certification but must report quantity and emissions per importing country's standards.

Certification Process under GHCI

1. **Registration**: GH producers must register on a designated portal and provide information as per the measurement, reporting, and verification framework outlined by the scheme.

2. **Monitoring Plan**: Producers are required to develop a monitoring plan that details project boundaries, data collection methods, and emission sources.

3. **Verification**: Accredited Carbon Verification ("**ACV**") agencies will conduct annual validation and verification activities, and conduct checks on the claims made by GH producers and ensure compliance with the established standards.

Voluntary Reporting

Producers may voluntarily report emissions beyond the defined system boundary, based on accredited ACV verification. These can be included in provisional/final certificates upon request.

Issuance of Certificates

The scheme outlines two types of certificates, as described below.

- *Concept Certificate:* A voluntary certificate confirming that the design of a GH production facility meets prerequisite requirements.

- *Facility Level Certificate:* Mandatory for GH production facilities to apply for provisional or final certificates.

  In case the GH facility is built in multiple phases at a single location, the GH producer must apply for multiple facility-level certificates

  Additionally, two types of production certificates are proposed:

  i. Provisional Certificate: An auto-generated voluntary certificate based on actual production details, available for periods of 1-11 months. This provisional certificate guarantees that the hydrogen produced during the specified period meets the GH standards, based on the data submitted by the producer. However, its validity is conditional upon the issuance of a final certificate, which will be granted following due verification by the ACVs.

  ii. Final Certificate: Mandatory annual certificate guaranteeing that the hydrogen produced during the specified evaluation cycle is 'green' as per GHCI standards.

Certificate Details

The GH certificate serves as a Guarantee of Origin ("**GO**") label, containing:

- Unique identification for each ton of hydrogen produced

- Project details
- Production year
- Emission intensity values

Compliance and Auditing

To ensure the integrity of the certification process, the GHCI includes provisions for compliance and auditing. The MNRE or its designated agency may conduct random audits during or after the financial year to verify compliance with the certification requirements.

While retaining the broader objectives and eligible pathways, *inter alia*, the GHCI departs from its draft regarding certain particulars.

Particulars	Draft GHCI (September 2024)	GHCI (April 2025)
Nodal Authority / Implementing Agency	The Bureau of Energy Efficiency ("**BEE**") was designated as the nodal authority for the GHCI. The BEE was supposed to accredit agencies responsible for monitoring, verifying and certifying GH projects. Such accredited agencies will play an important role in ensuring compliance with the certification standards. A technical committee, chaired by the Mission Director of the NGHM, will provide strategic oversight and guidance implementation of the scheme	MNRE will designate an Implementing Agency ("**IA**") as the nodal authority responsible for monitoring and certification of GH projects based on the verification reports from accredited agencies. The IA will be the chairman of the technical committee.
Certification Scope	Encompassed all stages up to the compression and purification of hydrogen for transport.	Encompasses onsite storage in addition to other stages.
Clarification on Input Materials	Mentioned input materials with examples like water, oxygen, salts, catalysts, solvents, and acids.	Clarifies that IA shall consider specifying such emissions for each potential input material for consideration by ACV.
Co-product Emission Allocation Method	Emission may be allocated to co-products such as oxygen, biochar only if the co-products have been valorized. Based on Economic Value Allocation Method.	Based on Energy Content Allocation Method. Any co-product with no calorific value will not be assigned any emissions.
Data Monitoring	Maintain detailed records of hydrogen production (covering production to consumption processes) and keep records on the final use of hydrogen generated or sold.	Maintain detailed records of hydrogen production (covering sale up to first purchaser) for at least five evaluation cycles and keep records up to the stage of captive use or sale to first purchaser.
Engagement of ACV agency	Engage ACV agency within one month of completion of evaluation cycle.	Engage an ACV agency (accredited by BEE) by March 31 for the respective evaluation cycle.

Particulars	Draft GHCI (September 2024)	GHCI (April 2025)
Non-Compliance	Penalised under three cases i. high emissions intensity; ii. quantity mismatch; and iii. failure to apply for final certificate. Specific multiplier values and penalty calculations provided. • For first occurrence of any non-compliance, the GH producer would not be eligible for provisional certificate for next evaluation cycle and any provisional certificate already issued for that evaluation cycle would be cancelled. • For the second occurrence within 3 years, the GH producer would not be eligible for provisional certificate for next three evaluation cycles and any provisional certificate already issued for those evaluation cycles would be cancelled. • Not explicitly mentioned beyond the second occurrence.	Identified as an instance of non-compliance of GH standard under two cases i. actual emissions above threshold; and ii. failure to apply for final certificate Specific penalty calculations (multiplier values, etc.) removed from the general scheme document and implied to be provided by other means. • For the first occurrence of any non-compliance, any provisional certificate already issued to the GH producer for that evaluation cycle shall be withdrawn. • For the second occurrence within 3 years, the GH producer is not eligible for provisional certificate for the next one evaluation cycle and any provisional certificate already issued for these evaluation cycles shall be cancelled and the GH producer shall apply for the facility certificate again. • The MNRE reserves the right to take additional actions, including barring from applying for provisional/final certificate for a specific period. The MNRE may issue a separate executive order.
Identification Unit	Unique identification for each ton of hydrogen produced.	Unique identification for each 100 kg of hydrogen produced.
Transferability	Certificate was non-transferable or tradeable.	Certificate will be transferable as per procedure laid down by the MNRE to maintain and track the chain of custody.
Carbon Credits	The GH certification could not be utilised for the purpose of claiming for any emission reduction credits, however it could be referred for highlighting possible emission reduction.	Certificate can be used for the purpose of claiming carbon credit under Carbon Credit Trading Scheme, 2023 ("**CCTS**"), subject to additional requirements under the CCTS.

Global Context and Strategic Importance

In Quarterly Roundup: Clean Energy, Issue 3 of 2024, July – September 2024, here on the draft GHCI, it was noted that the scheme marks a major step in India's clean energy transition. It aims to align India with global efforts to promote GH. It takes cues from similar schemes in the European Union (EU) and other countries. We also pointed out key opportunities, such as boosting growth in the renewable energy sector. At the same time,

we raised concerns for smaller producers. These included the burden of meeting verification rules, short timelines, and strict data requirements.

The final framework continues to include detailed rules for tracking emissions, third-party checks, and reporting. It also requires ongoing data management. As mentioned in our earlier update, these rules may be hard for small producers and new players to follow since the compliance burden remains high.

STATE

Bihar

Bihar notifies its Renewable Energy Policy 2025 targeting GH

July 10, 2025: On July 10, 2025, the Government of Bihar released the "Bihar Policy for Promotion of Bihar New and Renewable Energy Sources 2025" ("**Bihar RE Policy**"), superseding the erstwhile 2017 state policy. The Bihar RE Policy aims to accelerate RE deployment to align with state and national net-zero targets.

The Bihar RE Policy will be effective for a period of 5 years. Renewable energy projects that are commissioned during the operative period will be eligible for the incentives declared under this policy for a period of 25 years from the date of commissioning or for the lifespan of the energy project, whichever is earlier. The policy intends to chart out a phase-wise strategy to achieve net-zero by the year 2070 and proposes several project-based provisions and incentives, as well as capacity addition for various power projects, including a 200 MW capacity addition for wind power projects.

Policy Targets and Scope

- The Bihar RE Policy targets harnessing 23,968 MW of renewable energy and 6.1 GWh of energy storage by FY 2029-30. Its scope includes a wide range of technologies, with a specific focus on emerging areas such as GH.
- While no specific capacity target is set, GH is identified as a key thrust technology area. The state will encourage setting up projects in line with the NGHM and will devise provisions for developing pilot projects.

Thrust Technology Areas and Provisions

The Bihar RE Policy outlines specific provisions for the development of GH projects. Bihar aims to decarbonize its industrial, mobility, and energy sectors by promoting GH. It will consult with central agencies to develop pilot projects for emerging end-use sectors and production pathways.

Incentives and Support Mechanisms

To attract investment, the Bihar RE Policy offers a comprehensive package of fiscal and non-fiscal incentives for renewable energy projects commissioned during the operative period:

Fiscal Incentives	• 100% exemption on electricity duty for 15 years for captive/open access consumers. • 100% exemption from State GST on materials required for renewable projects for 5 years. • 100% reimbursement of stamp duty and land conversion fees.
Regulatory Support	100% exemption on transmission and wheeling charges for 15 years for power consumed within the state (20 years for projects with storage).

Implementation and Governance

A dedicated single window cell will be created by the Bihar Renewable Energy Development Agency ("**BREDA**") for time-bound project approvals (within 60 days). The BREDA will serve as the State Nodal Agency for most renewable energy projects under the Bihar RE Policy. The BREDA is expected to develop a portal for facilitating single window clearance for all projects under the policy.

The Bihar RE Policy establishes a three-tiered governance structure (district, state screening, and state empowered committees) for project approvals based on capacity. The BREDA is mandated to issue detailed implementation guidelines for various technologies, including GH, within six months of the Bihar RE Policy's notification.

Miscellaneous

CENTRAL

VGF Scheme for BESS

MoP amends operational guidelines for VGF scheme for BESS

August 4, 2025: Pursuant to a letter dated August 4, 2025, the MoP issued amendments to the operational guidelines for the VGF scheme for the development of BESS supported through the PSDF. These amendments include modifications to Clause 3.6 regarding grid connectivity and land responsibility, the insertion of a new Clause 3.9 mandating indigenous development of BESS Energy Management System (EMS) software, and the insertion of a new Clause 4.1 (ii) (b) concerning the quality of installed BESS and the prohibition of refurbished battery cells.

Other

MNRE unveils national policy on geothermal energy

September 15, 2025: Pursuant to a notification dated September 15, 2025, the MNRE issued the national policy on geothermal energy to enable the exploration and development of untapped geothermal energy resources in India and support India's commitment of achieving net-zero emissions by 2070.

Union cabinet approves INR 1500 incentives for critical mineral recycling

September 3, 2025: On September 3, 2025, the Union Cabinet chaired by the Prime Minister of India approved an incentive scheme aggregating INR 15 billion for the period between FY 2025-26 and FY 20230-31 under the national critical mineral mission with an aim to develop recycling capacity in India for the separation and production of critical mineral from secondary sources.

MoP clarifies RGO rules for Thermal Power Plants

August 6, 2025: Pursuant to a letter dated August 6, 2025, the MoP issued a clarification on renewable generation obligation ("**RGO**"), clarifying that the renewable energy generated or procured and supplied by a wholly owned subsidiary of the generating company or a wholly owned subsidiary of any of the companies of a joint venture company will be counted towards RGO compliance for the generating company or the joint venture company establishing coal/lignite based thermal generating station in accordance with the MoP's resolution dated February 27, 2023.

The MoP also clarified that the establishment of a minimum capacity of renewable energy generation sources, or the purchase and supply of the renewable energy equivalent to such capacity, is voluntary for the coal/lignite-based thermal generating stations.

CEA issues draft amendment to safety regulations for BESS projects

June 19, 2025: Pursuant to a public notice on June 9, 2025, the CEA issued a draft of the CEA (Measures relating to Safety and Electric Supply) (First Amendment) Regulations, 2025 to provide safety guidelines for BESS and invited comments and suggestions from stakeholders. Among other things, such draft amendment proposes to (i) include definitions of BESS, Battery Management System, and Power Conversion System, and (ii) insert a new chapter X-A titled Additional safety requirements for BESS in the CEA (Measures relating to Safety and Electric Supply) Regulations, 2023.

Updates from the Global Wind Day Conference

June 15, 2025: On the occasion of Global Wind Day 2025, the Union Minister of the MNRE addressed a conference of stakeholders and mentioned the following government priorities for the purpose of unlocking India's national wind potential:

- Expanding into new states like Madhya Pradesh, Telangana, and Odisha.
- Launching the offshore wind sector with 4 GW of leasing areas identified in the states of

Gujarat and Tamil Nadu, and corresponding tenders being readied in this regard.

- Integrating wind into round-the-clock and firm green power strategies through storage-linked business models.
- Modernizing the grid, and investing in artificial intelligence ("**AI**")-based forecasting, to manage variable renewable energy.
- Boosting local manufacturing across the entire wind value chain

MoP issues terms to designate renewable energy implementing agencies

June 9, 2025: Pursuant to an office memorandum dated June 9, 2025, MoP issued guidelines to designate a company as a Renewable Energy Implementing Agency (such guidelines, "**REIA Guidelines**"). Pursuant to the TBCB guidelines for procuring power from grid-connected renewable energy projects (SPV, wind, and wind solar hybrids, including those with ESS, and standalone ESS) , as issued by the MoP, intermediary procurers are required to trade aggregating power from various generators and sell it to end procurers. The activities of these intermediary procurers may be conducted by entities designated as a Renewable Energy Implementing Agency ("**REIA**"). REIAs carry out project bidding, sign back-to-back PSAs and PPAs, and ensure payment security to renewable energy developers.

Pursuant to the REIA Guidelines, only Indian companies registered under the Companies Act, 2013 and holding a valid Category-I electricity trading license are eligible to become REIAs if they have a net worth exceeding INR 5 billion and a long-term credit rating of A or above. The net worth must exclude revaluation reserves. The company's board must formally approve the proposal to act as a REIA.

The designated REIA must follow the procurement guidelines laid out by the GoI under Section 63 of the Electricity Act. All procurements must be made exclusively through electronic bidding platforms prescribed by the CERC. However, until such platforms are officially designated, existing e-procurement platforms with a proven track record and security features may be used.

REIAs must also ensure that there is no conflict of interest. Consequently, subsidiaries or group companies of the REIA are not allowed to participate in the bidding process. Further, in the event of a change in ownership, merger, or demerger of the REIA company, the eligibility criteria must continue to be met even after such change.

A company shall be designated as a REIA for a period of 5 years at a time. The GoI reserves the right to terminate the designation before the completion of the term if the REIA fails to fulfil its responsibilities, including in terms of following the applicable rules, guidelines, or orders. In the event of such termination, the company will continue to be accountable for its obligations under the bidding documents and agreements signed for completed bidding processes.

Power Market/ Exchanges

CERC proposes power market overhaul with draft Power Market Regulations (first amendment), 2025

June 17, 2025: Pursuant to a draft notification dated June 17, 2025, the CERC proposed certain amendments to the CERC (Power Market) Regulations, 2021 (such amendment, "**Draft Power Market Amendment**") with the aim to expand the scope of over-the-counter ("**OTC**") power markets and introduce new contract mechanisms like virtual PPAs ("**VPPAs**"). For a detailed discussion on the Draft Power Market Amendment, see our note here.

Pursuant to the Draft Power Market Amendment, OTC markets will include delivery-based energy contracts, capacity contracts, renewable energy certificates ("**RECs**"), contracts related to VPPAs, BESS contracts, and power banking. OTC platforms are permitted to act as transaction facilitators only and are barred from taking on counterparty or credit risk. Such platforms are required to maintain a minimum net worth of INR 350 million at all times. This minimum net worth criterion has to be complied within a 12-month window, subject to submission of audited financial statements. The registration of OTC platforms will be in force for ten years from the date of registration, unless it is revoked or canceled earlier.

The Draft Power Market Amendment recognizes VPPAs as a legitimate OTC contract category. VPPAs are non-transferable financial contracts entered into between a consumer/designated consumer and the renewable energy generator. Such consumer agrees to pay the strike price (i.e., the VPPA price) to the renewable energy generator for the entire duration of the agreement. The difference between VPPA prices and the market price is bilaterally settled between the parties. The renewable energy generator will sell electricity through the power exchanges or any other authorized power market.

CERC directs phased rollout of market coupling

July 23, 2025: Pursuant to an order dated July 23, 2025 in the matter for implementing of market coupling in terms of the provisions of the CERC (Power Market) Regulations, 2021, the CERC directed for: (i) implementation of market coupling in phased manner starting from coupling of Day-Ahead market ("**DAM**") of power exchanges in round robin mode by January 2026; and (ii) initiation of the consultative process with Grid Controller of India and power exchanges on various operational and procedural aspects for implementing the coupling of DAM, and proposing the regulatory amendments with respect to the implementation of market coupling.

CERC issues draft guidelines for VPPAs

May 22, 2025: Pursuant to a public notice dated May 22, 2025, the CERC has issued draft guideline for Virtual power Purchase Agreements ("**VPPAs**" and such guidelines "**Draft VPPA Guidelines**") with an aim to evolve VPPAs as an instrument pursuant to which obligated entities can be enabled to meet their RCO targets. The Draft VPPA Guidelines, among other things, proposes to allow a consumer or a designated consumer to enter into a long-term bilateral VPPA with a renewable energy generator at a mutually agreed price and enabling them to receive the renewable energy certificates ("**RECs**") for achieving their RCO target or for claiming green attributes. The Draft VPPA Guidelines clarifies that the RECs received by a consumer or a designated consumer pursuant to a VPPA cannot be traded.

RECs

CERC issues the Draft (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) (First Amendment) Regulations, 2025

September 22, 2025: Pursuant to a public notice dated September 22, 2025, the CERC released the Draft CERC (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) (First Amendment) Regulations, 2025 ("**Draft REC Amendment**"), inviting stakeholder comments/suggestions/objections by October 23, 2025. Released along with an explanatory memorandum, the Draft REC Amendment seeks to amend the CERC (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 ("**Principal REC Regulations**"), which came into effect from December 5, 2022.

For a detailed discussion on the Draft REC Amendment, see our note here.

Hydropower

MNRE introduces revisions to Guidelines for Small Hydro Power Schemes

May 26, 2025: By way of an office memorandum dated May 26, 2025, the MNRE (Small Hydro Power Division) introduced certain revisions to the Guidelines for Small Hydro Power Schemes, which were previously circulated on December 11, 2009 and July 2, 2014 to promote the development of small hydropower projects, in order to address the challenges faced by stakeholders of such small hydropower projects. Such amendments include, *inter alia*, changes in criteria for the release of the balance amount under the CFA and a proportionate reduction of financial assistance if projected generations are not achieved; a grace period of 12 months for delays in commissioning of projects due to unforeseen reasons; extensions for completion of projects on a case-to-case basis, provided that the project achieves at least 50% aggregate physical progress.

Pumped Storage

MoP exempts off-stream PSPs from CEA concurrence

August 1, 2025: Pursuant to a notification dated August 1, 2025, the MoP exempted off-stream closed-loop PSPs from mandatory CEA concurrence, irrespective of the quantum of capital expenditure.

STATE

Andhra Pradesh

APERC releases draft planning, procurement, deployment and utilization of BESS regulations, 2025

June 30, 2025: Pursuant to an order dated June 30, 2025, the APERC released a draft of the APERC (Planning, Procurement, Deployment, and Utilisation of Battery Energy Storage Systems (BESS)) Regulations, 2025 ("**Draft APERC BESS Regulations**") aiming to establish a comprehensive framework for the deployment, ownership, and operation of BESS aligned with national guidelines and the policies issued by the MoP.

The Draft APERC BESS Regulations will apply to all licensees, generating companies, renewable energy developers, aggregators, BESS service providers, and other entities involved in the deployment, operation, or utilization of BESS within the state of Andhra Pradesh. Distribution licensees are mandated to include BESS in their resource planning and submit investment proposals to the APERC.

The Andhra Pradesh State Load Dispatch Center ("**APSLDC**"), being the concerned SLDC in the state, has been designated as the nodal agency for registering BESS and aggregators, determining ancillary service requirements, scheduling, dispatch, and settlement, under the Draft APERC BESS Regulations. However, the APERC will need to approve BESS procurement proposals, investment, and tariff filings, SLDC procedures for ancillary services, eligibility criteria for aggregators, and standard agreement formats.

Pursuant to the Draft APERC BESS Regulations, BESS systems may be deployed as standalone installations, co-located with generation sources, embedded within network infrastructure or installed behind the meter at the consumer's end. All BESS installations must conform to technical standards specified by the CEA and comply with specifications approved by the MNRE.

Distribution and transmission licensees are required to determine BESS locations in the distribution or transmission system based on reverse power flow at substations and should also seek prior approval from the APERC for procurement. A minimum project size of 1 MW and above (with at least 4 four hours' energy storage) is prescribed, and exemptions have been provided for BESS set up at the distribution transformer level.

The Draft APERC BESS Regulations permit aggregators to aggregate BESS capacity from multiple sites to offer grid services subject to registration and approval by the APSLDC. Aggregators may enter into commercial agreements with licensees or other market participants for such aggregation activities.

Licensee-owned BESS assets will be subject to cost recovery through tariff determination by the APERC. BESS services procured from private developers must follow competitive bidding. For market-linked services, compensation will be based on market-clearing prices or such other mechanism as approved by the APERC.

APERC issues clarification to power evacuation rules for captive renewable energy power plants

August 5, 2025: Pursuant to an order dated August 5, 2025, the APERC issued clarifications on specific clauses in the APERC Regulation on Power Evacuation from Captive Generation, Cogeneration and Renewable Energy Source Power Plants, 2017, including by clarifying, among other things, that such regulations apply to both captive and co-generation facilities utilizing renewable energy sources and non-renewable energy sources.

Arunachal Pradesh

Arunachal Pradesh sets 43% RPO target by FY 2030

August 7, 2025: Pursuant to a notification dated August 7, 2025, the Arunachal Pradesh State Electricity Regulatory Commission ("**APSERC**") issued the draft APSERC (Renewable Purchase Obligation and its compliance) Regulations, 2025 (Third Amendment) ("**Draft APSERC RPO Regulation Amendment**"). The Draft APSERC RPO Regulation Amendment proposes RPO targets for all distribution licensees, captive users, and open access consumers within the state of Arunachal Pradesh.

The Draft APSERC RPO Regulation Amendment proposes such RPO targets for financial years 2024-25 to 2029-30. Such targets are in relation to wind energy, hydro energy, distributed renewable energy, and other forms of renewable energy. The distributed renewable energy category includes all renewable energy projects which are less than 10 MW and include solar installations under all configurations, including net metering, gross metering, virtual net metering, group net metering, and behind the meter installations.

Chhattisgarh

CSERC issues draft of RPO and REC Framework implementation (Second Amendment) Regulations 2025

Pursuant to a notification dated July 30, 2025, the Chhattisgarh State Electricity Regulatory Commission ("**CSERC**") issued a draft of the CSERC (Renewable Purchase Obligation and REC Framework Implementation) (Second Amendment) Regulations, 2025 ("**Draft CSERC RPO & REC Regulations Amendment**"), proposing to impose RPO requirements on entities consuming power from fossil fuel-based co-generation plants and revise RPOs of obligated entities in the following manner:

Minimum RPO in each category to be procured by the obligated entity as percentage of total consumption:

Year	Wind RPO	Hydro renewable Purchase Obligation ("HPO")	Distributed RPO	Other RPO	Total RPO
2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
2028-29	2.95%	1.42%	3.90%	33.10%	41.36%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

RPO targets for open access consumers and co-located and non co-located captive user(s) consuming power from fossil fuel-based cogeneration plants:

Year	Wind RPO	HPO	Distributed RPO	Other RPO	Total RPO
2025-26	0.725%	0.61%	1.05%	14.12%	16.505%

The Draft CSERC RPO & REC Regulations Amendment further proposes to include a requirement of a minimum percentage of total energy consumed to be solar/wind energy along with/through energy storage, as follows:

Year	Storage (on Energy basis)
2023-24	1.0%
2024-25	1.5%
2025-26	2.0%
2026-27	2.5%
2027-28	3.0%
2028-29	3.5%
2029-30	4.0%

Among other things, the Draft CSERC RPO & REC Regulations Amendment also proposes to clarify the energy sources and manner in which an obligated entity can comply with its Wind RPO, HPO, Distributed RPO (i.e., energy generated from renewable energy projects that are less than 10 MW and including solar installation under all configurations), and other RPO requirements.

Gujarat

GERC notifies renewable energy procurement regulations

August 12, 2025: Pursuant to a notification dated August 12, 2025, the GERC notified the GERC (Procurement of Energy from Renewable Sources) Regulations, 2025, providing, among other things, the following RPO requirements for distribution licensees, open access consumers, and captive users:

Minimum RPO in each category to be procured by the obligated entity as percentage of total consumption:

Year	Wind RPO	HPO	Distributed RPO	Other RPO	Total RPO
2024-25	0.67%	0.38%	1.50%	27.35%	29.91%
2025-26	1.45%	1.22%	2.10%	28.24%	33.01%
2026-27	1.97%	1.34%	2.70%	29.94%	35.95%
2027-28	2.45%	1.42%	3.30%	31.64%	38.81%
2028-29	2.95%	1.42%	3.90%	33.10%	41.36%
2029-30	3.48%	1.33%	4.50%	34.02%	43.33%

The following percentage of total energy consumer to be RE with/through energy storage, as following:

Year	Storage (on Energy basis)
2024-25	1.0%
2025-26	1.5%
2026-27	2.0%
2027-28	2.5%
2028-29	3.0%
2029-30	3.5%

Himachal Pradesh

HPERC issues final resource adequacy framework regulations

April 28, 2025: Pursuant to a notification dated April 28, 2025 the Himachal Pradesh Electricity Regulatory Commission ("**HPERC**") issued the HPERC (Framework for Resource Adequacy) Regulations, 2025 providing framework for demand assessment and forecasting, generation resource planning, procurement planning, its monitoring and compliance. The regulations have been issued with an aim to provide mechanism for planning of generation and transmission resources for reliably meeting the projected electricity demand in the state, in compliance with the reliability standards.

Madhya Pradesh

Madhya Pradesh government issues renewable energy policy 2025

April 4, 2025: Pursuant to a notification dated April 4, 2025, the MP NRED issued the the Madhya Pradesh Renewable Energy Policy – 2025 for a period of five years with the aim of developing the state into a renewable energy hub, including with a focus on creating a renewable energy equipment manufacturing ecosystem in the state, and adding a renewable energy capacity of 36,000 MW along with energy storage capacity of 12,000 MW by FY 2035.

Maharashtra

MERC issues draft DSM regulations

August 2, 2025: Pursuant to a public notice dated August 2, 2025 the Maharashtra Electricity Regulatory Commission ("**MERC**") issued draft MERC (Deviation Settlement Mechanism and related matters) Regulations, 2025 ("**Draft MERC DSM Regulation**"), inviting comments/ suggestions from the stakeholders. The **Draft MERC DSM Regulation** are proposed with an aim to replace the existing MERC DSM Regulation, 2019 and align with the CERC DSM Regulations, 2024 and maintain grid discipline and security as envisaged under the Maharashtra State Grid Code Regulation, 2020 through commercial mechanism for deviation settlement through drawl and injection of electricity by the users of the grid.

Karnataka

KERC releases ancillary services regulations 2025

July 15, 2025: Pursuant to a notification dated July 15, 2025 the KERC has issued the KERC (Ancillary Services) Regulations, 2025, with an aim to ensure grid security, it is essential that adequate reserves are maintained locally within Karnataka. The KERC (Ancillary Services) Regulations, 2025 provides for mechanisms for the procurement, deployment, and payment of ancillary services at the state level. Ancillary services, in relation to power system operation, has been defined under the KERC (Ancillary Services) Regulations, 2025, to mean the service necessary to support the grid operation in maintaining power quality, reliability and security of the grid.

Kerala

KSERC issues draft Kerala State Electricity Regulatory Commission (Renewable Energy and Related Matters) Regulations 2025

May 30, 2025: Pursuant to a notice dated May 30, 2025 the KSERC has issued the draft of KSERC (Renewable Energy and Related Matters) Regulations, 2025 ("**Draft KSERC RE Regulation**"), inviting objections and suggestions from the stakeholders. The Draft KSERC RE Regulations are proposed to be applicable to all the existing and new: (i) grid interactive RE systems; (ii) consumers and prosumers; (iii) captive consumers and CGPs; and (iv) generating companies and discoms.

The Draft KSERC RE Regulations, among other things, proposes to allow all consumers and prosumers billed, with a minimum capacity of RE generating station of 1 kW and a maximum of 3 kW, under the agriculture, domestic, and industrial tariffs to opt for net metering, net billing, and gross metering, behind-the-meter, virtual net metering and group net metering systems.

Odisha

Odisha announces pumped storage policy to boost renewable integration

July 28, 2025: Pursuant to a resolution dated July 28, 2025, the government of State of Odisha, issued Odisha Pumped Storage Projects (PSP) Policy 2025 ("**Odisha PSP Policy**") with an objective to promote development of PSP hydro projects within the State of Odisha and facilitate smooth integration of renewable energy in the grid. The Odisha PSP Policy, among other things, exempts PSPs from payment of: (i) electricity duty and cross subsidy surcharge on input energy; (ii) water cess; and (iii) contribution to Local Area Development Fund (LADF).

Punjab

PEDA issues draft green hydrogen policy

April 2025: The Punjab Electricity Development Authority ("**PEDA**") issued the draft Punjab Green Hydrogen Policy with the aim of making the state of Punjab a preferred destination for investments in GH production and marketing, along with a conducive eco-system, and to make Punjab a producer of GH/ green ammonia with a production capacity of 100 kilo tonnes per annum by the year 2030.

Uttar Pradesh

UPERC issues draft captive and REGP regulations

May 7, 2025: Pursuant to a public notice dated May 7, 2025, the Uttar Pradesh Electricity Regulatory Commission ("**UPERC**") issued the draft UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2024 for the control period from April 1, 2024 to March 31, 2029. These draft regulations propose to replace the UPERC (Captive and Renewable Energy Generating Plants) Regulations, 2019 and introduce a comprehensive overhaul of tariff structures and procurement processes for captive and renewable energy plants.

Authors

Aakanksha Joshi
Partner
ajoshi@snrlaw.in

Dr. Deborshi Barat
Head of Public Policy and Knowledge Management
dbarat@snrlaw.in

Lipsa Acharyya
Counsel
lacharyya@snrlaw.in

M. V. Abhinaya
Principal Associate
mabhinaya@snrlaw.in

Shreya Jaipuria
Senior Associate
sjaipuria@snrlaw.in

Divyanshu Sharma
Associate
dsharma@snrlaw.in

Oshika Nayak
Associate
onayak@snrlaw.in

Pradhumna Mohan Dixit
Associate
pdixit@snrlaw.in

Shashankaa Tewari
Associate
stewari@snrlaw.in

Aditi Kundu
Associate
akundu@snrlaw.in

Akshay Dhekane
Associate
adhekane@snrlaw.in

NEW DELHI

Max House
Tower C, 4th Floor
Okhla Industrial Estate Phase III
New Delhi 110 020
India

T: +91 11 4069 8000
F: +91 11 4069 8001

MUMBAI

One World Center
1403 Tower 2 B
841 Senapati Bapat Marg, Lower Parel
Mumbai 400 013
India

T: +91 22 4302 8000
F: +91 22 4302 8001

www.snrlaw.in