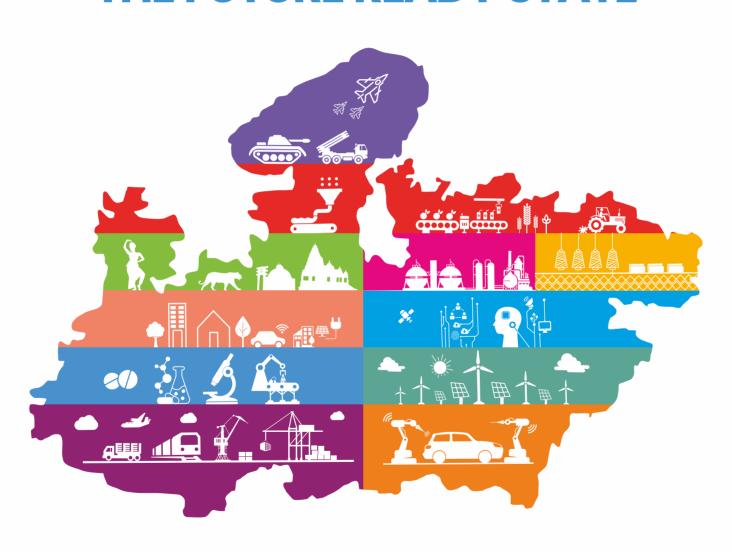




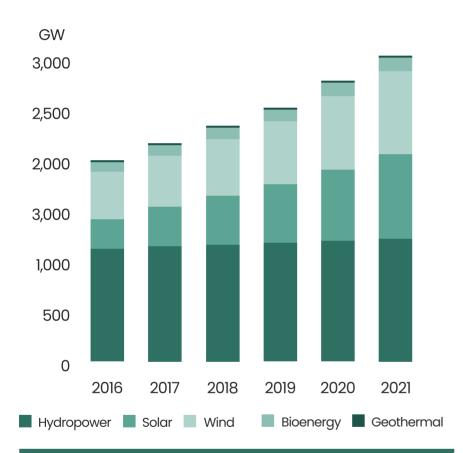
Renewable Energy

MADHYA PRADESH THE FUTURE READY STATE



Global RE Industry Outlook

Installed Global RE Capacity



RE Capacity in 2021 has reached 3,064 GW globally

"To keep global warming within 1.5°C, emissions need to be reduced by 45% by 2030 and reach net zero by 2050" - United Nations

> Emerging RE Sector trends



- Asia Pacific Countries are leading in investments in renewable energy transition
- Solar Energy leading in new configurations such as pairing with storage and floating solar
- Transmission infrastructure is becoming a key priority
- ➤ Energy transition investment surpassed \$750 billion in 2021
- There is a growing interest in next-generation clean energy technologies such as green hydrogen and energy storage

Indian RE Industry Outlook

Indian Industry Outlook



Installed RE Cap (GW) • Percentage of RE in Generation Mix

RE installation: CAGR of 13.69% over the past 8 years

Key highlights of Indian RE Sector

Installed RE capacity of 109.80 GW which Is 28% of total installed energy capacity

FDI in RE sector was of US\$ 1600.93 Million during 2020-21

RE (solar and wind) technologies have achieved grid parity

Investments in RE sector have increased from US\$ 8,361 Million in 2019-20 to US\$ 14,397 Million in 2020-21

Indian RE Industry Demand Drivers

Huge RE Potential

- Solar potential of ~750 GW
- ➤ Wind potential is over ~ 300 GW
- Small hydro and bioenergy potential around 20 GW and 25 GW, respectively
- ➤ High potential for floating solar
- Development of offshore wind

Ambitious Energy Targets

- Target of setting 500 GW RE by 2030
- To achieve 50% energy requirements from RE by 2030
- Reduce carbon intensity by less than45% by 2030 in India Net Zero by 2070

Market Drivers



- Increasing focus on ESG investing
- Improvements in cost-competitiveness of solar and wind generation
- Improvements in terms of finance available to RE projects
- To introduce RE specific Green Term

 Market

Policy

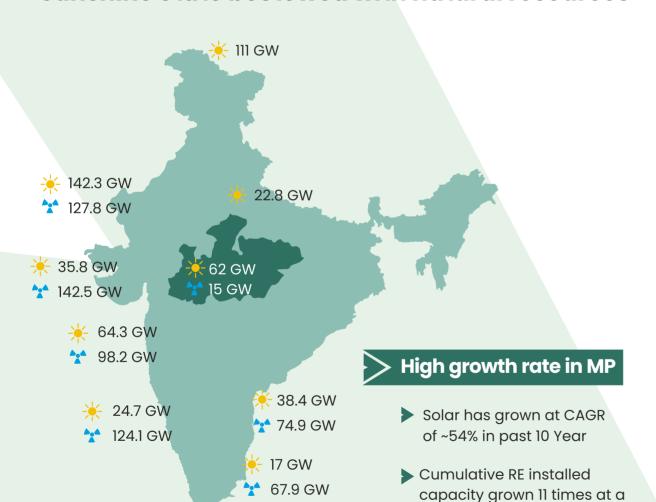


- Must run status to RE projects
- > Dedicated transmission infrastructure
- Waiver of ISTS charges
- Domestic manufacturing through the PLI scheme



Madhya Pradesh Scenario

Sunshine State bestowed with natural resources





Location Advantage

One of the largest state in India situated at centre, access to all key markets



Resource Advantage

- ► Huge tracts of land
- ► High solar and wind resources
- Manpower availability



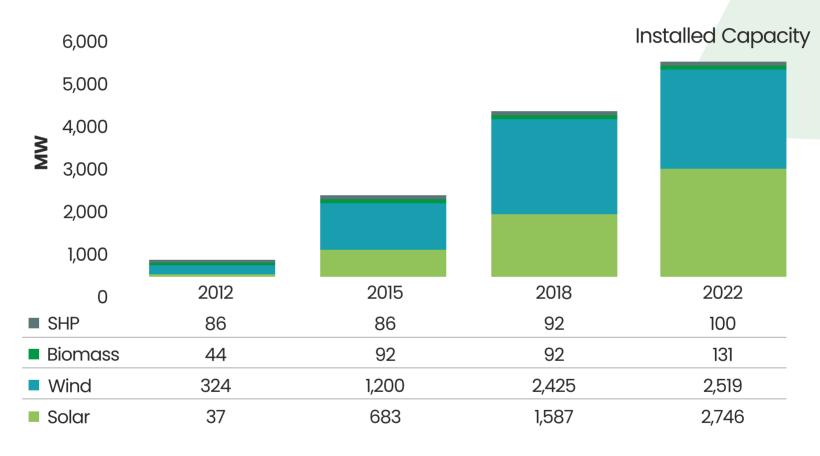
CAGR of 27% in last decade

Policy Advantage

First State having Technology agnostic RE Policy with focus to promote innovation in RE sector

First state in country having progressive policies for RE Equipment manufacturing

Technology-wise RE capacity scenario in MP



RE Capacity has grown 11 times in a decade



Government of India Schemes

Solar Park Scheme

- Scheme promotes development of large-scale (~500 MW) solar parks by providing plug and play model to developers
- Land, clearances, evacuation infrastructure, access roads etc. are provided to developers by Implementing Agency, thereby minimizing developer risks

PM Kusum

- Promotion of solar pumps, agriculture feeder solarization and installation of solar capacity by farmers
- Supplement farmer incomes while ensuring energy security and reducing agricultural subsidy burden on State

Rooftop Solar Programme

- Scheme provides for promotion of grid connected rooftop systems for residential sector
- Under rooftop solar scheme, CFA @40% is provided for rooftops up to 3 kW and 20% for rooftops up to 10 kW. GHS/RWA can avail CFA @20% up to 500 kW capacity

CPSU Scheme

- Objective of CPSU scheme is to set up solar PV projects by Government PSUs for self consumption, using domestic cells & modules
- > VGF can be availed. Bidding on VGF is carried out through SECI

PLI Scheme

- To make domestic manufacturing competitive at par with global standards, GoI has introduced Production Linked Incentive for production of high efficiency solar PV modules
- The PLI scheme promotes development of entire solar supply chain from polysilicon to ingot/wafers to solar cells and modules



Madhya Pradesh Key projects and schemes

- Rewa Ultra Mega Solar Ltd is JV of SECI and MPUVNL (State Implementing Agency for development of Solar Parks)
- Rewa (750 MW),
 Mandsaur (250 MW)
- Phase I (278 MW) of
 600 MW floating solar park at
 Omkareshwar under implementation

Under implementation

Agar (550 MW), Shajapur (450 MW), Neemuch (500 MW)

- Plug and play model to developers - provided by Solar
 Power Park Developer, RUMSL
- Energy Storage plus Wind & hybrid solar parks

Chhatarpur - 950 Morena - 1400

Madhya Pradesh Key projects and schemes

Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (KUSUM) scheme







Target: 500 MW

Decentralized RE systems of 500 kW to 2 MW to be setup by individual farmers / group of farmers / cooperatives/ panchayats on barren / fallow land

Individual farmers will be supported to install standalone solar Agriculture pumps for replacement of existing diesel pumps in off-grid areas, where grid supply is not available

Target: 50,000

Target: 1250 MW

Agriculture Feeder level solarization will be supported



Madhya Pradesh Key projects and schemes

Other initiatives

Solar Roof Top



- ~41 MW have been installed on rooftops of Residential, Government and Institutional buildings under RESCO and CAPEX modes
- ➤ Rooftop solar installation target is 2.2 GW

Solar City

- Sanchi would be developed as First Solar City in Madhya Pradesh
- It would be based on Net Zero Carbon concept

Incentives for the RE sector in Madhya Pradesh

Incentives for projects registered under MP RE Policy 2022

- Electricity Duty:
 - 100% exemption for 10 Years
 - Energy development cess shall be exempted for 10 years
- **50% reimbursement** on stamp duty on purchase of private land
- **50% rebate** on circle rate for Government land

Special incentives for RE manufactures under Industrial Promotion Policy

Additional Benefits for RE Sourced Energy Storage Projects

- Exemption from payment of20% of registration cum facilitation fees
- ▶ 15% rebate on government land
- ▶ 15% reimbursement on stamp duty on purchase of private land





Madhya Pradesh Scenario Key Renewable Energy Players in the State









































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