

Knowledge Management Semi-Annual Climate Change and Energy Laws Compendium 2024 January – June 2024

## Semi-Annual Climate Change and Energy Laws Compendium 2024



#### Introduction

This compendium consolidates all the key regulatory developments, notifications, orders, judicial precedents and other updates in the climate change and energy sector in India, during the calendar period starting from January 2024 till June 2024.

## Electricity (Amendment) Rules, 2024

The Electricity Rules, 2005 ("**Rules**") underwent a comprehensive re-evaluation in 2023 whereby several amendments to key provisions were made. The reforms in the sector continue with the recent amendment to the Rules by way of the Electricity (Amendment) Rules, 2024 ("**Amendment Rules**"). Noteworthy among the amendments are the efforts to:

- 1. enable consumers to set up dedicated transmission lines;
- 2. rationalize the open access charges; and
- 3. address the disjunction between revenue and tariff structures.

## Establishment, operation and maintenance of dedicated transmission lines

- 1. The Electricity Act, 2003 ("Act") requires a license for establishing transmission lines<sup>1</sup>. However, an exemption to this provision was created for generating companies and persons setting up captive generating plants for establishing, operating or maintaining dedicated transmission lines by means of the Electricity (Removal of difficulty) Fifth Order, 2005<sup>2</sup>. This exemption saw a rise in demands by bulk consumers that they also be granted exemption from the requirement of obtaining transmission license for the purposes of setting-up dedicated transmission lines.
- It was in light of these demands, the Ministry of Power ("MOP") inserted Rule 21 into the Rules exempting generating companies, persons setting up captive generating plants and energy storage systems, and consumers with a load of not less than 25 MW (twenty-five megawatt) in case of inter state transmission system and 10 MW (ten megawatt) in case of intra state transmission system, from obtaining a transmission license for

<sup>&</sup>lt;sup>2</sup> Vide S.O 794(E) dated June 8, 2005, published in the Gazette of India, Extra., Pt. II, Sec. 3(ii), dated June 8, 2005.

<sup>&</sup>lt;sup>1</sup> Section 12, Electricity Act.

setting-up dedicated transmission lines, provided that such company, person or consumer complies with the regulations, technical standards, guidelines and procedures issued under the provisions of the Act.

#### **Revised open access charges**

- In order to rationalise open access charges, MOP incorporated a new Rule 22 into the Rules. The said amendment rationalises the (a) the wheeling charges; (b) charges for use of State Transmission Utility ("STU") networks by short-term open access consumers or temporary general network access ("GNA") users; and (c) additional surcharge.
- 2. Rule 22(1) lays down the formula for the calculation of wheeling charges as:



- 3. Rule 22(2) lays down the guidelines for determination of the charges for using network of STUs. According to this Rule, the charges for using State Transmission Utility network by the consumers availing short-term open access or temporary GNA, as the case may be, must not be more than 100% of the charges levied on consumers using STU network on long-term basis or on GNA basis as the case may be.
- 4. Further, Rule 22(3) provides that the additional surcharge levied on any open access consumer must not be more than the per unit fixed-cost of power purchase of the distribution licensee concerned.
- 5. Additionally, the proviso to Rule 22(3) further states that for a person availing GNA or open access, the additional surcharge are required to be linearly reduced from the value in the year in which general network access or open access was granted, so that, if open access is continued to be availed by such person, the additional surcharge must be eliminated within 4 (four) years from the date of grant of the GNA or open access. The said Rule also provides that the additional surcharge must not be leviable on the open access consumers,

to the extent that such open access consumer is maintaining the contract demand with the distribution licensee. Furthermore, the additional surcharge is required to be applicable only for the open access consumers who are or have been consumers of the concerned distribution licensee.

#### Gap between approved annual revenue requirement and estimated annual revenue from approved tariff

- 1. The new Rule 23 provides that the tariff must be cost reflective and further stipulates that there must not be any revenue gap between approved annual revenue requirement and estimated annual revenue from approved tariff except under natural calamity conditions.
- 2. The proviso to Rule 23 states that such revenue gap, if any, must not be more than 3 % of the approved annual revenue requirement. Furthermore, such gap along with the carrying costs at the base rate of the late payment surcharge as identified under the Electricity (Late Payment Surcharge and Related Matters) Rules, 2022 ("Late Payment Surcharge Rules") must be liquidated subject to a maximum of 3 (three) equal yearly instalments from the next financial year.
- 3. Further, Rule 23 provides that any gap between the approved annual revenue requirement and estimated annual revenue from approved tariff existing on the date of notification of the Amendment Rules, along with the carrying costs at the base rate of late payment surcharge as identified under the Late Payment Surcharge Rules, must be liquidated subject to a maximum of 7 (seven) equal yearly instalments starting from the next financial year.

#### Conclusion

- 1. The Amendment Rules present a significant stride towards reforming the electricity sector with commendable efforts to enable setting up of dedicated transmission lines for bulk consumers and rationalizing open access charges.
- 2. The amendment qua dedicated transmission line seems to address the practical difficulties faced by bulk consumers to connect to the grid through a

dedicated system owned by them. However, this amendment may not be in line with the provisions of the Act. It would be interesting to see how the interplay between the varied Rules and the Act plays out on stakeholder rights.

- 3. The rationalisation of open access charges, including wheeling charges and additional surcharge is a laudable initiative to facilitate uniformity of landed cost of electricity for consumers and to promote open access.
- 4. The requirement to maintain cost-reflective tariffs may ameliorate the financial health of the distribution utilities and improve the viability of the power sector by ensuring that the revenue generated from tariff aligns closely with the operational expenses, capital investments and maintenance costs incurred by distribution utilities.

#### MNRE issues Scheme Guidelines for pilot projects on use of green hydrogen in the transport sector



- 1. In January 2023, the Ministry of New and Renewable Energy ("MNRE") launched National Green Hydrogen Mission ("Mission"). The critical components of the Mission included implementation of pilot projects for replacing fossil fuels and fossil fuel-based feedstocks with green hydrogen and its derivatives in transport sector, and identification of operational issues and gaps with respect to technology readiness, regulations, implementation methodologies, infrastructure and supply chains.
- 2. To take the objective of the Mission forward, the MNRE on February 14, 2024, notified Scheme guidelines for implementation of pilot projects for

use of green hydrogen in the transport sector ("Scheme for Transport Sector") with a budgetary outlay of INR 496 crore (Indian Rupees four hundred and ninety-six crore) till Financial Year ("FY") 2025-2026. The objective of the Scheme for Transport Sector is to, inter alia, support the deployment of green hydrogen as fuel in buses and trucks, evaluate their economic viability and performance as well as demonstrate safe operations of hydrogen fueling stations.

#### **Applicability of the Scheme**

- 1. Under the Scheme for Transport Sector, the financial support is proposed to be provided in the following areas:
- Commercially viable technologies for: (a) use of green hydrogen as fuel in certain specific categories of buses and trucks; and (b) supporting infrastructure such as hydrogen fueling stations sector; and
- 3. Innovative use of green hydrogen in the transport sector, such as blending of methanol/ethanol derived from green hydrogen in automobile fuels.

#### **Financial Assistance and Disbursement**

Under the Scheme for Transport Sector, financial assistance is proposed to be provided to reduce the viability gap due to the relatively higher capital costs of the hydrogen fuel vehicles and necessary infrastructure, including the refueling facilities and distribution infrastructure. The funding depends up on the feasibility, specific needs and merits of each of the projects. However, the Scheme for Transport Sector does not envisage financial support for expenses on account of hydrogen production, land etc.

The funds are going to be budgeted amongst different types of pilot projects under the Scheme for Transport Sector and be released at different stages of the project, i.e., at the letter of award issuance stage, milestone achievements and upon completion of the project.

#### **Monitoring Framework**

1. The overall responsibility of monitoring and implementing the Scheme for Transport Sector lies is with the steering committee ("**SC**"), set up under

the co-chairpersonship of Secretary, the Ministry of Road Transport and Highways ("**MoRTH**") and Secretary, MNRE. In case of any ambiguity in the provisions of the Scheme for Transport Sector, the SC is empowered to provide its recommendations to resolve the issues, however, the decision of MNRE is final.

- 2. Additionally, a Project Appraisal Committee ("**PAC**") established under the chairpersonship of Additional/Joint Secretary, MoRTH, is required to review and evaluate the proposed projects and recommend the projects eligible for sanction of financial assistance. Further, PAC must monitor the sanctioned projects for allocation of funds based on the progress of such projects. The recommendations are required to be sent to MNRE, and financial assistance must be released through MoRTH.
- 3. An implementing agency (discussed below) is responsible for formulating mechanisms for monitoring the progress of the pilot projects. The same will be shared with MNRE and MoRTH.

#### **Implementation Methodology**

The MoRTH is authorized to select an implementing agency ("**IA**") for the Scheme for Transport Sector. The IA must invite/call for proposals for the projects. Some of the requirements for the proposals provided are as follows:

- The entities eligible to submit the proposal include central public sector undertakings (CPSUs), state public sector undertakings, private entities, joint ventures/partnerships of such entities;
- 2. Each project that will be submitted to the IA should mention the name of 'executing agency'. In the case of joint venture, the lead agency is going to be the executing agency.
- 3. The proposals must be evaluated by PAC and the IA is authorised to issue the letter of award upon receipt of sanction from MNRE. The executing agency must endeavour to complete the project within 24 (twenty four) months from the date of award.
- 4. The implementing agency along with the executing agency are required to identify the routes where the projects must be developed for finalization by MoRTH.

#### Project Timelines and Utilisation of Funds

The Call for Proposals are required to specify the timelines for completion of the pilot projects and in case of delay in completion of the project, it is authorised to grant extension upto 6 (six) months, with the approval of the SC and without imposition of any penalty. However, in case of any delay in completion beyond a period of 6 (six) months, the extension can only be granted after the approval from the MNRE with suitable penalties as provided in the proposal document.

Further, the financial assistance should be utilized by the executing agency strictly for the purpose for which it is sanctioned. In case the granted funds are utilized for other purposes or upon failure to complete the pilot project, the executing agency is obligated to refund the grant to the MNRE along with the applicable interest under the General Financial Rules, 2017. Inordinate delays in completion of the project also entitles the MNRE to retract the sanctioned funds or cancel the project in consultation with the SC.

#### Conclusion

This Scheme for Transport Sector launched in line with the Mission provides a great opportunity for India to transition to a cleaner economy in line with the Government of India's ("GoI") aim to considerably reduce India's dependence on crude oil import and consumption by 2030 and achieve its COP 26 commitments to reduce carbon emission intensity of its GDP by 45 % by 2030 and to reach net-zero carbon emissions by 2070. The Scheme for Transport Sector furthers India's commitment towards reaching net zero by 2070. It is also in line with the Government's aim for adoption of green hydrogen across sectors and industries in India. Given that the green hydrogen sector is at a nascent stage and there still exists regulatory void, the implementation of pilot projects under the Scheme for Transport Sector will help the Government to understand the regulatory challenges and also in developing the future regulatory roadmap, including changes to the Automative Industry Standards for safety and procedural requirements for type approval of hydrogen powered vehicles issued as well as the safety standards for related infrastructure

#### Scheme guidelines for setting up hydrogen hubs in India under the Mission

MNRE *vide* letter dated March 15, 2024, issued the 'Scheme Guidelines for Setting Up Hydrogen Hubs in India under the Mission' (**"Hydrogen Hub Scheme**"). This Hydrogen Hub Scheme aims to identify and develop regions suitable for large-scale hydrogen production, establish integrated green hydrogen hubs, enhance cost-competitiveness in comparison to fossilbased alternatives, maximize domestic production with financial support, promote large-scale utilization and export, and improve the viability of green hydrogen assets across the value chain.

#### **Salient Features**

- Budget allocation: A budget of INR 200,00,000 1. (Indian Rupees two hundred crore) until FY 2025-26 is allocated to the Hydrogen Hub Scheme for core infrastructure development at hydrogen hubs. These funds are going to be utilized for various purposes including the establishment of storage and transportation facilities for green hydrogen, upgrading pipeline infrastructure, providing green hydrogen-powered vehicle refueling facilities, deploying hydrogen compression and storage technologies, constructing water treatment facilities, developing bunkering facilities at ports, upgrading shipping infrastructure, installing power transmission infrastructure, land redevelopment, implementing energy storage solutions, setting up effluent treatment plants, and any other necessary infrastructure.
- 2. **Funding and disbursement**: The Hydrogen Hub Scheme stipulates that disbursement of central financial assistance, must be aligned with the milestones specified in the Call for Proposals.
- 3. **Completion of all projects**: All projects are required to be commissioned by March 31, 2026.
- 4. **Timelines and Penalty**: The Hydrogen Hub Scheme stipulates that grants must be solely allocated for the designated project without diversion, with terms and conditions ensuring adherence to project completion guidelines and safeguarding Government's interests. Extension for project completion, up to 6 (six) months, may

be granted without any penalty, on the basis of adequate justification, with the SC approval, while further extensions require MNRE's approval with associated penalties. MNRE reserves the right to retract sanction or cancel projects in cases of unreasonable delays or non-compliance with Hydrogen Hub Scheme objectives, in consultation with the SC.

5. Monitoring Framework: The Hydrogen Hub Scheme entails the establishment of a SC, chaired by the Secretary of MNRE, overseeing the Hydrogen Hub Scheme's overall monitoring and project evaluation. Comprising of members such as the Mission Director of the Mission and other nominated individuals, the SC is responsible for ensuring successful implementation of the Hydrogen Hub Scheme, suggesting modifications, and resolving ambiguities. Additionally, a PAC, chaired by the Mission Director of Mission, is tasked with evaluating project proposals and recommending projects for funding. The PAC monitors sanctioned projects quarterly for fund allocation based on project progress, with recommendations forwarded to MNRE for fund release. Furthermore, Scheme Implementing Agency ("SIA") is required to devise a monitoring mechanism for tracking pilot project progress, and submit quarterly monitoring reports to MNRE.

#### **Implementation Methodology**

- 1. SIA, appointed by MNRE must invite 'Call for Proposals', where eligible agencies including central public sector undertakings, State- public sector undertaking, private sector entities, state corporations, and consortia will be invited to submit project proposals directly to the SIA.
- 2. Evaluation of proposals must be based on the following parameters:
  - a) Planned production capacity of hydrogen and its derivatives;
  - b) Technology, applications, and end-use; and
  - c) Financial commitment.
- Evaluation of proposals as per above mentioned assessment criteria must be given a weightage of 80%. Rest 20% weightage would be on the basis of presentation made before the evaluation committee to assess the preparedness of applicant

and to check and rectify any incongruence /gaps in the proposal.

4. The letter of award is required to be issued to the Executing Agency ("**EA**") by the SIA upon administrative sanction from MNRE.

#### Conclusion

The issuance of the Hydrogen Hub Scheme by the MNRE marks a significant step towards fostering the development of green hydrogen infrastructure in India. With a budget allocation of INR 200,00,000 (Indian Rupees two hundred crore) until FY 2025-26, the Hydrogen Hub Scheme aims to drive large-scale hydrogen production, establish integrated hubs, and enhance competitiveness vis-a-vis fossil-based alternatives. While the guidelines offer a structured framework for project implementation and funding disbursement, there may be challenges in meeting the requirements outlined, particularly regarding timeline adherence and securing necessary approvals. Nonetheless. the establishment of oversight committees such as the SC and PAC reflects a commitment to ensuring transparency and effectiveness in Hydrogen Hub Scheme execution. Amidst growing global interest in hydrogen as a clean energy solution, the Hydrogen Hub Scheme serve as a roadmap for stakeholders navigating the burgeoning green hydrogen market in India.

#### Scheme Guidelines for implementation of R&D Scheme under the Mission



The MNRE *vide* notification dated March 15, 2024, issued the 'Scheme Guidelines for the implementation of R&D Scheme under the Mission' ("**R&D Scheme**").

The Mission, which was launched in January 2023, is focused on a holistic development of a thriving, selfsufficient, indigenous green hydrogen sector in India. This would mean not only focusing on development of India's green hydrogen manufacturing capabilities or increasing affordable supply of renewable energy, but also emphasizing on building a knowledge base through robust research and development ("**R&D**") initiatives in the field of green hydrogen as well as upskilling India's workforce proposed to be engaged in the green hydrogen sector. This R&D Scheme, being aligned with the broader aim of the Mission, looks towards building a robust R&D ecosystem with on collaboration amongst industryemphasis academia-Government to establish an innovation ecosystem for green hydrogen technologies as well as facilitate scaling up and commercialization of the technological advancements by providing requisite policy and regulatory support to R&D activities.

#### **Budgetary Outlay**

As per the R&D Scheme document, the budgetary outlay for the R&D initiative will be INR 400,00,000 (Indian Rupees four hundred crore) until the financial year 2025-26.

#### **Key Components**

As per the R&D Scheme, the following types of R&D projects are going to be provided with fiscal assistance by the GoI:

- 1. **Mission mode projects (0 (zero) 5 (five) years horizon)**: These projects focus on development of an end-product in partnership between Government and industry. These projects leverage existing knowledge and infrastructure and projects under Mission mode are likely to include development of indigenous modular electrolysers, polymer electrolyte membrane (PEM) based fuel cells.
- 2. Grand challenge projects (0 (zero) 8 (eight) years horizon): These projects focus on overcoming challenges related to licensing and supply constraints and are going to be taken up on consortium basis. The projects include componentspecific research with an aim to upscale existing domestic manufacturing capabilities which lead to a lowering of cost of critical technologies. It is expected that Grand Challenge Projects will be built around manufacture of critical electrolyser and fuel cell components like membrane electrode

assemblies, electrocatalysts, catalyst coated membranes, gas diffusion layers, bipolar plates etc.

- 3. Blue sky projects (0 (zero) 15 (fifteen) years horizon): These projects focus on establishing competitive advantage for the Indian industry including greenfield and indigenous R&D projects. Blue sky projects are proposed to develop capabilities of the Indian R&D sector such as development of third generation electrocatalysts, reversible solid oxide electrolysers (SOECs) and solid oxide fuel cells (SOFCs), seawater electrolysis, thermo-catalytic pyrolysis, plasma pyrolysis, salt cavern surveys, etc.
- 4. **Centers of Excellence**: The R&D Scheme also focuses on identifying, developing and supporting centers of excellence, by building subject expertise and research infrastructure in these centers. The approach proposed is based on involving the academia, industry as well as the Government to ensure coordinated transfer and commercialization of new green hydrogen technology developed as a result of R&D activities.

In addition to the above, the R&D Scheme proposes support for innovative medium and small enterprises (MSMEs) and start-ups working on developing indigenous technology.

#### **Implementation of Scheme**

The R&D Scheme is proposed to be implemented in a diverse manner with the Government looking to follow several routes. Some of these are mentioned below:

- 1. MNRE may, from time to time, issue 'Call for Proposals' for R&D projects through advertisement in scientific / technological journals and the MNRE website. Proposals are going to be invited against identified challenges, research problems in fostering green hydrogen ecosystem for R&D areas.
- 2. Interested institutions/ individuals are permitted to submit proposals in relevant areas of research at any time to the MNRE. Such proposals must be evaluated for financial support according to their relevance to the Ministry's research priorities.
- 3. MNRE is also going to look towards *suo moto* soliciting proposals from identified experts, institutions and industry capable of implementing

technology development activities in relevant areas.

#### **Evaluation of Proposals Submitted**

The MNRE is authorised to accept proposals for R&D projects submitted by academic institutions, universities, government/non-profit research organizations as well as private institutes/research organizations and industries. The proposals submitted must be evaluated on the following parameters by Sectoral Sub-Committees ("**SSC**") constituted under the Advisory Group chaired by the Principal Scientific Advisor, the GoI:

- 1. Relevance and quality of the proposal.
- 2. Availability of clear statement of quantified objectives and deliverables.
- 3. Technical feasibility of the proposal.
- 4. Technology Readiness Level of the proposed proposal/project.

#### **Disbursement of Financial Support**

Under the R&D Scheme the proposals which are approved by the SSCs are entitled to financial support from the Government under the Mission. Academic institutions, universities, government/non-profit research organizations would be eligible for financial support up to 100% of the total project cost, subject to a cap as decided by the concerned SSC. Private institutes/research organizations and industries would receive financial support up to 80% of the total project cost subject to a cap as decided by the concerned SSC.

The manner of release of the financial support is going to be as follows:

- Up to 30% of the total assistance (excluding the institutional overheads) must be released along with the sanction of the project, depending on the requirement of equipment in the project.
- Remaining financial assistance (excluding the institutional overheads) is going to be sanctioned as per the annual allocation based on the progress/milestone achieved in the project.
- 3. Overhead charges must be restricted up to 8% of the total project cost for the projects costing up to

INR 1,00,00,000 (Indian Rupees one crore). For project costs between INR 1,00,00,000 (Indian Rupees one crore) and INR 5,00,00,000 (Indian Rupees five crore), the overhead charges must be 8% of the project cost or INR 15,00,000 (Indian Rupees fifteen lakh) whichever is less. For projects cost of more than INR 5,00,00,000 (Indian Rupees five crore), the quantum and overhead charges are going to be decided by the MNRE on a case-to-case basis. These institutional overhead costs must be released to the project proponent only after successful completion of the project, review by the concerned SSC and on receipt of the project completion report and conclusion of the financial due diligence.

#### **Other Key Terms**

The R&D Scheme contemplates certain other key conditions to govern any financial assistance to be provided to the project proponents. These include:

- 1. the grantee/ project proponent must be responsible for protecting the intellectual property rights being generated through the research projects under the R&D Scheme;
- 2. the funds are going to be released exclusively for the specific project sanctioned and has to be spent on the project within the approved time duration. The grantee organization is not permitted to seek or utilize funds from any other organization (government. semi-government, autonomous and private bodies) for this project unless specifically approved for joint funding by the SSC. Any unspent balance out of the amount sanctioned must be surrendered to the GoI;
- 3. for permanent, semi-permanent assets acquired solely or mainly out of the project grants, an audited record in the form of a register must be maintained by the project proponent. For the purpose of the R&D Scheme "Assets" include (a) the immovable property acquired out of the grant; and (b) movable property of capital nature where the value exceeds INR 50,000 (Indian Rupees fifty thousand). The project proponent is required to send to MNRE a list of assets acquired from the grant. The grant must not be utilized for construction of any building unless specific provision is made for that purpose;

- 4. assets acquired in the project are required to be shared proportionately between Government and project proponents in accordance with the cost sharing pattern of the project. The assets must be disposed of or encumbered or utilized for any purpose other than those for which the grant had been sanctioned, without the prior permission of this MNRE; and
- 5. on conclusion of a project, Government will have the discretion to sell or otherwise dispose of its share of the assets, which are the property of the GoI. The project proponent is required to provide the Government necessary assistance and facilities for arranging the sale of these assets. The Government may exercise discretion to gift its share of assets to the grantee organization or transfer them to any other organization if it is considered appropriate.

#### Conclusion

As part of the Mission, the Government is looking to build capacities to produce at least 5 (five) million metric tonne ("MMT") of green hydrogen per annum by 2030, with potential to reach 10 (ten) MMT per annum with growth of export markets. To achieve this objective, the Mission contemplates a holistic approach which goes beyond demand and supply incentives but also involves evolving an ecosystem for R&D activities in the green hydrogen sector. The aim is to develop and build up India's indigenous capabilities of producing green hydrogen in India and this will only be possible if India's R&D sector is provided with ample support, financially and technically. This R&D Scheme, which involves funding of R&D projects in the green hydrogen space must ensure mitigation against the risk technological disruptions and unforeseen developments. As per the Mission document, the call for proposals by the Government for implementing R&D projects was scheduled to take place in financial year 2024-25 and with the notification of this R&D Scheme and the publication of the first set of call for proposal documents, the roadmap of the Mission seems to be on track.

## SchemeGuidelinesforimplementation of Pilot projects foruseofGreenHydrogenintheshipping sector under the Mission

The MNRE issued the Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the shipping sector ("Scheme for Shipping Sector") on February 1, 2024, under the Mission. The Scheme for Shipping Sector is in furtherance of the Mission's objective to decarbonize the economy, reduce dependence on fossil fuel imports, making India self-reliant and emerging as a global hub for production, usage, and export of green hydrogen. The future demand and trade of green hydrogen are heavily influenced by shipping and port operation making them the key drivers. To evaluate the potential of green hydrogen and its derivates, the Mission called for initiating pilot projects through the Ministrv of Ports. Shipping and Waterwavs ("MoPSW").

The Mission provided 2 (two) components for supporting utilization of green hydrogen in the shipping sector. Firstly, retrofitting of existing ships to run on green hydrogen or its derivatives (**"Component A**") and secondly, development of bunkering and refueling facilities on ports for green hydrogen-based fuels (**"Component B**"). The SIA for Component A is going to be Shipping Corporation of India or its successors in case of disinvestment, and SIA for Component B is going to be nominated by MoPSW.

The Scheme for Shipping Sector aims to evaluate the economic viability of the use of green hydrogen and its derivatives in the shipping sector. It also targets to assess effectiveness, evaluate the performance and demonstrate safe and secure operations of green hydrogen and its derivates based propulsion system, bunkering and refueling systems.



#### **Salient Features**

1. SIAs are required to transparently award projects by following the General

Financial Rules for selection/procurement. The executing agencies ("**EA/s**") are authorised to share knowledge and outcome of the projects vide completion and monitoring reports, publications, as well as best practices and lessons learned.

- 2. The Scheme for Shipping Sector would fund capital expenditure on the components and not expense of production. Financial assistance for projects is going to be based on the need, merit and feasibility.
- 3. A SC must oversee the Scheme for Shipping Sector and its projects, ensure their successful implementation and recommend adjustments as needed. It will also make suggestions to resolve difficulties arising in interpretation of the Scheme for Shipping Sector.
- 4. A PAC is required to assess project proposals for recommending sanction of funds, monitor the projects quarterly, and advice MNRE on release of the central financial assistance.
- SIAs must provide quarterly monitoring reports to the MoPSW and MNRE and establish a mechanism to monitor progress of the pilot projects.
- The call for proposals is required to 6. include timelines and an extension (without penalty) of 6 (six) months may be granted basis adequate reasons approved by the SC. Extension beyond 6 (six) months must require approval from the MNRE and is subjected to penalties. EAs/ projects encountering unjustified delays or failing to adhere to objectives/provisions the of Scheme/Mission may be cancelled/shortclosed by the MNRE in consonance with the SC.
- 7. Terms and conditions set in the award must incorporate appropriate clauses to safeguard interests of the Government, should the EA fail to utilize the grant for its designated purpose or fail to complete the project.

8. As outlined within the Scheme for Shipping Sector, the MoPSW must release further guidelines to protect intellectual property rights resulted from the funded projects.

#### **Scope and Funding of the Components**

Component A includes retrofitting of existing oceangoing vessels with methanol/green ammonia based propulsion system or green fuel bases propulsion system, for those having and not having engine with electronic fuel injection system, respectively. It also includes retrofitting/development of an inland waterways vessel/ coastal waters ship with appropriate green methanol/green ammonia based propulsion system.

Under Component B, SIA is required to establish bunkering and refueling facilities as a pilot initiative, at a minimum of 1 (one) port along an international shipping route.

The Scheme for Shipping Sector must be executed with a total budgetary allocation of Rs 115,00,00,000 (Indian Rupees one hundred and fifteen crore) until financial year 2025-26, met from budget provisions under the Mission. An indicative, interchangeable and inter-se transferable allocation of INR 80,00,00,000 (Indian Rupees eighty crore) and INR 35,00,00,000 (Indian Rupees thirty-five crore) to Component A and B, respectively, has been made by the Scheme for Shipping Sector.

#### **Implementation Approach**

1. Selection of ships and ports: For Component A,



SIA is required to identify ships suitable for retrofitting based on factors like size, route, and existing technology. They must ensure a diverse representation to assess various scenarios, and selected ships must have sufficient remaining operational life after retrofitting. For Component B, MoPSW is required to choose suitable port(s) and SIAs for establishing green hydrogen bunkering and refueling facilities.

2. **Call for proposals**: Call for proposals must be issued by and submitted to the SIAs. Eligible EAs

include central public sector undertakings, state public sector undertakings, private sector entities, state corporations, Indian research and development institutions, academic institutions, and joint ventures or consortiums involving these entities, possessing the requisite capabilities to advance completed pilot projects towards commercialisation.

- 3. **Evaluation and award**: Proposals must be assessed by the PAC as per criteria provided in the call for proposal. The letter of award is required to be issued by the SIA upon approval from the MNRE.
- 4. **Executing and commissioning**: Projects must adhere to the approved scope of work. SIAs must strive to complete pilot projects by December 31, 2027, for Component A and by December 31, 2025, for Component B.
- 5. **Technical and regulatory approvals**: The EAs are solely responsible for obtaining necessary safety, environmental, and regulatory approvals.
- 6. **Testing and certification**: The EAs must ensure compliance with testing and certification requirements from relevant agencies.
- 7. **Project completion**: Within 1 (one) month of the completion of the project, SIA is required to submit a project completion report to the PAC, including technical components (i.e., the hardware, software, and technologies employed), challenges faced, and solutions implemented, project outcome (comprising the technical know-how generated and data collected), and suggestions for future projects based on lessons learned.

#### Conclusion

Worldwide, the shipping sector contributes approximately 3% of the total CO2 emissions. India's endeavour to diminish its carbon footprint will contribute to fulfilling the International Maritime Organization's objective of achieving a net-zero Greenhouse Gas ("**GHG**") emission by 2050.

As of March 2022, GHG emissions from maritime (excluding military operations) contribute to 1% to the overall transport sector GHG emissions i.e. approximately 2,744.34 Gg CO2e. Implementing Scheme for Shipping Sector will lead to development of requisite infrastructure such as refuelling stations, storage, and distribution networks, thereby

establishing a green hydrogen ecosystem. Increase in usage of green hydrogen in the industry will be a natural consequence of reduction in its cost of production.

It is anticipated that the pilot projects will provide valuable insights for scaling up and commercially deploying green hydrogen in the shipping sector in the future. These initiatives will assist in identifying operational obstacles and shortcomings related to technological preparedness, regulatory compliance, implementation strategies, infrastructure, and logistical networks. The Scheme provides a compact framework for implementing the pilot projects, outlining clear objectives, eligibility criteria, evaluation processes, and monitoring mechanisms. Execution of the Scheme should be carried out in a way to ensure effective project implementation.

# SchemeGuidelinesforimplementation of Pilot projects foruse of GreenHydrogen in steelsector under the Mission

The MNRE vide notification dated February 2, 2024, issued the 'Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in Steel Sector under the Mission' ("**Scheme for Steel Sector**").

The Mission is an initiative aimed at fostering the adoption of green hydrogen as a clean and sustainable energy source across various sectors of the economy. In alignment with this Mission, the Scheme for Steel Sector has been formulated to facilitate the integration of green hydrogen technologies in steel manufacturing processes. The primary objective of these guidelines is to support the deployment of pilot projects within the steel sector for utilizing green hydrogen as an alternative energy source. This initiative aims to reduce carbon emissions, enhance energy efficiency, and promote sustainable practices in the steel industry.

#### **Salient Features**

- 1. Projects intending to develop pilot scale/ demonstration plants for replication of technology will be supported and encouraged.
- 2. Pilot projects in the steel sector are going to be implemented through the Ministry of Steel

("**MoS**"), who will finalise the SIA. Further, the MoS is also required to prepare a transparent and competitive framework for selection of the pilot projects.

- 3. The SIA must share knowledge and outcome of the pilot projects through project completion reports, monitoring reports, workshops and publications to propagate findings and lessons from the pilot projects.
- 4. The Scheme for Steel Sector would primarily fund the capital equipment required for use of hydrogen in the iron and steel manufacturing process. However, expenses on account of production of hydrogen, land, etc. are not going to be funded.
- 5. A SC under the co-chairpersonship of Secretary, MoS and Secretary, MNRE, must oversee the Scheme for Steel Sector and its projects, ensure their successful implementation and recommend adjustments as needed. It must also make suggestions to resolve difficulties arising in interpretation of the Scheme for Steel Sector.
- 6. A PAC is authorised to assess project proposals for recommending sanction of funds, monitor the projects quarterly, and advice MNRE on release of the central financial assistance. Such financial support for projects must be evaluated and granted, basis the needs, merits and feasibility of each project. The PAC is required to monitor sanctioned projects for allocation of funds based the progress and on project send recommendations to MNRE for disbursement of central financial assistance.
- 7. The calls for proposals must indicate a suitable timeline for completing the project, with an extension of up to 1 (one) year, which may be granted basis adequate justification, with the approval of the SC, without imposition of any penalty. Further extension beyond 1 (one) year must only be granted with the approval of MNRE, with appropriate penalties (to be specified by SIAs in calls for proposals). Projects encountering unjustified delays or failing to adhere to objectives/provisions of the Scheme for Steel Sector /Mission may be cancelled/short-closed by the MNRE in consonance with the SC.
- 8. The MoS is required to issue the Scheme for Steel Sector for safeguarding of any intellectual property rights which may be generated through projects

funded under the Scheme for Steel Sector. Such guidelines may also be part of the call for proposals issued by the SIAs.

#### **Funding and Disbursement**

Funding of the approved projects must not exceed 50% of the total cost of the project. However, for consortium of Independent Steel Producers and Direct Reduced Iron ("**DRI**") industry or associations of DRI industry, the funding may be increased to 70% of the project cost, subject to sanction of the PAC.

The funds may be disbursed to the selected entities in the following manner:

- 1. 20% at the time of issue of letter of award;
- 2. 70% as per the milestones specified in the calls for proposals; and
- 3. 10% upon project completion.

The total budgetary outlay for implementing the scheme is INR 455,00,00,000 (Indian Rupees four hundred and fifty-five crore) until the financial year 2029-30.

#### **Implementation Approach**

- 1. Selection of application areas: Pilot projects are going to be set up in the steel sector, implemented through the MoS and the SIAs. The SIAs are required to issue calls for proposals for the projects and eligible entities would include central public sector undertakings, state public sector undertakings, private sector, state corporations, Indian research and development institutions, research labs, academic institutions, joint ventures/partnerships/consortiums of such entities.
- 2. **Evaluation and award**: The proposals are required to be evaluated by the PAC according to the criteria mentioned in the call for proposals. The selected entity will be issued the letter of award by the SIA, upon receipt of approval from MNRE. Pilot projects must focus on the integration of green hydrogen production, storage, transportation, and utilization within steel manufacturing processes.
- 3. **Execution and commissioning**: Work must be executed as per the approved scope of work.

- 4. **Technical and regulatory approvals**: The selected entities are solely responsible for obtaining the safety, environment and regulatory approvals as per requirements.
- 5. **Testing and certification**: The selected entities must get necessary testing and certification compliance from concerned agencies.
- 6. **Project completion**: Within 1 (one) month from project completion, the SIAs must submit the project completion report to the PAC. Such report will include technical aspects of the project, technical issues faced during the project, outcome of the project with respect to data collection and recommendations for future projects basis knowhow generated from the completed project.

#### Conclusion

In the last decade, Indian steel industry has significantly expanded, and surpassed Japan to become the world's second largest producer of crude steel. However, steel industry is also one of the leading producers of carbon dioxide, contributing to 12% of the CO2 emissions in the country. Use of green hydrogen in the steel manufacturing process will pave the way for improved energy efficiency, reduction in operating costs and improvement in the quality of steel production. The Scheme for Steel Sector represent a significant step towards realizing the objectives of the Mission. By promoting the adoption of green hydrogen technologies, the steel industry can mitigate its environmental footprint while enhancing competitiveness and sustainability. Through collaborative efforts and targeted investments, the pilot projects will pave the way for widespread adoption of green hydrogen across the steel sector, driving India towards a cleaner and greener future.

SchemeGuidelinesforimplementationof`StrategicInterventionsforGreenHydrogenTransitionProgramme – ComponentI:IncentiveScheme forElectrolyserManufacturingTranche – II'



In January 2023, the Union Cabinet approved the Mission with an initial outlay of INR 19,744 crore (Indian Rupees nineteen thousand seven hundred and forty-four crore), allocating funds for various components including the Strategic Interventions for Green Hydrogen Transition ("SIGHT") Programme ("SIGHT Programme"), pilot projects, research and development, and other mission components. The SIGHT Programme proposes 2 (two) distinct financial incentive mechanisms to support domestic manufacturing of electrolysers and production of Green Hydrogen. Tranche I of the SIGHT Programme awarded tenders to 10 (ten) companies on January 9, 2024, for establishing green hydrogen production facilities in India with a total capacity of 4,12,000 (four lakh twelve thousand) tons per annum.

Building on this, the MNRE on March 16, 2024, issued the 'Scheme Guidelines for implementation of Strategic Interventions for Green Hydrogen Transition (SIGHT) Programme - Component I: Incentive Scheme for Electrolyser Manufacturing Tranche – II' ("Scheme for Electrolyser"). The objectives of the Scheme for Electrolyser include maximizing indigenous electrolyser manufacturing capacity, achieving a lower levelized cost of hydrogen production, ensuring globally competitive performance and quality of products, progressively enhancing domestic value addition, and supporting established and promising technologies.

#### **Salient Features**

- 1. **Budget allocation**: The Scheme for Electrolyser, allocated a total outlay of INR 4,440 crore (Indian Rupees four thousand four hundred and forty crore), will span from FY 2025-26 to FY 2029-30.
- 2. Implementing agency: MNRE is empowered to oversee the Scheme for Electrolyser's execution through the Solar Energy Corporation of India Limited ("SECI"). SECI's responsibilities encompass administrative, managerial, and implementation support, including application evaluation, issuance of acknowledgments and letters of award, verification of incentive claims, and quarterly progress reporting to MNRE. SECI is entitled to 0.5% of the disbursed incentive amount as administrative charges and holds authority to conduct physical inspections and enlist third-party agencies for technical verification.
- 3. **Guiding principles**: The Scheme for Electrolyser adheres to specific guiding principles:
  - a) Support for electrolyser manufacturing will be provided in terms of INR/kWh (Indian Rupees/per kilowatt hour) corresponding to the manufacturing capacity;
  - b) The base incentive will commence at INR 4440 (Indian Rupees four thousand four hundred and forty) perkW in the inaugural year and will gradually decrease annually; and
  - c) Incentives are required to be disbursed for 5 (five) years from the onset of electrolyser manufacturing.
- 4. **Penalties**: Bidders participating in the Scheme for Electrolyser are mandated to submit earnest money deposit ("**EMD**") as specified in the tender document. Non-compliance with the tender terms may lead to forfeiture of the EMD. Successful bidders, upon acceptance of the award, must furnish performance bank guarantees (PBG) or analogous instruments, as stipulated in the tender document. Failure to adhere to project commissioning timelines or default in project execution may result in forfeiture of the commensurate bank guarantees or similar performance guarantee instruments by SECI. Detailed modalities regarding penalties, including encashment of EMD, bank guarantees, accrued interest, or other penalties collected by SECI, will be outlined in the tender documents.

5. **Monitoring**: Oversight will be conducted by a Scheme Monitoring Committee ("**SMC**") chaired by the Secretary of MNRE. The SMC, comprising representatives from MNRE, SECI, and relevant experts, are required to periodically review the implementation status and performance of electrolyser manufacturing capacities awarded under the Scheme for Electrolyser, facilitating resolutions for any encountered difficulties.

#### Implementation methodology

- 1. The Scheme for Electrolyser is designed to promote the manufacturing of efficient and top-tier electrolysers within India. It outlines a detailed selection process for bidders, evaluating them based on the following specific parameters:
  - a) Performance quotient based on the Specific Energy Consumption; and
  - b) Local value addition for each year of production

Additionally, verification of local value addition must be conducted annually to ensure compliance with the Scheme requirements.

- 2. Eligibility: The Scheme for Electrolyser imposes stringent eligibility criteria, requiring bidders to meet financial stability and manufacturing capability standards. Bidders, whether single companies or joint ventures/consortiums, must demonstrate a net worth equal to or exceeding INR 21,00,00,000 (Indian Rupees twenty-one crore) per MW for bucket 1 or 2A, and INR 30,00,000 (Indian Rupees thirty lakh) per MW for bucket 2B, with the option to showcase financial capability through affiliates. Additionally, electrolysers produced must adhere to technical specifications including specific energy consumption of 56 kWh per kg of Hydrogen production, a guaranteed life of at least 60,000 hours, and a minimum Local Value Addition of 40% for alkaline electrolyzers and 30% for other technologies in the first year of production, ensuring the production of highquality equipment fostering efficient green hydrogen generation.
- 3. In order to promote indigenously developed electrolyser technologies, bids in the second tranche of 1500 MW (one thousand five hundred

megawatt) must be called in 3 (three) separate buckets.

4. Payment incentives for the selected bidders are also set in the Scheme for Electrolyser guidelines.

#### Conclusion

In light of the burgeoning global interest in green hydrogen initiatives, the Mission, has set forth a promising trajectory towards sustainable energy production. The issuance of the Scheme for Electrolyser for the SIGHT Programme's Electrolyser Manufacturing Component marks a pivotal step in bolstering domestic manufacturing capabilities and fostering a competitive market landscape. By incentivizing electrolyser production and green hydrogen generation, the Scheme for Electrolyser aims to elevate India's position in the renewable energy sector while aligning with global sustainability objectives.

The guidelines present an opportunity for stakeholders to strategically position themselves in the growing green hydrogen market. The Scheme for Electrolyser outlines stringent eligibility criteria and incentive structures, ensuring the participation of qualified entities and the delivery of high-quality electrolysis technology. Moreover, the emphasis on indigenous manufacturing and technical standards underscores a commitment to innovation and competitiveness, offering clients a pathway to contribute to India's energy transition while capitalizing on emerging market trends. As the green hydrogen landscape evolves, stakeholders must navigate these guidelines adeptly to leverage the Scheme for Electrolyser 's potential for growth and innovation, fostering a sustainable energy future for India and beyond.

#### Exemption for Renewable Energy plants located inside special economic zone or export-oriented units supplying power exclusively for production of green hydrogen

 The MNRE vide 2 (two) office memorandums each dated May 27, 2024, issued exemptions for renewable energy plants located inside a special economic zone ("SEZ") or export oriented unit ("**EOU**") and supplying power exclusively for production plants of green hydrogen (or its derivatives), which are located inside a SEZ or set up as an EOU (either the same or different SEZ/EOU) from purview of the following:

- Approved List of Models and a) the Manufacturers ("ALMM") for Solar PV Modules, issued by MNRE under the Approved Manufacturers of Models and Solar Photovoltaic Modules (Requirements for Registration) Order, Compulsory 2019. including all clarifications/amendments and guidelines thereunder; and
- b) the Revised List of Models and Manufacturers ("RLMM") for Wind Turbine Models, issued by MNRE under the Guidelines for Development of Onshore Wind Power Projects issued vide F.No.66/183/2016-WE dated October 22, 2016, including all clarifications/amendments and procedures thereunder.
- 2. The ALMM mandate requires solar project developers to purchase modules from an approved list, serving as a non-tariff measure to promote domestic manufacturing. Similarly, the RLMM provides a list of type and quality certified wind turbine models eligible for installation in the country.
- 3. These exemptions are intended to facilitate the swift deployment of renewable energy infrastructure, which is essential for the production of green hydrogen and its derivatives within SEZ/EOU. Further, these exemptions will apply to the renewable energy plants to be commissioned before December 31, 2030, to supply power to plants for production of green hydrogen and its derivatives

#### Conclusion

From an industry perspective, these exemptions represent a significant and welcome action by the MNRE. By removing the requirement for renewable energy plants within SEZs or EOUs to adhere to the ALMM for solar PV modules and the RLMM for wind turbine models, the MNRE has effectively lowered barriers to the rapid deployment of renewable energy infrastructure critical for green hydrogen production. This move is expected to result in reduced costs for green hydrogen producers, as they will have greater flexibility in sourcing power. Consequently, these producers can access more competitively priced options, thereby enhancing their ability to produce green hydrogen and its derivatives economically. Overall, this initiative not only supports the industry's growth but also aligns with India's broader renewable energy and sustainability goals.

#### Draft Disclosure Framework on Climate-related Financial Risks, 2024

Climate change is increasingly recognized globally as a significant financial risk for banks and financial institutions, posing threats to the soundness and resilience of the overall financial system. Recognising the need for a better, consistent, and comparable disclosure framework for preventing mispricing of assets and misallocation of capital, the Reserve Bank of India proposed the 'Draft Disclosure framework on Climate-related Financial Risks, 2024' ("**Disclosure Framework**") to establish a standard mandatory disclosure framework for regulated entities ("**REs**").

#### **Scope of Application**

The Disclosure Framework applies to REs i.e., scheduled commercial banks ("**SCBs**")<sup>3</sup>, Tier-IV Primary (Urban) Co-operative Banks ("**UCBs**"), All-India Financial Institutions ("**AIFIs**")<sup>4</sup>, and top and upper layer Non-Banking Financial Companies ("**NBFCs**"). These entities, collectively referred to as 'RE' in the Disclosure Framework, are required to disclose information specified in the Disclosure Framework on a standalone basis. Adoption of the disclosure framework is voluntary for REs not listed above. Foreign banks operating in India are also required to make disclosures specific to their operations in India.

<sup>&</sup>lt;sup>3</sup> The Disclosure Framework excludes Local Area Banks, Payments Banks and Regional Rural Banks from the category of SCBs.

<sup>&</sup>lt;sup>4</sup> The Disclosure Framework includes EXIM Bank, NABARD, NaBFID, NHB and SIDBI in the category of AIFIs.

#### **Key Areas of Disclosure**

The Disclosure Framework is structured around 4 (four) thematic pillars of disclosure:

- 1. **Governance**: REs are required to detail governance processes, controls, and procedures for identifying, assessing, managing, and overseeing climate-related financial risks and opportunities. This includes disclosing the board of director's oversight and senior management's role in addressing these risks.<sup>5</sup>
- 2. **Strategy**: REs must outline their strategy for managing climate-related financial risks and opportunities, including identifying risks over different time horizons, assessing impacts on business and financial planning, and ensuring strategy resilience across various climate scenarios.<sup>6</sup>
- 3. **Risk Management**: The framework emphasizes detailing processes to identify, assess, prioritize, and monitor climate-related financial risks and opportunities. REs should disclose how these processes integrate into the overall risk management framework.<sup>7</sup>
- 4. **Metrics and Targets**: REs are expected to disclose performance metrics related to climate-related financial risks and opportunities, such as greenhouse gas emissions and associated risks, targets set to manage these risks, and progress against those targets.<sup>8</sup>

REs are required to disclose, at a minimum, the detailed key disclosures as provided in Annexure – I to the Disclosure Framework. Key disclosures are categorised into 2 (two) sections: baseline disclosure and enhanced disclosures. While SCBs, AIFIs, and NBFCs are mandated to report both baseline and enhanced disclosures, UCBs are only obligated to report baseline disclosures. However, UCBs have the option to voluntarily provide enhanced disclosures, if they choose to do so.

#### **Implementation Timeline**

The commencement timeline for disclosures is staggered and varies for different types of entities, with

SCBs, AIFIs, and NBFCs starting from FY 2025-26 for governance, strategy, and risk management, and FY 2027-28 for metrics and targets. ucBs are required to begin disclosures from FY 2026-27 onwards for Governance, Strategy, and Risk Management, and FY 2028-29 for Metrics and Targets.<sup>9</sup>

#### **Oversight and Validation**

Furthermore, the disclosed information is required to undergo internal control assessments and review by the board of directors or a board committee. It is mandatory for REs to include these disclosures as part of their financial results/statements on their websites to ensure transparency and accountability.<sup>10</sup>

#### Analysis

The Disclosure Framework underscores the growing need to address climate-related financial risks within the financial sector. However, it's worth noting that currently, there is no singular law consolidating Environmental, Social, and Governance ("**ESG**") compliances. For instance, the Securities and Exchange Board of India ("**SEBI**") has implemented reporting requirements for top 1000 (one thousand) listed entities through the Business Responsibility and Sustainability Report ("**BRSR**") as part of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015.

While the BRSR primarily targets listed entities, the Disclosure Framework extends their purview to a banks and financial institutions. Unlike the BRSR, which focuses on the disclosure of various ESG-related aspects, the Disclosure Framework specifically emphasizes the disclosure of potential climate-related challenges. Moreover, the Disclosure Framework provides REs the opportunity to identify and integrate potential climate-related risks into their credit decisions.

This focused approach of the Disclosure Framework reflects the urgent need to mitigate the impact of climate change on the Indian financial sector.

<sup>&</sup>lt;sup>5</sup> Para 7.1 of the Disclosure Framework.

<sup>&</sup>lt;sup>6</sup> Para 7.2 of the Disclosure Framework.

<sup>&</sup>lt;sup>7</sup> Para 7.3 of the Disclosure Framework.

<sup>&</sup>lt;sup>8</sup> Para 7.4 of the Disclosure Framework.

<sup>&</sup>lt;sup>9</sup> Para 8 of the Disclosure Framework.

<sup>&</sup>lt;sup>10</sup> Para 9 of the Disclosure Framework.

#### JSA successfully represented T.P. Kirnali Limited (a group company of Tata Power) before Maharashtra Electricity Regulatory Commission, in obtaining Change in Law compensation granted due to increase in rate of goods and services tax and basic customs duty

By an order dated May 21, 2024 ("**Order**"), the Hon'ble Maharashtra Electricity Regulatory Commission ("**MERC**") in Case No. 244/AD/2022 held that T.P Kirnali Limited was impacted due to increase in rate of goods and services tax ("**GST**") and basic customs duty ("**BCD**") and is accordingly entitled for a total compensation of INR 15,48,00,000 (Indian Rupees fifteen crore forty-eight lakh) along with carrying cost.

#### **Brief Facts**

In order to meet Solar Renewable Purchase Obligation Maharashtra State Electricity requirement, Distribution Company Limited ("MSEDCL") issued a request for selection for procurement of 500 MW (five hundred megawatt) of solar power from Intra-State Grid Connected Solar Plant (Phase-V), on a long-term basis, under a competitive bidding process. Tata Power Renewable Energy Ltd. ("TPREL") was selected for supplying 100 MW (one hundred megawatt) solar power at the tariff of INR 2.90/kWh (Indian Rupees two point nine per kilowatt hour). Accordingly, TPREL set up T.P. Kirnali Limited ("Kirnali") as a wholly owned special purpose vehicle for supplying power to MSEDCL. A power purchase agreement ("PPA") was executed between Kirnali and MSEDCL on September 16,2020.

For setting up the project, 2 (two) separate contracts (viz. Supply Contract and Civil Works/ Service Contract) were executed between Kirnali and Tata Power Solar Systems Ltd. ("**TPSSL**"). At the time of the submission of the bid, the taxes payable were as follows:

 BCD was payable at the rate of 5% on import of solar inverters and other items. Additionally, a social welfare surcharge ("SWS") at the rate of 10% was payable on the BCD amount. Thereafter, GST at the rate of 8.9% was payable on BCD and SWS.

- A composite GST (i.e. Central GST, State GST and Integrated SGT) at the rate of 8.9% was payable on Supply and Civil Works/ Service Contracts for setting up of solar power plants [i.e., 5% on 70% (i.e. 3.5%) of the consolidated taxable value of the Supply Contract and Civil Works/ Service Contract and 18% on the remaining 30% (i.e. 5.4%) of the consolidated taxable value of the Supply Contract and Civil Works/ Service Contract].
- 3. After the bid-submission date, the Ministry of Finance, Government *vide* notification dated February 1, 2021, increased BCD from 5% to 20% on the import of solar inverters and other items like connectors etc. (i.e after cutoff date of February 28, 2020). The said notification was effective from February 2, 2021. Due to the increase in the rate of BCD, Kirnali was also impacted towards payment of SWS at the rate of 10% and GST at the rate of 8.9% payable on the increased rate of BCD.
- 4. On September 30, 2021, the Ministry of Finance on the recommendations of the GST Council issued notifications thereby increasing the rate of GST from 8.9% to 13.8%. These notifications dated February 1, 2021 and September 30, 2021 took place after the bid submission date (i.e. February 28, 2020) and hence qualified as Changes in Law for which Kirnali was entitled for compensation.

#### **Relevant Issues**

- 1. Whether notifications dated February 1, 2021, and September 30, 2021, amount to change in law?
- 2. Whether Kirnali is entitled to claim Change in Law considering its undertaking dated September 9, 2021, given to MSEDCL?
- 3. Whether Change in Law can be claimed for invoices raised post commissioning?
- 4. Whether MSEDCL's claim of safeguard duty compensation is maintainable?

#### **Findings of MERC**

MERC has held the following:

- 1. Kirnali is entitled for Change in Law compensation on account of increase in GST and BCD.<sup>11</sup>
- 2. Any Change in Law relief would be governed by provisions of the PPA and is to be decided by MERC. A developer's undertaking to not claim increase in project cost or upward revision of tariff for period of extension of Scheduled Commercial Operation Date ("SCOD"), pursuant to the office memorandums dated May 12, 2021 and June 29, 2021 issued by the MNRE, cannot be held against the developer. MNRE in its subsequent office memorandums dated September 15, 2021, and November 3, 2021 has clarified that such undertaking is limited to developer not claiming termination of PPA or increase in project cost for reasons other than Change in Law for the period of extension granted.<sup>12</sup>
- Invoices towards supply of service raised post commissioning of project are also eligible for Change in Law relief, provided such invoice are raised within 30 (thirty) days from the date of supply of such service.<sup>13</sup>
- 4. MSEDCL's claim of safeguard duty cannot be allowed since the developer has not financially gained due to non-levy of safeguard duty. notification No. 1 of 2018 dated July 30, 2018, clearly provided that there would be no Safeguard Duty after July 29, 2020. In the present case, commissioning of the project would have been beyond July 29, 2020, for which no Safeguard Duty was applicable. This was factored into the bid accordingly.
- Carrying cost is allowed at the rate of 1.25% plus State Bank of India marginal cost of funds-based lending rate per annum on the compensation amount from the date of payment till date of the Order.<sup>14</sup>
- MSEDCL to choose between payment of compensation on lumpsum or per unit basis. This decision is to be communicated to the developer within a month of the Order.<sup>15</sup>

#### Conclusion

MERC in a progressive Order rightly followed the settled jurisprudence on Change in Law compensation by granting relief for impact on account of increase in GST and BCD. It disregarded extraneous submissions of MSEDCL to restrict compensation due to the developer. Kirnali's undertaking dated September 9, 2021, was also rightly not held against its claim of Change in Law, since such undertaking only came in context of specific MNRE office memorandums. The undertakings required by these office memorandums have later been clarified to not be in context of Change in Law. In a progressive measure, MSEDCL has been afforded the opportunity at the outset to elect between lumpsum payment or a staggered payout should MSEDCL choose to save on carrying cost.

Supreme Court upholds the decision of APTEL directing that there is no statutory basis to levy additional reliability charge for uninterrupted power supply to bulk consumers



The Hon'ble Supreme Court of India ("**Supreme Court**"), in *Maharashtra State Electricity Distribution Company Limited v. M/s. JSW Steel Ltd. & Anr*. ("**Civil Appeal**")<sup>16</sup>, upheld the decision of the APTEL that the MSEDCL ("**Appellant**") had no statutory basis to impose an additional reliability charge for uninterrupted power supply to bulk consumers.

<sup>11</sup> para 16-16.11 @ Pg. 16-21 <sup>12</sup> Para 20.3 @ Pg. 23

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<sup>15</sup> Para 23-24 @ Pgs. 26-27

<sup>16</sup> Civil Appeal No. 8413 of 2009, dated May 17, 2024.

<sup>13</sup> Para 19-19.5 @ Pgs. 21-22

#### **Brief Facts**

- In terms of the tariff order dated October 20, 2006, passed by the MERC, the Appellant imposed an additional supply charge for uninterrupted power supply to its bulk consumers, including Respondent No. 1 / JSW Steel Ltd. ("JSW Steel").
- 2. On June 20, 2008, MERC by its Tariff Order discontinued the imposition of additional supply charges and directed the Appellant to refund the additional supply charge collected during FY 2006-07 and FY 2007-08 from bulk consumers. Pursuant to this, the Appellant preferred a petition before the MERC seeking approval for recovery of reliability charges for implementing 'Zero Load Shedding' in the pen circle area in Maharashtra.
- 3. On June 15, 2009, MERC by its order allowed the imposition of a reliability charge for the period June 16, 2009, till March 31, 2010, ("**Order**") which was made payable by all the consumers in the pen circle area, including JSW Steel.
- 4. Aggrieved by the Order, JSW Steel challenged the said Order before APTEL in Appeal No. 135 of 2009. On December 14, 2009, APTEL by its Judgment *inter alia* set aside the Order. Subsequently, the Appellant challenged the Judgment of APTEL before the Supreme Court in the present Civil Appeal.
- 5. The Appellant contended that:
  - a) The MERC has adequate powers to bring in schemes to improve the nature of supply in a particular area in terms of Section 62(3) of the Act.
  - b) Non-participation of JSW Steel in the public hearing held by MERC, despite consuming about 45% of the electricity in pen circle area, amounts to deemed consent given by JSW Steel to pay the reliability charges. Similar charges are being paid by the High Tension ("HT") industrial consumers in other regions of Maharashtra.
- 6. JSW Steel contended that:
  - a) JSW Steel, being a continuous process industry and a large-scale consumer, was not subjected to load shedding by the Appellant.

b) JSW Steel was already paying higher tariffs compared to those for HT non-continuous process industries.

#### Issue

The issues before the Supreme Court were to adjudicate:

- 1. Whether imposition of reliability charge by the Appellant was legal?
- 2. Whether JSW Steel was liable to pay the reliability charge?
- 3. Whether JSW Steel, being affected by the levy of the reliability charge, had a right to appeal against MERC's Order under Section 111 of the Act?

#### **Findings**

While upholding the decision of APTEL in favour of JSW Steel, the Supreme Court observed that:

- 1. There is no statutory basis, either under Section 62(3) of the Act or the Rules and Regulations framed thereunder by the MERC, which supports the levy of reliability charges. Thus, the Appellant did not have any statutory basis for imposition of reliability charge.
- 2. Vidharba Industries Association, of which JSW Steel is a member, had already objected to the imposition of the reliability supply charge, thereby representing the interest of JSW Steel.
- 3. Section 111 of the Act provides for a statutory appeal against an Order of the appropriate commission. JSW Steel, being directly affected by the levy of the reliability charge, was a "person aggrieved" within the purview of Section 111 of the Act and hence was entitled to challenge the legality of the Order passed by MERC.
- 4. Nothing in the Act suggests that a consumer who does not participate in the appropriate commission's public hearing and is aggrieved by an order of the appropriate commission is disentitled to prefer an appeal.
- JSW Steel, being a continuous process industry on express feeder, had paid a higher tariff during the period from July 2009 till April 2010 to get supply without load-shedding. Thus, JSW Steel had

already paid a higher tariff for uninterrupted supply, negating the need for an additional reliability charge.

#### Conclusion

The Supreme Court by the Civil Appeal has re-affirmed the law laid down by APTEL that charges cannot be levied by Distribution Companies on its consumers without any statutory basis under the Act. Bulk / Industrial consumers are already subjected to higher tariffs which negate the need for the imposition of an additional reliability charge for implementing 'Zero Load Shedding'.

Consumption of power from fossil fuel-based co-generation is neither entitled for exemption nor set-off against applicable renewable purchase obligations



On February 20, 2024, the Appellate Tribunal for Electricity ("**APTEL / Hon'ble Tribunal**") rendered its judgment in *Tata Steel Ltd. v Odisha Electricity Regulatory Commission & Ors*<sup>17</sup> *inter-alia* holding that: (a) consumption of power from fossil fuel-based co-generation plants are not entitled to exemption and/ or set-off against applicable renewable purchase obligations ("**RPO**"); and (b) neither Section 86(1)(e) nor Section 61(h) of the Act expressly stipulate that co-generation and generation of electricity from renewable sources of energy should be promoted 'equally'. Accordingly, APTEL upheld Odisha Electricity

<sup>17</sup> APTEL Judgment in Appeal No. 337 of 2023 dated February 20, 2024. Regulatory Commission's ("**OERC**") order dated February 1, 2023 ("**Impugned Order**")<sup>18</sup>.

Further, APTEL has also held that the law down by its division bench in *Century Rayon Ltd. v Maharashtra Electricity Regulatory Commission*<sup>19</sup> ("**Century Rayon Judgement**") and other judgments of APTEL which have followed the Century Rayon Judgement are *perincuriam*.

#### **Brief Facts**

Tata Steel Limited ("**Appellant**") owns and operates a 323 MW (three hundred and twenty-three megawatt) captive generating plant, out of which 258 MW (two hundred and fifty-eight megawatt) is a captive cogeneration plant (based on waste heat recovery) ("**Captive CGP**") and the rest 65 MW (sixty-five megawatt) is a coal-based captive generating plant.

Appellant invoked the jurisdiction of OERC under Regulations 16, 17 and 20 of the OERC (Procurement of Energy from Renewable Sources and its Compliance) Regulations, 2021 ("**2021 Regulations**"). Appellant *inter alia* submitted before the OERC that its Captive CGP captures the waste heat released from various processes and converts it into electricity, thereby minimizing the huge amount of pollution resulting from waste heat that would have released into the atmosphere. Appellant's waste heat recovery system ("**WHRS**") does not involve any supplementary burning of fuel and thereby helps in utilisation of resources and minimises use of fossil fuel for power generation.

Appellant inter alia prayed:

- 1. for a declaration and exemption that the Appellant was not an 'obligated entity', and was not required to fulfil the RPO targets in relation to their Meramundali Unit for the period FY 2021 onwards, and for future periods, as long as generation from their Captive CGP was in excess of their presumptive RPO requirements for the same period;
- 2. to hold and declare that their Captive CGP is exempt from fulfilling its RPO from 2021 onwards under the 2021 Regulations; and

<sup>&</sup>lt;sup>18</sup> OERC Order in Case No. 71 of 2022 dated February 1, 2023.

 $<sup>^{19}</sup>$  Century Rayon Ltd v MERC (Appeal No. 57 of 2009 dated April 26, 2010).

3. to declare that they were entitled to set-off their presumptive RPO targets qua the consumption from the 65 MW (sixty-five megawatt) coal-based captive generating plant against the electricity generated and consumed from their captive co-generation plants, irrespective of the fuel utilized in such plants.

By the Impugned Order, OERC disallowed the Appellant's prayers. The Appellant was fastened with the liability of RPOs under Regulation 4.2 of the OERC (Procurement of Energy Renewable Sources and its Compliance) Regulations, 2021 ("**RPO Regulations**") qua consumption from their Captive CGP (which included 258 MW (two hundred and fifty-eight megawatt) of captive cogeneration) with RPOs with effect from the date notification of the 2021 Regulations, *i.e.* from February 15, 2022.

However, OERC granted the Appellant exemption from fulfilment of RPOs for consumption from its 258 MW (two hundred and fifty-eight megawatt) captive co-generation plant for the period 2015 onwards under the OERC (Procurement of Energy from Renewable Sources and its Compliances) Regulations, 2015.

#### **Findings**

APTEL, inter alia, held that:

- 1. Neither Section 86(1)(e) nor Section 61(h) of the Act expressly stipulate that co-generation and generation of electricity from renewable sources of energy should be promoted '*equally*'. Granting the relief sought by the Appellant would mean adding the word '*equally*' to Section 86(1)(e), amounting to judicial legislation, which is impermissible.
- 2. Since OERC has chosen to be guided by Clause 6.4 of the tariff policy in making the RPO Regulations, which are in the nature of a subordinate legislation, their validity cannot be examined in appellate proceedings under Section 111 of the Act.
- 3. The intention of the legislation must be found in the words used by the legislature itself. If the provision is unambiguous and if, from that provision, the legislative intent is clear, the court need not call into aid other rules of construction of statutes. The power conferred on State Electricity Regulatory Commissions ("SERCs") under Section

86(1)(e) of the Act is confined only to renewable sources of energy, and not from co-generation.

- 4. *"Co-generation"*, as defined in Section 2(12) of the Act is only a process of generation of electricity and another form of energy and cannot be termed as a 'source of electricity' like renewable sources of energy.
- 5. In terms of Section 86(1)(e) of the Act, SERCs can promote fossil fuel-based co-generation plants by other measures such as facilitating sale of surplus electricity available with such co-generation plants to any person *et al.*
- 6. The manner in which the 'source' from which electricity should be purchased, as also the percentage of purchase from such 'source' to the total consumption of electricity in the area of a distribution licensee, is left to be determined by the SERCs either in the exercise of its regulatory power under Section 86(1)(e) of the Act, or by way of regulations to be made under Section 181 of the Act. It is impermissible for APTEL to place any fetters on the exercise of powers or the discharge of regulatory functions by the SERCs.
- 7. None of the judgments relied on behalf of the Appellant, state why both "co-generation" and "generation of electricity from renewable sources of energy" should be promoted equally. The Century Rayon Judgement and the judgments following the Century Rayon Judgement do not consider this aspect. A decision cannot be relied upon as a precedent in support of a proposition that it did not decide. Further, a decision, which is neither founded on reasons nor it proceeds on a consideration of an issue, cannot be deemed to be a law declared to have a binding effect. Therefore, the decision in the Century Rayon Judgement and judgments following it are *per incuriam* in this regard.
- 8. Appellant's consumption from fossil fuel-based cogeneration, cannot be set off against its RPO targets.
- 9. Regulations made by the SERCs are statutory in character and binding. The exercise of the power either to read down statutory regulations or to ignore them on the premise that they fall foul of or run contrary to the parent act amounts to exercise of the power of judicial review, which power cannot be exercised by APTEL.

- 10. While promoting generation of electricity from renewable sources of energy, it is open to the concerned SERC to promote one source of renewable energy over another or to fix different percentages for the minimum procurement from such sources. For instance, while promoting generation of electricity from renewable sources of energy, it is open to the SERC to fix a higher percentage, of the total consumption of a captive consumer, to be purchased from solar energy as compared to wind or hydel energy or vice versa.
- 11. In doing so, APTEL held that it is the judgement of the full bench in *Lloyds Metal & Energy Ltd<sup>20</sup>*. which is binding and not the law declared in the Century Rayon Judgement and the judgments of the 2 (two) member benches of APTEL following it. APTEL, reasoned that in light of the principle that larger bench judgments are binding on smaller benches, the Century Rayon Judgement and those following it are *per incuriam*.

#### Conclusion

APTEL, through this judgment has clarified that, neither Section 86(1)(e) nor Section 61(h) of the Act expressly stipulate that co-generation and generation of electricity from renewable sources of energy should be promoted 'equally'. APTEL has further held that once SERCs have framed regulations not treating cogeneration plants/WHRS plants at par with renewable energy sources, the remedy available is only by seeking judicial review of such regulations. APTEL's power under Section 111 of the Act does not extend to "read down regulations". As a result of this judgment, a settled position for over a decade qua renewable purchase obligations of co-generation plants has been disturbed. The impact of the said judgment on the actions of the entities treating co-generation-based waste heat recovery systems at par with renewable energy is worth keeping an eye on.

#### The developer of a SEZ cannot ipso facto be conferred the status of a deemed distribution licensee under

## the Electricity Act, without scrutiny or application

In a landmark judgment, the Hon'ble Supreme Court of India ("Supreme Court") in *M/s. Sundew Properties* Limited v. Telangana State Electricity Regulatory *Commission & Anr.*<sup>21</sup>, has harmoniously interpreted the provisions of the Electricity Act, 2003 ("Electricity Act") and the SEZ Act, 2005 ("SEZ Act") to hold that: (a) A developer of a SEZ is a deemed distribution licensee under the Electricity Act, however, such recognition does not specifically exempt it from making an application for 'recognition' as a deemed distribution licensee; (b) 6th proviso to Section 14 of the Electricity Act and consequently Distribution of Electricity Licence (Additional Requirements of Capital Adequacy, Creditworthiness and Code of Conduct) Rules, 2005 ("2005 Rules") are not applicable to a developer of SEZ; (c) State Electricity Regulatory Commissions are not empowered to impose extraneous conditions of meeting capital adequacy and/ or creditworthiness before recognising a developer of a SEZ as a deemed distribution licensee under the Electricity Act.

#### **Brief Facts**

- On March 3, 2010, the Ministry of Commerce and Industry, Government of India by its Notification No. SO 528(E) ("2010 Notification") introduced a proviso to Section 14(b) of the Electricity Act, granting SEZ developers the status of deemed distribution licensees under the Electricity Act.
- Pursuant to the 2010 Notification, M/s. Sundew Properties Limited ("Appellant") (a 'developer' under the SEZ Act) approached the Andhra Pradesh Electricity Regulatory Commission seeking 'recognition' as a deemed distribution licensee under the Electricity Act. Upon the Andhra Pradesh Reorganization Act, 2014 coming into force, the application of the Appellant was transferred to the Telangana State Electricity Regulatory Commission ("TSERC").
- 3. On February 15, 2016, the TSERC passed an order identifying and accorded the status of a deemed licensee to the Appellant. However, the grant of status was made conditional upon the Appellant satisfying the requirements under the 2005 Rules

<sup>&</sup>lt;sup>20</sup> APTEL Judgment dated December 2, 2013, in Appeal No. 53 of 2012.

<sup>&</sup>lt;sup>21</sup> Civil Appeal No. 8978/2019, dated May 17, 2024.

read with the Andhra Pradesh Electricity Regulatory Commission (Distribution Licence) Regulations, 2013 (**"2013 Regulations"**). Consequently, the promoters of the Appellant were directed to infuse an additional capital of INR 26,90,00,000 (Indian Rupees twenty-six crore ninety lakh) into its Power Distribution business.

4. Aggrieved by TSERC's Order, the Appellant filed Appeal No. 3 of 2017 before the APTEL. On September 27, 2019, APTEL dismissed the Appellant's Appeal. Accordingly, the Civil Appeal was filed before the Supreme Court.

#### Issue

The issues before the Supreme Court were to adjudicate:

- 1. whether the designation of an entity as a SEZ developer by the 2010 Notification *ipso facto* qualifies the entity to be a deemed distribution licensee, obviating the need for an application under Section 14 of the Electricity Act?
- whether Regulation 12 of the 2013 Regulations, and by implication Rule 3(2) of the 2005 Rules, apply to a SEZ developer recognized as a deemed distribution licensee under the proviso to Section 14(b) of the Electricity Act read with Regulation 13 of the 2013 Regulations?

#### **Findings**

The Supreme Court noted that:

- 1. Provisos to Section 14 of the Electricity Act distinguish between entities that are ipso facto deemed distribution licensees and those that merely declared as deemed licensees without clarity on the necessity of making an application to obtain a licence. Thus, entities not explicitly exempted are required to make an application to the appropriate commission.
- 2. The 2010 Notification confers 'deemed licensee' status on SEZ developers through proviso to Section 14(b) but does not explicitly exempt them from the requirement to obtain a license. Thus, the legislative intent is that the developer of SEZ should obtain a license by making an application in terms of Regulation 13. TSERC is empowered to

scrutinize these applications in accordance with the law, to the limited extent of provisions applicable to deemed licensees. Verification and acceptance recognize their status as deemed licensees.

- 3. Status of an SEZ developer as a deemed licensee emanates from the 2010 Notification, which introduced the proviso to Section 14(b). Reading anything beyond this would defeat the very purpose of the proviso and the concept of deemed license. Therefore, the sixth proviso to Section 14 does not apply to deemed licensees, and, therefore, the 2005 Rules do not apply to the Appellant.
- 4. Regulation 12 of the 2013 Regulations pertains solely to regular distribution licensees as defined under Regulation 2(h), and not to deemed licensees. 'Reading up' Regulation 12 to expand its ambit to include within it deemed licensees, especially when the Electricity Act does not stipulate any such inclusion, runs counter to the proviso to clause (b) of Section 14 of the Electricity Act. This would be impermissible.
- 5. Hence, the condition stipulated in Rule 3(2) of the 2005 Rules, as imposed by the TSERC with a direction to infuse additional capital of INR 26,90,00,000 (Indian Rupees twenty-six crore ninety lakh), is not justified and contrary to the statutory scheme.

#### Conclusion

The Supreme Court's Judgment puts to rest a decades old controversy of Electricity Regulatory Commissions applying additional regulatory stipulations while identifying deemed distribution licensees. The judgment clarifies the role of Regulatory Commissions in identifying such deemed licensees and the scrutiny required while processing such applications.

It provides an impetus to expeditious operationalizing of distribution licensee status by SEZ developers, and therefore providing a choice of supplier to consumers in SEZs. In Telangana and Andhra Pradesh, no SEZ had operationalized their deemed distribution licensee status due to this overhang, which now stands resolved. SEZ developers (and the units in such SEZs) now gain a significant competitive edge since the incumbent non-SEZ distribution licensee's tariff is typically higher.

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