

30.2 State government will promote RE projects based on third party sale where the consumer is not using electricity to meet RPO compliance and such projects will be entitled to avail carbon credits. Such projects would be required to deposit 10% of revenue generated from carbon credits to RREC in lieu of Government land allotment and other facilitation by RREC.

30.3 Promotion of Energy Efficiency

The State will promote energy efficiency/conservation in Residential, Industries (MSME) and Commercial Building sectors. The Government will reward exemplary energy efficiency initiatives.

31 Net Zero Buildings

The State will promote Net Zero Buildings and such buildings will be awarded/incentivized by the State.

32 Greening of supply chain

To enable consumers to adopt renewable energy, DISCOM may supply 100% renewable energy upon requisition for RE power made by such consumers at a Green Power Supply Tariff, as determined by RERC from time to time.

Distribution companies shall give Green Certificate on a yearly basis to the consumers for green energy supplied to the consumers on their request beyond the Renewable Purchase Obligation of the consumers.

33 Green Energy Open access & Energy Accounting

The Consumers would be allowed to use RE Power by installing RE Plants at any location in the State. Otherwise they can avail RE power from any developer either directly or indirectly.

The size of the plant for open access of RE Power, energy accounting, banking facility and open access charges etc. for all Renewable Energy Projects, including rooftop projects, shall be as per the regulations framed by RERC from time to time in accordance with the Green Energy Open Access Rules 2022 notified by the Ministry of Power, GoI as amended from time to time.

RVPN will endeavour to get concessional transmission charges determined from RERC to evacuate RE power into CTU Network from RVPN's GSS directly connected to CTU Network.

34 Power to remove difficulties:

SLMCC is authorized to issue necessary clarification and amendments of this section & section-E of the policy as and when required. If any doubt, dispute, difference or issue arises with regard to interpretation/implementation of this section of the Policy, or pertaining to any interdepartmental issues, the State Level Monitoring & Coordination Committee (SLMCC) may take decision in such matters, not inconsistent with the provisions of the Policy, as may appear to be necessary and expedient for removing the difficulties either on its own motion or on a written representation from the stakeholders.

In order to implement this policy and to remove difficulties of stakeholders, Energy Department shall issue necessary guidelines/schemes/orders as and when required.

SSC will resolve the disputes related to RE Projects in the state regarding implementation of the RE project/Parks in the State.

RREC will work towards simplification of various approvals required for setting up of RE facility in State, as a step towards ensuring ease of doing business.

The Power Producers desirous of setting up Solar/Wind/Hybrid Power Plant in State of Rajasthan under captive use/sale to 3rd party within and outside the State must fulfil the following minimum financial criteria:

Qualification Criteria for Solar PV/Thermal/Wind/Hybrid Projects:

Net Worth

The “Net Worth” of the company should be equal to or greater than the value calculated at the rate of Rs 1 Crore or equivalent US\$ per MW of the project capacity. The computation of Net Worth shall be based on unconsolidated audited/unaudited accounts of the company. For the purpose of the computation of net worth, the best year in the last four years including current running year shall be considered. The Company would thus be required, to submit annual audited accounts for the last three financial years and for part of the current running year (Un-Audited), while indicating the year, which should be considered for evaluation, along with a certificate from a Chartered Accountant to demonstrate the fulfilment of the criteria.

For companies, which are newly incorporated, the Net Worth criteria should be met seven days prior to the date of submission of application by the Project Developer. To demonstrate fulfilment of the criteria, the Project Developer shall submit a certificate from a Chartered Accountant certifying the Net Worth on the date seven days prior to submission of application. Further, the Project Developer shall submit the un-audited financial statements of the company for the date on which the Certificate of Chartered Accountant has been obtained.

{Note: For the Qualification Requirements, if data is provided by the Project Developer in foreign currency, equivalent rupees of Net Worth will be calculated using bills selling exchange rates (card rate) USD/INR of State Bank of India prevailing on the date of closing of the accounts for the respective financial year as certified by the Project Developer's banker.

For currency other than USD, Project Developers shall convert such currency into USD as per the exchange rates certified by their banker prevailing on the relevant date and used for such conversion.}

Net Worth calculation for an individual/partnership firm

Net-Worth = Proprietors/Partner’s Capital reflecting in the Audited Balance Sheet

Add: Free Reserves (Including the Credit balance of Reserve and Surplus appearing in the Balance Sheet)

Subtract: Intangible Assets

Subtract: Miscellaneous Expenditures to the extent not written off and carry forward losses.

Net Worth calculation for a Company

Net-Worth =Paid up Share capital which includes

1. Paid up Equity share capital and
2. Fully, compulsorily and mandatorily convertible Preference Shares and
3. Fully, compulsorily and mandatorily convertible Debentures)

Add: Free Reserves

(Including share premium provided it is realized in Cash or Cash equivalents.)

Subtract: Revaluation Reserves

Subtract: Intangible Assets

Subtract: Miscellaneous Expenditures to the extent not written off and carry forward losses.

For the purposes of meeting financial requirements only unconsolidated audited annual accounts shall be used. However, audited consolidated annual accounts of the Project Developer may be used for the purpose of financial requirements provided the Project Developer has at least twenty six percent (26%) equity in each company whose accounts are merged in the audited consolidated account and provided further that the financial capability of such companies (of which accounts are being merged in the consolidated accounts) shall not be considered beyond the equity participation of Project Developer.

In case of a Consortium the financial requirement to be met by each Member of the Consortium shall be computed in proportion to the equity commitment made by each of them in the Project Company. Any consortium, if selected shall incorporate a Project Company with equity participation by the Members in line with consortium agreement before signing the PPA/WBA/Wheeling Agreement. The Project Developer may seek qualification on the basis of financial capability of its Parent Company.

In case of land/any other asset, only the book value will be considered. The value of land/any other assets will not be re-valued for calculating net worth. Any reserve created due to this shall not be counted for calculating Net worth.

Annexure-A2

Table-1

Time line of project completions

Type of Projects	Time schedule for completion from the date of Clearance/Approval
SPV:	
Up to 20 MW capacity	Within 15 Months
More than 20 MW and up to 50 MW capacity	Within 18 Months
More than 50 MW capacity	Within 24 Months
CSP:	
Up to 25 MW capacity	Within 24 months
More than 25 MW and up to 100 MW capacity	Within 36 months
More than 100 MW and up to 200 MW capacity	Within 42 months
More than 200 MW capacity	Within 48 months

Table-2

Wind & Hybrid Projects

Project Capacity	Time schedule for completion from the date of Clearance/Approval
Up to 25 MW	8 Months
Above 25 MW- 50 MW	14 Months
Above 50 MW - 75 MW	18 Months
Above 75 MW - 100 MW	22 Months
Above 100 MW	26 Months

Note: Time lines of the other projects shall be specified by the Energy department separately.

Table-3

Penalty for delay in commissioning beyond Scheduled period of commissioning

S.No.	Period of delay	Penalty on un-commissioned capacity
i.	For delay up to 1 month	Rs 25,000 per MW
ii.	For delay up to 3 months	Rs 50,000 per MW
iii.	For delay up to 6 months	Rs 1,00,000 per MW
iv.	For delay up to 9 months	Rs 1,50,000 per MW
v.	For delay up to 15 months	Rs 2,00,000 per MW

Section B:Storage Plant (PSP & BESS)

1. Introduction

- 1.1 India is undertaking a significant energy transition with a goal to have 50% of its electricity generation capacity from non-fossil fuel sources by 2030 and to achieve net zero emissions by 2070. To meet these objectives and ensure energy self-reliance, the country is prioritizing the optimization of its domestically available renewable energy resources. A crucial component of this strategy is the development and integration of advanced Energy Storage Systems (ESS). Energy Storage Technologies, such as batteries and Pumped Hydro Storage, are essential for addressing the intermittency of renewable energy sources like Solar and Wind. By storing excess energy generated during periods of high production and utilizing it during times of high demand, these systems enhance grid stability and reliability. Additionally, Energy Storage facilitates better load management and reduces dependency on fossil fuel-based peaking Power Plants. As India accelerates its Renewable Energy deployment, robust Energy Storage Solutions will play a pivotal role in ensuring a sustainable and resilient energy infrastructure.
- 1.2 The National Electricity Plan (NEP) 2023 of the Central Electricity Authority (CEA) projects a significant increase in energy storage capacity requirements. By the year 2026-27, the requirement is projected to be 16.13 GW (82.37 GWh), with 7.45 GW (47.65 GWh) from Pumped Storage Plants (PSP) and 8.68 GW (34.72 GWh) from Battery Energy Storage Systems (BESS). This requirement is expected to further rise to 60.63 GW (336.4 GWh) by the year 2029-30, comprising 18.98 GW (128.15 GWh) from PSP and 41.65 GW (208.25 GWh) from BESS.
- 1.3 Moreover, CEA has projected that by the year 2047, the requirement of energy storage is expected to increase to 320 GW (90 GW PSP & 230 GW BESS) with storage capacity of 2380 GWh (540 GWh PSP & 1840 GWh BESS) due to the addition of a large amount of Renewable Energy in light of the net zero emission target set for 2070.
- 1.4 To meet the evolving needs of the Energy Storage System, the Government of India has periodically issued various directives. In 2021, the Department of Heavy Industries introduced the Production Linked Incentive (PLI) scheme for Advanced Chemistry Cell (ACC) Battery Storage. In 2022, the Ministry of Power set out the Renewable Purchase Obligation (RPO) and Energy Storage Obligation (ESO) Trajectory until 2029-30. In 2023, the Ministry of Power released guidelines for Pump Storage Projects (PSP) and the National Framework for Promoting Energy Storage Systems, along with operational guidelines for Viability Gap Funding for Battery Energy Storage Systems. Additionally, the Ministry of Environment, Forest and Climate Change issued the Battery Waste Management Rules in 2022.
- 1.5 The State of Rajasthan will promote the Energy Storage Program by simplifying regulatory processes and offering financial incentives. This initiative aims to enhance energy reliability, support the integration of renewable energy, and reduce dependency on conventional energy sources. It is expected to attract investments, stimulate technological advancements, and contribute to the

state's sustainable energy goals, in alignment with the guidelines of both the State Government and the Government of India.

- 1.6 Among all energy storage technologies, Battery Energy Storage Systems (BESS) and Pumped Hydro Storage Projects (PSPs) are well-established and mature technologies, and these technologies can play a pivotal role in enhancing energy security and aiding the transition to a more affordable, low-carbon electricity market. They provide flexible, dispatchable, and peak power capacity.

2. Vision and Objective

- 2.1. To become a major contributing state for achieving the national target of 500 GW through non fossil fuels by 2030.
- 2.2. To ensure 24×7 Dispatchable Renewable Energy, to achieve round-the-clock Renewable Energy availability.
- 2.3. To reduce emissions and costs by decreasing the greenhouse gas emissions and overall energy costs by incentivizing ESS deployment, reducing reliance on fossil fuels.
- 2.4. The state will promote the enhancement of grid stability by improving reliability through ESS, this will also provides services such as frequency regulation and voltage support, ramping and other ancillary support services.
- 2.5. The state will promote energy independence in remote and isolated communities through the deployment of ESS.
- 2.6. To promote the policy of ESS to attract investment in the clean energy sector, to increase the local employment opportunities and in turn lead to development of the State Economy.
- 2.7. The state will promote the creation of an environment that enables industry and research institutions to focus on cutting-edge research and innovation to enhance ESS performance, safety, and cost-effectiveness.
- 2.8. Support DISCOMs in meeting their Renewable Purchase Obligation (RPO), Hydro Purchase Obligations (HPO), and Energy Storage Obligation (ESO) as per regulations.

3. Application and use of ESS in power sector:-

- 3.1. ESS have a multitude of applications in the energy sector and can be used independently or as a part of power system infrastructure across various levels, including generation, transmission, and distribution.
- 3.2. Integration of Renewable Energy involves managing intermittency by storing excess energy generated during peak production times, such as sunny or windy periods, for use when generation is low. Additionally, Energy Storage Systems help smooth the output of Renewable Energy sources, reducing variability and making their output more predictable and manageable.
- 3.3. ESS contribute to grid stability and reliability by providing frequency regulation to balance energy supply and demand, ensuring stable grid frequency. They also offer voltage support by supplying reactive power to maintain required voltage levels, and act as backup power sources during outages or disruptions, enhancing overall grid reliability.

- 3.4. Energy independence and security are enhanced by Energy Storage Systems, which enhance the resilience of energy systems against disruptions such as natural disasters and cyber-attacks. Additionally, they reduce dependence on imported fuels by maximizing the use of local and Renewable Energy Sources, contributing to greater resource independence.

4. Pumped storage hydro projects (PSP):-

Energy generated from hydro power project has been recognized as renewable energy across the world. Large hydropower projects including pumped storage projects having capacity more than 25 MW and energy from all small hydro projects commissioned after 08 March 2019 will be considered as of RE projects.

- 4.1. The state will envisage the development of PSP projects on their own through Hybrid Annuity Model (HAM). The guidelines for the same will be notified separately by the Energy Department.
- 4.2. The State can also allocate PSP sites to developers through the following modes:-

Mode I: Nomination of CPSUs or SPSUs:

- i. State may award Pumped Storage Projects directly to the CPSUs or SPSUs on a nomination basis.
- ii. Interested CPSUs/SPSUs may submit their proposals along with PFR to RREC detailing the execution timelines and methodology for implementation. Due consideration will be given to the timeline for execution, track record of projects executed in the past, financial strength of the entity, and current projects of the entity in pipeline.
- iii. These proposals shall be presented before the High Level Screening Committee (HLSC) in order to seek permission to initiate the project.
- iv. The Projects may also be allotted to Joint Ventures (JVs) between CPSUs and / or SPSUs for development of such PSPs.
- v. In such Projects the State Govt. power utilities shall be given the right of first refusal of up to 80% of the project capacity. The tariff for this portion will be determined by the State Commission in accordance with Section 62 of the Electricity Act 2003 or discovered through bidding of remaining power, whichever is lower.
- vi. The Developer shall submit the Letter of Offer for at least 80% of the project capacity to the State Govt. after receiving the cost estimate approval from the CEA. If State Govt. does not provide acceptance on full or part of offered capacity within 8 weeks of Letter of Offer, the Developer would be free to sell the balance project capacity.

Mode II: Allotment through Competitive Bidding:

- i. For PSP sites identified by State, a detailed proposal will be prepared, which shall be presented before the High Level Screening Committee (HLSC) in order to seek permission to initiate the project.
- ii. The State Govt may conduct a competitive bidding for these state identified sites for allocating the projects to the private developers.

- iii. The CPSUs and State PSUs can also participate in the bidding.

The State Govt. may adopt one of the below methodologies of bidding:

1. Two stage competitive bidding:

- i. The first stage shall be for pre-qualification based on criteria such as financial strength, experience in developing power projects of a similar scale, past track record in project development, turnover, and the capability to meet Performance Guarantees.
- ii. In the second stage, bids are to be called **based on quantifiable parameters.** such as "Maximum amount per MW per year to be paid to State" or any other parameter as specified by the Central/State Government
- iii. The State Utility shall have the first right of refusal for up to 80% of the project capacity. The tariff for this portion will be determined by the State Commission in accordance with Section 62 of the Electricity Act 2003 or discovered through bidding of remaining power, whichever is lower.
- iv. This refusal will be mentioned in the bid document.

2. Tariff Based Competitive Bidding (TBCB):

PSPs may also be awarded on a TBCB basis to developers. For this purpose, the task of carrying out S&I and preparation of DPR may be given to an SPV under a CPSU/State PSU. SPV may be responsible for pre-construction activities such as preparation of project report, land acquisition, environment and forest clearance etc. The DPR may be subsequently bid out for construction and SPV will be transferred to the successful bidder and the bids may be invited based on:

- i. Composite tariff (including the cost of input power) in case input power is arranged by the Developer, Or
- ii. Tariff for storage on a per Megawatt Hour basis if the input power is to be arranged by the State power utilities.
- iii. The Rajasthan Electricity Regulatory Commission (RERC) shall adopt the above tariff under section 63 of Electricity Act, 2003

Mode III: Allotment of Self-Identified Off-stream closed loop sites:

- i. The State Govt. shall promote identification and development of off stream closed loop sites of PSPs by encouraging Developers to self-identify sites. RREC shall open a window inviting proposals for self-identified sites from time to time.
- ii. Developers shall submit the proposal with complete details of the identified site, storage potential and techno-commercial viability along with pre-feasibility report for the State Govt.'s evaluation.
- iii. A developer can submit only one proposal within the duration of a particular window.
- iv. These proposals for particular sites shall be entertained on the "First Come First Served" basis.

- v. These proposals shall be presented before the High Level Screening Committee (HLSC).HLSC's decision shall be final regarding these proposals.
- vi. The state utility shall have the first right of refusal for up to 50% of the project capacity. The tariff for this portion will be determined by the State Commission in accordance with Section 62 of the Electricity Act 2003 or discovered through bidding of remaining power, whichever is lower.
- vii. The Developer shall submit the Letter of Offer for at least 50% of the project capacity to the State Govt. after receiving the cost estimate approval from the CEA. If State Govt. does not provide acceptance on full or part of offered capacity within 8 weeks of Letter of Offer, the Developer would be free to sell the balance project capacity.

4.3. **Approval of Pumped Storage Projects:**

1. To facilitate the seamless allocation of sites, a High Level Screening Committee (HLSC) will be constituted under the chairmanship of ACS/Principal Secretary, Energy, GOR. This committee shall permit the initiation of the project after a thorough evaluation/examination of the project proposals.
2. Final Approval/clearance for Pumped Storage Projects will be conferred by the State Level Monitoring and Coordination Committee (SLMCC) after evaluating / examining the project proposals on the following criteria:
 - Detailed Project Report (DPR)
 - Availability of water/ Water Allotment Certificate accorded by WRD
 - Environment Clearance
 - Forest Clearance
 - Availability of land
 - Availability of power evacuation system
 - Documentary evidence of PPA or an undertaking in case of 3rd party / power exchange sale

The Developer should obtain the final approval of DPR and other clearances within Two(2) years from the date of Registration of the project. Relaxation of 1 year may be granted to those projects where delay in start of construction is attributable to pending Environment Clearance (EC) and Forest Clearance (FC), provided that the applications are submitted to concerned authorities within timelines agreed at the time of award of the project. Otherwise, the developer shall be liable to cancellation of project site.

The storage projects registered with RE project prior to this policy has to obtain all clearances including final approval of DPR within two year from registration date or one year from the date of notification of this policy.

The constitution of the committees for approvals/Clearance of PSP projects will be as follows:-

A. High Level Screening Committee (HLSC):

1. ACS/Pr.Secy/Secretary, Energy, GoR- Chairman
2. ACS/Pr.Secy/Secretary, WRD or their representative (Not below the rank of Chief Engineer)- Member
3. ACS/Pr.Secy/Secretary, Forest & Environment or their representative- Member
4. ACS/Pr.Secy/Secretary, Revenue or their representative - Member
5. ACS/Principal Secretary/Secretary, Industries, GoR
6. CMD/MD, RVPN or their representative - Member
7. Chairman Discoms or their representative - Member
8. CMD/Managing Director, Rajasthan Renewable Energy Corporation Ltd.- Member
9. District Collector of concerned District (Special Invitee).
10. Director (Technical), Rajasthan Renewable Energy Corporation Ltd - Convener

B. State Level Monitoring and Coordination Committee (SLMCC):

1. Chief Secretary, Rajasthan (Chairman)
2. ACS/Principal Secretary/Secretary, Energy, GoR.
3. ACS/Principal Secretary/Secretary, Water Resources Department, GoR.
4. ACS/Principal Secretary/Secretary, Forest & Environment, GoR.
5. ACS/Principal Secretary/ Secretary, Revenue, GoR.
6. ACS/Principal Secretary/Secretary, Industries, GoR
7. CMD, Rajasthan RajyaVidyutPrasaran Nigam Ltd
8. Chairman, Discoms.
9. Chairman, Rajasthan Renewable Energy Corporation Ltd.
10. MD, Rajasthan Renewable Energy Corporation Ltd., (Member - Secretary)

4.4. Obligations:

4.4.1. Obligation towards the state DISCOM

- Developers are mandated to make power available to the state as and when required from their power share reserved for sale in Day Ahead Market of Power exchange(s).
- This power shall be made available to the state at the tariff discovered in the PPA(s) of the project or the price discovered in the power exchange for that particular period, whichever is lower.

4.4.2. Regulatory compliances

- Developer shall mandatorily follow the guidelines issued by the Government of India and State government from time to time on Local Area Development and Rehabilitation & Resettlement policies applicable for Pumped Storage or Hydro Projects.
- Developer shall mandatorily comply with the Grid Code including Load Dispatch & System Operation Code, Metering Code, Safety Code & relevant regulations / orders issued by CERC and RERC as per applicability.

4.4.3. Progress assessment

- The developer shall submit monthly progress report to the nodal agency. Moreover, a review of the progress of the PSPs shall be undertaken every 6

months by the HLSC and if it is found that there is no substantial progress in the development of project for two continuous review meetings, HLSC may cancel the registration and project site.

4.4.4. Land charges

- Developer shall pay lease charges for the allotted Govt. land as per the provisions of Rajasthan Land Revenue (Allotment of land for setting up of Power Plant based on Renewable Energy Sources) Rules, 2007, as amended from time to time.
- For the sustenance of livelihood of people in the local vicinity, the developer shall pay minimum Rs. 25,000/acre/year (With an increase of 5% every third year) rental charges to the owner for the acquired private land.

4.4.5. Obligations in case state opts for procurement of power

- In case the State opts for procurement of power, the developer shall be required to deposit bank guarantee of Rs. 1 lac / MW by DD/RTGS corresponding to the capacity to be procured by the state. Such bank guarantee shall be deposited 6 months prior to the scheduled date of start of procurement of power.
- In case the developer fails/delays to deliver the committed power to the state from the date of procurement, it shall be liable to pay the differential amount incurred in procuring such power for the period of delay.

4.5. Operational Period

4.5.1. The Pumped Storage Projects shall be offered for a maximum period of forty-five (45) years from the Date of Allotment at the end of which they shall revert to the State Govt. or be extended further upto thirty (30) more years in line with the prevailing rules & regulations and applicable charges after approval of the state government.

4.5.2. At the end of the Concession Period, the projects without any encumbrances shall be ordinarily transferred to the State Government.

4.6. Land allotment

4.6.1. Allotment of land for the project shall be as per the provisions of Rajasthan Land Revenue (Allotment of land for setting up of Power Plant based on Renewable Energy Sources) Rules, 2007, as amended from time to time.

4.6.2. Govt. land, if any, will be recommended by RREC on case to case basis after acceptance of non-forest land for Compensatory Afforestation (CA) by Forest Department or after getting Stage-I forest clearance.

5. Battery Energy Storage System (BESS)

5.1.1. The state will promote the establishment of BESS, where each individual project must have a minimum power rating of 1 MW or higher, an appropriate energy rating based on the specific application, and be located at a single site with a minimum bid capacity of 1 MW.

5.1.2. Energy supplied from Standalone BESS will be considered as RE power. Moreover, if 85% or more of the total energy stored in the BESS, on an

annual basis, is procured from RE Sources, such energy shall be considered for ESO as specified by appropriate Regulators/Ministries of GoI.

- 5.1.3. The State will promote setting up of BESS under the Guidelines/ schemes of MNRE or BESS allocated through competitive bidding by/for other State Utilities/Entities.

The State will promote the setting up of BESS for sale of power to DISCOMs of Rajasthan on the tariff discovered through competitive bidding process in order to fulfil ESO and RPO target fixed by RERC. DISCOM/RUVNL may purchase solar power beyond ESO/RPO limit and can avail the benefit of REC as per CERC Regulations/ NLDC guidelines.

5.2. Approval Mechanism:-

Approval/Clearance of projects of BESS will be granted after evaluating/examining the project proposals on the following criteria:

- Detailed Project Report
- Availability of land
- Availability of Power Evacuation System for proposed project
- Documentary evidence of Power Purchase Agreement or an undertaking in case of sale to third Party/ power exchange through open access.

On fulfilment of the above criteria, the project will be conveyed Final approval by RREC.

The State Level Monitoring & Coordination Committee (SLMMC) will be constituted to resolve inter departmental issues:

1. Chief Secretary, Rajasthan (Chairman)
2. ACS/Principal Secretary/Secretary, Energy, GoR-Member.
3. ACS/Principal Secretary/Secretary, Industries, GoR-Member.
4. ACS/Principal Secretary/ Secretary, Revenue, GoR-Member.
5. CMD, Rajasthan RajyaVidyutPrasaran Nigam Ltd-Member.
6. Chairman, Renewable Energy Corporation Ltd. -Member.
7. Chairman, DISCOMs-Member.
8. District Collector of concerned District (Special Invitee)
9. MD, Rajasthan Renewable Energy Corporation Ltd., (Member – Secretary)

5.3. Obligations

5.3.1. Regulatory compliances

- Developer shall mandatorily follow the guidelines applicable for Energy Storage Projects issued by the Government of India and State Government from time to time. It shall comply with the relevant environmental laws, regulations, and orders.
- Developer shall mandatorily comply with the Grid code including Load Dispatch & System Operation Code, Metering Code, Safety Code & relevant regulations/orders issued by CERC and RERC as per applicability.

5.3.2. Obligations in case state opts for procurement of power

- In case the State opts for procurement of power, the developer shall be required to deposit bank guarantee of Rs. 1 lac / MW by DD/RTGS corresponding to the capacity to be procured by the State. Such bank guarantee shall be deposited 6 months prior from the scheduled date of start of procurement of power.
- In case developer fails / delays to deliver the committed power to the state from the date of procurement, it shall be liable to pay the differential amount incurred in procuring such power for the period of delay.

5.4. Land Allotment

Govt. land, if any, shall be recommended by RREC on case to case basis. For bidding projects, Govt. land, if any, shall be recommended by RREC only after submission of LOA.

5.5. BESS projects through Hybrid Annuity Model:

The state will envisage the development of BESS projects on its own Hybrid Annuity Model (HAM). The guidelines for the same will be notified separately by the energy department.

6. Energy Storage Projects integrated with Renewable Energy projects

State requires reliable power during peak hours of the day which has to be fulfilled by Distribution Companies through available non-fossil power sources or from power exchange at market price. High demand of power during peak hours increases market power whereas Solar Power Evacuation Systems remain idle during non-solar hours. During non-solar hours, this idle power evacuation system can be utilized for supply of firm RE Power into grid by installing BESS with RE power. This initiative will help to reduce the cost of power during peak hours and ensure grid stability without expanding power evacuation system.

- 6.1. The State will promote Solar/Wind/Hybrid Power Projects with storage systems to reduce the variability of output of RE power into the grid and to ensure availability of firm power for a particular period.
- 6.2. In the case of Integrated Projects, the Wind and Solar part will be governed by Section A of this policy and the related ESS will be governed as per the provisions of this Section B of this policy.
- 6.3. In order to encourage storage capacity to supply reliable power, new RE projects integrated with BESS under with minimum capacity of X/2 MWh (where "X" is the installed capacity of RE project) shall be exempted 50% from registration charges for the RE capacity and on installation of BESS beyond X/2

MWh capacity, registration charges shall be exempted up to 100% on pro rata basis corresponding to the storage capacity added.

- 6.4. In order to ensure adequate storage capacity to supply reliable power, new RE projects on STU network (excluding Hydro Projects) with an installed capacity of over 5 MW or as specified by the central Government will be mandated to install ESS (of at least 2 Hour storage) for minimum 5% of the RE capacity.
- 6.5. RE Generators would be allowed to set up BESS along with their existing RE Plant to supply peak power/RTC power into the Grid for optimum utilization of existing evacuation system. The RE Generators can enhance the RE capacity for storage of RE Power through BESS by itself or owned by any other entity for injection into grid. Discoms can procure such power from the generators at a tariff determined by RERC/ through a transparent mechanism as per their requirement and commercial viability.
- 6.6. State will encourage setting up BESS and supplying power during peak hours to Discoms at a ceiling tariff decided by appropriate commission/authority. Such Projects can also supply power to Captive/Open Access consumers at mutually agreed tariff. Remaining capacity after meeting Discom Load, shall be allowed to avail GNA for injection into ISTS Grid.
- 6.7. Captive consumers and Open Access consumers will be allowed to store surplus RE power through BESS and such power can be utilized by the consumer itself or can be used for sale to Power exchange etc.
- 6.8. The state will promote ESS in decentralized Rooftop Solar Plants and Grid Scale RE Project to meet power demand of the consumers.
- 6.9. The BESS will be also promoted to set up at GSS end or at Distribution Load Centre, particularly where infirm RE injection is very high in comparison to load demand.
- 6.10. Integrated projects (ESS with RE) already registered prior to notification of the present policy will not be required to re-register under this policy.

7. Project Facilitation:

- 7.1. The Nodal Agency shall assist the Project Developer in obtaining the consents, clearances and permits by providing letters of recommendation to the concerned authorities, as may be requested by the Project Developer. However, the Nodal Agency shall not be accountable for any delays in obtaining the consents, clearances and permits required for development of RE projects.
- 7.2. All Government of India initiatives under MNRE (or any others), such as Central Finance Assistance, VGF, Budgetary support towards cost of enabling infrastructure, waiver off interstate & intrastate transmission & wheeling charges, Benefits under Rajasthan Industrial Policy etc. as applicable shall be extended to the Project Developer and the Nodal Agency may facilitate seamless transfer of such benefits.
- 7.3. The Nodal Agency may assist or facilitate Pumped Storage Project developers in availing applicable incentives offered to enterprises eligible under the prevailing RIPS

7.4. (Incentives as specified under clause 4.1.1.2 of RIPS, 2024)

Transmission & Wheeling charges shall be exempted on supply of power from BESS during peak hours or non solar hours for a capacity of 2000 MW capacity or capacity installed by 2030 whichever is earlier for the followings:

- i. RE Integrated Storage project with a capacity of 5% of RE capacity will be eligible for exemption of 75% on Transmission and Wheeling charges for a period of 7 years. For BESS beyond 5% of RE capacity will be eligible for extra exemption of additional 1% Transmission and Wheeling charges on enhancement of each 1% capacity of storage system up to 30% capacity. For BESS beyond 30% of RE capacity, will be exempted from 100% Transmission & Wheeling charges.
- ii. Standalone Battery Energy Storage System (BESS) will be exempted 100% transmission and wheeling charge on supply of power from BESS during peak hours or non solar hours for a period of 7 years.
- iii. BESS connected at 11 kV or 33 kV grid sub stations will be exempted 100% transmission and wheeling charges

7.5. State Government may allocate Government land at concessional rates to BESS projects supplying power to the Discoms of the Rajasthan.

- a. The Nodal Agency will provide support and assistance to the project in obtaining grants for special category projects under Central Government schemes.
- b. Under this Policy, registered or upcoming projects shall also be eligible to avail Viability Gap Funding (VGF) as per the schemes of the Ministry of Power, Government of India
- c. ESS projects may receive applicable incentives offered to enterprises eligible under the prevailing RIPS.

8. Registration of ESS Projects

- a. All ESS projects installed in the state of Rajasthan shall be required to be registered with RREC.
- b. The Developer will submit an online application to RREC for registration in the prescribed format along with requisite documents, net worth criteria specified at annexure-A1 and details regarding capacity of BESS and PSP Projects.
- c. The ESS project of Pump Storage Hydro (PSP) will be registered after getting approval from HLSC.
- d. Each Developer of PSP and BESS will deposit non-refundable registration charges of Rs.10 Lakh/per project with RREC.
- e. GST and other charges, as applicable, shall be payable in addition to the Registration Charges. Registration will not confer any right to the Developer/Power Producer and will not create any obligation on the part of RREC.

- f. The ESS Projects registered (Other than PSPs) under this Policy shall have to apply for in-principal clearance within a period of 2 years from date of registration, failing which the registration shall be deemed to be cancelled.
- g. No prior registration with RREC will be required by Developer for participation in bidding. Only successful bidders will be required to register their projects with RREC.
- h. Developer can transfer its registered capacity or part thereof to its 'holding', 'subsidiary', 'fellow subsidiary' or 'ultimate holding' company with the prior approval of RREC.
- i. Developer can transfer the registered capacity or part thereof from one registration to its other registration with the prior approval of RREC.

9. Power to Remove Difficulties

State Level Monitoring and Coordination Committee (SLMCC) is authorized to issue necessary clarifications and amendments under this section of the Policy as and when required. In the event of any doubt, dispute, difference, or issue concerning the interpretation or implementation of this section of the Policy, the SLMCC may make decisions on such matters. These decisions must align with the provisions of the Policy and aim to resolve difficulties, whether initiated by the Committee itself or based on a written request from stakeholders.

The Energy Department in consultation with other department shall issue necessary guidelines/ schemes/orders for the implementation of this Policy.

Particulars in Pre-feasibility Report

Upper and Lower Reservoir Details: -

- Availability of Upper/Lower Reservoirs with geological coordinates.
- Land area required with details such as Revenue/Forest/Private.
- Storage capacity of Reservoirs with Live and Dead Storage.
- Full Reservoir Level (FRL) and Minimum Draw Down Level (MDDL) of the available Reservoir(s)
- Gross Head available at Site with Length to Height (L/H) Ratio of the Reservoir.
- Deepest Foundation level and Maximum height of Rockfill Embankment.

Location Details: -

- District/Tehsil/Village name in which the site is located and Status of the approach roads.
- Geological coordinates of existing transmission &/or distribution network and GSS with distance from site
- Detail of Interference with Wildlife Sanctuary & National Park or any other restricted Area
- Geographical Maps & Pictures of location
- Forest and non-forest land required

Survey & Investigation: -

- Reconnaissance topographical survey
- Hydro Meteorological data with Seismicity
- Water availability and water requirement at project location
- Designated route for source of one time water requirement.
- Evaporation and Sedimentation
- Design Flood and Flood absorption
- Area of Submergence / Land Acquisition

Other Details: -

- Total estimated potential of PSP in MW and MWh
- Cycle Efficiency
- Capacity of reservoir required to be constructed if any
- Power Evacuation Plan
- Environmental Aspects
- Economic Financial Analysis

Section C: Biomass and Waste to Energy Projects

The State will promote the Biomass Programme, facilitating the establishment of biomass-based power projects, Bio-CNG/CBG Compressed Bio Gas, briquette/pellet manufacturing units and supporting biomass-based co-firing projects, as well as Waste-to-Energy based Power Projects for the utilization of waste such as MSW/RDF/Industrial/Medical waste or any other wastes as per the guidelines of the State Government and Government of India.

1. Projectbasedprovisions.

1.1 Biomass Projects

The State will promote setting up of Biomass Projects including Cogeneration. The Power Producers may use such power for captive consumption or for sale to third party/licensees including Discoms.

Discom may purchase the power from Biomass projects to fulfil their Renewable Purchase Obligation(RPO) and beyond RPO as per their requirement and commercial viability. Discom shall execute Power Purchase Agreement(PPA) with Developers/Power Producer.

1.2 Waste to Energy projects:

The State will promote setting up of the Waste to Energy Plants for generation of power by utilizing MSW (Municipal Solid Waste), RDF (Refuse Derived Fuel), Industrial and Medical Waste.

1.3 Biogas Generation

Agriculture Waste, Dairy Waste, Household Waste, Animal Waste (Poultry farms, Gushalas) Sewage Waste Disposal is a major concern. This waste can be utilized to generate Biogas which can be used for cooking, lighting, power generation, heating etc.

Farmer, Dairy Farms, Poultry Farms, Farmers Producers Organizations (FPO), Self help Groups (SHG), Industries etc. can set up Biogas plants. This will help to earn revenue and generate employment in rural areas.

Biogas generation will be promoted by the State and such plants shall be eligible to avail incentives as per schemes/ programs of GoI and State Government. The additional incentives will be provided by the State.

State will support the distribution mechanism for organic manure produced in biogas plant.

Programs/Schemes will be run at the level of Gram Panchayat to promote Biogas for waste utilization.

In rural areas, energy transition initiatives will be undertaken to shift from fossil fuel to non fossil fuel. These initiatives will include installation of Rooftop Plants, RE plant with Storage systems and biogas generation to meet 100% energy requirement.

1.4 Compressed Biogas (CBG/Bio-CNG)

To promote the MNRE biogas program for power generation and to meet the mandate by Ministry of Petroleum and Natural Gas for blending

Compressed Biogas (CBG) in Compressed Natural Gas (CNG) for transport and domestic use, the state will promote Compressed Biogas (CBG/Bio-CNG) plant in Rajasthan.

The developers who have already been issued LOI under SATAT and other bio-energy projects based on compressed Biogas (CBG) will be registered under this policy.

Energy Department will issue separate Guidelines for implementation and promotion of CBG/Bio-CNG projects in the State.

1.5 **Bio-Ethanol**

To promote initiatives of GoI for mandate to blend Bio-ethanol in petrol, the State will promote the Co-generation power plants associated with Bio-ethanol plants in Rajasthan.

Energy Department will issue separate Guidelines for implementation and promotion of Bio-Ethanol projects in the State.

1.6 **Bio-Coal:**

To address the issue of Biomass Waste burning at local level, the production of Bio Coal will be promoted for carbon mitigation from coal burning and to generate revenue and employment generation in rural area.

1.7 **Co-firing in Coal/Lignite based Thermal Power Plants:**

The State will facilitate co-firing of Biomass in Coal/Lignite based Thermal Power Plants for power generation as per guidelines issued by Ministry of Power, Government of India and as amended from time to time.

For this purpose Biomass Pellet/Briquettes Manufacturing units will be promoted.

2. Incentives

- 2.1 All Biomass Projects including Briquette/Pellet Manufacturing units and WastetoEnergybasedprojects may avail incentives as per the eligible criteria defined in the prevailing RIPS.

Grant of incentive under RIPS

Under clause 4.1.1.2 of RIPS, 2024, Renewable Energy units are eligible for the following Incentives:

1. **Exemption & Reimbursements:** The following exemptions and reimbursement are applicable to RE Units:
 - Exemption from payment of 100% electricity duty for 7 years.
 - Exemption from payment of 75% stamp duty and reimbursement of 25% stamp duty.
 - Exemption from payment of 75% conversion charges and reimbursement of 25% conversion charges.
 - Reimbursement of 100% Mandi fee/Market fee for 7 years.
3. **Waiver of PCB Fees** to obtain Consent to Establish (CTE) and Consent to Operate (CTB) certification.

- 2.2 The Power Producer shall be allowed to use water from sources of Water Resources Department subject to the availability of water for power generation.

- 2.3 All Projects registered under this policy shall also be eligible to avail

Central Financial Assistance (CFA) as per the schemes of the Ministry of New and Renewable Energy(MNRE).

- 2.4 Project shall be eligible to avail incentives/benefits under the schemes/programs of Central Government. The State shall facilitate the developer to avail such benefits.

3. Land allotments

3.1 Land Allotment for Setting Up Biomass Based Power Plant

- i. Allotment of Government Land - Government land for setting up of Biomass based Power Plant shall be allotted to Developer/Power Producer as per Rajasthan Land Revenue (Allotment of Land for setting up of Power Plant based on Renewable Energy Sources) Rules, 2007 as amended from time to time.
- ii. RREC will recommend the Government land for allotment to the concerned District Collector on deposition of land security @ Rs 1 Lac/MW by DD/NEFT/RTGS in favor of RREC, Jaipur on case-to-case basis. The Security Deposit will be refunded to the Developer within 2 months of commissioning of the project on a written request of applicant. The Security Deposit shall be forfeited in case the allotted land is not used within the specified period as per allotment rules.
- iii. Private land will be procured by the Developer/Power Producer(s) directly from the private parties. The conversion of this land will be done by the competent authority.

3.2 Land Allotment for Setting up Waste to Energy Projects: -

Developer will select eligible site in proximity to the landfill sites or any other suitable land, in consultation with the Directorate of Local Bodies, Rajasthan, Municipal Corporation, Municipalities etc. as case may be. The Land may be allotted as per rules of concerned Department.

3.3 Land allotment for setting up of CBG/Biogas/Bio-coal/Bio-Ethanol:

For establishment of CBG plant, a maximum of 10 Acre land would be allowed for a plant of 10 MTPD capacity and 25 Acres land for storage of feedstock. For Bio coal plant on a maximum of 2 Acre land would be allowed for 100 MTPD. 1.5 Acres of land would be allowed for a 100 kilo Litre Bio Ethanol Plant. Such Projects would be provided Revenue Land as per Rajasthan land Revenue (Allotment of Land for setting up of Power Plant based on Renewable Energy Sources) Rules, 2007 as amended from time to time. Developer will have to deposit Security amount of Rs. 1 Lac/MTPD by DD/NEFT/RTGS in favor of RREC for CBG plant towards land allotment. Such SD amount will be refunded on successful commissioning of the project and forfeited if land not utilized within prescribed timeline as per aforesaid Revenue Rules.

3.4 Sale/ Auction mechanism for weeds (such as Prosopis- Juliflora, Lantana, Parthenium /Energy Plants) grown on Govt. Land:-

Unutilized, uncultivated Govt. land are prone to growth of weeds. All concerned departments are advised to devise a transparent sale auction mechanism on periodic basis.

4. Registration of Power Project, Biomass Briquettes /Pellet manufacturing units

- 4.1 Biomass Power Plant and Waste to Energy based Power Project in the State shall be registered online upon deposition of Rs. 30,000/-per MW plus GST with RREC towards processing fee, which shall be non-refundable. Biomass Power Plant up to 20 MW capacities shall be allowed under this Policy.
- 4.2 No registration charges shall be applicable to the Biomass Briquettes/Pellet manufacturing units, Biogas & Bio Coal plants.
- 4.3 CBG, Bio-Ethanol plant will be required to register their project with RREC upon deposition of the following charges:
 - CBG Plant - @ Rs. 30,000/ Metric Ton Per Day (MTPD)
 - Bio-Ethanol @ 3,000/Kilo Litre Per Day (KLPD)

Under the Sustainable Plan of the Ministry of Petroleum and Natural Gas, Government of India, the developers who have already been issued LOI and other bio-energy units will be registered under the current policy.

5. Approval/Clearance of projects

- 5.1 Approval/Clearance of Projects will be granted after evaluating/examining the project proposals on the following criteria:
 - Detailed project report
 - Availability of land
 - Availability of power evacuation system for proposed project
 - Documentary evidence of power purchase agreement or an undertaking in case of sale to third Party through open access or undertaking for sale of power in the power exchange
 - NOC for allocation of water by the concerned Department/Authority
- 5.2 Upon fulfilment of the above criteria, the project will be considered as In-principally cleared and after deposition of Security Deposit; the project will be conveyed a Final approval by RREC.

6. Project Security Deposit:

- 1.1 After In-principle Clearance, the Developer/Power Producers are required to submit project Security Deposit @ Rs. 1 lac/MW in cash within 1 month without interest and within 3 months with interest @9% per annum from the date of issue of In-Principle Clearance. Non deposition of the Security Deposit within stipulated period shall lead to deemed cancellation of In- principle Clearance without any notice.
- 1.2 The Project security deposit will be refunded to the Developer/Power Producer within 2 months of commissioning of the project after recovery of penalty, if any.
- 1.3 In case Developer/Power Producer fails to commission the project within scheduled commissioning period including extension as per clause 7.2, the Project Security amount shall be forfeited.
- 1.4 In case the Developer/Power Producer wants to withdraw his project within 6 months of depositing of Project Security, then 25% security deposit will be forfeited, and balance 75% amount of the security will be refunded to the developer/Power Producer on his written request.

- 1.5 If power producer withdraws the project after six months of depositing the project security, then the entire project security shall be forfeited.

7. Time frame for completion of different activities:

Time frame for completion of different activities, subject to Force Majeure conditions, would be as follows: -

- 7.1 Developer/Power Producer shall commission the Biomass based/Waste to Energy Power Project within 36 months from the date of approval of the Project.
- 7.2 Provided that extension in time schedule may be granted by the RREC after depositing penalty amount as under plus GST as applicable: -

SN	DelayPeriod	PenaltyAmount
(a)	Fordelayupto3months	Rs.25,000perMW
(b)	Fordelayupto6months	Rs.50,000perMW
(c)	Fordelayupto9months	Rs.75,000perMW
(d)	Fordelayupto15months	Rs.1,00,000perMW
(e)	Fordelayupto24months	Rs.1,25,000perMW

SSC may consider extension beyond 24 months where there is a reasonable certainty of commissioning of the project. In such cases, extended completion schedule and penalties shall be decided by SSC on case-to-case basis.

- 7.3 Power Producer shall furnish online quarterly progress/status report of Waste to Energy /Biomass based power plant from the date of approval of the Project. Non-compliance may lead to forfeiting of security money and cancellation of project approval.
- 7.4 Copy of Work Order along with cost, delivery schedule of supplies, civil works execution and erection & commissioning schedule shall be supplied by the Power Producer as proof of execution of project within 3 months of the final approval. Financial closure shall be completed by Power Producer within 4 months from date of final approval. Incentives allowed by RERC for early completion shall be applied as per tariff orders issued by RERC.
- 7.5 After completion of project and before commissioning, the Power Producer shall furnish the complete updated project report based on the technology used, order placed, actual cost and various approvals arranged. The representative of RREC shall be present during commissioning of Power Project and commissioning report shall be issued by RREC. The incentives tariff, as allowed by RERC order to the Waste to Energy /Biomass based power plant for early commissioning shall be applicable after examining the date of financial closure and commissioning date by RREC.
- 7.6 Obligations of the Power Producer under this Policy shall be relaxed during the period of Force Majeure. Post-registration, the time frame for completion of different activities is subject to Force Majeure conditions.

8. Grid Interfacing:

Power Evacuation, Grid Interfacing, Forecasting & Scheduling and dispatch of the Power for Bio Power Projects will be governed as per the provisions of this policy (Section-E) and relevant Regulations of RERC.

9. Power Purchase Agreement:

- 9.1 The sale of electricity by Developer/Power Producer to Discoms will be governed by the Power Purchase Agreement executed between the concerning Discom and the Power Producer. The price for sale of power generated from the Biomass Power Project/Waste to Energy based project to the Discoms and other charges/conditions shall be as specified by the RERC from time to time.
- 9.2 In case of third-party sale or for captive use within the State, the Developer/Power Producer shall execute a Wheeling Agreement with Discom. However, the Transmission Agreement with RVPN will be executed separately if the Developer/Power Producer intends to use the system of RVPN for Wheeling Power.
- 9.3 The price of power to be sold by the Developer/Power Producer to consumers/ licensees other than Discoms will be determined by the mutual understanding/agreement between the seller and the purchaser.

9.4 Assignment of PPA

PPA/WBA will be allowed to be assigned in parts or full to other parties under following conditions:

- i. After completion of the project and its connectivity to the grid.
- ii. Consent of RREC & RVPN/Discom(s) and related parties

10. Development of Waste Supply Chain:

State will establish the mechanism through which Waste Supply Chain ensured to the CBG plants

11. Settlement of Accounts:

Accounts of all transactions between the Power Producer and the Discoms/ RVPN regarding Price of Power and Wheeling Charges shall be settled on a monthly basis.

12. Power to Remove Difficulties

SLMCC is authorized to issue necessary clarification and amendments with regard to this section of the policy as and when required. If any doubt, dispute, difference or issues arise with regard to interpretation/implementation of this section of the Policy, State Level Sanction Committee may take decision in such matters, not inconsistent with the provisions of the Policy, as may appear to be necessary and expedient for removing the difficulties either on its own motion or on a written representation from the stakeholders. The Energy Department shall issue necessary guidelines/ schemes/orders for the implementation of this Policy.

13. Members of the State Sanction Committee (SSC)

Below is list of members of SSC

1. ACS/Pr.Secy./Secretary, Energy-Chairman
2. ACS/Pr.Secy./Secretary, Forest & Environment, or their representative-Member
3. ACS/Pr.Secy./Secretary, Water Resources Department, Member or their representative-Member
4. ACS/Pr.Secy./Secretary, Secretary, Revenue, or their representative-Member
5. ACS/Principal Secretary/Secretary, Industries, GoR
6. ACS/Principal Secretary/Secretary, Agriculture Deptt, GoR (Applicable only for CBG projects)
7. ACS/Principal Secretary/Secretary, Animal Husbandary Deptt, GoR (Applicable only for CBG projects)

8. ACS/Principal Secretary/Secretary, Rural Deptt, GoR (Applicable only for (Applicable only for CBG projects)
9. ACS/Pr.Secy./Secretary, Secretary,ULB/UDA,or their representative-Member(Applicable only for waste to Energy projects)
10. Chairman Discoms. -Member
11. Chairman,RREC-Member
12. MD,RREC-MemberSecretary

Section D: Green Hydrogen

1. Introduction

To meet its global commitment, Government of India has set a national target of 500 GW Renewable Energy generation by the year 2030. This will reduce dependence on conventional sources of energy. Rajasthan has added a generation capacity of more than 30 GW of Renewables in the last 2 decades which is the highest in India. Now, the State is exploring other options for development of non-fossil fuels.

Green Hydrogen is a non-fossil fuel which can fulfil the requirements of Industrial, Power, Transportation and Aviation sectors while reducing carbon emissions. It is also useful to produce Green Ammonia and could help in reducing the country's import bill. Ministry of Power, Government of India has also issued a National Green Hydrogen Policy in Feb 2022”.

In the light of these, the State of Rajasthan aims to promote Green Hydrogen production through a series of incentives and simplified procedures.

2. Objectives

- 2.1. To become the pioneer state for Green Hydrogen Production and its derivatives. To reduce the dependency on import of Ammonia and Fossil Fuels.
- 2.2. To develop an ecosystem for production of Green Hydrogen for Refineries, Fertilizers and other Industries requiring Hydrogen as an input.
- 2.3. To create an environment for Industry and Research Institutions to focus on cutting edge research and to make Rajasthan the preferred destination for development of Green Hydrogen.
- 2.4. To develop a Green Hydrogen Manufacturing ecosystem (Electrolyser, compressor, storage and transport infrastructure.).
- 2.5. This section of the policy will focus mainly on:
 - i. Promoting Generation of Hydrogen and its derivatives/by products through RE Power
 - ii. Development of Green Hydrogen Parks.
 - iii. Promote Green Tourism in the State using of Green Hydrogen-based mobility.
 - iv. Promotion of Green Hydrogen Fuel Cells for transportation. Explore and support distributed applications of green hydrogen across Residential, Commercial, Industrial and Mobility sectors
 - v. Promotion of Green Hydrogen Equipment Manufacturing Industries.
 - vi. Promotion of research in cutting edge technology for Green Hydrogen.
 - vii. Promotion of Green Hydrogen generation for storage and generation of RTC (round the clock) power.
 - viii. Support the development of pilots across the Green Hydrogen Value Chain.

3. Targets

- i. Producing 2000 kilo Tonnes per Annum (kTPA) of Green Hydrogen by 2030.
- ii. Commission at least one Green Hydrogen Valley to cater to the demand from fertiliser plants and refineries within Rajasthan and in other States.

- iii. Develop at least one Gigafactory for electrolyser manufacturing. The state should also aim to export these domestically manufactured electrolysers across the globe.
- iv. Cater to at least 20 per cent of Green Hydrogen exports from India either as fuel, chemicals derived from Green Hydrogen or as technology products like electrolysers.
- v. A minimum share of consumption will be met through Green Hydrogen by designated consumers in the State as per mandate prescribed in National Green Hydrogen Mission which shall be extended in phased manner.
- vi. Blend up to 10 per cent Green Hydrogen (on a volume basis) in Natural Gas Pipelines for gas produced within Rajasthan by 2030.

4. Green Hydrogen Projects

4.1. Eligibility of Developers for Green Hydrogen Projects

Developers, as defined below shall be covered under the provisions of this section of the Policy:

Category 1: Develops Co-located Renewable Energy and Green hydrogen Generation Plant

Category 2: Develops Green Hydrogen Generation Plant and remotely located RE Plant.

Category 3: Develops Green Hydrogen Park/Hub/Cluster/Valley

4.2. Green Hydrogen Generation Projects: -

- 4.2.1. The State will promote Generation of Hydrogen and its derivatives/by products through Renewable Energy by setting up of Green Hydrogen Generation Plants and RE Plants in the State.
- 4.2.2. Green Hydrogen and its derivatives/by products can be generated through a Hydrogen Generation Plant by using Renewable Energy from a co-located Renewable Energy plant or from a remotely located Renewable Energy Plant within the State.
- 4.2.3. The remotely located Renewable Energy Plant can be set up by Green Hydrogen generators themselves within the State or can procure Renewable Energy from Third Party within the State.
- 4.2.4. Green Hydrogen Generators will be allowed to obtain renewable energy through Open Access from existing/new RE Projects as per relevant RERC Regulations and State Policies.
- 4.2.5. The State shall also promote Green Hydrogen Generation for power generation purposes. The Power Generation Plant can supply assured power to the grid using green hydrogen as per the requirements of the grid.
- 4.2.6. The overall target of 2000 kTPA can be taken with following allowable capacities in various categories for Green Hydrogen Projects:

1. RE Power Injection and Withdrawal at CTU (PGCIL) Network within State (No upper Cap)
2. Co-located Green Hydrogen Project with RE Projects (Up to 700 kTPA)
3. Green Hydrogen Projects with Round the Clock RE Power Supply (Up to 800 kTPA)
4. Green Hydrogen Project with normal RE Project at STU (RVPN) Network (Up to 500kTPA)

5. Parks/Hubs/Clusters/Valley

The Green Hydrogen Generation Park is a concentrated zone/hub for development of Green Hydrogen Generation Plant with/without co-located Renewable Energy Generation Plant which provides developers, a well demarcated area with proper civil and power system infra-structure where the risk of projects is minimized, and a fast approval process is facilitated. The Green Hydrogen Park Developer creates supporting infrastructure and facilities including power evacuation, water arrangements, internal roads and administrative facilities

6. Development of Green Hydrogen Generation Park

1. The State shall promote development of Green Hydrogen Generation Parks. The Park Developer will submit an application in the prescribed online format to RREC for development of Green Hydrogen Generation Park along with a non-refundable process fee @ Rs. 10,000/ MW + GST subject to a maximum of Rs 10 Lac +GST for each Park. Registration of park will be carried out by RREC within a period of 30 days from the submission of application, complete in all respects.
2. The Park Developer(s) shall be obliged to create common infrastructure facilities for development of Green Hydrogen Generation Plants(s) viz creation of power evacuation system, development of roads, road lights, water supply systems etc.
3. The Park Developer will be allowed to acquire agricultural land from landowners (Khatodars) for developing Green Hydrogen Generation Park(s) in excess of the ceiling limits in accordance with the provisions of Rajasthan Imposition of Ceiling on Agriculture Holding Act, 1973.
4. Allotment of Government land to Park Developer(s) for development of Green Hydrogen Generation Park will be considered on the recommendation of RREC.
5. The Park Developer(s) shall be responsible for registration of Green Hydrogen Plants within their park with RREC as per the provisions of this policy.
6. The State will also develop a Green Hydrogen Valley/Cluster at suitable location in State for facilitating all infrastructure required for Generation of Green Hydrogen and its derivatives without any upper cap on individual developers.

7. Manufacturing of Equipment:

The Government intends to promote manufacturing facilities for Green Hydrogen equipments in Rajasthan that can help develop an ecosystem and support job creation in the State. The manufacturing equipment for Generation of Green Hydrogen like Electrolyser and other equipment as notified in the prevailing Rajasthan Investment Promotion Schemes (RIPS) from time to time.