



Auroville Consulting

Briefing Note

POWERING TAMIL NADU'S ECONOMIC GROWTH

August 2025

Access to reliable, affordable, and clean energy has emerged as a cornerstone for sustainable economic development. In Tamil Nadu, a state recognized for its robust industrial base and thriving economy, clean energy is poised to play a transformative role in driving future growth. By prioritizing decarbonization and leveraging its renewable energy potential, Tamil Nadu has the opportunity to become a global leader in carbon-neutral manufacturing while creating a super-efficient and sustainable economy.

Auroville Consulting

Using our expertise in ecological and socially responsible development, we work for a prosperous eco-system that supports all life on this planet. Our approach is multi-faceted: We collaborate with academic, private and public sector partners both in India and Internationally, helping to develop sustainable urban and industrial development policies, ecologically friendly technologies – and the minds of future leaders. Founded in 2010, Auroville Consulting is a unit of the non-profit organization Auroville Foundation.

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WHY CLEAN ENERGY IS ESSENTIAL FOR TAMIL NADU

Economic Competitiveness

Tamil Nadu can drive industrial competitiveness and sustainability by leveraging clean, affordable energy, fostering decarbonization, promoting carbon-neutral manufacturing, enhancing energy efficiency, and aligning policies with economic and net-zero targets to attract investments and achieve a global leadership position in the low-carbon economy.

Tamil Nadu can boost industrial competitiveness by using clean energy, decarbonizing, improving efficiency, and adopting net-zero policies.

Tamil Nadu is one of India's most industrialized states, housing sectors like automotive, textiles, IT, and manufacturing. Creating an investment climate that fosters affordable and carbon-neutral energy would lower energy costs for industries, helping them stay competitive in domestic and international markets. For example, leveraging the state's strong renewable energy potential (wind and solar) can make Tamil Nadu a hub for green manufacturing.

Tamil Nadu is well positioned for a transition to a renewable energy future as it is home to some of India's best solar and wind energy sites/ The total wind energy potential in Tamil Nadu including onshore and offshore wind is estimated at 104.75 GW, excluding the potential for floating offshore wind (MNRE 2021). The solar energy potential, utilizing only waste land is estimated at 17.67 GW (NISE 2014).

Figure 1 Estimated RE Potential

RE- Capacity	GW)
Onshore (at 120 m)	69.75
Offshore (fixed)	35.00
Solar (on wasteland)	17.67
Total	122.42

Source: MNRE 2021, NISE2014

The past 15 years have seen an expansion of cost-competitive renewable energy technologies. The cost of solar has dropped from 12.16 INR/kWh in 2010 to 2.59 or less INR/kWh in 2024, an overall cost reduction of 79% (IECC 2025). Similarly, the cost of wind energy dropped by 9% from 3.50 INR/kWh to 3.20 INR/kWh in the same period (CRISIL 2024; Wind Insider 2024).

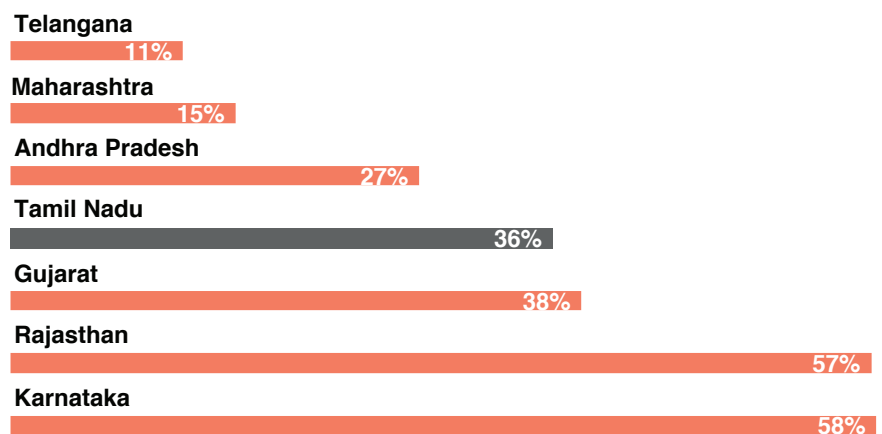
Attracting New Industries and Supporting Existing Ones

Tamil Nadu's clean energy focus attracts industries seeking sustainability, supports existing businesses, and boosts competitiveness globally.

As global corporations increasingly prioritize sustainability, Tamil Nadu's clean energy ecosystem can be a key driver in attracting new industries and investments. Companies are seeking locations that align with their decarbonisation goals, and Tamil Nadu's emphasis on clean energy provides a compelling proposition. Moreover, the transition to clean energy will support existing industries in achieving cost efficiencies and remaining competitive in a global low-carbon economy.

Compared to a select number of other Indian states that emphasize promoting manufacturing, Karnataka and Rajasthan have the highest share of energy derived from carbon-neutral sources such as solar, wind, and hydro (PIB 2024). This positions them as leaders in attracting carbon-conscious industries and investments. Tamil Nadu currently has a 36% share of carbon-neutral energy, slightly lower than Gujarat's 38% (MOSPI 2024). However, Tamil Nadu may aspire to become the first state to offer carbon-neutral electricity to all its industries and other consumers, further enhancing its appeal as a hub for sustainable investments and manufacturing.

Figure 2 Energy share of carbon-neutral energy sources (%)



Becoming a Global Leader in Carbon-Neutral Manufacturing

Tamil Nadu can lead in carbon-neutral manufacturing by integrating renewables and strong policies, achieving net-zero emissions by 2050.

Tamil Nadu has the potential to emerge as a global leader in carbon-neutral manufacturing by integrating renewable energy into its industrial policy and strategy framework. A robust clean energy infrastructure and policy framework will enable Tamil Nadu to lead by example in achieving its net-zero GHG emission target in 2050

Access to clean energy attracts technologically advanced industries like EV manufacturing, semiconductor production, and data centres, which prioritize sustainability in their operations. Renewable energy allows companies to establish sustainable supply chains, which are increasingly demanded by international clients and partners. Access to clean energy is increasingly recognized as a pivotal factor for states and countries aiming to attract and retain businesses. Some examples to highlight this point are:

- 1. Apple in India:** Apple has committed to using 100% renewable energy in its facilities worldwide, influencing its decision to establish partnerships and expand operations in countries offering access to clean energy.
- 2. Tesla in Germany:** Tesla's Gigafactory in Germany benefits from the country's renewable energy policies, aligning with the company's sustainability objectives.
- 3. Google Data Centers:** Google invests in data centres in regions with access to renewable energy, supporting its commitment to being carbon-neutral.

Decarbonization as a Business Imperative

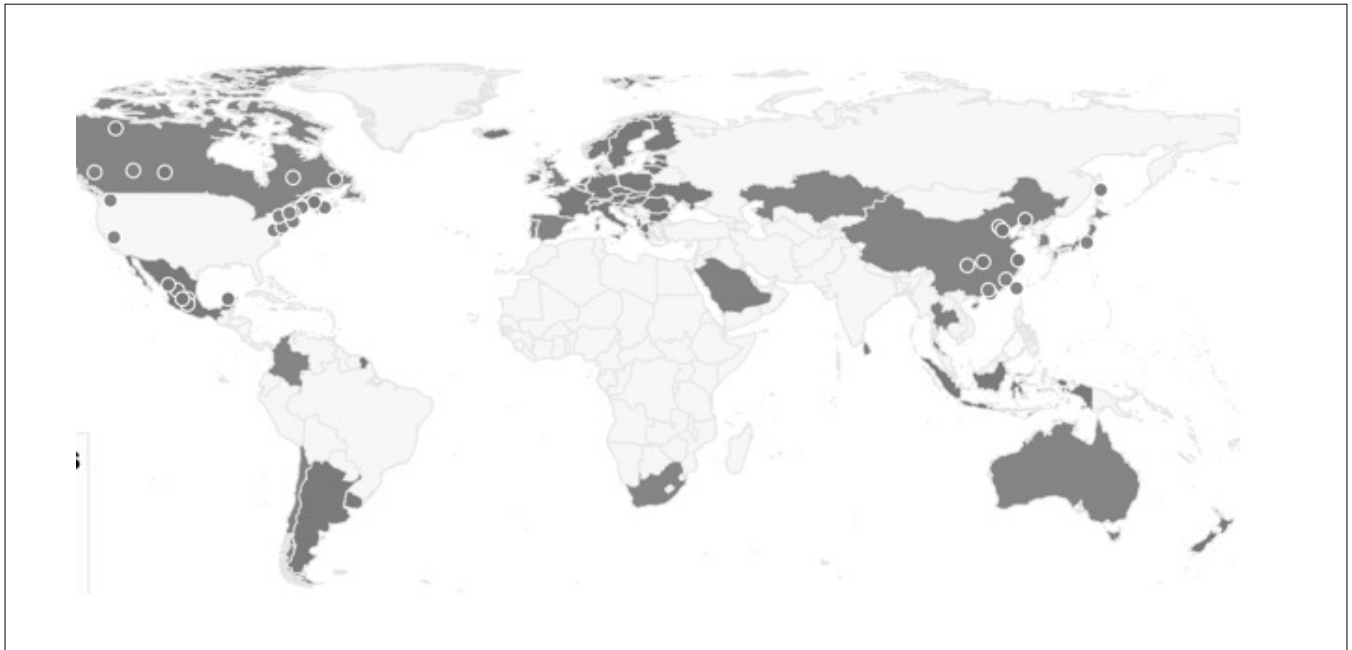
Decarbonization is essential; Tamil Nadu's renewable energy enables industries to cut emissions, attracting sustainability-focused global businesses.

Decarbonization is no longer a choice but necessary for businesses operating in a globalised world. With electricity identified as the low-hanging fruit for reducing carbon emissions, Tamil Nadu can leverage its renewable energy potential to enable industries to decarbonize their operations. This alignment with global sustainability trends positions the state as a preferred destination for carbon-conscious businesses.

One key driver making decarbonization a business imperative is the introduction of global regulatory mechanisms like the European Union's Carbon Border Adjustment

The past 15 years have seen an expansion of cost-competitive renewable energy technologies. The cost of solar has dropped from 12.16 INR/kWh in 2010 to 2.59 or less INR/kWh in 2024, an overall cost reduction of 79% (IECC 2025). Similarly, the cost of wind energy dropped by 9% from 3.50 INR/kWh to 3.20 INR/kWh in the same period (CRISIL 2024; Wind Insider 2024).

Figure 3 Carbon pricing instruments around the world



Source: World Bank. State and Trends of Carbon Pricing Dashboard

Energy Security

Tamil Nadu can reduce fossil fuel reliance by expanding renewables, ensuring stable energy prices and reliable supply for industries.

Tamil Nadu's reliance on imported coal and other fossil fuels can be offset by further scaling up renewable energy production. The state already generates nearly 20% of its electricity from renewables, but integrating more clean energy into industries can reduce dependence on fluctuating fossil fuel markets, ensuring stable energy prices and uninterrupted supply.

Tamil Nadu currently has a cumulative operational coal and lignite power capacity of 14,731 MW. Beyond the existing coal power fleet, Tamil Nadu has over 5.04 GW of coal-based power plants at various stages of construction. The new "super-critical coal power plants" are designed to operate on imported coal with low ash content. This increases Tamil Nadu's dependence on coal imports, thereby exposing the state to international coal market volatility, price fluctuations, and geopolitical risks. Such reliance compromises the state's energy security. A decisive transition to a renewable energy future will provide a high degree of energy supply security to the state.

Environmental and Public Health Benefits

Transitioning industries to carbon-neutral energy improves air quality, public health, and urban livability, enhancing Tamil Nadu's sustainable image.

Industrial hubs like Chennai and Coimbatore face air pollution challenges. Transitioning industries to carbon-neutral energy sources will help reduce air and water pollution, benefiting public health and making urban centres more livable. This would also boost Tamil Nadu's image as a clean and sustainable investment destination.

Industrial cities around the world face significant environmental challenges, particularly with air and water pollution stemming from their manufacturing and industrial sectors. As these cities work toward a more sustainable future, many are transitioning to cleaner, carbon-neutral energy sources to reduce their environmental footprint and improve public health. This shift not only helps mitigate pollution but also enhances the livability of urban centres, making them more attractive as investment destinations. Case studies from cities like Surat in India and Ulsan in South Korea demonstrate how industrial hubs can successfully adopt renewable energy and green technologies, leading to better air quality, reduced emissions, and a stronger, more sustainable economy (Think Global Health 2025).

Environmental and Public Health Benefits

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1. India: Renewable Energy in Surat, Gujarat: In India, Surat, an industrial city known for its textile, chemical, and diamond industries, faces significant air pollution challenges. While the city thrives economically, its residents contend with poor air quality. To address this, Surat has been integrating solar power systems into its industries and advocating for the greater adoption of cleaner technologies. The Gujarat government has set an ambitious target to generate 30 GW of renewable energy by 2025, positioning Surat as a key player in this transition. Industrial hubs within the city are adopting more sustainable practices, resulting in early improvements in air quality, a decrease in fossil fuel energy consumption, and improved health outcomes for residents. Surat's push toward renewable energy has also helped establish it as a forward-thinking city for green investments.

- 2. South Korea: Ulsan's Green Industrial Transition:** In South Korea, Ulsan, a major industrial port city, faced severe air and water pollution due to its petrochemical and manufacturing sectors. In response, the city launched a "Green Ulsan" initiative, which focuses on transitioning industries to renewable energy sources and improving energy efficiency. A key element of this initiative is the use of hydrogen as a clean fuel for its steel production, alongside an increase in solar and wind energy adoption. As a result, the city has made significant strides in reducing its industrial carbon emissions, improving air quality, and creating a cleaner environment for its citizens. This shift has allowed Ulsan to become a leader in the green economy, attracting investments in clean technologies.

Job Creation and Innovation

Tamil Nadu's established renewable energy infrastructure positions it to lead in green innovation. Investment-friendly policies could drive the development of new technologies like, energy storage solutions, Agrivoltaics (AriPV) and Building Integrated Photovoltaics (BIPV)—which is particularly relevant for Tamil Nadu's real estate and construction sectors. This could generate high-quality jobs and attract skilled professionals to the state.

Tamil Nadu's renewable energy base and investor-friendly policies can drive green tech, create quality jobs, and attract skilled talent.

As the global clean energy sector grows, Tamil Nadu has significant opportunities to capitalize on emerging technologies like energy storage, hydro-pumped storage, agrivoltaics, BIPV, and wind energy. These sectors offer substantial job creation potential, particularly in manufacturing, research, construction, and renewable energy integration. By investing in these technologies, Tamil Nadu can drive economic growth, create new employment opportunities, and solidify its role as a leader in sustainable development.

- 1. Battery Energy Storage Solutions:** The global clean energy sector added 1.5 million jobs in 2023, with a significant portion attributed to energy storage and battery manufacturing (IEA 2024). Tamil Nadu, with its robust manufacturing base, can capitalize on this trend by establishing facilities for energy storage systems, creating numerous employment opportunities in manufacturing, research and development, and maintenance.
- 2. Hydro Pumped Storage (HPS):** Hydro Pumped Storage, a form of energy storage, plays a critical role in balancing the grid and providing grid stability, especially with the increased share of intermittent renewable energy sources like wind and solar. Tamil Nadu, with its potential sites for pumped storage plants, can create thousands of high-quality jobs in civil construction, electrical engineering, plant operations, and maintenance (IRENA 2024).

3. **Agrivoltaics (AriPV):** Integrating solar energy with agricultural practices, Agrivoltaics offers dual land use, enhancing land productivity. While specific job creation figures for Agrivoltaics in Tamil Nadu are limited, studies suggest that decentralized renewable energy projects, which include Agrivoltaics, have higher job creation potential compared to utility-scale projects. Implementing Agrivoltaics could generate employment in areas such as system installation, maintenance, and agronomy (IDR 2024).
4. **Building Integrated Photovoltaics (BIPV):** BIPV systems integrate photovoltaic materials into building components, offering aesthetic and functional benefits. The adoption of BIPV in Tamil Nadu's real estate and construction sectors could create jobs in design, installation, and maintenance, contributing to the state's economic growth.
5. **Wind energy:** Additionally, the Tamil Nadu Wind Energy Roadmap by the Global Wind Energy Council indicates that the state could deliver 25 GW of new wind capacity, attracting billions of dollars in investment. Over 100,000 jobs could be created across the value chain, including turbine manufacturing, installation, operations, and maintenance. Offshore wind could additionally create specialized roles in port upgrades, underwater cabling, and marine logistics (GWEC 2022).

Providing Long-Term Investment Security

Investors in the clean energy sector seek stability and predictability. Tamil Nadu can enhance long-term investment security by ensuring transparent and fair tariff-setting mechanisms, stable policy frameworks, and streamlined approval processes. This will encourage private sector participation and accelerate the adoption of renewable energy.

Tamil Nadu can attract clean energy investors by ensuring transparent tariffs, stable policies, and streamlined approvals for long-term security.

Ensuring fair and stable Open Access charges for renewable energy and phasing out cross-subsidy charges are essential steps toward creating a transparent and competitive energy market. International examples demonstrate how such measures can encourage private sector investment and promote the adoption of renewable energy.

1. **Germany's Renewable Energy Sources Act (EEG):** Germany's EEG established a framework for integrating renewable energy into the national grid, emphasizing fair access and transparent pricing mechanisms. The policy facilitated significant investments in renewable energy by providing clear guidelines and equitable access to the grid, fostering a competitive market environment (BMWK 2022).
2. **United Kingdom's Electricity Market Reform (EMR):** The UK implemented the EMR to create a fair and stable market for electricity, including measures to phase out cross-subsidies and ensure transparent access charges. These reforms attracted substantial private investment in renewable energy projects, contributing to the UK's renewable energy capacity growth (UK BEIS 2023).
3. **Australia's National Electricity Market (NEM):** Australia's NEM operates on principles of open access and transparent pricing, with ongoing efforts to phase out cross-subsidies. The market structure has encouraged competition and investment in renewable energy, leading to a diverse energy mix.

CHALLENGES TO OVERCOME

Policy and Regulatory Alignment for Long-Term Vision

Advancing renewable energy adoption in Tamil Nadu requires addressing the DISCOM's financial challenges related to cost recovery, which impact the entire power sector value chain. Additionally, it necessitates reducing barriers to private sector participation and ensuring inclusive consultations in regulatory processes and policy formulations. While the state is well-positioned to lead in clean energy, several critical issues must be tackled:

Advancing renewables in Tamil Nadu requires tackling DISCOM financial issues, enabling private sector entry, and inclusive regulatory consultations.

One significant example of policy misalignment in Tamil Nadu is the imposition of high network charges on rooftop solar installations, which discourages industries from adopting decentralized renewable energy solutions. Similarly, the absence of a comprehensive wind repowering policy has led to underutilization of the state's ageing wind energy infrastructure, limiting its full potential. Addressing these issues by revising network charges and introducing a robust wind-repowering framework can help align the state's renewable energy goals with its economic growth ambitions. Tamil Nadu's energy policies must align with its long-term economic and sustainability goals. Developing an integrated approach that balances the state's industrial ambitions with its net-zero emission targets is critical. This includes streamlining regulations, addressing policy gaps, and ensuring consistent implementation across various sectors.

Reliable, Affordable, and Clean Energy for Industries

Tamil Nadu's industries require energy that is clean, reliable, and competitively priced to remain globally competitive. For example, the state faces monthly power outages for feeder and substation maintenance, which disrupt industrial operations and lead to increased costs. Additionally, the high cross-subsidy surcharges for wheeling energy create financial barriers for industries seeking to procure renewable energy through open access. Addressing these systemic issues is essential to maintaining industrial growth and attracting new investments.

Tamil Nadu's industries require energy that is clean, reliable, and competitively priced to remain globally competitive. For example, the textile and garment industry, a significant contributor to the state's economy, has faced challenges due to power outages and high energy costs. These challenges have driven some manufacturers to explore renewable energy options like captive solar and wind power to reduce costs and ensure reliability. Addressing such issues at a systemic level is essential to maintain industrial growth and attract new investments. Tamil Nadu's industries require access to energy that is not only clean but also reliable and competitively priced. Addressing the state's energy supply challenges, including variability in renewable energy generation, is essential for maintaining industrial competitiveness and attracting new investments.

Providing Long-Term Investment Security

Investors in Tamil Nadu's clean energy sector need policy stability and long-term security. By offering predictable tariff-setting mechanisms, transparent regulations, and streamlined approval processes, the state can encourage greater participation from the private sector and accelerate its renewable energy adoption.

DISCOM Challenges

The distribution company (DISCOM) faces financial and operational hurdles, such as recovering its cost of supply, cross-subsidy burdens and inefficiencies in tariff setting. Resolving these issues is critical to ensuring the viability of renewable energy projects and providing affordable energy to consumers.

Private Sector Challenges

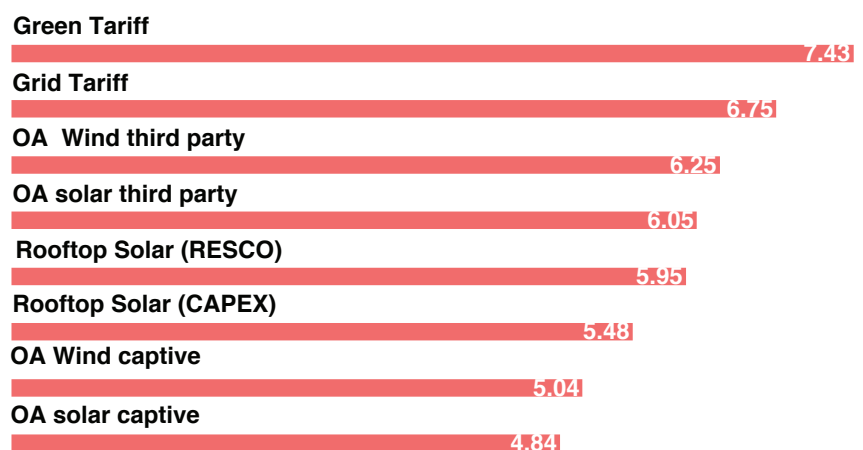
Private players encounter difficulties such as delays in regulatory approvals, uncertainties in tariff policies, and limited access to green financing. Tamil Nadu must address these barriers to foster greater private-sector participation.

Clean Energy Access Options

Tamil Nadu industries can accelerate clean energy use via green tariffs, rooftop solar, and open access, but must address regulatory hurdles.

Industries in Tamil Nadu can accelerate clean energy adoption through mechanisms such as green tariffs, rooftop solar, and green open access models, which provide cost-effective, flexible, and infrastructure-light solutions for sourcing renewable energy. While Tamil Nadu's clean energy ecosystem offers diverse opportunities for industries and consumers to access renewable energy, certain regulatory and policy hurdles must be addressed to fully unlock this potential.

Figure 4 Landed cost of energy



Captive solar and wind under Open Access, along with rooftop solar under the CAPEX model, offer some of the most cost-effective pathways for industries in Tamil Nadu to access clean energy. These models enable industries to generate their renewable energy, reducing dependency on conventional grid power and ensuring long-term energy cost stability. However, adopting these models requires industries to invest in clean power generation assets, which may not align with their core business operations. Such investments demand significant capital, technical expertise, and resource allocation, potentially diverting focus from their primary business activities. To address this, industries could explore alternative mechanisms, such as third-party power purchase agreements (PPAs) or leasing models, which allow them to benefit from renewable energy without direct ownership or operational responsibilities.

Green Tariff

Industries in Tamil Nadu can opt for green tariffs, allowing them to source carbon-neutral electricity directly from TANGEDCO without requiring infrastructure investments. While this offers a convenient pathway to integrate clean energy, the current pricing makes it less accessible. The green tariff is set at a 10% premium over the conventional tariff, which is prohibitively high for many industries. Additionally, the option is limited to High Tension (HT) consumers, excluding a significant segment of industries from benefiting. These challenges—high costs and restricted availability—render the green tariff an insufficient solution for Tamil Nadu's industries seeking affordable and inclusive clean energy options.

Rooftop Solar (Captive and Third-Party)

Rooftop solar installations offer a decentralised and cost-effective solution for clean energy adoption. Both captive and third-party models enable industries and commercial establishments to generate renewable energy and reduce dependency on the grid. The Generic Tariff Order for Grid Interactive PV Solar Energy Generating Systems (TNERC 2021) introduced network charges on the gross generation of solar energy with the argument that this will help DISCOM to better recover its fixed costs. The prosumer/consumer pays a certain amount for every unit of solar energy generated, irrespective of whether this energy is self-consumed or exported to the grid. As of January 2025, only 2 States have implemented network charges on rooftop solar.

Green Open Access (Captive and Third-Party)

Green open-access policies enable consumers to purchase renewable energy directly from producers, providing flexibility and competitive pricing. This model makes renewable energy an attractive option for industries with high energy demands. The Green Open Access Rules, 2022, notified by the Ministry of Power in June 2022, aim to bring uniformity to open access regulations. The primary objective is to promote the generation, purchase, and consumption of green energy, including energy from waste-to-energy plants, through the open-access framework. Although open access for power purchase had been available earlier, the Green Open Access Rules reduced the minimum load requirement for consumers to qualify for open access from 1 MW to 100 kW. This change now enables MSMEs to access green energy through open access. In July 2024, the Tamil Nadu Electricity

Regulatory Commission (TNERC) published a draft Green Open Access Regulation. However, the final regulation has yet to be released.

Open Access (Captive and Third-Party)

Open access enables large power consumers to procure electricity from the open market. By integrating renewable energy into this framework, Tamil Nadu can boost its clean energy adoption while meeting the energy needs of industries.

Some of the key challenges associated with open access include the cross-subsidy charges imposed on third-party open access procurement and the complexities surrounding banking mechanisms.

10-Point Action Plan to Accelerate Clean, Affordable, and Reliable Energy Access for Industries in Tamil Nadu

Accelerate clean energy access for Tamil Nadu industries via better infrastructure, renewables, and investment to drive decarbonization and sustainable manufacturing.

To position Tamil Nadu as a global leader in green manufacturing, it is essential to accelerate access to clean, affordable, and reliable energy for its industries. A comprehensive strategy focusing on enhancing energy infrastructure, promoting renewable energy adoption, and fostering a conducive environment for investment will drive industrial decarbonization and establish Tamil Nadu as an attractive destination for sustainable manufacturing. The following 10-point action plan outlines key measures:

- 1. Promote Rooftop Solar:** Simplify regulatory processes and eliminate network charges for rooftop solar installations to incentivize industries, particularly MSMEs, to adopt solar energy.
- 2. Unlock Wind Energy Potential:** Create favourable policies and investment frameworks to boost the development of both onshore and offshore wind energy projects. Focus on repowering ageing wind turbines to enhance renewable energy generation. Develop broad stakeholder consensus and unlock the full potential of wind energy repowering to maximize efficiency and output.
- 3. Streamline Green Open Access:** Streamline both open access and green open access regulations to facilitate easier access to renewable energy for industries. Develop a long-term trajectory for energy banking regulations, phase out cross-subsidies, and implement fair and transparent open access charges. Policies should balance the interests of both TANGEDCO and industrial consumers, ensuring long-term stability, fostering investment, and strengthening the state's energy infrastructure.
- 4. Phase Out Cross-Subsidy Mechanisms:** Introduce fair and transparent systems to minimize the financial burden on both DISCOMs and industrial consumers, fostering a competitive energy market.

5. **Facilitate Green Financing:** Enable MSMEs to access low-cost financing options for renewable energy projects, ensuring that green energy solutions are financially viable for all industries, especially smaller ones. Additionally, promote the RESCO model to support renewable energy adoption and implement mechanisms to enhance payment security and mitigate risks.
6. **Provide Technical Assistance and Demand Aggregation Services:** Institute a technical assistance cell in every district. Offer technical support and demand aggregation services for MSMEs to implement rooftop solar, battery storage systems, and access to Green Open Access, reducing the complexity and cost of adoption.
7. **Raise Awareness and Build Capacity:** Implement awareness campaigns to highlight the economic, environmental, and operational benefits of adopting clean energy solutions, while building the technical and managerial capacity of industries to accelerate their decarbonisation pathway.
8. **Develop Long-Term Policies:** Institutionalize long-term energy policies that align with the state's sustainability objectives and economic priorities, providing policy assurance and a stable, predictable environment for investments. These long-term policies should specifically support the development of the state as a green manufacturing hub.
9. **Institute an Expert Panel:** Establish a panel of experts to review and realign power sector policies and regulations, ensuring they are in line with Tamil Nadu's economic, social, industrial, and environmental goals.
10. **Encourage Innovation and New Technologies:** Foster the adoption of cutting-edge technologies such as energy storage solutions, demand response programs, and emerging generation technologies like Agrivoltaics (AgriPV) and Building Integrated Photovoltaics (BIPV). These innovations will optimize energy usage, enhance grid stability, and support industries in achieving their decarbonization goals. To attract such innovative technologies, the state can establish dedicated innovation hubs and research parks, offer tax incentives and subsidies for R&D in renewable energy, and create public-private partnerships to scale up pilot projects.

This 10-point action plan aims to accelerate Tamil Nadu's transition to a clean, reliable, and cost-effective energy future that will position the state as a preferred destination for green manufacturing and industrial growth. Tamil Nadu's focus on sustainable industrialization and infrastructure development aligns with the United Nations Sustainable Development Goals (SDGs), particularly SDG 7 (Affordable and Clean Energy) and SDG 13 (Climate Action).

Tamil Nadu stands at the cusp of a clean energy transition that can redefine its economic and environmental future. By addressing challenges, aligning policies with long-term goals, and leveraging its renewable energy potential, the state can emerge as a global leader in sustainable industrialization. Clean energy is not just an environmental imperative; it is a strategic enabler of Tamil Nadu's economic growth and a pathway to a prosperous, carbon-neutral future.

Quick Wins

- 1. Review and Strengthen the Wind Repowering Policy:** To accelerate wind repowering in Tamil Nadu, the state must review and strengthen its wind repowering policy by addressing industry concerns, introducing clearer incentives, and streamlining approval processes to ensure long-term investment stability. Strengthening power evacuation infrastructure is also crucial, as developers currently face additional costs for upgrading substations and arranging alternative power evacuation, despite already paying an infrastructure development charge of ₹30 lakh per MW. Reducing these financial burdens will facilitate smoother project execution. Additionally, the ₹50 lakh per MW resource charge on Central Transmission Utility (CTU) wind projects discourages developers from connecting to the central grid, forcing reliance on the state grid instead. Reassessing this charge and ensuring a level playing field for grid connectivity will enhance participation and optimize power distribution.
- 2. Introduce Green Open Access:** Facilitating Green Open Access will allow commercial and industrial (C&I) consumers with a sanctioned load greater than 100 KW to procure renewable energy seamlessly, reducing dependency on fossil fuels and lowering energy costs. Tamil Nadu should adopt Green Open Access, ensuring transparent and predictable regulations that encourage private sector participation.
- 3. Make Green Tariffs a Viable Option to Industries:** Redesign Green Tariffs such that tariff rates are lower during peak solar generation hours. This approach will encourage industries to shift their energy consumption to periods of high renewable availability, optimizing solar power utilization and reducing grid stress during peak demand hours. By aligning tariffs with renewable energy generation patterns, Tamil Nadu can enhance grid stability, maximize clean energy usage, and increase the competitiveness of its industries.
- 4. Remove Network Charges for Rooftop Solar Energy:** The imposition of network charges on rooftop solar discourages adoption by increasing the overall cost of installation and operation. Tamil Nadu should eliminate these charges to support households, businesses, and industries in generating their own clean energy. This will help maximize distributed solar generation, reduce grid dependence, and enhance the state's energy security.

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