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TATA POWER TRADING COMPANY LIMITED

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POWERING NATION FOR 20+ YEARS

FOREWORD BY OUR CEO



Dear Patrons,

As we enter the new financial year 2024-2025, the year past has been inarguably marked by high exchange prices driven by increasing power demand faced across the nation. The Indian electricity market stands at a pivotal juncture, poised for remarkable growth and transformation. With a rapidly expanding economy and an increasing population, the demand for electricity has skyrocketed, presenting both challenges and opportunities.

Renewable energy has emerged as a key focus area, with the government setting ambitious targets to increase the share of renewables in the energy mix. Solar and wind power projects have witnessed tremendous growth, attracting investments and driving down costs. This transition towards clean energy not only addresses environmental concerns but also presents a vast potential for job creation and energy security.

As India strives to meet its energy needs while minimizing environmental impact, the electricity market is poised for a transformative journey. The focus on net zero emissions, coupled with regulatory reforms and technological advancements, presents a remarkable opportunity to shape a sustainable, reliable, and inclusive electricity sector that powers India's aspirations for growth and development.

We hope to serve you further in our endeavour to bring cost-effective and reliable energy solutions, and market insights through this newsletter.

Happy Reading

Tarun KatiyarChief Executive Officer





WORLD



USA's \$20 billion commitment to clean projects

The US Environmental Protection Agency (EPA) has announced a groundbreaking \$20 billion initiative to fund climate and clean energy projects, aiming to enhance energy efficiency and curb greenhouse gas emissions. Managed by eight selected non-profit organizations, the funds will support various projects like residential heat pumps, solar panel installations, energy efficiency upgrades, EV charging stations, and community cooling centers.

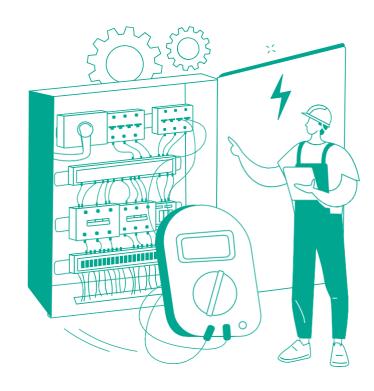
A distinctive feature of this initiative is its strong focus on equity and inclusivity. A significant 70% of the funding is earmarked for disadvantaged and low-income communities, including tribal and rural areas. This targeted approach aims to provide these vulnerable communities with access to resources and opportunities for sustainable development, making substantial progress towards addressing the climate crisis and promoting a clean economy.

The funds will be disbursed through two channels: the National Clean Investment Fund (NCIF) and the Clean Communities Investment Accelerator (CCIS). The disbursement process is expected to be completed by July 2024, setting the stage for tangible advancements in climate resilience and clean energy solutions nationwide.





INDIA



IFFCO to offtake 2 lakh tonnes of Ammonia produced from renewable energy from ACME

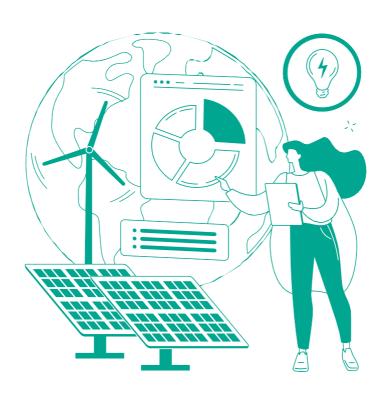
Amidst the global and national momentum towards energy transition and sustainability initiatives, the Indian government recognized transformative potential of green ammonia and launched various initiatives to spur its production and utilization. These include the development of policies and incentives to attract investment, as well as the establishment of research and development programs.

In a significant development, IFFCO has recently inked a Memorandum of Understanding (MOU) with ACME Cleantech to procure 2 lakh tonnes of green ammonia produced through renewable energy sources. ACME Cleantech is set to establish a green ammonia manufacturing facility in Gopalpur, Odisha, while IFFCO will utilize the ammonia to manufacture complex fertilizers at its plants located in Paradeep, Odisha, and Kandla, Gujarat. Notably, any green credits generated by the Gopalpur plant will be retained by ACME, enabling them to trade these credits in the form of Internationally Transferred Mitigation Outcomes (ITMO).

This collaboration marks a significant stride towards sustainable agriculture practices and underscores the growing importance of green ammonia in India's quest for a greener and more resilient future.







Mobility Battery-fied

The landscape of e-mobility has become increasingly familiar to many, with electric vehicles (EVs) gaining significant traction in the transportation sector. Data reflects a consistent year-on-year increase in the adoption of EVs, underlining their growing prominence. Hence, the emphasis on research and development of battery technology is as crucial as the development of EVs themselves, a responsibility largely shouldered by major corporate entities.

In alignment with this imperative, Panasonic, a renowned Japanese electronics corporation, has embarked on a joint venture (JV) endeavor with India's largest oil company, IOCL, to manufacture cylindrical lithium-ion batteries. A binding term sheet has been executed and the completion of the deal is anticipated by July or August 2024.

This strategic collaboration holds the potential to enhance India's self-reliance in the realm of battery production, thereby fortifying the nation's position in the global energy landscape.







Solar Flares

Solar energy emerged as the frontrunner in India's renewable energy landscape, contributing significantly to the record-breaking capacity addition in FY 2023-24. The deployment of solar photovoltaic (PV) projects, both utility-scale and rooftop installations, witnessed unprecedented growth, bolstered by favorable policies, declining costs, and technological advancements. With the capacity addition of more than 15GW, the solar sector alone accounted for ~81% of the total renewable energy capacity added during the fiscal year, reaffirming India's position as one of the world's largest solar energy markets.

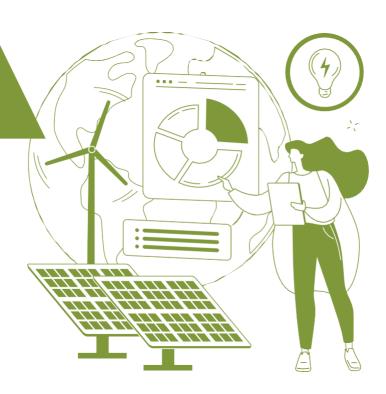
Marking substantial increase from the previous fiscal year, the total installed renewable energy capacity in India has now surpassed 143.6 gigawatts (GW)*, with a record high capacity addition of 18.48 GW in FY 23-24.

As the nation marches towards a sustainable and resilient energy future, the remarkable achievements in FY 2023-24 serve as a testament to India's determination to lead the global transition towards clean and green energy sources.





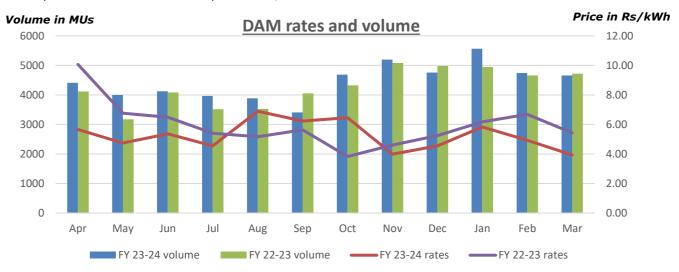
MARKET WATCH



Day Ahead Market

As demand for electricity surges or wanes based on various factors such as weather conditions, industrial activity, and technological advancements, power exchange prices respond with remarkable sensitivity.

We observe that the volume of power traded in FY 23-24 is either equal or higher than that in FY 22-23, however the prices are higher in FY 22-23 as compared to FY 23-24, barring a few summer months. One unit of electricity costed more than 10 Rs in Apr'22 (month's average), while there were no MCP higher than Rs.10 in FY 23-24. However micro data analysis for each slot shows that there were certain slots in the summer where the prices reached the 10 Rupee mark, even in FY 23-24.









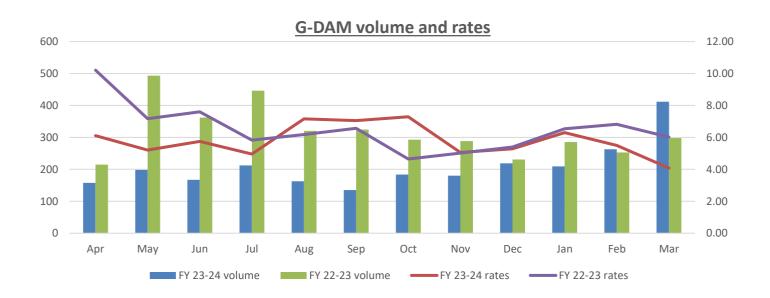


Green Day Ahead Market

Similar to the day ahead market, the green day ahead market gives a picture of demand supply movements in the green energy arena.

The G-DAM volume pillars of past two years clearly indicate that the GDAM volume for FY 22-23 was higher by a fairly good amount as compared to FY 23-24. Further, following the trend of the DAM, the GDAM market prices were also higher in FY 22-23 than that of FY 23-24, except the summer months.









Active Tender Update				
Name of the Entity	Tender Type	Duration	Tender Submission Date	Requirement (MW)
Uttar Pradesh Power Corporation Limited	Conventional Power	01-June-2024 to 30- June-2024	13-May-24	Up to 1000 MW
Haryana Power Purchase Centre	Conventional Power	01-June-2024 to 30- Sep-2024	02-May-24	Up to 1000 MW
CESC Limited	Conventional Power	01-July-2024 to 31- Oct-2024	30-Apr-24	Up to 100 MW RTC
CESC Limited	Conventional Power	01-July-2024 to 31- Oct-2024	30-Apr-24	Up to 150 MW (Non- RTC)





<u>Power</u>

In FY 2023-2024, TPTCL showcased robust performance by trading over 20,000 MUs, with long-term transactions and generator sales comprising more than half of the total trade volume. A notable milestone was the successful commissioning of a 200MW solar plant in Bikaner, Rajasthan, equipped with cutting-edge mono-perc bifacial modules. Expected to generate approximately 485 million units annually, this plant signifies TPTCL's dedication to advancing renewable energy solutions. TPTCL remains steadfast in its commitment to revolutionize the energy sector by delivering sustainable solutions and efficiently managing the energy value chain.

Energy Attribute Certificates

TPTCL continued its impactful contributions to the renewable energy landscape by facilitating Renewable Energy Certificates (RECs) for clients, both in sale and procurement, totaling over 7.76 through power exchanges. Additionally, TPTCL assisted clients in fulfilling their Renewable Purchase Obligations (RPO) through bilateral transactions, providing over 54,000 RECs. Recognizing the importance of international standards, organizations seeking voluntary targets opted for International RECs (IRECs) to match their electricity consumption. Acting as a facilitator for buyers and sellers, TPTCL orchestrated bilateral trades through the Evident portal of the I-REC Standard, issuing and redeeming IRECs seamlessly. These internationally recognized certificates served as tangible proof of green energy consumption, with TPTCL distributing approximately 1.2 lakh IRECs to esteemed clients, aiding them in achieving their voluntary targets with confidence.





CSR INITIATIVES

Roshni, our Integrated Vocational Training center in Ghaziabad, focuses empowering Persons with Disabilities (PwDs) through skill development in basic computer, English, life skills, and sectorspecific training. So far, we've trained 200 PwDs, with 41 successfully placed. Meanwhile, Anokha Dhaaga, our Micro Enterprise initiative in Shimla, trains 100 rural women in batches, fostering selfsustenance and income generation. Notably, we've produced National Flags, earning Rs. 2,40,000, and secured Rs. 44,600 from bulk orders during Diwali and local school garment requests. Additionally, under our Swasth Pradesh Abhiyaan, we've installed 6 Sanitary Napkin Vending Machines and 5 Water Purifiers in Bhangel rural area, Noida, benefitting over 2,400 visitors to Community Health Centers and Government Schools.





CEO (TPTCL) signed an agreement with **ASI** -**Archaeological Survey of India**, Ministry of Culture for the project - **Essential Enabler** (Health and Safety) for Hauz Khas Fort. The objective of the project is to establish essential amenities such as wheelchairs, provision of providing first Aid, PET bottle crusher to cater to the practical needs of visitors, ensuring a comfortable and enriching experience while maintaining the historical integrity of the fort. The project also revolves around the idea to environmentally foster the sustainable practices, Safety and promoting responsible tourism and ensuring the long-term ecological viability of the site.





Regulatory overview: Uttar Pradesh

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Eligib	ility Criterion for Open Access:
•	Contract Demand >= 1 MW
•	Connection 11 kV and Above
•	ABT Meters with 0.2S class CT, 0.2
	class PT at sub-station / consumer
	end.
•	No Pending arbitration / No
	outstanding dues with
	DISCOMs/Transmission Licensee

Steps	for Open Access transaction:
•	Signing of Power Purchase Agreement
•	Installation of ABT meters (as per regulation)
•	Registration in UPSLDC portal
•	Registration on NOAR portal
•	Approval from UPSLDC
•	Power scheduled

Renewable Energy Policy: UP Solar Policy 2022 offers significant incentives for solar power generation, including waivers on transmission and wheeling charges. With a focus on promoting clean energy initiatives, the state aims to attract investments and bolster its renewable energy sector. UP Solar Policy 2022 key highlights:-

- **Applicability:** Five years or till the Government notifies the new policy whichever is earlier.
- **Waiver:**-50% waiver on transmission charges & wheeling charges on Intrastate Sale of Power to third party or in case of captive use.
- **Banking:** Withdrawal of banked energy within (Q+2)th quarter, Banking charges -6% for Solar & Wind and 12% for others
- **Electricity duty:** Electricity duty shall be exempted for ten years on sale of power to Distribution licensee, third party, and for captive consumption.



LET'S SUSTAIN

Meet your green commitments

Organizations today are taking a variety of green commitments to address environmental sustainability. These commitments include reducing carbon emissions, increasing energy efficiency, transitioning to renewable energy sources, minimizing waste generation, adopting sustainable business practices, investing in green technologies and innovations and engaging in carbon offsetting initiatives. Additionally, many organizations are aligning their strategies with international frameworks such as the United Nations Sustainable Development Goals (UNSDGs), RE100, Science Based Target Initiative (SBTi), Carbon Border Adjustment Mechanism (CBAM) etc. and committing to transparent reporting on their environmental performance.

Various approaches are accessible to achieve sustainability objectives, including procuring physical green power, installing renewable captive capacity (such as wind, solar, or hybrid systems), engaging in Corporate or Virtual Power Purchase Agreements, obtaining Energy Attribute Certificates, and carbon certificates, among others. Given the diverse needs of organizations, these solutions must be tailored to fit specific requirements. Alignment with organizational goals and timelines is crucial. Achieving this demands specialized expertise to offer the most suitable and cost-effective solutions for organizations to meet their objectives.

TPTCL supports large corporates, industries, and commercial consumers on their path towards sustainability through expert advisory services and facilitating solution implementation. Leveraging its expertise, TPTCL tailors existing models and integrates innovative solutions to create a comprehensive and practical approach to achieving organizational sustainability goals. TPTCL pays attention to nuances in the contracts and suggests combinations of models that best suit the requirements.

In a rapidly evolving landscape of green commitments and sustainability frameworks, TPTCL stands as your trusted partner in navigating the complexities of achieving environmental objectives. With tailored solutions and a commitment to excellence, we empower organizations to embrace sustainability seamlessly. Contact us today to embark on your journey towards a greener, more sustainable future.



