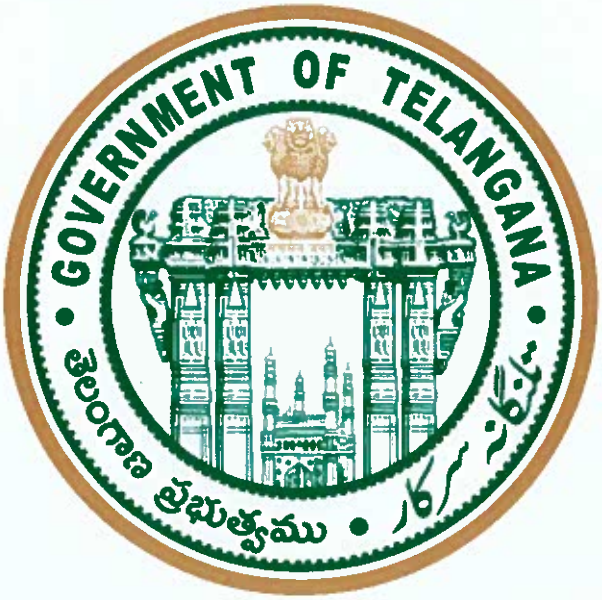
TELANGANA

CLEAN AND GREEN ENERGY POLICY – 2025

S.T. 2-12



Energy Department

Government of Telangana

www.telangana.gov.in

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Sri A. Revanth Reddy

Hon'ble Chief Minister of Telangana

I am pleased to announce the launch of Telangana Clean and Green Energy Policy-2025, which seeks to establish our state as a leader in renewable energy. As you all know, the global energy sector is shifting towards cleaner energy solutions, and we are committed to playing a significant role in accomplishing India's net-zero emissions target by 2070.

Telangana is endowed with abundant natural resources, making it a prime location for developing Renewable Energy projects. The state's ongoing developments, such as AI City, Future City centered around sustainable technologies, and the Regional Ring Road, further position Telangana as a prime destination for RE investments.

We believe this policy will help our state become a hub for green energy. Therefore, I invite all stakeholders to invest in Telangana's green energy growth and bring prosperity not only to themselves but also to the state and the nation. By providing incentives for development of renewable energy projects, this policy aims to ensure energy security for the State while striving to provide clean, reliable and affordable power to consumers of Telangana.

Let us work towards a sustainable future, where we can rely on clean and renewable sources to power our state.

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Sri Mallu Bhatti Vikramarka

Hon'ble Deputy Chief Minister of Telangana (Finance & Planning, Energy)

As we embark on the transformative green journey, it is my privilege to present Telangana Clean and Green Energy Policy-2025. We introduced this policy with a commitment to establish Telangana as a prominent player in renewable energy and sustainable business practices.

In line with nation's pledge to ensure that 50% of the nation's cumulative electric power installed capacity comes from non-fossil fuel-based energy resources by 2030, Telangana is poised to achieve an addition of 20,000 MW of renewable energy and storage capacity by 2030.

Telangana offers a wealth of opportunities for renewable energy development, thanks to its abundant natural resources, skilled workforce, and supportive business environment. Through this policy, we aim to provide a streamlined framework for developing renewable projects in the state and attract investments in the clean and green energy sector. This will, in turn, lead to job creation and boost our state's economy. This policy and its incentives are designed to foster a sustainable and prosperous future.

Together, let's power our future with renewable energy, fostering prosperity and sustainability. We urge all stakeholders to join us in this vital mission of creating a sustainable future.

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1. Preamble

The global energy sector is undergoing a significant transformation, shifting from fossil fuels to more sustainable sources. In 2023, the world added a record 510 GW[1] of new renewable energy capacity, highlighting the shift towards cleaner energy solutions as a critical component in reducing carbon emissions.

India, the world's 4th largest country[2] in terms of installed renewable energy capacity, is committed to achieving net-zero emissions by 2070. To support this commitment, India has been rapidly scaling up its renewable energy initiatives to meet its growing energy demands sustainably.

As of November 2024[3], India's installed renewable energy capacity stands at approximately 206 GW (including hydro), which is approximately 45% of the total installed capacity of 457 GW, significantly contributing to global efforts to combat climate change.

Recognizing the urgent need for de-carbonization and affordable access to energy, the Government of Telangana is notifying Telangana Clean and Green Energy Policy-2025.

Telangana has vast solar potential with an average solar insolation of 5.5 kWh/m^2 for more than 300 sunshine days.

It is one of the top eight (8) states in India in terms of wind potential of 54,717 MW. The details of wind potential at various hub heights are as follows -

[1] Executive summary – Renewables 2023 – Analysis - IEA
[2] MNRE press notification dated 03 Jan 2024
[3] Central Electricity Authority

Hub Height (mts)	Wind Potential (MW) [4]
120	24,835
150	54,717

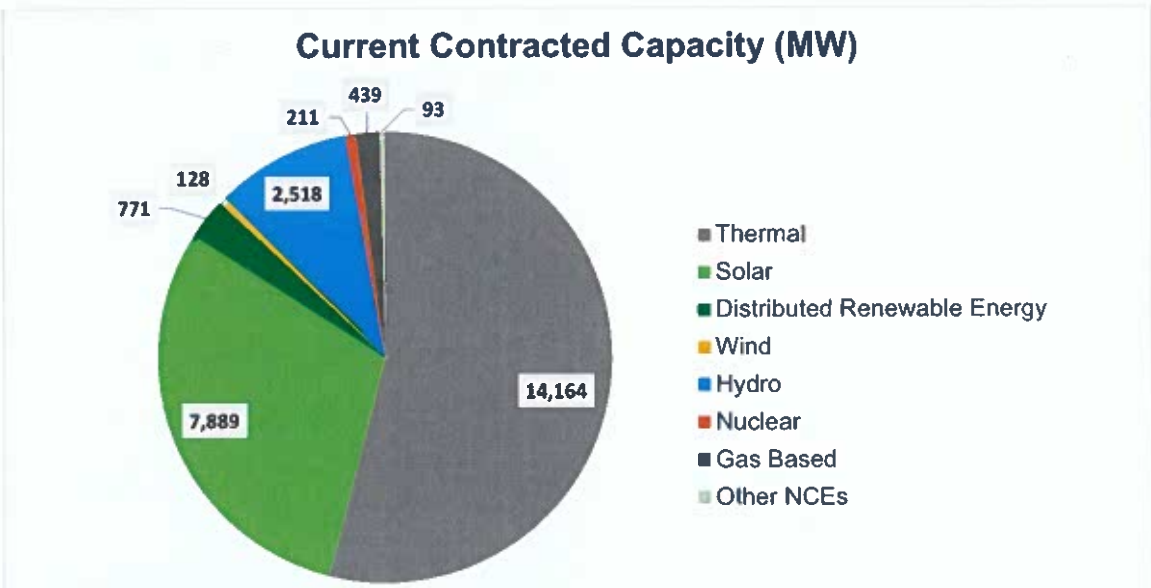
Telangana's Current Contracted Capacity -

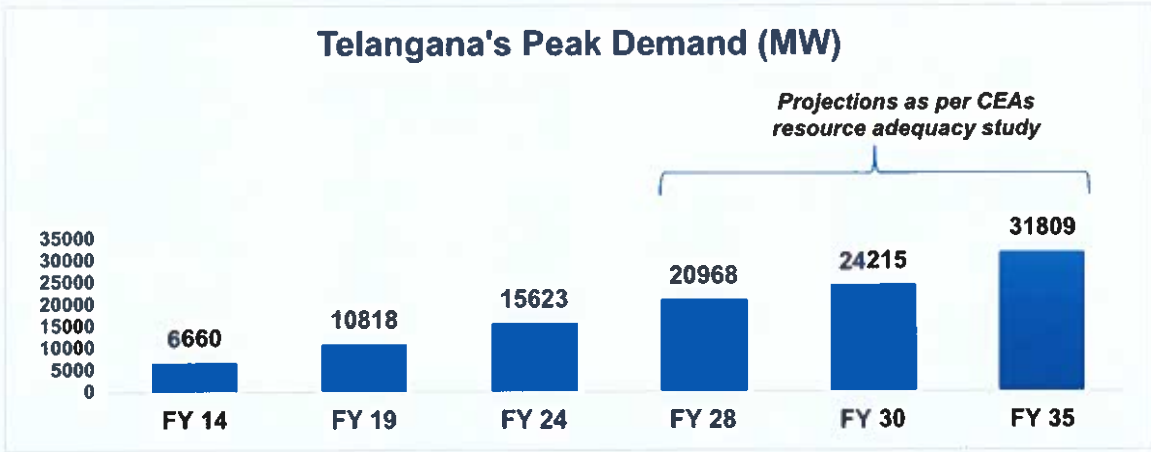
Type	Current Contracted Capacity (MW)
Thermal	14,164 [5]
Solar	7,889 [6]
Distributed Renewable Energy	771
Wind	128
Hydro	2,518
Nuclear	211
Gas Based	439
Other NCEs	93
Total	**26,212**

[4] MNRE, Wind Overview | Ministry of New and Renewable Energy: Wind potential in Telangana is 24.83GW at 120m, 54.7GW at 150m

[5] This includes YTPS 4000 MW (5X800 MW).

[6] Current installed solar capacity of 5,415 MW and upcoming capacity of 2,474 MW





To meet the state demand and fulfil its Renewable Purchase Obligation (RPO), the ***Central Electricity Authority (CEA)*** as part of its ***resource adequacy study*** has suggested the following capacity mix for FY 2029-30 and FY 2034-35:

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Type	Capacity by FY 2029-30 (MW)	Capacity by FY 2034-35 (MW)
Thermal	15,893	16,966
Solar	19,874	26,374
Distributed Renewable Energy	4,330	8,242
Wind	2,528	4,528
Hydro	2,518	2,518
Battery Energy Storage Systems (BESS)	3,388	5,450
Pumped Storage Projects (PSPs)	417	2,467
Nuclear	54	54
Gas Based	25	25
Other NCEs	77	70
Total	**49,104**	**66,694**

The state will prioritize meeting its energy needs through clean, renewable sources to ensure a sustainable and affordable energy mix while adhering to regulatory requirements. To achieve this, the state will not only procure standalone Renewable Energy (RE) such as solar and wind but also explore customized solutions like Firm and Dispatchable Renewable Energy (FDRE), Renewable Energy Round-The-Clock (RE-RTC), and energy storage solutions. TGDISCOMs will implement measures to encourage shifting demand to solar hours by providing incentives through Time-of-Day (TOD) tariffs.

The state has existing hydro power projects with pumped storage operations in Srisailam and Nagarjuna Sagar. There is further potential to take up Pumped Storage Projects (PSP) on river and off-river utilizing sites such as man-made tanks / lift irrigation schemes / abandoned mines, etc.

The State is also committed to the development and deployment of Green Hydrogen and its derivatives. The ambitious plan to set up Green Hydrogen plants across the state underlines its aim to foster a sustainable future and emerge as one of the leading players in green hydrogen in India.

By promoting affordable energy sources tailored to the state's specific needs, this policy aims to achieve a sustainable mix of long-term, medium-term, and short-term sources. Market purchases will be prudently used to address the variability in demand relative to the plan and to optimize the overall power cost, subsequently lessening the financial burden on consumers.

2. Objective

This policy has been developed to meet the following objectives-

i. Ensure energy security for Telangana

ii. Provide reliable and affordable power

iii. Ensure self-sufficiency and sustainability of Telangana Power Utilities

iv. Promote the development of solar, wind & other RE projects in the state

v. Promote the development of energy storage systems

vi. Promote the production of green hydrogen and its derivatives

vii. Enhance the state's manufacturing ecosystem

viii. Boost investments and increase job potential in the state

	Current Status	Target Capacity for FY30	Target Capacity for FY35
Solar Energy	**7,889 MW**	**19,874 MW**	**26,374 MW**
Distributed Renewable Energy	**771 MW**	**4,330 MW**	**8,242 MW**
Wind Energy	**128 MW**	**2,528 MW**	**4,528 MW**
Energy Storage Battery Energy Storage & Pumped Storage Projects[7]	**1,600 MW**	**3,805 MW**	**7,917 MW**
Geothermal	**20 kW pilot project by SCCL**	**1,000 MW**	**3,000 MW**
EV Charging Stations	**872 Nos.**	**6,000 Nos.**	**12,000 Nos.**
Green Hydrogen[8]	-	**418 KTPA**	**554 KTPA**

[7] *Existing projects at Srisailam and Nagarjuna Sagar*
[8] *Green Hydrogen Policy Formulation - RICH, Government of Telangana, September 2023*

3. Operative period

This policy will come into operation from the date of issuance and will remain applicable for a period of ten (10) years, from the date of issuance of policy or till such time a new policy is issued.

All projects that are allocated by the Nodal agency during the policy operative period and commissioned as per the timelines specified in this policy / bid document / Power Purchase Agreement (PPA), will be eligible for incentives declared under this policy.

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4. Applicability of the policy

This policy will be applicable for the following projects set up in the State of Telangana.

i. Solar Power Projects

ii. Wind Power Projects

iii. Pumped Storage Projects (PSPs)

iv. Battery Energy Storage Systems (BESS)

v. Other Renewable Energy Projects

   a. Geothermal

   b. Mini Hydel

   c. Waste-to-Energy (Municipal / Industrial), Biomass, Biogas, Bagasse, Co-generation, and Biofuel projects (such as bioethanol, biodiesel, etc.)

vi. Hybrid Projects including Firm and Dispatchable Renewable Energy (FDRE) and Renewable Energy Round-The-Clock (RE-RTC)

vii. Electric Vehicle Charging Stations (including Battery Swapping Facilities)

viii. Green Hydrogen and its derivatives

This policy also promotes setting up of manufacturing facilities for solar, wind, battery, electrolyzers for green hydrogen and related equipment.

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5. Nodal Agency

TGGENCO / TGREDCO will act as Nodal agencies to enable smooth implementation of this policy and will be responsible for the following activities:

i. Registration of projects

ii. Facilitating capacity allocation for projects

iii. Facilitating allotment of government land for relevant projects

iv. Facilitating approval of power evacuation plan and allocation of bays and other related facilities

v. Inviting tenders for RE projects

vi. Facilitating clearances/approvals through TG-iPASS or any other single window clearance facility provided by the government

vii. Facilitating water body allocation for floating solar projects / pumped storage plants, etc.

viii. Coordinating with Ministry of New and Renewable Energy (MNRE) / other State and Central agencies, etc.

6. General Framework of Policy

6.1 Open Access

Open Access guidelines will be as per Telangana Electricity Regulatory Commission (TGERC) Terms and Conditions of Open Access, Regulation, 2024, [Regulation No.1 of 2024][9] and its amendments issued from time to time.

6.2 Energy Banking, Settlement & Balancing

Energy Banking, Settlement and Balancing for green energy projects will be as per Telangana Electricity Regulatory Commission (TGERC) Terms and Conditions of Open Access, Regulation, 2024, [Regulation No.1 of 2024] and its amendments issued from time to time.

6.3 Renewable Energy Certificate (REC) Mechanism

All projects developed during the effective period of this policy are eligible for REC benefits, in accordance with the TGERC Renewable Power Purchase Obligation Regulations, 2022 [Regulation No. 7 of 2022][10] and its subsequent amendments from time to time.

6.4 Open access charges

Open access charges like Transmission & Wheeling Charges, Cross Subsidy Surcharge and Additional Surcharge for green energy projects will be as per Telangana Electricity Regulatory Commission (TGERC) Terms and Conditions of Open Access, Regulation, 2024, [Regulation No.1 of 2024] and its amendments issued from time to time.

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[9] TGERC Open Access Regulation 1 of 2024
[10] TGERC Regulation 7 of 2022.pdf

6.5 Central Grants

The Nodal Agency will facilitate the developers in receiving central grants as per the requisite central schemes and policies.

6.6 Processing of Applications

All the applications will be processed online, through relevant portal set up by the nodal agencies.

6.7 Applicability of Incentives

All incentives mentioned in the policy will be applicable as per mentioned timelines or till the useful life of the projects, whichever is earlier.

6.8 Incubation Center for Innovation in Energy sector

i. The state government is committed to driving innovation and entrepreneurship in renewable energy sector for sustainable technologies. To enable this, an incubation center will be set-up in TGTRANSCO/TGDISCOMs.

ii. The incubation center will work closely with start-ups, academia, research institutions, industries in energy sector to identify and scale up new solutions, products, business models etc.

iii. An INR 50 crore incubation fund will be created to support promising ideas & start-ups in this domain. Detailed guidelines will be issued separately on the operational modalities of this incubation center.

7. Solar power projects

7.1 Grid-scale solar power projects

7.1.1 Sale of power to Telangana DISCOM(s)

TGDISCOMs will procure solar power through Tariff-Based Competitive Bidding (TBCB) process, as per the guidelines of Ministry of New and Renewable Energy (MNRE) / GoI and in accordance with their Renewable Purchase Obligation (RPO) / cost optimization requirements, subject to commercial viability.

7.1.2 Open access / Captive / Group-captive consumption

7.1.2 (a) Registration of the project

The nodal agency will put in place an online portal to facilitate registration of solar projects to be developed for the sale of power to private parties through open access / captive / group-captive consumption.

Interested developers may submit proposals containing requisite details, such as project location, size of project along with the Detailed Project Report (DPR), etc., as prescribed on the portal along with the requisite registration fee.

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7.1.2 (b) Capacity allocation

i. The nodal agency in coordination with TGDISCOMs / TGTRANSCO will evaluate the proposals and approve such projects on a case-to-case basis.
ii. Projects approved, will be able to seek capacity allocation up to available capacity at the substation. For project capacity more than available substation capacity, augmentation will be the responsibility of the developer.
iii. The developer should enter into a project agreement with the Nodal agency within 2 months from the capacity allocation along with the requisite capacity allotment fee and Performance Bank Guarantee (PBG).
iv. Procurement of land will be the responsibility of the developer.

7.1.2 (c) Commissioning of the project

i. Project commissioning deadline will be two (2) years from the date of issuance of capacity allocation.
ii. The nodal agency may grant a 1-year extension beyond the commissioning deadline by encashing 50% of the PBG. An additional 1-year extension may be granted upon encashment of the remaining 50% of the PBG.
iii. If the project is still pending after the extension period mentioned above, the allocation of the project may be canceled.

7.2 Floating solar projects

The nodal agency, in collaboration with the Irrigation Department, will identify potential reservoirs / other water bodies for setting up floating solar projects.

TGDISCOMs may issue tenders through TBCB for procurement of power from floating solar projects.

State PSUs / Central PSUs / JVs between state PSUs and / or central PSUs may also be allowed to setup floating solar projects. The proposals for such projects will be evaluated and decided on a case-to-case basis based on requirements of the state government / TGDISCOMs. In such cases, the site will be developed by PSUs.

In case the sale is not for TGDISCOMs, one time lease of Rs. 1 lakh / acre will be payable to the Irrigation Department. The period of lease will be twenty five (25) years from Commercial Operation Date (COD) or up to the useful life of the project whichever is earlier.

7.3 Decentralized, ground-mounted, and grid-connected solar plants

(a) Projects set up by Women Self Help Groups (SHGs) / Village Organizations (VOs)

TGDISCOMs will notify sub-station-wise capacity and periodically invite applications for Expression of Interest (EoI) for procurement of solar power from the plants to be established by women SHGs / VOs etc., under the following modalities:

i. TGDISCOMs will procure solar power as per the feed-in-tariff determined by the TGERC.
ii. Solar plants with capacities between 500 kW to 2 MW are permitted to be set up by the women SHGs / VOs.

(b) Projects set up by Farmers/ Group of Farmers/ Cooperatives/ Panchayats/ Farmer Producer Organizations (FPOs)/ Water User Associations (WUAs)

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TGDISCOMs will notify sub-station-wise capacity and periodically invite applications for Expression of Interest (EoI) for procurement of solar power from the plants to be established by farmers/ group of farmers/ cooperatives / panchayats /FPOs /WUAs under the following modalities:

i. TGDISCOMs will procure solar power as per the feed-in-tariff determined by TGERC.
ii. Solar plants with capacities between 500 kW to 2 MW are permitted.
iii. Mode of Allocation –
    - If aggregate capacity of application is less than / equal to notified capacity at substation, all applications will be accepted.
    - If the aggregate capacity of applications exceeds the notified capacity, nodal agency will invite bids for capacity allocation. Bidders will be selected based on the lowest tariff, with a pre-fixed levelized tariff as the ceiling.

7.4 Grid connection and evacuation facility

i. Power will be evacuated at the appropriate voltage level at the interconnection point of TGTRANSCO / TGDISCOMs and evacuation up to the interconnection point will be the sole responsibility of the developer for the projects.
ii. TGTRANSCO/ TGDISCOMs will process the proposals for technical feasibility within fourteen (14) days of receipt of the application from the solar power project developer.

7.5 Transfer of Project

i. For projects that involve selling power to TGDISCOMs, developers can refer to the bid document / Power Purchase Agreement (PPA) for information on project transfer.

ii. For projects that do not involve selling power to TGDISCOMs, the original developer will be permitted to transfer the project before COD to another developer on payment of requisite transfer fee to nodal agency. Upon collection of PBG from the new developer, PBG of original developer will be returned. Project commissioning date will remain the same post transfer.

iii. After COD the developer must follow the relevant guidelines for transfer of project.

7.6 Incentives for Solar Power Projects

i. The following incentives will be given for all applicable solar power projects (which sell power within the state / outside the state) -

a. Deemed conversion to non-agricultural land status

Deemed non-agricultural status will be accorded for the land utilized for development of projects.

b. Facilitation of Clearances

Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by the government for setting up projects, upon timely payment of applicable fees.

c. Exemption from Land Ceiling Act

The ceiling limit as per the Land Ceiling Act will not be applicable for any land acquisition for solar power projects. However, this exemption is available only against firm orders / PPAs / successful bids to the extent of land required, not more than 4 acres/MW or any upper limit as specified due to advancement of technology from time to time.

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d. **Stamp Duty Reimbursement**

100% reimbursement of Stamp Duty will be given for the land purchased to set up solar projects.

e. **Pollution Control Board Clearances**

Projects are exempted from obtaining any NOC / Consent for establishment under pollution control laws from Telangana Pollution Control Board.

f. **Water Charges Reimbursement**

Water charges will be reimbursed for all applicable solar power projects.

g. **Electricity Duty Exemption (only if consumption is within the state)**

100% exemption of electricity duty for Micro, Small, and Medium Enterprises (MSMEs) for 8 years from COD.

ii. **The following additional incentives will be given for applicable solar power projects that sell power to the TGDISCOMs**

a. **Reimbursement of Supervision Charges**

Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed to the project developer.

b. **Net SGST reimbursement**

- 100% Net SGST reimbursement will be given for fixed capital investment incurred for decentralized grid connected solar projects developed by women SHGs / VOs.
- 50% Net SGST reimbursement will be given for fixed capital investment incurred for all other solar projects.
- This provision applies to projects allocated during the policy operative period and commissioned as per the timelines specified / COD deadline of the PPA.

7.7 Incentives for Solar Manufacturing

i. The following incentives will be given for solar manufacturing plants -

a. Capital Subsidy

Capital subsidy will be provided, covering 25% of the Fixed Capital Investment (FCI) for manufacturing plants, including captive generating plants and captive mines. This subsidy is capped at INR 30 crores per manufacturing plant and will be disbursed over a period of five (5) years from the date of commencement of commercial production of the solar manufacturing plant.

b. Net SGST Reimbursement

100% Reimbursement of Net SGST on sale of products for a period of seven (7) years from the date of commencement of commercial production and this is limited to the investment made in plant and machinery.

c. Deemed Conversion to Non-Agricultural Land Status

Deemed non-agricultural status will be accorded for the land utilized for development of manufacturing projects.

d. Electricity Duty Exemption

100% of electricity duty will be waived off for the manufacturing plant for a period of ten (10) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

e. Reimbursement of Intra-State Transmission Charges and Wheeling Charges

100% of Intra-state transmission charges and wheeling charges will be reimbursed to the manufacturer for a period of ten (10) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

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f. **Reimbursement of Cross Subsidy Surcharge**

100% of Cross subsidy surcharge will be reimbursed to the manufacturer for a period of ten (10) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

g. **Energy Banking, Settlement & Balancing**

Banking will be applicable as per the TGERC Open Access Regulations and its amendments issued from time to time.

h. **Provision of Industrial Water**

Industrial water will be delivered directly to the manufacturing plant. 25% of the applicable charges will be reimbursed for the first ten (10) years from the date of commencement of commercial production. After this period, water charges will be payable as per the applicable rates.

i. **Reimbursement of Supervision Charges**

Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed to the manufacturer.

j. **Off-take guarantee**

For each tender called by TGDISCOMs, 10% (over & above the tendered capacity) will be offered to manufacturing plants set-up in the state. The tariff for such capacity will be the lowest (L1) tariff discovered during the tender process or L1 price discovered in the latest SECI tenders (whichever is lower). In case of multiple eligible manufacturing plants interested in supplying power, the capacity will be allocated to the eligible developers in proportion to their manufacturing capacity.

k. **Power Tariff Reimbursement**

For all the solar manufacturing projects, electricity tariff of INR 1/kWh will be reimbursed for ten (10) years from the date of commencement of commercial production.

l. **Reimbursement of Patent Filing / Quality Certification**

- 50% of expenses incurred for quality certifications will be reimbursed, subject to a limit of INR 2 lakhs.
- 50% of the cost of filing patents will be reimbursed to the companies having their headquarters in Telangana, subject to a limit of INR 2 Lakhs.

m. **Other Incentives**

- 25% reimbursement will be provided for specific cleaner production measures limited to INR 5 Lakhs.
- 50% exhibition expenses will be reimbursed limited to INR 5 Lakhs.
- Additional 10% investment subsidy will be provided for Women Promoter led entities subject to a maximum of additional INR 10 Lakhs for MSEs.
- INR 5 Lakhs as recruitment assistance, basing on the level of employment generated, for employing minimum 50 employees (Telangana Locals) within two (2) years of commencement of commercial production.
- Any other incentives as provided by the Central / State Government will be extended by the Nodal Agency to the developer without any financial commitment by the State Government.

In case of Mega Projects, customized incentives will be considered, including transport subsidy, stamp duty reimbursement, interest subvention, land allocation at attractive prices etc.

8. Rooftop Solarization

i. Rooftop solarization will be encouraged for the following categories-

   a. Households
   b. Houses under Indiramma Indlu Scheme
   c. Government Educational Institutions
   d. Other Government Buildings

ii. To further encourage rooftop solarization, 100% net SGST reimbursement will be given for the above rooftop projects.

iii. The above projects will be set up through Renewable Energy Service Company (RESCO) / self-owned / co-located captive / Hybrid Annuity Model (HAM) / any other appropriate model.

iv. Net / gross metering interconnection agreement between consumer and TGDISCOMs will be executed as per TGERC guidelines.

v. Solarization of Government Buildings and Educational Institutions

   a. The nodal agency will assist the heads of departments in the following activities –

      - Aggregation of rooftop space / potential capacity in their establishments across the state.
      - Identification of appropriate mode of execution of capacity.
      - Bid process management.

   b. The government will facilitate the pooling of rooftop space in government educational institutions and offer it to industries / MNCs etc., to develop solar rooftop projects. Under this, they can provide a percentage of energy to the government educational institutions and can utilize the surplus energy for captive / group-captive consumption open-access sales.

9. Wind power projects

9.1 Sale of power to Telangana DISCOM(s)

The Nodal Agency in collaboration with TGDISCOMs, will issue tenders for wind power projects through a Tariff-Based Competitive Bidding (TBCB) process, adhering to the guidelines of Ministry of New and Renewable Energy (MNRE) / GoI, at suitable sites as identified by the National Institute of Wind Energy (NIWE).

If the identified site is government land, a nominal lease will be fixed for the period of Power Purchase Agreement (PPA) @ 10% of the market value / annum at prevailing rate as per records at the time of bidding, with an escalation of 5% for every two (2) years. In such cases, the identified successful bidder has to enter into a lease agreement with the district collector / concerned government authority upon PPA.

If the identified site is forest land, allocation will be according to the guidelines laid down by the forest department from time to time.

If the identified site is private land, the land may be owned or leased by the developer for the period of PPA.

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9.2 Open access / Captive / Group-Captive consumption

Interested developers may submit proposals including Detailed Project Report (DPR), Wind Resource Assessment data (WRA[11]) duly validated by NIWE, to the nodal agency along with requisite applicable fee.

The nodal agency in coordination with TGDISCOMs / TGTRANSCO will evaluate proposals submitted by the developers who either owns / has lease agreement and approve such projects on a case-to-case basis.

Approved projects will be able to seek capacity allocation at the substation up to the available capacity. If additional capacity is required at the substation, such augmentation will be the responsibility of the developer.

The developer should enter into a project agreement with the Nodal agency within 2 months from the capacity allocation, along with the requisite capacity allotment fee and Performance Bank Guarantee (PBG).

9.3 Repowering of existing wind power projects

The Government of Telangana will promote wind repowering by replacing lower-capacity, lower-hub-height Wind Turbine Generators (WTG) with advanced, higher-capacity WTGs, in line with the National Repowering and Life Extension Policy for Wind Power Projects, 2023. Repowering of existing wind turbines that have surpassed ten (10) years of operation will be facilitated.

In case of power being purchased by Telangana DISCOMs through PPA, power generated corresponding to the average of the last three (3) years generation before repowering will continue to be purchased on the terms of PPA in force, as

[11] Carried out as per the guidelines issued by MNRE[11] from time to time such as Guidelines for wind measurements by private sectors (niwe.res.in)

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approved by the commission. Additional generation post repowering may be procured by TGDISCOMs at a tariff determined by TGERC. Repowered wind power projects will also be authorized to utilize the additional power for captive or group captive or third-party sale.

The project developer will undertake a pre-feasibility assessment for evacuation of repowered energy through TGTRANSCO or Central Transmission Utility (CTU), as applicable.

9.4 Grid connection and evacuation facility

i. Power will be evacuated at the appropriate voltage level at the interconnection point of TGTRANSCO / TGDISCOMs and evacuation up to the interconnection point will be the sole responsibility of the developer for the projects.

ii. TGTRANSCO / TGDISCOMs will process the proposals for technical feasibility within fourteen (14) days of receipt of the application from the wind power project developer.

9.5 Transfer of project

i. For projects that involve selling power to TGDISCOMs, developers can refer to the bid document / PPA for information on project transfer.

ii. For projects that do not involve selling power to TGDISCOMs, the original developer will be permitted to transfer the project before Commercial Operation Date (COD) to another developer on payment of requisite transfer fee to nodal agency. Upon collection of PBG from the new developer, PBG of original developer will be returned. Project commissioning date will remain the same post transfer.

iii. After COD the developer must follow the relevant guidelines for transfer of project.

9.6 Commissioning of the project

9.6.1 Sale of power to Telangana DISCOM(s)

The schedule for completion of the wind power projects allocated through TBCB will be governed by provisions (PBG, penalties for delay in execution of the project etc.) of the bid document/power purchase agreement.

9.6.2 Open access / Captive / Group-Captive consumption

i. The project commissioning deadline will be 3 years from the date of issuance of capacity allocation.
ii. The nodal agency grants a 1-year extension beyond the commissioning deadline by encashing 50% of the PBG. An additional 1-year extension is granted upon encashment of the remaining 50% of the PBG.
iii. If the project is still pending after the extension period mentioned above, the allocation of the project may be canceled.

9.7 Incentives for wind power projects

i. **The following incentives will be given for all applicable wind power projects (which sell power within the state / outside the state) -**

   a. **Deemed conversion to non-agricultural land status**

      Deemed non-agricultural status will be accorded for the land utilized for development of projects.

   b. **Facilitation of Clearances**

      Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by

the government for setting up projects, upon timely payment of applicable fees.

c. Exemption from Land Ceiling Act

The ceiling limit as per the land ceiling act will not be applicable for any land acquisition for wind power projects. However, this exemption is available only against firm orders / PPAs / successful bids to the extent of land required, not more than 4 acres/ MW or any upper limit as specified due to advancement of technology from time to time.

d. Stamp Duty Reimbursement

100% reimbursement of Stamp Duty will be given for the land purchased to set up wind power projects.

e. Pollution Board Clearances

Projects are exempted from obtaining any NOC / Consent for establishment under pollution control laws from Telangana Pollution Control Board.

f. Electricity Duty Exemption (only if consumption is within the state)

100% exemption of electricity duty for Micro, Small, and Medium Enterprises (MSMEs) for 8 years from COD.

ii. The following additional incentives will be given for all applicable wind power projects that sell power to the TGDISCOMs

a. Reimbursement of supervision charges

Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed to the project developer.

b. Net SGST reimbursement

- 100% Net SGST reimbursement will be given for fixed capital investment incurred for wind power projects developed by women SHGs / VOs.

- 50% Net SGST reimbursement will be given for fixed capital investment incurred for other wind power projects.
- This provision applies to projects allocated during the policy operative period and commissioned as per the timelines specified / COD deadline of the PPA.

9.8 Incentives for wind manufacturing

i. The following incentives will be given for wind manufacturing plants -

a. Capital Subsidy

Capital subsidy covering 25% of the Fixed Capital Investment (FCI) for manufacturing plants, including captive generating plants. This subsidy is capped at INR 30 crores per manufacturing plant and will be disbursed over a period of five (5) years from the date of commencement of commercial production of the wind manufacturing plant.

b. Net SGST reimbursement

100% Reimbursement of Net State Goods and Services Tax (SGST) on sale of products for a period of seven (7) years from the date of commencement of commercial production and this is limited to the investment made in plant and machinery.

c. Deemed conversion to non-agricultural land status

Deemed non-agricultural status will be accorded for the land utilized for development of manufacturing plants.

d. Electricity Duty Exemption

100% of electricity duty will be waived off for a period of ten (10) years from the date of commencement of commercial production for the

manufacturing plant and thereafter will be paid as applicable from time to time.

e. Reimbursement of Intra-State Transmission Charges and Wheeling charges

100% of Intra-state transmission charges and wheeling charges will be reimbursed to manufacturer for a period of ten (10) years from the date of commencement of commercial production and thereafter will be paid as applicable from time to time.

f. Reimbursement of Cross Subsidy Surcharge

100% of Cross subsidy surcharge will be reimbursed to the manufacturer for a period of ten (10) years from the date of commencement of commercial production and thereafter will be paid as applicable from time to time.

g. Energy Banking, Settlement & Balancing

Banking will be applicable as per the TGERC Open Access Regulations and its amendments issued from time to time.

h. Provision of Industrial Water

Industrial water will be delivered directly to the manufacturing facility. 25% of the applicable charges will be reimbursed for the first ten (10) years from the date of commencement of commercial production. After this period, water charges will be payable as per the applicable rates.

i. Reimbursement of Supervision Charges

Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed to the manufacturer.

5.7

j. Off-take guarantee

For each tender called by TGDISCOMs, 10% (over & above the tendered capacity) will be offered to manufacturing plants set-up in the state. The tariff for such capacity will be the Lowest (L1) tariff discovered during the tender process or L1 price discovered in the latest SECI tenders (whichever is lower). In case of multiple eligible manufacturing units interested in supplying power, the capacity will be allocated to the eligible developers in proportion to their manufacturing capacity.

k. Power Tariff Reimbursement

For all the manufacturing units, electricity tariff of INR 1/kWh will be reimbursed for ten (10) years from the date of commencement of commercial production.

l. Reimbursement of Patent filing / Quality certification

- 50% of expenses incurred for quality certifications will be reimbursed, subject to a limit of INR 2 lakhs.
- 50% of the cost of filing patents will be reimbursed to the companies having their headquarters in Telangana, subject to a limit of INR 2 Lakhs.

m. Other Incentives

- 25% reimbursement will be provided for specific cleaner production measures limited to INR.5 Lakhs.
- 50% exhibition expenses will be reimbursed limited to INR 5 Lakhs.
- Additional 10% investment subsidy will be provided for Women Promoter led entities, subject to a maximum of additional INR 10 Lakhs for MSEs.
- INR 5 Lakhs as recruitment assistance, basing on the level of employment generated, for employing minimum 50 employees

(Telangana Locals) within two (2) years of commencement of commercial operations.

- Any other incentives as provided by the Central / State Government will be extended by the Nodal Agency to the developer without any financial commitment by the State Government.

In case of Mega Projects, customized incentives will be considered, including transport subsidy, stamp duty reimbursement, interest subvention, land allocation at attractive prices etc.

10. Pumped storage projects (PSPs)

10.1 Assessment of PSP potential by the nodal agency

10.1.1 Preliminary identification of potential sites

The nodal agency will undertake a state-wide preliminary exercise to identify potential PSP sites through external engineering consultancies / through TGGENCO, who may use various methods, including remote sensing, triangulation with topo sheets, and site visits as required. This exercise will include exploring options for repurposing abandoned open-cast mines/ mine shafts and identifying new potential locations for PSPs.

The sites identified during the course of this exercise, along with those identified by private developers through pre-feasibility studies, will be made available on the official website of the Nodal agency.

10.1.2 Techno-commercial feasibility studies and Detailed Project Report preparation

The nodal agency will call for open tenders to select relevant engineering consultancies with PSP expertise to prepare the Techno-Commercial Feasibility

Report (TCFR) to check pre-feasibility for the sites identified in the preliminary exercise.

The nodal agency will bear the upfront cost of TCFR preparation, facilitate site visits, support in getting requisite information/ approvals from government agencies for TCFR preparation.

For each of the sites, based on TCFR findings, the nodal agency will decide on proceeding with project allocation using competitive bidding. Detailed Project report (DPR) preparation including securing requisite regulatory approvals will be taken up by the developer selected as part of the allocation process.

Concerning allocated projects that are in the DPR preparation stage and which involve the diversion of forest land, the nodal agency will support the developer in identifying land for compensatory afforestation.

The nodal agency will facilitate site visits and requisite information / approvals from government agencies for TCFR and DPR preparation.

10.2 Assessment of PSP potential by private developers

Interested private developers may take up the identification of off-stream closed-loop PSP sites on their own. Subsequently, they will register the identified PSP site with the nodal agency by submitting the TCFR with the necessary details/documents.

10.3 Resource allocation

The nodal agency will call for open tenders for the allotment of PSP sites, including sites identified by private agencies, upon TCFR completion. State PSUs / central PSUs / JVs between state PSUs and / or central PSUs may also be allowed to setup PSPs.

(a) In the case of tenders, the modalities will be as follows -

i. If the storage facility is for TGDISCOMs usage, bids will be issued through Tariff-Based Competitive Bidding (TBCB).

ii. In case the sale is not for TGDISCOMs (3rd party / captive), allotment will be done by nodal agency through competitive bidding, with the bid parameter being concessionaire period / revenue share payable to the government / any other bid parameter as specified by the government. For such projects the state will have the first right of refusal for up to 80% of the project capacity at a tariff to be determined by TGERC. However, in case the PSP is a co-located captive plant, the first right of refusal will be up to 20% of the project capacity at a tariff determined by TGERC.

iii. The developer will be responsible for securing requisite regulatory approvals from ministries / competent authorities and bearing all project implementation costs, including land costs, costs related to forest clearance, and power evacuation.

iv. The nodal agency will facilitate the lease of government land required for the project for a concession period of forty-five (45) years / concessionaire period (where applicable) by coordinating with relevant departments. The nominal lease value for this land will be fixed @ 10% of the market value / annum at prevailing rate at the time of bidding, with an escalation of 5% for every two (2) years. In such cases, the identified successful bidder will enter into a lease agreement with the District Collector / concerned government authority upon Power Purchase Agreement (PPA).

v. In case of private land, the developer is responsible to acquire the land required for the project. In case of a forest land, the guidelines of forest department will be applicable.

vi. The PSP asset will be transferred to the government by the developer upon successful completion of 45 years from allotment or upon completion of useful life of the project, whichever is earlier.

(b) In the case of development by state PSUs / central PSUs / JVs between state PSUs and / or central PSUs, the modalities will be as follows

For Sale to TGDISCOMs -

i. The proposals for such projects will be evaluated and decided on case-to-case basis based on requirements of the state government (or) TGDISCOMs, after duly considering the experience and financial strength of the PSUs.
ii. Tariff for these projects will be determined by TGERC.
iii. Further, the central PSU / state PSU must ensure that contracts for the supply of equipment and construction of the project, through a turnkey / well-defined package, are awarded based on competitive bidding.

Not for sale to TGDISCOMs -

i. For the projects allocated to state PSUs / central PSUs / JVs between state PSUs and / or central PSUs, the state will have the first right of refusal for up to 80% of the project capacity at a tariff to be determined by TGERC. However, in case the PSP is a co-located captive plant, the first right of refusal will be up to 20% of the project capacity at a tariff determined by TGERC.

The nodal agency will facilitate the lease of government land required for the project for a concession period of forty-five (45) years / concessionaire period (where applicable) by coordinating with relevant departments. The nominal lease value for this land will be fixed @ 10% of the market value / annum at prevailing rate at the time of bidding, with an escalation of 5% for every two (2) years. In such

cases, the PSUs will enter into a lease agreement with the District Collector / concerned government authority upon Power Purchase Agreement (PPA).

The PSP asset will be transferred to the government upon successful completion of 45 years from allotment or upon completion of useful life of the project, whichever is earlier.

(c) Project sites identified by private developers

i. Pumped Storage projects which are off stream closed loop sites and are self-identified by prospective developers will be allocated through competitive bidding, with the bid parameter being concessionaire period / revenue share payable to the government / any other bid parameter as specified by the government. The developer who has self-identified the site will be given an opportunity to match the winning bidder's quote. In case the developer is willing to match the winning bidder's quote, the project will be allocated to the developer who had self-identified the site.

ii. The developer is responsible for bearing the costs of project planning and implementation, including TCFR and DPR preparation, requisite approvals (including environmental, forest clearances etc.), land costs and power evacuation costs.

iii. The nodal agency will facilitate the lease of government land required for the project for a concession period of forty-five (45) years by coordinating with relevant departments. The nominal lease value for this land will be fixed @ 10% of the market value / annum at prevailing rate at the time of allocation, with an escalation of 5% for every two (2) years. In such cases, the developer will enter into a lease agreement with the District Collector / concerned government authority upon PPA.

iv. In case of private land, the developer is responsible to acquire 100% of the land required for the project. In case of a forest land, the guidelines of forest department will be applicable.

v. The state will have the first right of refusal for up to 80% of the project capacity at a tariff to be determined by the State electricity regulatory commission. However, in case of co-located captive plants the first right of refusal will be up to 20% of the project capacity at a tariff determined by the state electricity regulatory commission

vi. The developers should enter into a project agreement with the Nodal agency within two (2) months from the date of capacity allotment, along with payment of requisite capacity allotment fees and Performance Bank Guarantee (PBG).

10.3.1 Grid connection and evacuation facility

i. Power will be evacuated at the appropriate voltage level at the interconnection point of TGTRANSCO / TGDISCOMs and evacuation up to the interconnection point will be the sole responsibility of the developer for projects.

ii. TGTRANSCO/ TGDISCOMs will process the proposals for technical feasibility within fourteen (14) days of receipt of the application from PSP developer.

10.3.2 Transfer of project allocation

i. For projects that involve selling power to TGDISCOMs, developers can refer to the bid document / PPA for information about project transfer.

ii. For projects that do not involve selling power to TGDISCOMs, the original developer will be permitted to transfer the project before COD to another developer on payment of requisite transfer fee to nodal agency. Upon

collection of PBG from the new developer, PBG of original developer will be returned. Project commissioning date will remain the same post transfer.

iii. After COD the developer must follow the existing guidelines for transfer of project.

10.4 Commissioning of the project

10.4.1 Projects for sale to TGDISCOMs

The schedule for completion of the projects for sale to TGDISCOMs will be governed by provisions (PBG, penalties for delay in execution of the project etc.) of the bid document/power purchase agreement.

10.4.2 Projects not for sale to TGDISCOMs

The various activities of the project will be completed as per the following indicative timelines (the nodal agency may determine these for each project on a case-to-case basis depending on implementation complexity):

Project Milestone	Timelines
TCFR preparation with all requisite ministry approvals/ clearances	100% within two (2) years from the date of project allocation
DPR preparation, Land acquisition	Within 3 years from the date of project allocation
Financial closure	Within three (3) years from the date of project allocation

Project Milestone	Timelines
50% of Civil, E&M and H&M works	Within five (5) years from the date of project allocation
100% of the works and commissioning of the project	Within six (6) years from the date of allocation of the project by the Nodal agency and handing over of government land required for the project.

i. The nodal agency grants a one (1) year extension beyond the commissioning deadline by encashing 50% of the PBG. An additional one (1) year extension is granted upon encashment of the remaining 50% of the PBG.
ii. If the project is still pending after two (2) years of extension, the allocation of the project may be cancelled.

10.4.3 Periodic review of the project

Project Monitoring Committee, in an endeavor to complete the project within stipulated timelines, will undertake periodic reviews and will obtain project progress reports from the developers.

10.5 Incentives from the State Government

i. **The following incentives will be given for all applicable pumped storage projects (which sell power within the state / outside the state) -**

   a. **Deemed conversion to non-agricultural land status**

      Deemed non-agricultural status will be accorded for the land utilized for development of projects.

   b. **Facilitation of Clearances**

Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by the government for setting up projects, upon timely payment of applicable fees.

c. Stamp Duty Reimbursement

100% reimbursement of stamp duty will be given for the land purchased to set up pumped storage projects.

d. Exemption from creation of Local Area Development Fund

Exemption from creation of local area development fund will be provided as per the guidelines to promote development of PSPs, issued by GoI / MoP dated 10.04.2023 as amended from time to time.

e. Central grant

Ministry of Power guidelines dated 10.04.2023 extends its budgetary support in the form of reimbursement towards cost of enabling infrastructure such as all Roads and Bridges required to connect major components like Dam, Powerhouse, pressure shaft, etc. to the nearest State/National Highway. The nodal agency will facilitate the Developer for getting "in principle" approval for the grant from Ministry of Power. The nodal agency will also facilitate PSP projects for availing benefits as per National Storage Policy without any financial commitment from the State Government.

f. Exemption from Land Ceiling Act

The ceiling limit as per the land ceiling act will not be applicable for any land acquisition for PSP Projects. However, this exemption is available only against firm orders / PPAs / successful bids to the extent of land required.

ii. **The following additional incentives will be applicable for Pumped Storage Projects allocated for sale of power to TGDISCOMs -**

a. **Reimbursement of supervision charges**

Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed to the PSP developer.

b. **Net SGST reimbursement**

50% Net SGST reimbursement will be given for fixed capital investment incurred for project. This provision applies to projects allocated during the policy operative period and commissioned as per the timelines specified / COD deadline of the PPA.

c. **Reimbursement of Water Cess**

For pumped storage projects, Water Cess will be applicable only on the net entry of water into the storage sites and not for recycling of water between the storage sites for electricity generation. Such Water Cess will be reimbursed.

11. Battery Energy Storage Systems (BESS)

The state will encourage the development of BESS to enhance network utilization, optimize usage of RE by mitigating variability, and ensure energy resilience. Tenders will be issued through Tariff-Based Competitive Bidding (TBCB) as per the requirement of the state / DISCOMs. For these projects allocated through TBCB, government land may be offered at a nominal lease for the period of Power Purchase Agreement (PPA) @ 10% of the market value / annum at prevailing rate as per records at the time of bidding, with an escalation of 5% for every two (2) years. In such cases, the identified successful bidder has to enter into a lease agreement with the District Collector / concerned government authority upon execution of PPA.

For projects under open access/captive/group-captive consumption, the process of registration, resource allocation, and transfer will be the same as grid scale solar projects, as outlined in the earlier section. The project commissioning deadline will be 1 year from the date of issue of capacity allocation and the nodal agency will grant 1-year extension beyond the commissioning deadline by encashing Performance Bank Guarantee (PBG).

11.1 Incentives for Battery Energy Storage Systems

i. The following incentives will be given for all applicable battery energy storage systems (which sell power within the state / outside the state) –

a. Deemed conversion to non-agricultural land status

Deemed non-agricultural status will be accorded for the land utilized for development of projects.

b. Facilitation of Clearances

Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by the government for setting up projects, upon timely payment of applicable fees.

c. Exemption from Land Ceiling Act

The ceiling limit as per the Land Ceiling Act will not be applicable for any land acquisition for BESS projects. However, this exemption is available only against firm orders / PPAs / successful bids to the extent of land required.

d. Stamp Duty Reimbursement

100% reimbursement of Stamp Duty will be given for the land purchased to set up BESS projects.

e. Pollution Board Clearances

Projects are exempted from obtaining any NOC / Consent for establishment under the pollution control laws from Telangana Pollution Control Board.

5.7

f. Storage as Service

TGTRANSCO & TGDISCOMS will identify available land near EHT (Extra High-Voltage) substations and distribution substations for installing Battery Energy Storage Systems (BESS). Developers for such projects will be selected through competitive bidding with bid parameter being share of profits, capacity charge or any other parameter as decided by the State government/ state utilities from time to time.

ii. The following additional incentives will be applicable for battery energy storage systems allocated for sale of power to TGDISCOMs –

a. Reimbursement of supervision charges

Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed.

b. Net SGST Reimbursement

50% Net SGST reimbursement will be given for fixed capital investment incurred for project.

11.2 Incentives for Battery Manufacturing Facility

i. The following incentives will be applicable for battery manufacturing facilities –

a. Capital Subsidy

Capital subsidy of 20% on the fixed capital investment will be provided for battery manufacturing units, disbursed annually over a period of five (5) years from the date of commencement of commercial production. This 20% capital subsidy is capped at INR 30 crores per manufacturing plant and is applicable only to initial projects, until the cumulative capacity

reaches 5,000 MWh. However, all other incentives will be extended to eligible battery manufacturing projects.

b. Net SGST reimbursement

100% Reimbursement of Net SGST on sales of products for a period of seven (7) years from the date of commencement of commercial production and this is limited to the investment made in plant and machinery.

c. Deemed conversion to non-agricultural land status

Deemed non-agricultural status will be accorded for the land utilized for development of manufacturing projects.

d. Stamp Duty Reimbursement

100% reimbursement will be provided for the Stamp Duty paid on purchase or lease of land, lease of land/shed/buildings, mortgages and hypothecations related to BESS manufacturing plant.

e. Electricity Duty Exemption

100% of electricity duty will be waived off for the manufacturer for a period of five (5) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

f. Reimbursement of Cross Subsidy Surcharge

100% of Cross subsidy surcharge will be reimbursed to the manufacturer for a period of ten (10) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

g. Provision of Industrial Water

Water supply will be provided, subject to availability from the Irrigation Department. 50% of the applicable charges will be reimbursed for the first three (3) years from the date of commencement of commercial production. Additionally, 25% of the cost of a necessary water treatment plant will be reimbursed, up to a maximum of INR 2 crores per BESS manufacturing plant.

h. Off-take guarantee

For each tender called by TGDISCOMs 10% (over & above the tendered capacity) will be offered to manufacturing plants set-up in the state. The tariff for such capacity will be the Lowest (L1) tariff discovered during the tender process or L1 price discovered in the latest SECI tenders (whichever is lower). In case of multiple eligible manufacturing units interested in supplying power, the capacity will be allocated to the eligible developers in proportion to their manufacturing capacity

i. Power Tariff Reimbursement

For all the manufacturing projects, electricity tariff of INR 1/kWh will be reimbursed for five (5) years from the date of commencement of commercial production.

j. Reimbursement of Patent filing / Quality certification

- 50% of expenses incurred for quality certifications will be reimbursed, subject to a limit of INR 2 lakhs.
- 50% of the patent filing cost will be reimbursed to the companies having their headquarters in Telangana, subject to a limit of INR 2 Lakhs.

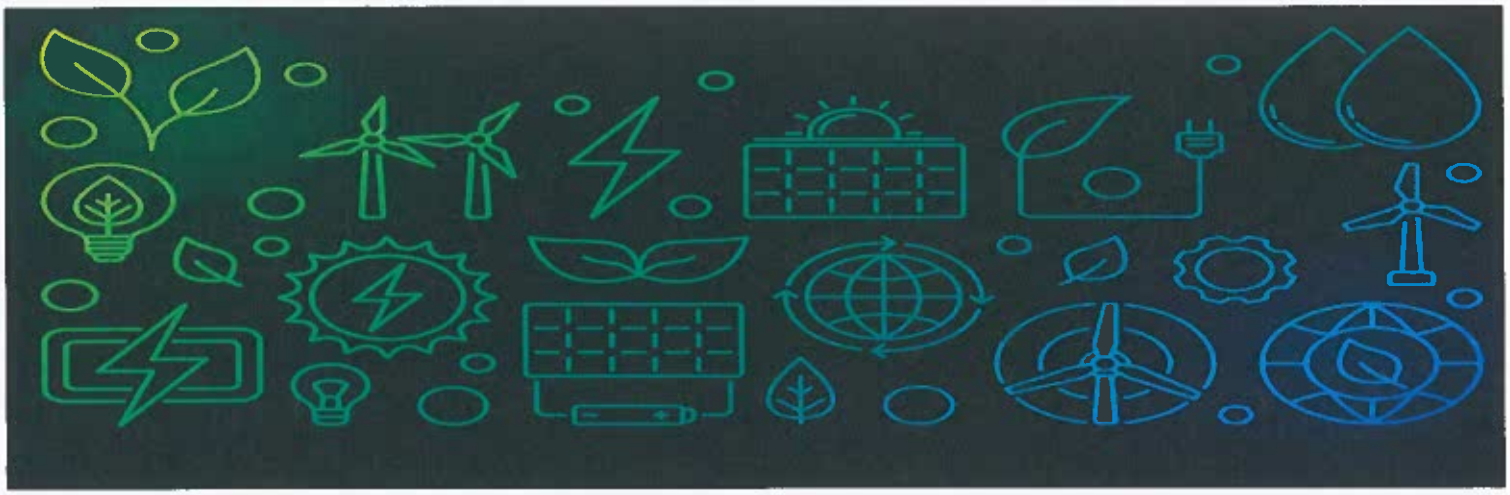
k. Recycling Units

Battery recycling plants will be incentivized to mine for compounds from used batteries.

l. Other Incentives

- 25% reimbursement will be provided for specific cleaner production measures limited to INR.5 Lakhs.
- 50% exhibition expenses will be reimbursed limited to INR 5 Lakhs.
- Additional 10% investment subsidy will be provided for Women Promoter led entities subject to a maximum of additional INR 10 Lakhs for MSEs.
- INR 5 Lakhs as recruitment assistance, basing on the level of employment generated, for employing minimum 50 employees (Telangana Locals) within two (2) years of commencement of commercial operations.
- Any other incentives as provided by the Central / State Government will be extended by the Nodal Agency to the developer without any financial commitment by the State Government.

In case of Mega Projects, customized incentives will be considered, including transport subsidy, interest subvention, land allocation at attractive prices etc.



12. Other Renewable Energy Projects

i. Geothermal projects

Various private studies in the state have identified a geothermal potential of ~1,500 to 3,000 MW near Manuguru. Nodal Agency, in collaboration with other central / state entities, will conduct studies to confirm the state's actual potential.

Additionally, the state will support the exploration of geothermal projects by private developers. Tenders will be issued through tariff-based competitive bidding as per the requirement of the state / TGDISCOMs.

ii. Mini-Hydel projects

Telangana has a total mini-hydel potential of 250 MW, of which 90 MW capacity is already installed. Tenders will be issued through tariff-based competitive bidding as per the requirement of the state / TGDISCOMs.

iii. Waste-to-Energy (Municipal / Industrial), Biomass, Biogas, Bagasse, Co-generation, Biofuel Projects (Bioethanol, Biodiesel, etc.)

The State will encourage the development of waste-to-energy (municipal / industrial), biomass, biogas, bagasse, co-generation, and biofuel projects (such as bioethanol, biodiesel, etc.) to ensure optimal utilization of waste produced. For these projects, allocation depends on the availability of municipal / industrial / agriculture waste etc.

12.1 Incentives from the State Government

i. The following incentives will be given for all applicable other RE projects (which sell power within the state / outside the state) –

a. **Deemed conversion to Non-Agricultural land status**

Deemed non-agricultural status will be accorded for the land utilized for development of projects.

b. **Facilitation of Clearances**

Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by the government for setting up projects, upon timely payment of applicable fees.

c. **Exemption from Land Ceiling Act**

The ceiling limit as per the Land Ceiling Act will not be applicable for any land acquisition for other RE projects. However, this exemption is available only against firm orders / Power Purchase Agreements (PPAs) / successful bids to the extent of land required.

d. **Stamp Duty Reimbursement**

100% reimbursement of Stamp Duty will be given for the land purchased to set up other RE projects.

e. **Pollution Board Clearances**

Projects (except small and mini hydro) are exempted from obtaining any NOC / Consent for establishment under the pollution control laws from Telangana Pollution Control Board.

ii. **The following additional incentives will be applicable for other RE projects for the sale of power to TGDISCOMs–**

a. **Reimbursement of supervision charges**

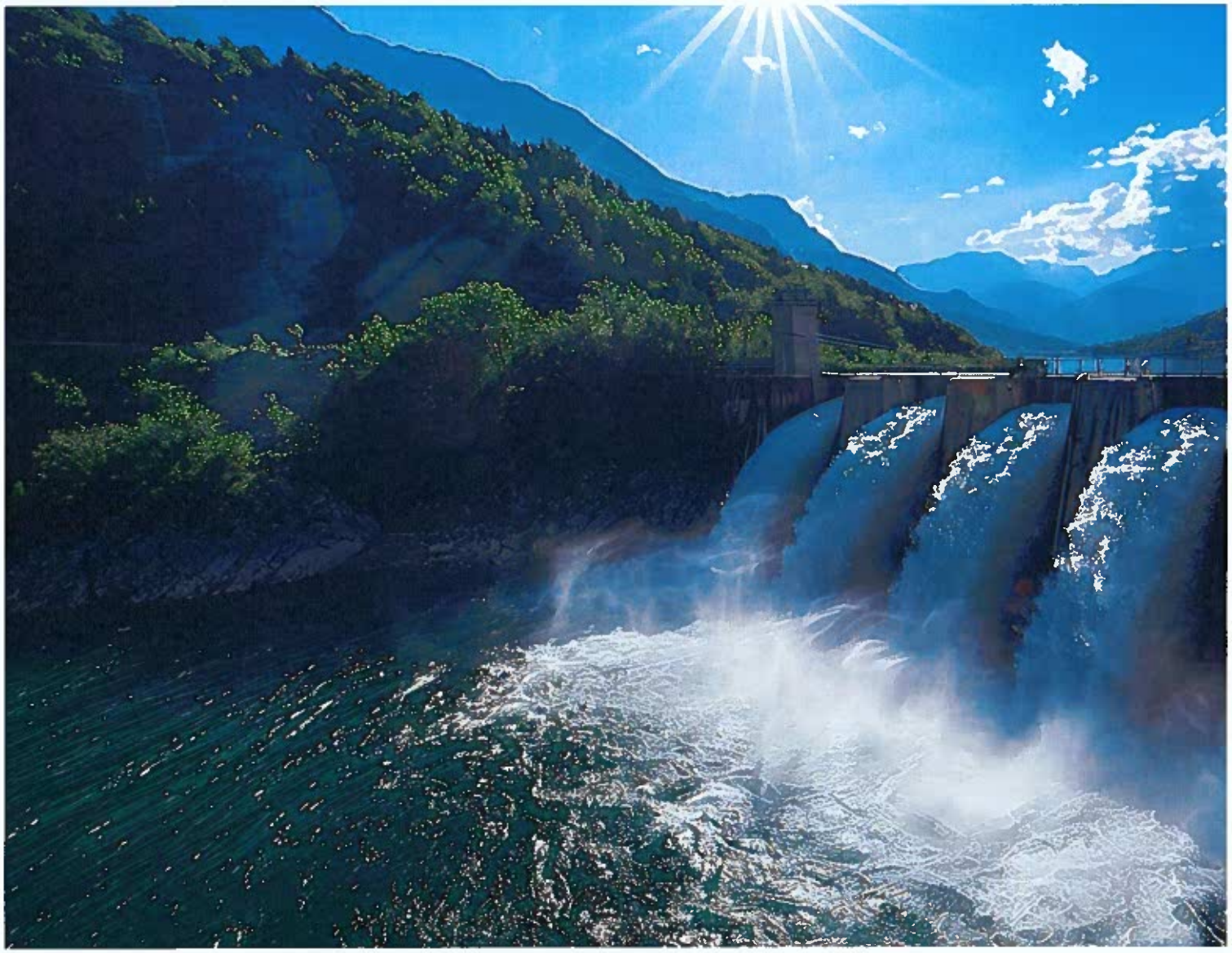
Supervision charges levied by TGTRANSCO / TGDISCOMs will be reimbursed.

5-7

b. Net SGST reimbursement

- 100% Net SGST reimbursement will be given for fixed capital investment incurred for waste-to-energy project.
- 50% Net SGST reimbursement will be given for fixed capital investment incurred for other RE project.

This provision applies to projects allocated during the policy operative period and commissioned as per the timelines specified / Commercial Operation Date (COD) deadline of the PPA.



13. Bio-Fuels

India's energy demand is rising at an increasing pace and is one of the largest oil consuming nations in the world. India imports majority of its fossil fuels to meet its growing energy requirement and the country's energy security remains vulnerable until alternative fuels are developed indigenously as a suitable replacement / supplement to imported fossil fuels.

As an agriculturally rich state, Telangana has access to biofuel feed-stocks due to production of agricultural commodities such as rice, sugarcane, etc. In order to aim energy security, the state encourages potential investors to set-up manufacturing facilities for various biofuels such as ethanol, bio-CNG, Compressed Bio Gas (CBG), etc. in the state.

13.1 Incentives for Bio-Fuel Projects

i) The following incentives will be applicable for Biofuel projects -

a. Capital Subsidy:

- **Compressed Bio Gas (CBG) Plant:**

  Capital subsidy of 20% on the Fixed Capital Investment (FCI) of a CBG plant will be provided, up to a maximum of INR 1 crore per tonne per day (TPD) capacity. This subsidy will be distributed over a period of five (5) years

following the date of commencement of commercial production. It is available only for plants with a minimum capacity of 10 TPD and will apply to the first 1,000 plants or up to a total capacity of 10,000 TPD, whichever comes first. This subsidy is capped at INR 30 crores per plant.

- **Second Generation (2G) Ethanol:**

  Capital subsidy of 20% on the Fixed Capital Investment (FCI) of a 2G Ethanol plant will be provided, up to a maximum of INR 1.5 crore per kilolitre per day (KLPD) capacity. This subsidy will be disbursed over a period of five (5) years following the date of commencement of commercial production. It is available only for plants with a minimum capacity of 25 KLPD and will apply to the first 50 plants or up to a total capacity of 1,500 KLPD, whichever comes first. This subsidy is capped at INR 30 crores per plant.

- **First Generation (1G) Ethanol:**

  No incentives as part of this policy for establishment of 1G Ethanol plant.

b. Tax Reimbursement:

100% net SGST revenue will be re-imbursed on sales of products for 1G & 2G Ethanol and CBG for five (5) years from date of commencement of commercial production.

c. Power Tariff Reimbursement:

For manufacturing units in Special Food Processing Zones (SFPZs), electricity tariff of INR 2 per unit will be reimbursed for five (5) years from date of commencement of commercial production.

d. Interest Subvention:

For manufacturing units in SFPZs, interest subvention of 75% of the total interest payable on the term loan not exceeding a total of INR 2 crores.

For manufacturing units established by SCs, STs, minorities, Women Self Help Groups (SHGs) and Farmer Producer Organizations (FPOs) in SFPZs, additional 10% interest subvention of the interest payable on term loan (over and above 75%), total not exceeding INR 2 crores.

e. Electricity duty

100% of electricity duty will be waived off for the manufacturer for a period of five (5) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

f. Facilitation of clearance

Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by the government for setting up projects, upon timely payment of applicable fees.

g. Biomass Collection/Subsidy for setting up 2G Bio Ethanol plants

Capital subsidy of 20% for Co-operative agencies for biomass processing equipment over a period of five (5) years from the date of commencement of commercial production through Agriculture Infrastructure Fund (AIF) and other routes. This subsidy is capped at INR 30 crores per plant.

h. Reimbursement of Agriculture Produce Market Committees (APMC) Fees

For all the manufacturing plants in SFPZs, 100% reimbursement of APMC fees will be provided for a period of seven (7) years.

5.7

i. **Land Cost Rebate**

- For biofuel units in SFPZs, 25% land cost rebate will be provided for the first 20% plots.
- For biofuel units in SFPZs, established by SCs/STs, Minorities, Women SHGs and FPOs, 33% land cost rebate will be provided which will be limited to INR 20 Lakhs.

j. **Other Incentives**

Any other incentives as provided by the Central / State Government will be extended by the Nodal Agency to the developer without any financial commitment by the State Government.

14. RE Hybrid Projects

To minimize the variability of Renewable Energy (RE) and optimize infrastructure use, the state will encourage –

i. Establishment of RE Hybrid projects, such as solar + wind, wind + floating solar, etc.

ii. Establishment of RE projects with storage, such as wind + storage, hybrid + storage, etc.

iii. Repurposing existing RE projects to establish RE hybrid projects / RE + storage projects (wherever feasible).

RE hybrid projects will be configured to operate at the same point of grid connection[12], ensuring efficient use of transmission systems. In the case of repurposing existing RE projects, if already granted transmission connectivity is being used, additional transmission capacity charges will not be levied. Other provisions as per the National Wind-Solar Hybrid Policy, as amended from time to time, will remain applicable for solar wind hybrid projects.

[12] National Wind-Solar Hybrid Policy (s3waas.gov.in)

For the sale of power to TGDISCOMs, tenders will be issued through tariff-based competitive bidding. Government land, wherever available, for Firm and Dispatchable Renewable Energy (FDRE), Renewable Energy Round the clock (RE-RTC), RE hybrid and RE + Storage Projects may be given based on the land allotment provisions mentioned in the relevant sections earlier.

All the applicable incentives of Solar/ Wind/ PSP/ BESS/ FDRE will be extended to the combination of RE with or without storage as mentioned in the relevant sections earlier (without repetition).

For projects under open access/captive/group-captive consumption, the process of registration, resource allocation, and transfer will be same as the relevant sections earlier. The project commissioning deadline and extension might vary on a project-to-project basis.

15. Electric Vehicles Charging Stations and Battery Swapping Facilities

The state aims to enhance its Electric Vehicle (EV) charging and battery swapping infrastructure and targets an addition of 6,000 EV public charging stations (including battery swapping facilities) by 2030 and 12,000 by 2035. The State Nodal Agency will evaluate and develop charging stations through collaboration with State PSUs or under a Public Private Partnership (PPP) model.

To promote adoption of EVs in the state, the fixed charges of LT-EV category have been made zero.

The maximum allowable power (kW) rating for LT EV Charging stations will be increased in consultation with TGERC.

The nodal agency will invite tenders through competitive bidding to identify Charge Point Operators (CPOs) who will install and operate EV charging stations (with or without battery swapping facilities) at the designated sites. The designated sites for installing and operating charging stations will be offered through competitive bidding with bid parameter as revenue share with a minimum floor price of Rs. 1 per kilowatt-hour (kWh) of energy supplied to the consumer. This price is based

on the regulations specified by the Ministry of Power (MoP) guidelines for the year 2024. Additionally, the nodal agency will charge Project Management Agency (PMA) fees accordingly.

EV charging stations (with or without battery swapping facilities) setup under the policy will be encouraged to install solar panels and use green energy to the maximum possible extent.

All new permits for commercial complexes (such as malls, commercial offices etc.) with a built-up area of 5,000 sq.mt and above will mandate the inclusion of charging stations. Public parking spaces will also be required to have charging stations.

Requisite Clearances/approvals by the Nodal Agency through TG-iPASS for charging infrastructure, including grant of permission to install charging stations in designated Government/Private lands must be issued within 14 days of application. For private land, prior consent / NOC / mutual agreement from the property owner is required. If the nodal agency fails to either grant or reject the permission within this 14-day period, the clearance/approval will be deemed to have been granted. If the nodal agency through TG-iPASS rejects the application, it will provide the reasons, within 14 days, from the date of receipt of application.

16. Green Hydrogen and its derivatives

Green Hydrogen and its derivatives provide a sustainable alternative to traditional fossil fuels. They also offer considerable reductions in greenhouse gas emissions. Capitalizing on its strategic location and strong industrial infrastructure, Telangana is poised to become a major player in the production of cost-effective Green Hydrogen. Aligning with the objectives of the National Green Hydrogen Mission, this policy aims to promote the establishment of Green Hydrogen ecosystem within the State and proposes an array of incentives across the value chain.

16.1 Incentives for Green Hydrogen Projects

16.1.1 Incentives for producers of Green Hydrogen and its derivatives

a. Capital Subsidy for electrolyzer-based Green Hydrogen Projects on electrolyzer:

A capital subsidy of 30% on the plant and equipment costs for the electrolyzer stack will be provided to the Developer. This subsidy is capped at INR 1 crore per MW or INR 1 crore per 1,400 Tonnes Per Annum (TPA) and will be disbursed over five (5) years following the date of commencement of commercial production. This subsidy is capped at INR 30 crores per plant.

b. Capital Subsidy for Integrated Green Hydrogen, Green Ammonia and Green Methanol Facilities:

A capital subsidy of 30% will be granted for the plant and equipment costs, including the electrolyzer stack, for integrated production facilities of Green Hydrogen, Green Ammonia, and Green Methanol (including Biogenic Carbon). This subsidy is capped at INR 1.85 crore per KTPA for Green Ammonia production units and INR 2.25 crore per KTPA for Green Methanol production units. The subsidy will be disbursed to the Developer over five (5) years following the date of commencement of commercial production. Additionally, all incentives for Green Hydrogen, Green Ammonia, and Green Methanol also apply to the production of Sustainable Aviation Fuel (SAF) derived from Green Hydrogen and its derivatives. This subsidy is capped at INR 30 crores per plant.

c. Provision for land conversion

Deemed Non-Agricultural status will be accorded for the land utilized for development of Green Hydrogen and its derivatives projects.

d. Net SGST Reimbursement

100% Net SGST reimbursement will be given to the developer for sale of Green Hydrogen and its derivatives within the State for a period of five (5) years from date of commencement of commercial production.

e. Other infrastructural requirements

Industrial water will be delivered directly to the manufacturing facility. 50% of the applicable charges will be reimbursed for the first five (5) years from the date of commencement of commercial production. Thereafter, the water charges will be payable as per the applicable rates from time to time. Any other charges related to power & other infrastructure will be paid as applicable from time to time.

f. Reimbursement of Intra-State Transmission Charges for wheeling of power

100% of intra-state transmission charges will be reimbursed to the Developer for ten (10) years from the date of commencement of commercial production for power sourced from RE plants (with or without storage) within the state and thereafter shall be paid as applicable from time to time.

g. Reimbursement of Cross Subsidy Surcharge

Cross-subsidy surcharge, as applicable, will be reimbursed to the Developer for five (5) years from the date of commencement of commercial production for power sourced from RE plants within the state for the production of Green Hydrogen and its derivatives.

h. Reimbursement of Additional Surcharge

100% of the Additional Surcharge will be reimbursed for a period of five (5) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

i. Electricity Duty

100% of Electricity Duty will be waived off for the developer for the Developer for ten (10) years from the date of commencement of commercial production for the power consumed for production of Green Hydrogen and its derivatives sourced from RE plants (with or without storage) and thereafter shall be paid as applicable from time to time.

j. Energy Banking, Settlement & Balancing

Banking will be applicable as per the Open Access Regulations, 2024 [Regulation No.1 of 2024] and its amendments issued from time to time.

k. Other Incentives

Any other incentives as provided by the Central Government for production of Green Hydrogen and its derivates will be extended by the Nodal Agency to the developer without any financial commitment by the State Government. All incentives provided for Green Hydrogen / Green Ammonia / Green Methanol are also applicable to produce SAF (Sustainable Aviation Fuel) derived from Green Hydrogen and its derivatives.

l. Facilitation of Clearances

Nodal agency will facilitate the developer in obtaining requisite clearances through TG-iPASS / any other single window clearance facility provided by the government for setting up projects, upon timely payment of applicable fees.

m. Power Tariff Reimbursement

Reimbursement of power tariff of INR. 3 per unit consumed and purchased from local TGDISCOMs for a period of twenty (20) years from the date of commencement of commercial production.

n. Stamp Duty Reimbursement

100% reimbursement of Stamp Duty will be given for the land purchased to set up production of Green Hydrogen and its derivatives.

16.1.2 Incentives for Hydrogen Refueling Stations

a. Capital Subsidy

Capital subsidy of 30% on Fixed Capital Investment (FCI) for hydrogen refueling plants for the first 10 units will be paid to the Developer over a period of five (5) years from the date of commencement of commercial

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operations of the station, post approval from Nodal Agency. This subsidy is capped at INR 30 crores per station.

b. Net SGST Reimbursement

GoTG will provide reimbursement of 100% Net SGST for purchase of machinery for refueling stations which will be provided over a period of five (5) years from the date of commencement of commercial operations of the station post approval from Nodal Agency.

16.2 Incentives for Electrolyzer Manufacturing and Hydrogen fuel cell

The following incentives will be provided for the electrolyzer Manufacturing plants for production of Green Hydrogen and its derivatives & Hydrogen fuel cell manufacturing set up during the policy operative period:

a. Capital Subsidy

Capital subsidy of 25% on the Fixed Capital Investment (FCI) will be provided for the manufacturing of electrolyzers and Hydrogen fuel cells, disbursed over a period of five (5) years from the date of commencement of commercial production. The minimum plant size eligible for this subsidy is 500 MW of electrolyzer production per annum. This subsidy is capped at INR 30 crores per manufacturing plant. This subsidy will be applicable only to the first five (5) plants or up to a total capacity of 3,000 MW, whichever is achieved first.

b. Net SGST reimbursement

100% Reimbursement of Net SGST on sales of products for a period of seven (7) years from the date of commencement of commercial production and this is limited to the investment made in plant and machinery.

c. Deemed conversion to non-agricultural land status

Deemed non-agricultural status will be accorded for the land utilized for development of manufacturing projects.

d. Electricity Duty Exemption

100% of electricity duty will be waived off for the manufacturer for a period of five (5) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

e. Provision of Industrial Water

Industrial water will be delivered directly to the manufacturing facility. 25% of the applicable charges will be reimbursed for the first ten (10) years from the date of commencement of commercial production and thereafter shall be paid as applicable from time to time.

f. Power Tariff Reimbursement

For all the manufacturing projects, electricity tariff of INR 1/kWh will be reimbursed for five (5) years from the date of commencement of commercial production.

g. Reimbursement of Patent filing / Quality certification

- 50% of expenses incurred for quality certifications will be reimbursed, subject to a limit of INR 2 lakhs.
- 50% of the cost of filing patents will be reimbursed to the companies having their headquarters in Telangana, subject to a limit of INR 2 Lakhs.

h. Other Incentives

- 25% reimbursement will be provided for specific cleaner production measures limited to INR 5 Lakhs.
- 50% exhibition expenses will be reimbursed limited to INR 5 Lakhs.

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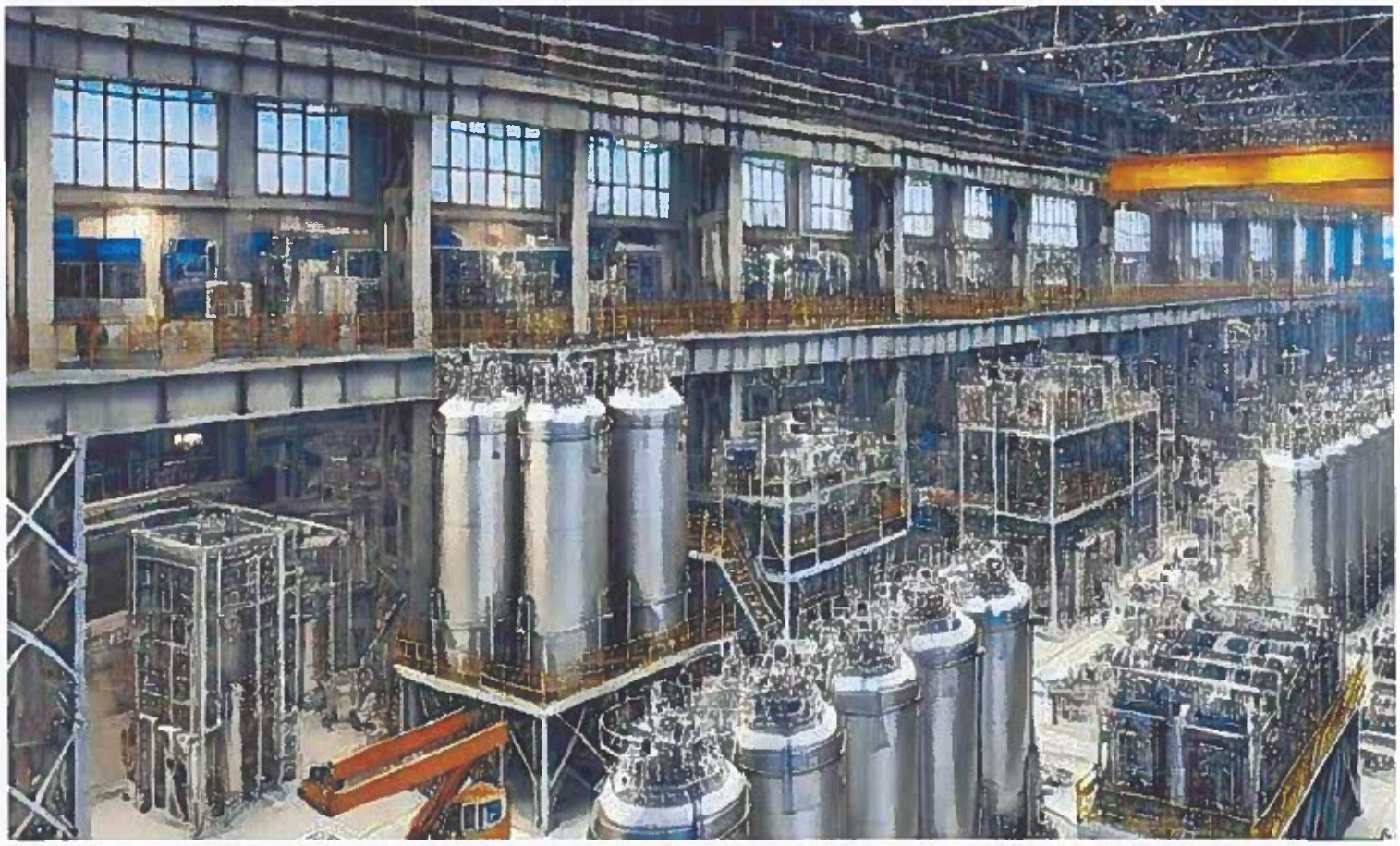
- Additional 10% investment subsidy will be provided for Women Promoter led entities subject to a maximum of additional INR 10 Lakhs for MSEs.
- INR 5 Lakhs as recruitment assistance, basing on the level of employment generated, for employing minimum 50 employees (Telangana Locals) within two (2) years of commencement of commercial production.
- Any other incentives as provided by the Central / State Government will be extended by the Nodal Agency to the developer without any financial commitment by the State Government.

In case of Mega Projects, customized incentives will be considered, including transport subsidy, stamp duty reimbursement, interest subvention, land allocation at attractive prices etc.



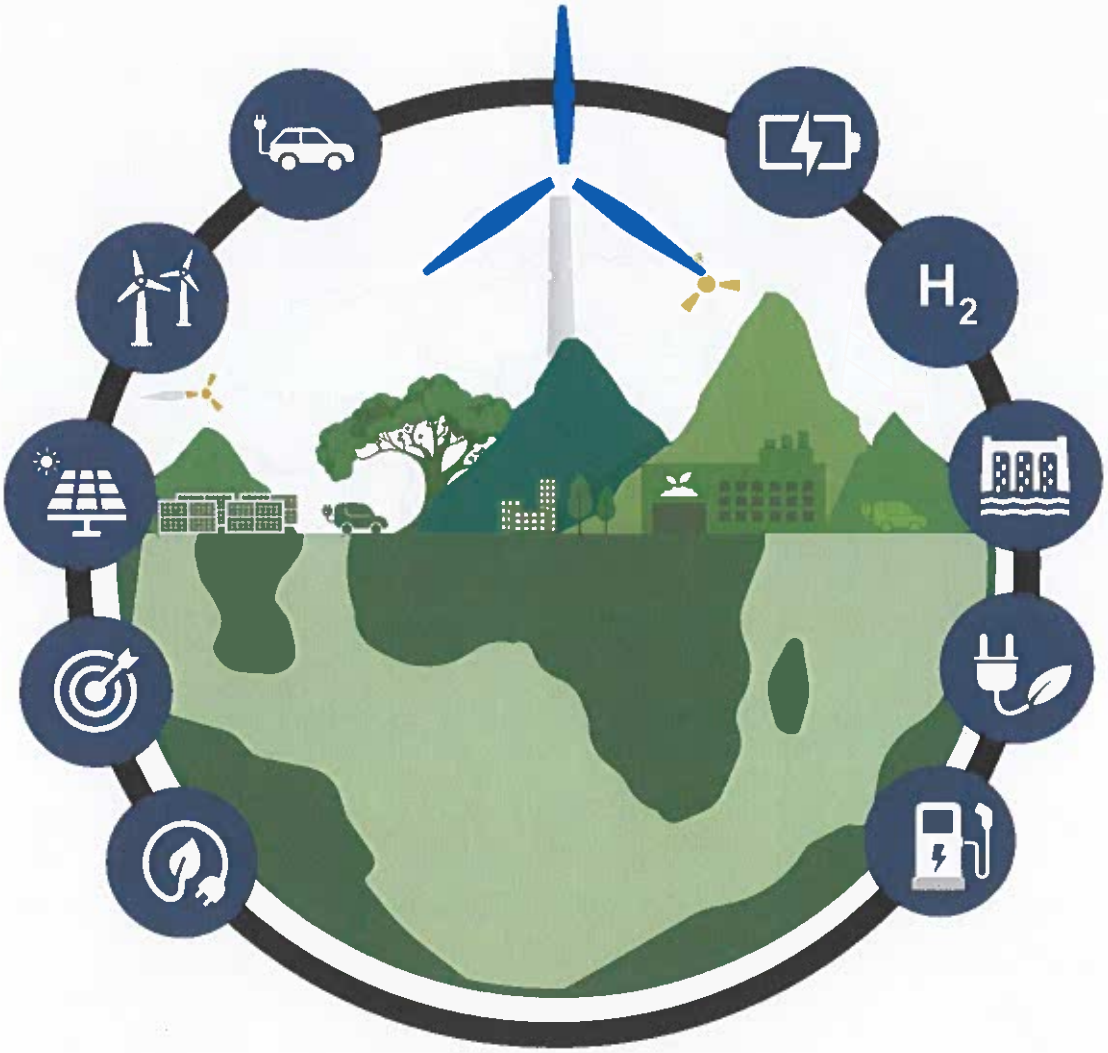
17. Project monitoring committee

A project monitoring committee constituted with the following members will monitor the progress of feasibility studies, implementation of RE projects and status of procurement of RE to meet RPO, cleared under the policy:

i. Principal Secretary, Energy – Chairperson
ii. Principal Secretary, Irrigation
iii. Principal Secretary, Industries and Commerce/Commissioner of Industries
iv. Principal Secretary, Environment / Principal Chief Conservator of Forests
v. Chairman and Managing Director, TGGENCO
vi. Chairman and Managing Director, TGTRANSCO
vii. Chairman and Managing Director, TGSPDCL
viii. Chairman and Managing Director, TGNPDCL
ix. VC& MD, TGREDCO (Member-Convener)

18. Review

The policy may be reviewed from time to time in view of any changing requirements / technological breakthroughs / to remove any inconsistency with the Electricity Act 2003 as amended from time to time, rules, and regulations made thereunder.



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19. Power to remove difficulties

If any difficulty arises in giving effect to this policy, requisite clarifications / interpretations / amendments of the relevant clauses of this policy will be issued.

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20. Annexures

Charges applicable for RE and Storage projects -

	Solar	Wind	PSP	BESS	Other RE Projects	Hybrid & RE + Storage Projects
Registration Fee (INR / MW)	25,000	25,000	25,000	25,000	25,000	25,000
Capacity Allotment Fee (INR / MW)	2 lakhs	2 lakhs	3 lakhs	2 lakhs	2 lakhs	3 lakhs
PBG (INR / MW)	5 lakhs	5 lakhs	12 lakhs	5 lakhs	5 lakhs	12 lakhs (In case PSP is storage) 5 lakhs (In other cases)
Transfer Fee (INR / MW)	1.5 lakhs	1.5 lakhs	1.5 lakhs	1.5 lakhs	1.5 lakhs	1.5 lakhs

Note – For sale to TG Discoms the charges may be separately defined in the RFP/ Bid document/ PPA

21. Glossary

BESS	Battery Energy Storage Systems
COD	Commercial Operation Date
CPO	Charge Point Operators
DISCOM	Distribution Company
DPR	Detailed Project Report
DRE	Distributed Renewable Energy
EoI	Expression of Interest
EV	Electric Vehicle
FCI	Fixed Capital Investment
FPO	Farmer Producer Organization
GoI	Government of India
GoTG	Government of Telangana
GW	Giga Watt
JV	Joint Venture
KTPA	Kilo Tonnes Per Annum
kWh	Kilo Watt Hour
LARR	Land Acquisition, Rehabilitation and Resettlement Act, 2013
MD	Managing Director
MLD	Million Litres Per Day
MNRE	Ministry of New and Renewable Energy
MoP	Ministry of Power
MoU	Memorandum of Understanding
MTPA	Million Tonnes Per Annum
MW	Megawatt
NIWE	National Institute of Wind Energy
NOC	No Objection Certificate
PBG	Performance Bank Guarantee

PMA	Preferential Market Access
PPA	Power Purchase Agreement
PPP	Public Private Partnership
PSP	Pumped Storage Project
PSU	Public Sector Undertaking
RE	Renewable Energy
RESCO	Renewable Energy Service Company
RPO	Renewable Purchase Obligation
RTC	Round The Clock
SAF	Sustainable Aviation Fuel
SGST	State Goods and Service Tax
SHG	Self Help Groups
TBCB	Tariff Based Competitive Bidding
TCFR	Techno-Commercial Feasibility Report
TGDISCOMs	Telangana Distribution Companies
TGERC	Telangana Electricity Regulatory Commission
TGGENCO	Telangana Power Generation Corporation Limited
TG-iPASS	Telangana Industrial Project Approval and Self-Certification System
TGNPDCL	Northern Power Distribution Company of Telangana Limited
TGREDCO	Telangana Renewable Energy Development Corporation Limited
TGSPDCL	Southern Power Distribution Company of Telangana Limited
TGTRANSCO	Transmission Corporation Of Telangana Limited
TPA	Tonnes Per Annum
VC	Vice-Chairman
WRA	Wind Resource Assessment
WUA	Water User Association

22. Definitions

a. Renewable Energy Projects (RE Projects)

Projects involving solar, wind, small hydro, geothermal, mini-hydel, waste-to-energy, biomass, bagasse, hybrid with/ without storage in a single or any combination of one or more forms of energy.

b. RE Hybrid[13]

A generating station based on hybrid of two or more renewable source(s) of energy with or without an energy storage system, connected at the same interconnection point. A wind-solar plant will be recognized as a hybrid plant if the rated power capacity of one resource is at least 25% of the rated power capacity of other resources[14]

c. Energy storage system[15]

A facility where electrical energy is converted into any form of energy which can be stored, and subsequently reconverted into electrical energy and injected back into the grid.

d. Developer

All registered companies, joint venture companies, central and/ or state power generation companies, partnership/ sole proprietorship / limited liability partnership entities that invest in setting up and/or maintaining RE projects in the state for the purpose of generating electricity. These entities also create

[13] CERC, Grid Code specified by Central Electricity Regulatory Commission
[14] MNRE, National Wind-Solar Hybrid Policy, 2018
[15] CERC, Grid Code specified by Central Electricity Regulatory Commission

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and/or maintain common infrastructure facilities, including the required power systems.

e. On-stream PSP

Pumped Storage Projects where both reservoirs are located on any river/ stream/ nallah.

f. Off-stream open loop PSP

Pumped Storage Projects where one reservoir is located on river/ stream/ nallah, and the other reservoir (off-stream reservoir) is not located on any river/ perennial stream/ perennial nallah.

g. Off-stream closed loop PSP

Pumped Storage Projects where none of the reservoirs is located on any river/ perennial stream/ perennial nallah.

h. Green Hydrogen and its derivatives

Green Hydrogen, Green Ammonia, and Green Methanol, or any fuel derived from Green Hydrogen, are produced through electrolysis using renewable energy or by converting biomass via pyrolysis of biogas / other biomass products. Renewable energy also encompasses electricity generated from renewable sources that is stored in an energy storage system or banked with the grid in accordance with applicable regulations.

i. Electrolyzer

A system / device that produces hydrogen through the process of electrolysis, which involves using electricity to split water molecules into hydrogen and oxygen, thereby producing hydrogen with zero emissions.

j. Fixed Capital Investment

FCI for calculating capital subsidy excludes expenditures related to land, Interest During Construction (IDC), financing costs, taxes, and duties. FCI includes, but is not limited to the following-

- Building: Costs for constructing factory buildings, administrative buildings, and other structures.
- Plant and Machinery: Expenses for new plant and machinery, including utilities (water and power supply infrastructure, waste management systems, and other related infrastructure like Zero Liquid Discharge (ZLD)), as well as installation and commissioning.
- Technology and Project Management: Costs for acquiring technology and any engineering services, including project management.

k. Solar Manufacturing

Solar Manufacturing includes any of the products within the value chain from Polysilicon to high efficiency Solar PV Module / Ingot-Wafer to high efficiency Solar PV Module / Cell to high efficiency Solar PV Modules.

l. Wind Manufacturing

Wind manufacturing includes the production of wind turbines and its components such as blades, towers, etc.

m. Biofuels

Renewable fuels derived from organic materials like plants and animal waste, used as alternatives to fossil fuels (including sustainable aviation fuel). They help reduce greenhouse gas emissions and dependence on fossil fuels.

- **CBG Plant**: Produces Compressed Biogas from organic waste through anaerobic digestion, purifying and compressing the biogas for use as fuel.

It plays a crucial role in waste management and provides a clean energy source.

- **1G Ethanol**: First-Generation Ethanol made from food crops like sugarcane and corn, fermented to produce ethanol for fuel. It reduces carbon emissions and enhances energy security by supplementing gasoline.
- **2G Ethanol**: Second-Generation Ethanol produced from non-food biomass such as agricultural residues, using a process that breaks down cellulose into fermentable sugars. It offers a sustainable energy solution by utilizing waste materials and not competing with food production.

n. Hydrogen Fuel Cell

A hydrogen fuel cell is an innovative device that generates electricity through a chemical reaction between hydrogen and oxygen.

o. Mega Project

Mega Project means the Industrial unit, which is set up with a capital investment of INR 200 Crores and above or a project that creates employment for more than 1000 persons.

SANDEEP KUMAR SULTANIA
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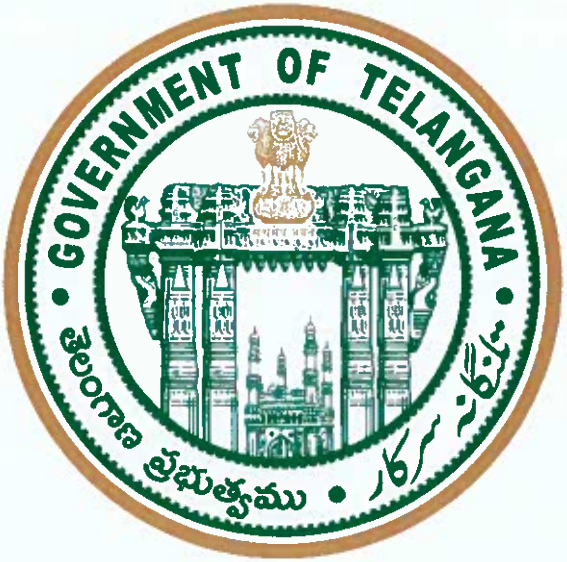

Energy Department

Government of Telangana

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