



# Quarterly Roundup: Clean Energy

NOVEMBER AND DECEMBER 2023

# Executive Summary

This is the fourth issue of our quarterly roundup series on clean energy, covering the months of November and December 2023.

## UPDATES

- Regulatory updates have been divided month-wise (*i.e.*, relating to November and December, respectively, in that order).
- Under each month, updates on renewable energy (“**RE**”) and electric vehicles (“**EVs**”), respectively, are summarized under separate categories.
- Further, within each month’s updates for RE, central and state government updates are listed separately.
- Similarly, within each month’s updates for EVs, India-related updates and international developments are separately listed.
- Links to primary (or secondary) sources in respect of each update across all categories have been embedded within item headings.

## ANALYSIS

Following the regulatory updates is an article on ‘Innovative Constructions – Assessing the Investment Viability of New Construction Technologies’ – as published in a Knowledge Brief of the Asia Pacific Real Estate Association (APREA).

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# November 2023

## RE

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### Central Government

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#### MoP Amends the Guidelines for Tariff Based Competitive Bidding Process for Power Procurement from Grid Connected Wind Power Projects

Pursuant to a resolution dated November 17, 2023, the MoP amended the guidelines related to the tariff-based competitive bidding process for the procurement of power from grid-connected wind power projects ("**Wind Energy Bidding Guidelines**"). The amendment substituted clause 14.4 of the Wind Energy Bidding Guidelines to enable wind energy generators to sell a part or full capacity of their renewable power even before the scheduled commercial operation date of a project, by giving 15 days' advance notice to end procurers and intermediary procurers, including by notifying them about the advance commissioning of such project. Accordingly, wind energy generators can sell such power (i) to end procurers and intermediary procurers, with a priority given to end procurers, at a price agreed upon in the Power Purchase Agreement ("**PPA**"); and in the event of refusal, (ii) on power exchanges.

#### CEA Issues Public Notice Inviting Comments for the Draft Procedure to Verify the Captive Status of Generating Plants

Pursuant to a public notice dated November 1, 2023, the Central Electricity Authority ("**CEA**") invited comments from stakeholders on the draft procedure for verifying the captive status of generating plants – where captive generating plants and their captive users are located in more than one state, as required under the rule 3(3) of the Electricity Rules, 2005 ("**Electricity Rules**").

#### BEE Issues Procedure for Compliance Mechanism under the Indian Carbon Market

On November 8, 2023, the Bureau of Energy Efficiency ("**BEE**") issued a detailed procedure for the compliance mechanism under the Carbon Credit Trading Scheme, 2023 ("**CCTS**," and such

procedure, the "**CCTS Procedure**"). Among other things, the CCTS Procedure provides detailed instructions for the compliance mechanism under the CCTS, including in respect of greenhouse gas emissions intensity trajectory and targets; the monitoring, reporting and verification process; as well as the issuance and trading of carbon credit certificates ("**CCCs**").

#### CERC Issues CERC (Sharing of Inter-State Transmission Charges and Losses) (Third Amendment) Regulations, 2023

In the last week of October, pursuant to a notification dated October 26, 2023, the CERC issued the third amendment to the CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020. The amendment was issued for the purpose of incorporating stakeholder comments with respect to the consideration of yearly transmission charges related to inter-regional high voltage direct current transmission systems that have a bi-directional flow of power, since the national component based on its capacity for power flow is in the reverse direction. In our previous quarterly update on clean energy (available [here](#)), a prior amendment to such regulations, as issued through a notification dated October 20, 2023, had been mentioned.

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### State Government

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#### KERC Changes the Additional Surcharge to INR 0.7/ kWh (from INR 1.48/kWh) for Open Access Consumers Procuring Electricity from Renewable Sources

Pursuant to an order dated November 17, 2023, the Karnataka Electricity Regulatory Commission ("**KERC**") reduced the existing additional surcharge of INR 1.48/kWh to INR 1.40/kWh for the financial year 2023-24 with respect to all open access transactions. Further, the KERC allowed a 50% concession in such additional surcharge for all open access consumers which procure electricity from renewable sources. As a result, the additional surcharge that will be levied on such transactions will amount to INR 70 paise/unit only.

#### TNERC Issues an Order to Waive Peak-Hour Electricity Charges for MSME Sector

Pursuant to an order dated November 17, 2023, the Tamil Nadu Electricity Regulatory Commission

("TNERC") waived off peak hour charges for LT-IIIB industries – largely comprising micro, small and medium enterprises ("MSME") – until the installation of smart meters by the Tamil Nadu Generation and Distribution Corporation Limited. The order further provided for a 50% reduction in solar rooftop network charges for MSMEs.

### MERC Increases Banking Charges to 8%

Pursuant to a notification dated November 10, 2023, the Maharashtra Electricity Regulatory Commission ("MERC") issued the MERC (Distribution Open Access) (Second Amendment) Regulations, 2023 (the "DOA Amendment") for the purpose of incorporating changes in industry, as well as pursuant to amendments notified by the MoP to the Electricity (Promoting Renewable Energy Through Green Energy Open Access) Rules, 2022. Among other things, the DOA Amendment substituted regulation 20.4 of the original regulations to increase banking charges from two percent (2%) to eight percent (8%).

### Haryana Issues Draft for Solar Power Policy 2023

The New and Renewable Energy Department of the Government of Haryana issued a draft of the Haryana Solar Power Policy 2023, which aims to replace the Haryana Solar Power Policy 2016. Among other things, such draft policy of 2023 aims to install a cumulative capacity of 6000 MW of solar power plants in the state, including rooftop and ground-mounted solar power plants.

### MERC Introduces the First Amendment to the Grid-Interactive Rooftop Renewable Energy System Regulations 2023

Pursuant to a notification dated November 26, 2023, the MERC introduced the first amendment to the MERC (Grid Interactive Rooftop Renewable Energy Generating Systems) Regulations, 2019 for the purpose of incorporating changes introduced by the MoP Electricity (Rights of Consumers) Rules, 2020 and the Electricity (Rights of Consumers) Amendment Rules, 2021, respectively.

### HPERC issues final order with levelled tariff for Solar PV projects

Pursuant to an order dated November 4, 2023, the Himachal Pradesh Electricity Regulatory Commission ("HPERC") finalized the generic

levelled tariff for solar photovoltaic ("PV") power projects for FY 2023-24 as follows:

No.	Capacity	Generic levelized tariff (INR Per kWh)
<b>Projects to be set up in areas other than industrial or urban areas</b>		
i.	Up to 1 MW	<b>3.65</b>
ii.	Above 1 MW and up to 5 MW	<b>3.62</b>
<b>Projects to be set up in industrial areas and urban areas</b>		
i.	Up to 1 MW	<b>3.70</b>
ii.	Above 1 MW and up to 5 MW	<b>3.67</b>

### Maharashtra Issues Green Hydrogen Policy 2023

The government of Maharashtra on October 17, 2023 approved Maharashtra Green Hydrogen Policy 2023. The Maharashtra Green Hydrogen policy 2023, among other things, is aimed at creating 500 kilotons of the green hydrogen production capacity in the Maharashtra by the year 2030.

### APERC Issues Draft Green Energy Open Access Regulations

Pursuant to a public notice dated November 29, 2023, the Arunachal Pradesh State Electricity Regulatory Commission ("APERC") issued the draft APERC (Terms and Conditions for Green Energy Open Access and Methodology for Calculation of Charges) Regulations, 2023, inviting comments and suggestions from interested parties. Such draft regulations aim to enable open access for electricity generated from renewable energy sources for the purpose of use in relation to the state's intra-state transmission and distribution system.

### UPERC Allows Net Metering for Grid Connected Rooftop Solar PV System of Public and Private Educational Institutions

Pursuant to a notification dated November 17, 2023, the Uttar Pradesh Electricity Regulatory Commission ("UPERC") issued the UPERC (Rooftop Solar PV Grid Interactive System Gross/ Net Metering) Regulation, 2019 (Second Amendment). This amendment to the original regulations now extend the net metering facility to government and private educational institutions.

## RERC Approves Procurement of 105.4 MW Power from Biomass Plants to Meet RPO Compliance

Pursuant to an order dated November 24, 2023, the Rajasthan Electricity Regulatory Commission (“**RERC**”) allowed a petition that sought approval for the procurement of 105.4 MW of power from biomass plants in the state of Rajasthan for the purpose of meeting renewable purchase obligation (“**RPO**”) requirements of the state. However, such approval is subject to compliance with the RERC Renewable Energy Tariff Regulations, 2020 with respect to the procurement of power from biomass plants.

## EV

### India

#### India and the EU Signed an MoU on Semiconductors

On November 24, 2023, India and the European Union (“**EU**”) signed a Memorandum of Understanding (“**MoU**”) which aims to increase collaboration between the two parties on semiconductor supply and innovation. Among other things, the MoU will enable the EU and India to share their respective experiences, best practices, and information on semiconductors ecosystems, as well as to promote skills, talent and workforce development for the semiconductors industry as a whole.

#### The Delhi Government Notified the Delhi Motor Vehicle Aggregator Scheme

On November 21, 2023, the Delhi State Government notified the Delhi Motor Vehicle Aggregator and Delivery Service Provider Scheme, 2023 (“**Delhi Motor vehicle Aggregator Scheme**”). Such scheme provides for a phased adoption of EVs by intermediaries that provide transport and delivery services, with the additional requirement to mandatorily switch to an all-electric fleet by April 1, 2030. While the scheme allows for the operation of bike taxi services, any vehicle that is on-boarded as part of a fleet of bike taxis is required to be an EV. Further, the scheme requires all aggregators which provide passenger transport and delivery services to obtain a license which will remain valid for five years.

## MoRTH Notified the Central Motor Vehicles (Ninth Amendment) Rules, 2023

Pursuant to a notification dated November 6, 2023, the Ministry of Road Transport & Highways (“**MoRTH**”) notified the insertion of a new rule 125M within the Central Motor Vehicles Rules, 1989. Such newly inserted rule provides definitions and approval requirements for electric power train vehicles, including in respect of pure and hybrid EVs, strong hybrid EVs, plug-in hybrid EVs, series hybrid EVs, as well as series parallel hybrid EVs.

## International

### Switzerland Ends Electric Car Tax Exemption

The federal council of Switzerland revised an existing policy and announced the removal of an automobile duty exemption, as previously provided with respect to the import of electric cars starting from January 1, 2024. This move is aimed to address the shortfall in tax receipts stemming from an increased number of EVs on Swiss roads.

### Thailand Approves New EV Subsidy Package

The National Electric Vehicle Policy Committee of Thailand approved a new subsidy package for EVs. Such new package provides for a lower subsidy than the erstwhile scheme, which expired at the end of 2023. The erstwhile scheme had offered a government subsidy of up to 150,000 baht per vehicle, which may now be reduced to 100,000 baht per vehicle under the new package.

# December 2023

## RE

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### Central Government

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#### MNRE Extends Timeline for Compliance with Quality Control Order 2017 Standards for Solar PV Inverters of Capacity More than 100 kW

Pursuant to a notification dated December 27, 2023, the MNRE extended the implementation of Solar Photovoltaics, Systems, Devices and Components Goods (Requirements for Compulsory Registration) Order, 2017 ("**Quality Control Order, 2017**") for solar PV inverters of a capacity in excess of 100 kW from December 31, 2023 to December 31, 2024 in order to provide more time to manufacturers for compliance purposes. Accordingly, further to this notification, manufacturers can now issue self-certification on solar PV inverters of a capacity of more than 100 kW until December 31, 2024. The Quality Control Order, 2017 has been implemented from January 1, 2024.

#### MoP Proposes Amendment to Electricity (Rights of Consumers) Rules, 2020

Pursuant to a letter dated December 13, 2023, the MoP proposed the draft Electricity (Rights of Consumers) Second Amendment Rules, 2023 (the "**Draft ERC Amendment**"), including for the purpose of seeking comments from select stakeholders. Among other things, the Draft ERC Amendment provides a fixed timeline for: (i) providing new connections or modifying existing consumer connections upon application; and (ii) performing checks on meters upon receipt of consumer complaints. The Draft ERC Amendment also proposes certain provisions to expedite the application process for rooftop solar installations and the duration of technical feasibility studies for rooftop solar plants. Further, pursuant to such proposed amendment, it may *not* be necessary to conduct a technical feasibility for rooftop solar projects which have a capacity of less than 10 kW.

#### MoP Issues Draft Electricity (Late Payment Surcharge and Related Matters) Amendment Rules, 2023

Pursuant to a letter dated December 13, 2023, the MoP proposed the draft Electricity (Late Payment Surcharge and Related Matters) Amendment Rules, 2023 (the "**Draft LPS Amendment**"), including for the purpose of seeking comments from select stakeholders. The Draft LPS Amendment proposes the insertion of a new rule 7 which provides for regulating transmission access in respect of distribution companies that fail to clear dues. Further, the Draft LPS Amendment proposes the substitution of rule 9(1) to now require distribution companies to mandatorily communicate their power requisition schedule for each day at least two hours before the closure of the applicable timeframe in respect of submitting proposals or bids in the day-ahead market.

#### MoP Issues Amendments to the Carbon Credit Trading Scheme, 2023

Pursuant to a notification dated December 19, 2023, the MoP amended the CCTS (such amendment, the "**CCTS Amendment**"). On account of the CCTS Amendment, the amended CCTS ("**Amended CCTS**") now provides for an offset mechanism (which is in addition to the compliance mechanism, in respect of which the BEE had issued a detailed CCTS Procedure a few weeks earlier, as mentioned above).

Further to the introduction of the offset mechanism through the CCTS Amendment, non-obligated entities can voluntarily register their projects under the Amended CCTS in sectors identified by the national steering committee, including for the purpose of accounting greenhouse gas emissions reduction, removal or avoidance in order to acquire tradable CCCs through prescribed modes of issuance.

For discussions and analyses of carbon credit trading in India, see our previous quarterly updates on clean energy [here](#), [here](#) and [here](#), as well as a separate overview of carbon credits [here](#).

#### [Background:](#)

Previously, on March 27, 2023, the MoP had shared a [copy](#) of a proposed CCTS (the "**Draft CCTS**")

among key industry stakeholders for the purpose of receiving their feedback on such draft. Thereafter, pursuant to a [gazette notification](#) dated June 28, 2023, the MoP, in consultation with the BEE, had issued a final version of the CCTS.

Importantly, the Draft CCTS, as released in March 2023, had contemplated both (i) a compliance mechanism, as well as (ii) a voluntary mechanism. On the other hand, the final version of the CCTS, as issued in June 2023 (*i.e.*, before the CCTS Amendment was notified), did not refer to a voluntary mechanism – except to the extent that non-obligated entities could purchase CCCs on a voluntary basis.

Importantly, compliance carbon markets (“**CCMs**”) consist of sovereign authorization and mandatory implementation. On the other hand, voluntary carbon markets (“**VCMs**”) are driven by demand from those that aim to offset their emissions.

Further, under the Draft CCTS, non-obligated entities had been permitted to voluntarily register their projects for reducing or removing greenhouse gas emissions for the purpose of getting CCCs issued in their favor. However, unlike in the Draft CCTS, the June version of the CCTS (*i.e.*, before the CCTS Amendment was notified) made no mention of whether non-obligated entities could register their projects for CCC issuances.

As it currently stands, the Amended CCTS defines a ‘carbon credit’ to mean a value assigned to the reduction or removal or avoidance of greenhouse gas emissions, which is equivalent to one ton of carbon dioxide equivalent (such measure, “**tCO<sub>2</sub>e**”). Under the Draft CCTS, such issuances could be made under either of the compliance or voluntary mechanisms, respectively. Each carbon credit is a marketable permit or certificate reflecting one tCO<sub>2</sub>e that a business is allowed to emit. Thus, these instruments are commonly used in the context of emissions trading in which companies are given a fixed number of credits depending on their greenhouse gas emissions. Such companies can later purchase more credits or sell their surplus, as required. In other words, companies with low(er) emissions can sell their extra allowance to larger emitters in a ‘compliance’ market.

Since the CCTS Amendment provides for an offset mechanism (similar to the voluntary mechanism

under the Draft CCTS), it appears that the Amended CCTS may resemble the Draft CCTS in respect of a VCM.

As such, CCMs are more strictly regulated than VCMs. Further, CCMs involve certain limits imposed on the volume of greenhouse gas emissions that an entity or industry is allowed to generate. Eligible or obligated entities are compulsorily required to comply with such pre-set limits.

VCMs are another kind of carbon market, where businesses and individuals may buy or sell tCO<sub>2</sub>e-linked instruments of their own volition to ‘offset’ their respective emissions.

Thus, offsets are typically created when companies or individuals finance projects that reduce greenhouse gas emissions elsewhere either by lowering emissions or sequestering them. Offsets are granted to project owners who can then sell such instruments to third parties. When a company removes a unit of carbon from the atmosphere, they can generate an offset. Other entities may then purchase that offset to reduce their own carbon footprint.

Thus, offsets can be considered a unit of measurement to compensate a business for investing in green projects/initiatives that aim to reduce emissions. Carbon credits, on the other hand, are a unit of measure to cap (or limit) emissions. The number of carbon credits issued each year is typically based on emission targets. Thus, such credits are often issued under what is known as a ‘cap-and-trade’ (“**CAT**”) system. When regulators set a limit on tCO<sub>2</sub>e-linked emissions, that forms the ‘cap’. When a company obtains a CCC, it gains the right to generate one tCO<sub>2</sub>e. Companies which end up with excess CCCs at the end of a stipulated period can sell such excess to other entities.

Carbon credits and offsets form part of a larger ecosystem with respect to carbon markets where entities can trade, sell or buy tCO<sub>2</sub>e-linked instruments to meet their emission targets. Since offsets are typically traded on a voluntary market, market participants can purchase such offsets to achieve internal emission targets and/or for the purpose of reducing emissions for ethical, social or business reasons.



### Key Takeaway:

Pursuant to the CCTS Amendment, it now appears that the offset mechanism under the Amended CCTS is a revived form of the voluntary mechanism under the Draft CCTS.

### **MEA Notifies the Offshore Wind Energy Lease Rules 2023**

Pursuant to a notification dated December 19, 2023, the Ministry of External Affairs (“**MEA**”) notified the Offshore Wind Energy Lease Rules, 2023. Such rules provide a framework for leasing areas within the exclusive economic zone of India for offshore wind energy and offshore wind transmission projects, respectively. These rules will be administered by the MNRE.

### **MNRE Issues National Repowering & Life Extension Policy for Wind Power Projects, 2023**

Pursuant to a circular dated December 7, 2023, the MNRE issued the National Repowering and Life Extension Policy for Wind Power Projects 2023 (“**Life Extension Policy**”), which supercedes the erstwhile Policy for Repowering of Wind Power Projects, 2016. Among other things, the Life Extension Policy facilitates the refurbishment of wind turbines for life extension beyond their design life, subject to safety and performance assessments. The policy also allows for the repowering and/or replacement of older generation turbines with newer generation ones even before the design life of a wind power project has lapsed.

### **CERC Issues CERC (Cross Border Trade of Electricity) Regulations (First Amendment), 2023**

Pursuant to a notification dated December 15, 2023, the CERC amended the CERC (Cross Border Trade of Electricity) Regulations, 2019 to provide for the charge related to the settlement nodal agency to be payable by participating entities from neighboring countries at the rate of INR 0.50 paisa/kWh with respect to the energy scheduled by such entities. For a statement of reasons in connection with this amendment, see [here](#).

### **CERC Issues CERC (Terms and Conditions of Tariff) (Third Amendment) Regulations, 2023**

Pursuant to a notification dated December 15, 2023, the CERC amended the CERC (Terms and

Conditions of Tariff) Regulations, 2019. Among other things, the amendment inserted a new sub rule in Appendix II rule 4 of the CERC (Terms and Conditions of Tariff) Regulations, 2019, including for the purpose of providing that during the shutdown of a transmission line due to shifting or modification of such line, or due to projects of the National Highway Authority of India, Railways and the Border Road Organization, respectively, the transmission system will be deemed to be available. However, the member secretary of a relevant regional power committee will have the power to restrict the deemed availability period to one which is considered reasonable by such secretary for the work involved. For a statement of reasons in connection with this amendment, see [here](#).

### **CERC Approves Compensation to Solar Developer in Change in Law Event**

Pursuant to an order dated December 19, 2023 with respect to a petition filed by ReNew Sun Waves Private Limited (“**ReNew**”), the CERC approved compensation to offset the financial/commercial impact on ReNew due to a change-of-law event on account of the imposition of safeguard duty on solar cells/modules, as well as the rescission of Notification No. 1/2011 - Customs dated January 6, 2011 – which cumulatively resulted in an increase in the rate of basic customs duty for ReNew on the import of solar inverters.

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## **State Government**

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### **MERC Disallows Levy of Cross Subsidy Surcharge on Open Access Consumers**

Pursuant to an order dated December 27, 2023, the MERC denied the prayer of a distribution licensee with respect to levying a cross subsidy surcharge upon open access consumers.

### **MERC Rejects MEDA Petition to Meet 50% RPO Procurement Within Maharashtra**

Pursuant to an order dated December 14, 2023, the MERC rejected a petition filed by the Maharashtra Energy Development Agency (“**MEDA**”) praying for directions from MERC with respect to requiring distribution companies to meet 50% of their total RPO requirements through the purchase of energy from renewable sources within Maharashtra itself.

### MPERC Rejects a Petition for Imposition of Grid Support Charges on Rooftop Solar Systems

Pursuant to an order dated December 13, 2023, the Madhya Pradesh Electricity Regulatory Commission (“**MPERC**”) rejected a petition that had sought: (i) a levy of grid support charges on all categories of consumers with grid-connected rooftop solar systems; (ii) a reduction of the limit fixed for net metering connections from 1 MW to 100 kW; and (iii) the introduction of a net billing or net-feed-in arrangement for contract demand/sanctioned load up to 500 kW. Further, the order mentioned that MPERC would review the advisability of levying grid support charges, as prayed for in this petition, if and when necessary.

### RERC Issues RERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) (Second Amendment) Regulations, 2023

Pursuant to a notification dated December 8, 2023, the RERC amended the RERC (Terms and Conditions for Tariff Determination from Renewable Energy Sources) Regulations, 2020. Among other things, this amendment allows (i) for an annual revision in tariffs for biomass; and (ii) the use of up to 15% fossil fuel or solar power to a biomass project if it has already achieved commission before the applicability of these regulations.

### Puducherry Issues Guidelines to Install Rooftop Solar and Ground-Mounted Solar Projects

The government of Puducherry released revised guidelines to allow property owners to install grid-connected, ground-mounted and rooftop solar power systems having a capacity between 5 KWp to 500 KWp under a net metering arrangement. Further, eligible consumers will be allowed to lease out spaces, including rooftops, to solar project developers.

### OERC Determines Generic Tariff for Renewable Power Projects in Odisha from FY 2023-24 to FY 2025-26

Pursuant to an order dated December 4, 2023, the Odisha Electricity Regulatory Commission (“**OERC**”) proposed generic levelized tariffs for various renewable energy sources for the control period between 2023-24 and 2027-28, as follows:

RE Source and Description	Levelized Total Tariff (INR/kWh)
Wind Energy	To be procured only through a competitive bidding process
Small Hydro Electric Project of a capacity between 5 and 25 MW	5.82
Small Hydro Electric Project with a capacity below 5 MW	5.93
Solar PV, Solar Thermal and Floating Solar power Project	To be procured only through a competitive bidding process
Biomass	To be procured only through a competitive bidding process
Non-fossil Fuel-based Co-generation	To be procured only through a competitive bidding process
Municipal Solid Waste Power Project	To be procured only through a competitive bidding process

## EV

### India

#### Parliamentary Standing Committee Lays Report on EV Promotion in Rajya Sabha

On December 20, 2023, the Department Related Parliamentary Standing Committee on Industry (“**Standing Committee**”) presented and/or laid its report on the promotion of EVs in the country before the Parliament of India. Among other things, the Standing Committee recommended a broadening of scope, as well as an extension, in respect of the second phase of a scheme related to the Faster Adoption and Manufacturing of Hybrid and Electric Vehicles in India (“**FAME II**”) for at least three (3) additional years in consultation with industry stakeholders, including for the purpose of making such scheme more inclusive. In addition, the Standing Committee recommended that EVs should be brought under the priority sector lending category until the 30% penetration target, as fixed for the year 2030, has been achieved. For past developments on FAME II and its other phases, see our previous clean energy updates [here](#), [here](#) and [here](#).

### Bihar Approves New EV Policy

Pursuant to a notification dated December 5, 2023, the Bihar State Government approved the Bihar Electric Vehicle Policy, 2023 (“**Bihar EV Policy**”). The Bihar EV policy was introduced with the aim of achieving a 15% target share comprising EVs across all vehicle registrations in the state of Bihar by the year 2028. Among other things, the Bihar EV policy also introduces certain measures to incentivize the adoption of EVs, including subsidies on Motor Vehicle Tax of up to 75%, as well as purchase incentives of up to INR 1.25 lakh for the first 1,000 four-wheeler EVs in the state, along with similar state incentives for the first 10,000 two-wheeler EVs.

### MoM Proposes Changes to Mineral (Auction) Rules, 2015

Pursuant to a notice dated December 26, 2023, the Ministry of Mines (“**MoM**”) invited comments from stakeholders for a proposed amendment to the Mineral (Auction) Rules, 2015 (the “**Mineral Rules Amendment**”). The proposed amendment seeks to cap the performance security and upfront amount, respectively, which are payable by a bidder after winning the right to extract minerals. As such, the proposed Mineral Rules Amendment aims to address certain existing concerns related to financial barriers. Such existing financial barriers, in turn, may restrict various bidders from participating in auctions that involve critical and strategic minerals with a high value of estimated resources (“**VER**”) – especially because the uncapped performance security and upfront amount, respectively, are calculated as a percentage of such VER.

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## International

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### EU, UK Extend Trade Rules to Avoid Tariffs on EVs

On December 21, 2023, it was announced that the EU and the United Kingdom (“**UK**”) have agreed to postpone the ‘rules of origin’ requirement in terms of the proposed imposition of a 10% tariff on EVs imported from the EU into the UK. As such, the two parties decided to extend existing trade rules on EVs until the end of 2026 to keep costs down for manufacturers and consumers. Accordingly, the EU and the UK mutually agreed to extend current battery

and EV rules of origin under the EU-UK Trade Cooperation Agreement until such time.

### China Bans Export of Critical Technology to Extract and Process Rare Earth Magnets

The Government of China banned the export of technology that is used to make rare earth magnets, which, in turn, are used in the manufacturing of EVs, wind turbines and electronics. This ban comes in addition to the ban that is already in place on the export of technology related to the extraction and separation of critical materials used in EV batteries.

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# Innovative Constructions: Assessing the Investment Viability of New Construction Technologies

To meet the annual national demand for 10 million new homes, there are significant opportunities for establishing new climate-responsive construction techniques in India.

A key element of sustainable construction is the factoring in of long-term perspectives such as a building's complete lifecycle, including through the use of eco-friendly material (e.g., recycled steel/concrete, bamboo, reclaimed/engineered wood, cellulose, recycled fiberglass, biodegradables, low-emission paint, natural stone, etc.).

Relatedly, energy-efficient solutions can help, such as cool roofs (designed to reflect more sunlight), green insulation (e.g., by using expanded polystyrene), solar panels, smart appliances (e.g., LED lighting; heating, ventilation and air conditioning (“HVAC”) systems, etc.) and water-saving fixtures (e.g., low-flow faucets).

Indeed, across both residential and commercial sectors, green buildings offer immense investment potential. Globally, markets are increasingly focused on sustainability, climate change, and environmental, social and governance-related (“ESG”) priorities. Understanding the cost of pursuing these goals is useful, given India's appetite for both residential and Grade A commercial/industrial properties.

The global shift towards sustainable development has led to a preference for green-certified commercial buildings among occupiers and developers. According to a JLL study conducted last year across major Indian cities, over two-fifths of Grade A office stock already holds green certifications, with projections to exceed 50% in the next decade. Additionally, nearly three-quarters of new supply is expected to be rated green, while older projects are likely to undergo upgrades to reduce their carbon footprint.

## BRSR

Reporting investments and capital expenditure in green and/or energy-efficient buildings can significantly improve ESG ratings and reduce future capital costs, including under the ‘reasonable assurance’-driven reporting regime (“BRSR Core”) introduced by the Securities and Exchange Board of India (“SEBI”) as a subset of the wider Business Responsibility and Sustainability Reporting (“BRSR”) framework.

## REGULATORY ENVIRONMENT

Under the Energy Conservation Act, 2001 (the “EC Act”), the Energy Conservation Building Code (“ECBC”) is an initiative pursued by the Bureau of Energy Efficiency (the “BEE,” under the Ministry of Power). The recent Energy Conservation (Amendment) Act, 2022 (the “EC Amendment”) has further expanded the regulatory scope of the EC Act to include large residential buildings and enhanced the ECBC's coverage.

## GREEN BUILDINGS: OPPORTUNITIES AND CHALLENGES

Emerging evidence highlights the higher value and reduced risk associated with green buildings compared to standard structures. New constructions also offer a significant opportunity to integrate energy efficiency into building design from the outset – rather than risking expensive retrofits later. Constraints include perceived high construction costs, misalignment of incentives and benefits, and the disparity between short hold periods with respect to real estate assets in portfolios. On the other hand, long building lifespans, with potential for stricter regulations in the future, pose a different set of concerns.

Despite these challenges, however, there is growing market demand for energy-efficient buildings in India. Local developers are realizing that the additional capital expenditure (“capex”) can be offset by long-term operational cost savings.

Another major innovation in the construction sector that champions sustainable buildings is prefabrication (“prefab”). Prefab technology uses cutting-edge construction methods to produce building modules offsite, later transported and

assembled onsite. Both temporary and permanent modular constructions are part of a wider trend towards embracing innovation within this sector. The obvious advantages of modular construction, including the reduction in waste and effluents, are likely to fuel demand in both residential and commercial real estate space.

## INVESTORS AND FINANCERS

Real estate financiers and investors can play a significant role in influencing the market for sustainable buildings. Commercial bank lending, including construction finance, mortgages, and green financial products, can accelerate green building adoption, along with lower interest rates and longer tenors. As a result, such banks can diversify their client base and product offerings, build higher-value and lower-risk portfolios, and access new sources of finance through green bonds, green securitizations, and green credit facilities. Institutional investors participating in green real estate can inject liquidity into the market, enabling primary lenders to free up capital to develop new green lending products. Multinational development finance institutions (“DFIs”) like the International Finance Corporation (“IFC”) can catalyze markets and attract private investors, including foreign ones. DFIs offer financial products, technical support, and capacity-building programs to develop enabling environments.

## GOVERNMENT

The government can encourage sustainable building investment by mandating building codes which ensure that green measures are incorporated from the beginning. Fiscal incentives such as tax breaks, grants, subsidies, loans and rebates, coupled with non-fiscal incentives like expedited permits, can further drive green building adoption.

Certain Indian states have revisited the National Building Code of India, 2016, to align it with their respective sustainability goals. Haryana, for example, incentivizes projects rated by Green Rating for Integrated Habitat Assessment (“GRIHA”)/ Indian Green Building Council (“IGBC”)/ Leadership in Energy and Environmental Design (“LEED”) by awarding projects through additional floor area ratios (“FAR”) in respect of all building use, except plotted residential.

## BUILDING CODES

The EC Amendment has introduced sustainability considerations into the building code, providing norms for the use of renewable sources and green buildings. The new code will apply to office and residential buildings, subject to specific criteria. Emerging ESG trends globally encourage multinational companies looking to lease or establish offices in India to prioritize green energy and sustainability ratings, motivating Indian developers to incur additional capex to procure such ratings.

As such, the existing framework does not provide any specific guideline for regulating innovations in sectors such as modular construction.

## RATING SYSTEMS

Voluntary green building rating systems like LEED, GRIHA and IGBC have seen some success, especially driven by green policies among large companies. Unlike the United States, India lacks a mandatory green construction code or green building standards. However, LEED is widely recognized by Indian developers, and GRIHA serves as the national rating system, evaluating buildings based on environmental performance.

## THE WAY FORWARD

Digitalization offers various new opportunities, such as in respect of efficient space cooling. Government policies should consider emerging digital technologies to enhance sustainability in building energy services, such as through the increased use of smart thermostats. However, digitalization raises concerns about data security, privacy, along with technical and economic considerations. Addressing additional capex requirements is also essential due to the growing demand for Grade A assets with appropriate green energy ratings.

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