





2024 STATE ENERGY EFFICIENCY ACTION PLAN FOR THE STATE OF MADHYA PRADESH

WHITE PAPER



Background

The increasing demand for energy puts a strain on the country's resources and has negative environmental impacts. Therefore, it is necessary to separate the country's economic growth from its energy demand. This objective is also reflected in India's Intended Nationally Determined Contribution submitted before the Paris Climate Conference, where the government emphasized energy conservation as a crucial mitigation strategy.

During the 26th session of the Conference of the Parties (COP26) to the United Nations Framework Convention on Climate Change (UNFCCC) in 2021, the Government of India presented India's climate action plan, which included five essential elements known as Panchamrit. These elements include the target of achieving net zero emissions by 2070 and obtaining 50% of the country's energy from renewable resources by 2030.

India's non-fossil energy capacity to reach 500 GW by 2030	India will meet 50 percent Cumulative electric power installed capacity from non- fossil fuel by 2030	India will reduce its total projected carbon emissions by one billion tonnes from now to 2030	By 2030, India will reduce the carbon intensity of its economy to less than 45%	By 2070 , India will achieve the target of net zero emissions .
2030	2030	now to 2030	2030	2070

The focus of this project was to develop strategies aimed at improving the energy efficiency of energyintensive sectors within the state. This action plan aligns with the Nationally Determined Contributions (NDCs), also known as Panchamrit. For Madhya Pradesh, the action plan identifies key sectors and evaluates the potential for energy conservation and efficiency improvements in the region.

The State Energy Efficiency Action Plan sets goals to be achieved by FY 2031, aiming for significant energy efficiency improvements by that year. The implementation of the proposed action plan is expected to result in estimated energy savings of 4.28 million tonnes of oil equivalent (Mtoe) in a moderate scenario and 6.79 Mtoe in an ambitious scenario for the State of Madhya Pradesh.

Identification of the focus sectors

In order to facilitate the transition towards low-carbon development pathways, each State/Union Territory (UT) plays a crucial role. The Bureau of Energy Efficiency, under the guidance of the Ministry of Power in consultation with State Designated Agency, various stakeholders from different sector of the state and knowledge partner ASSOCHAM has developed state-specific energy efficiency action plan to ensure that resource allocation aligns with the state's requirements and aids in achieving state-specific goals related to sustainable development.

Identifying the focus sectors or areas is important because certain sectors within a state consume a significant portion of energy. To determine the focus sectors for Madhya Pradesh, a comprehensive study was conducted, taking into account various parameters such as energy consumption patterns, emissions, Gross State Value Addition (GSVA), Gap analysis in respective sectors, potential for energy efficiency and emission reduction, planned efforts by the state in prioritized sectors, State Designated Agency (Madhya Pradesh Urja Vikas Nigam Limited - MPUVNL), and inputs from stakeholders.

Based on the Total Final Energy Consumption (TFEC) in the state and its sectoral distribution, the following sectors have been identified as the focus sectors for devising energy efficiency strategies in Madhya Pradesh referring the fiscal year 2020 as a base year. Industry, Building, Transport, Agriculture, and Municipalities are the identified focus sector for the state.



By targeting these focus sectors and implementing energy efficiency measures, the state aims to optimize energy consumption, reduce emissions, and contribute to sustainable development goals.

Proposed Strategies with Implementation Methodology

The chapter discuss the proposed strategies outlined in the action plan for the identified focus sector along with their potential impact in terms of energy efficiency and emission reduction. These proposed strategies are stated below with their actionable items and implementation methodology.

1. Industry Sector

Madhya Pradesh, situated in Central part of India, boasts abundant natural resources and an advantageous location for industrial growth. The state hosts a diverse array of industries spanning agriculture, tourism, and manufacturing. Madhya Pradesh has observed significant growth in the industrial sector. Industrialization contributes a significant role in creating employment opportunities and endorsing the share of the industrial sector in the Gross State Domestic Products (GSDP). Gwalior, Sagar, Indore, Ujjain, Bhopal, Rewa, Jabalpur are some of the major industrial areas in the state. There are about 185 MSME industrial areas, 53 large industrial areas and 25 developing industrial areas. Some of the prominent and leading industrial sectors in Madhya Pradesh belong to the sectors such as automobile and auto parts, pharmaceuticals, textiles, cement, minerals, edible oil, food processing and Agri-business.

The proposed strategies for the industrial sector are:

Deepening and Widening of Perform, Achieve and Trade (PAT) Scheme

The proposed strategy suggests enhancing coverage of energy consumption in designated consumers (DCs) by expanding and deepening the Perform, Achieve, and Trade (PAT) scheme in Madhya Pradesh. This involves including more industries as designated consumers by lowering eligibility thresholds and adding new sectors to the scheme. The introduction of new sectors such as Fertilizers, Textiles, Dairy, Food Processing, Engineering, Auto Parts and Automobiles etc. in the PAT scheme can be targeted for Madhya Pradesh. Where this strategy has included fertilizers and textiles sector industries. Moderate and Ambitious SEC assigned to fertilizers non-PAT units, and to textile plants. It is assumed that the existing units of both sectors will achieve the moderate SEC target in 50% units and achieve the ambitious SEC target in 70% units. This strategy is expected to result in energy savings of 0.0934 Mtoe and 0.139 Mtoe in the moderate and ambitious scenarios respectively.

Actionable Items:

- a. Partial Risk guarantee program to encourage implementation of latest energy efficient technologies in the sectors (Over and above existing schemes with state contribution)
- b. Capacity Building of Energy Managers and Energy Auditors in PAT DCs and new probable sectors for compliance with scheme and new technologies.
- c. Mandatory Standardized Energy Audits in every three years for all units that have energy consumption below PAT threshold, in all notified PAT sectors, excluding MSMEs.
- d. Development of mechanisms for B2B interaction with global technology suppliers.
- e. Share of clean energy in total energy consumption.

Implementation Methodology:

- a. Identification of potential sectors
- b. Setting energy targets
- c. Implementation of energy efficiency measures
- d. Monitoring and verification
- e. Trading of energy saving certificates

Energy Efficiency Interventions for MSME Clusters

The proposed strategy targets Small and Medium Enterprises (SMEs), including MSMEs, in key sectors like Foundry, Dal, Pharma, Power looms, Engineering, Food Processing, Sandstone etc. A PAT-like scheme is proposed under this strategy for the unorganized and small industries sectors, which would not meet the threshold energy consumption under the conventional PAT scheme. The strategy would involve the implementation of energy efficient technologies and new & innovative decarbonization technologies in the Power looms and Food Processing units in order to enable them to meet their energy saving targets. It is assumed that 50% of Power looms and Food Processing industries will be able to adopt the strategy in moderate scenario and 70% industries will be covered in the ambitious scenario. The strategy is expected to result in energy savings of 0.714 Mtoe and 1.428 Mtoe in the moderate and ambitious scenarios respectively.

Actionable Items:

- a. Carrying out energy and resource-mapping studies in MSME clusters.
- b. Implementation of Demonstration Projects on energy efficient technologies in SME clusters.
- c. Workshops on technology interventions for energy conservations in MSMEs.
- d. Periodic standardized energy audits for MSMEs on load basis and reimbursement of energy audit cost with a maximum cap.
- e. Issuance of directives for implementation of ISO 50001, Energy Management System in organizations on load basis.
- f. Sector-specific policy development for financial assistance on implementation of ECMs suggested in energy audit.
- g. Phase wise plan to implement DSM scheme for replacement of existing inefficient (non-star rated) pumps through SDA/DISCOMS.
- h. Share of Clean Energy in Total Energy Consumption.
- i. Implementation of energy efficient equipment for new units.

Implementation Methodology:

a. Identification of energy intensive MSME clusters

- b. Conduct energy audits in the selected clusters.
- c. Prepare a list of energy efficiency measures is prepared for each MSME cluster
- d. Implementation of energy efficient interventions
- e. Monitoring and verification
- f. Verification after implementation of energy efficiency measures.

Considering the implementation of both the strategies in the industry sector, it is estimated that approximately **0.81 Mtoe** energy savings can be saved under the moderate scenario and **1.57 Mtoe** under the ambitious scenario.

2. Buildings Sector

In Madhya Pradesh, despite having only 2.86 % urban population, faces rising energy consumption in its buildings sector. To address this, the state government amended the Energy Conservation Building Code for the state. It mandates energy-efficient design and construction practices. A State Designated Agency (SDA) provides technical assistance for compliance. Additionally, the Bureau of Energy Efficiency (BEE) introduced Eco-Niwas Samhita (ENS) for residential buildings. Recently, the Energy Conservation (Amendment) Act, 2022, introduced the Energy Conservation and Sustainable Building Code (ECSBC) for both commercial and residential buildings to tackle energy consumption in the building sector. The suggested strategies for the building sectors are:

Effective Implementation of ECSBC

Madhya Pradesh has already amended the Energy Conservation Building Code (ECBC) for commercial buildings, which encompasses commercial buildings, and the state is in process of adopting ECO-Niwas Samhita (ENS) for residential buildings. Till the implementation of ECSBC in states, ECBC and ENS will be known as ECSBC. A strategy is proposed to increase the penetration of ECSBC compliant buildings in the state to achieve energy savings in the building sector.

Actionable Items:

- a. Setting-up of effective enforcement plan with ULBs and SDA as monitoring agencies.
- b. Development and maintenance of ECSBC compliance portal, directory of energy efficient materials/technologies.
- c. Market Outreach for ECBC compliant Products, Radio Jingles, Social Media Awareness.
- d. Pilot projects for Super ECBC buildings as case studies (initial 20 Buildings)
- e. Home Energy Auditor Training, compliance structure and incentive on energy savings for first few residential projects.
- f. Periodic upgradation of PWD Schedule of Rates (SoR) to incorporate latest energy efficient materials and technologies.
- g. Inclusion of curriculum on energy efficiency in buildings, in universities and Schools
- h. Incentives on Green Building Certified and ECBC+/SuperECBC Buildings

Implementing Methodology:

- a. Establishing guidelines
- b. Awareness and training programs
- c. Code adoption
- d. Compliance and enforcement
- e. Performance evaluation

f. Incentives and recognition.

Replacement Program for inefficient (below than 3 star-rated) appliances:

The strategy has been proposed for the complete buildings sector, covering both commercial and domestic buildings. The electricity consumption pattern varies greatly between urban and rural areas. This is due to the variation in type and number of appliances being used by urban and rural residents.

Actionable Items:

- a. Development of state-specific implementation models and identification of relevant agencies.
- b. Issuance of directive to government offices and buildings in the State to replace all existing inefficient appliances (lower than 3 Star Rated) with BEE 5-star rated appliances.
- c. Phase-wise plan for replacement of existing inefficient appliances (lower than 3 Star Rated) with BEE 5star rated appliances in all buildings, through DSM schemes.
- d. Workshops & Campaigns on behavioural change interventions for energy conservation.

Implementation Methodology:

- a. Identification of inefficient appliances
- b. Selection and procurement of energy efficient appliances
- c. Distribution and installation of the appliances
- d. Disposal of the old appliances
- e. Monitoring and Evaluation

Mandatory BEE Star Rating or Shunya Rating for Government Buildings

The Star Rating and Shunya Rating of buildings is currently at a voluntary stage which is used as a benchmarking system for buildings in order to classify them in terms of 'Star-Rating' & 'Shunya Rating' on the basis of their energy performance. It is proposed that to promote Star Rating & Shunya Rating in all government & commercial buildings and conduct an assessment for their energy performance along with the ECBC Compliance process.

Actionable Items:

- a. Issuance of directives to all government departments to conduct energy audits and target to achieve BEE Star Rating for their buildings.
- b. Periodic energy audits for commercial buildings on load basis and incentives on achieving specific level of star rating for buildings.
- c. Capacity Building of Architects & Building Professionals and Developers.
- d. Market Outreach for Star & Shunya Rating by Radio Jingles, Social Media Awareness.
- e. Mandatory minimum set point of 24 degrees for air conditioners in all government buildings.
- f. Transformation of iconic government buildings to Net-Zero energy buildings.

Implementation Methodology:

- a. Identification for the eligible buildings
- b. Awareness Campaigns
- c. Compliance and Enforcement
- d. Incentives and recognition
- e. Performance evaluation

By implementing all the strategies in the buildings sector, it is estimated that approximately 0.165 Mtoe in energy savings can be achieved under the moderate scenario. Under the ambitious scenario, the estimated energy savings increase to approximately 0.217 Mtoe. These savings signify the potential reduction in energy consumption and improved energy efficiency resulting from the implementation of energy conservation measures and the promotion of sustainable building practices.

3. Transport Sector

Madhya Pradesh, a prominent tourist destination, experiences heavy vehicular traffic, primarily in the transportation sector, leading to substantial oil consumption. The breakdown of vehicle types reveals that two-wheelers constitute the largest share, accounting for 80.41% of all vehicles. LMVs come in at a close second, making up 7.42% of the vehicle category. The Madhya Pradesh EV Policy aims to target all types of vehicles and promote the transition of a significant percentage of vehicles into electric vehicles to promote sustainable transportation, the state government is actively encouraging the adoption of electric vehicles (EVs). As of April 2022, the Department of Transport reports that 346 electric four-wheelers, 11,549 electric two-wheelers, 7,500 E-Rickshaws, and 1,029 E-Goods Rickshaws have been registered. FY 2020, the number of registered vehicles in Madhya Pradesh increased from 1.21 crores to 1.79 crores, representing an Average Annual Growth Rate (AAGR) of 10.25%. The following is the strategy proposed for Transport Sector:

Infrastructure Development for EV charging stations and Incentives to Consumers for quick transition to EVs

The strategy proposes transitioning new vehicles registered in Madhya Pradesh until FY 2031 to electric vehicles (EVs) under two scenarios: moderate and ambitious. The focus will be on converting a significant portion of 2-wheelers to EVs due to their high share in registered vehicles and the availability and affordability of electric 2-wheelers. This strategy has also targeted the transition of 3- wheelers, 4- wheelers, Buses, Heavy vehicles in the state. This transition is expected to play a crucial role in decarbonizing the sector and achieving substantial savings in fossil fuel-based energy consumption.

Actionable Items:

- a. Establishment of regulatory mechanism to develop EV charging infrastructure.
- b. Pilot projects on battery swapping stations.
- c. Pilot projects on hydrogen fuel cell vehicles (HCVs).
- d. Pilot projects on renewable based charging infrastructure.
- e. Training of skill labored for maintenance of charging infrastructure.
- f. Incentives on the development of charging infrastructure by the private sectors in the state.
- g. Incentives on the e-vehicles and spare part manufacturing.
- h. Disposal of electric vehicle batteries.

Implementation Methodology:

- a. Identification of target areas.
- b. Selection of charging technologies.
- c. Procurement and installation of charging stations.
- d. Operations and maintenance.
- e. Incentives to consumers.
- f. Awareness campaign.
- g. Monitoring and evaluation.

Ethanol Blending Program

The Ethanol Blending Program is proposed to ensure mixing of ethanol in motor spirit (petrol) in a fixed ratio to offset a part of the energy consumed by petrol and bring about reduction in emissions. In the proposed strategy and in line with the country's target of 20% blending of ethanol blending in petrol by 2031, a 10% blending target is suggested in the moderate scenario and a 20% blending target is suggested in the ambitious scenario.

Actionable Items:

- a. Financial Assistance on Biofuel production plants
- b. Capacity Building for the investors
- c. Monitoring mechanism for the supply of feedstock and production of ethanol
- d. Support for the research and development programs

Implementation Methodology:

- a. Policy and regulatory framework
- b. Production of Ethanol
- c. Procurement and Storage
- d. Blending of ethanol
- e. Distribution and Marketing
- f. Awareness Campaigns
- g. Monitoring and verification

Promotion of Standard and Labelling program of tyres for fuel efficiency in Vehicles

In this strategy the Bureau of Energy Efficiency has implemented a standard and labelling program for tyres to promote fuel efficiency in vehicles. It can be an effective way to encourage the adoption of more fuel-efficient tyres by consumers.

Actionable Items:

- a. Awareness Campaigns
- b. Capacity Building of Tyre Manufactures and Vehicles OEMs

By implementing the above-mentioned strategies, it is estimated that significant energy savings can be achieved. Under the moderate scenario, approximately **3.01 Mtoe** can be saved, while the ambitious scenario has the potential to save around **4.60 Mtoe**.

4. Agriculture Sector

Like most parts of India, agriculture plays a significant role in the economy of Madhya Pradesh. Agriculture and agriculture occupations in Madhya Pradesh are mainly the main occupation of the state economy. About 72% of the population of the state lives in the rural areas. In 2019-20, agriculture sector contributed to about 35% of the economy in the State of Madhya Pradesh. Owing to its diverse agro-climatic endowments, the state is divided in the 11 climatic zones and 5 crop areas. The soybean crop is the highest sowing crop in the state during Kharif season. Crops such as Soybean, Gram, Tur, Urad, Masoor, Linseed, Maize, Sesame, Ramtil, Moong are widely grown in Madhya Pradesh. The state benefits from ample irrigation facilities, with the majority of the cropped area receiving irrigation from major rivers flowing through the state. The primary

sources of energy consumption in the state are electricity used in pump sets and diesel used in agricultural equipment.

Farmers use a variety of energy sources for different purposes, including direct and indirect consumption of energy from fossil resources. Direct energy consumption involves the use of electricity, propane, natural gas, diesel, and renewable fuels for farm-related activities. Indirect energy consumption, on the other hand, refers to the use of fuel and feedstock in the production of agricultural chemicals like fertilizers and pesticides, particularly natural gas.

Following are the strategies proposed for the agriculture sector:

Transition of conventional diesel pumps to solar powered pumps

The proposed strategy in Madhya Pradesh's agriculture sector involves transitioning from conventional diesel pumps to solar-powered pumps by FY2031, aligning with the national goal of zero diesel use. The moderate scenario aims to convert 75% of diesel pumps to solar by 2026 while the ambitious scenario targets a 100% of diesel-powered pumps to solar pumps by 2031, aiming for maximum energy savings and environmental benefits. Transitioning to solar pumps will reduce reliance on fossil fuels, decrease carbon emissions, and improve air quality and environmental sustainability.

Actionable Items:

- a. Modification in financial incentive model of PM-KUSUM
- b. Greater outreach to relevant stakeholders
- c. Capacity Building of Panchayat/Block Level officials

Implementation Methodology:

- a. Access feasibility
- b. Awareness and training programs
- c. Financial incentives and support
- d. Vendor selection and procurement
- e. Installation and commissioning
- f. Monitoring and mechanism
- g. Knowledge sharing and best practices
- h. Evaluation and impact assessment

Considering the implementation of the mentioned strategy in the agriculture sector, it is estimated that approximately **0.30 Mtoe** energy savings can be saved under the moderate scenario and **0.40 Mtoe** under the ambitious scenario by FY2031.

Financing Mechanism

In the context of energy efficiency, a financial mechanism is a system put in place to provide financing for the implementation of energy efficiency measures. These mechanisms can include loans, grants, subsidies, tax incentives, and other financial tools that provide financial support for energy efficiency measures.

To achieve the targets and the cost savings, the state must implement various energy efficiency policies, schemes, and programmes, so to support the funding, the Bureau of Energy Efficiency has introduced various financing mechanism which the states can consider for the implementation.

The Bureau of Energy Efficiency has started a programme named 'The National Mission for Enhanced Energy Efficiency (NMEEE)' under the National Action Plan on Climate Change.

Energy Efficiency Financing Platform:

The Bureau of Energy Efficiency has started this financing initiative under the National Mission for Enhanced Energy Efficiency, the initiative aims to provide a platform to interact with Financial Institutions and project developers for implementation of energy efficiency projects.

Framework for Energy Economic Development:

The financing initiative was taken to ease the financing of energy efficiency projects through different fiscal instruments, the aim is to provide ease to stakeholders by implementation of schemes such as Partial Risk Guarantee Fund for Energy Efficiency (PRGFEE), Venture Capital Fund for Energy Efficiency (VCFEE).

PRGFEE – Partial Risk Guarantee Fund for Energy Efficiency - "Addressing the credit risks and barriers to structuring the transactions Engaging financial institutions and building their capacity to finance EE projects on a commercially sustainable basis, it has a guarantee Period of Up to a maximum of 5 years. The Government of India has approved about INR 312 crores for PRGFEE.

VCFEE – Venture Capital Fund for Energy Efficiency - The VCFEE provides risk capital support to EE investments in new technologies, goods, and services. The Government of India has approved about INR 210 crores for PRGFEE.

Revolving Funds: Revolving funds are a financial tool that can be used to support sustainable development projects in various sectors, including agriculture, small business, and community infrastructure. These funds are given at a low-interest rate and are intended to support these sectors. The repayment of these loans is used to replenish the fund, enabling it to provide more loans to new borrowers.

Green Bonds: Green bonds are a type of financial instrument that are specifically designed to finance projects and initiatives with environmental benefits. They are typically issued by governments, municipalities, corporations, or other entities to raise capital for projects that promote sustainability, renewable energy, energy efficiency, climate change mitigation and other environmentally friendly initiatives.

Soft Loans: Soft loans, also known as concessionary loans or subsidized loans, are loans that are provided on more favourable terms compared to standard commercial loans. These loans typically have lower interest rates, longer repayment periods, and more flexible terms and conditions. Soft loans are often offered by governments, international financial institutions, or development agencies to support specific objectives such as economic development, social welfare, or sustainability.

PRSF: Partial Risk Sharing Facility –A financial instrument, supported by BEE and established by Clean Technology Fund and Global Environment Fund, provides partial credit guarantee to Participating Financial Institutions (PFIs) to cover their risk associated with extending loans for energy efficiency related projects.

EEFF: Energy Efficiency Financing Facility - This financing initiative has been established by BEE specifically for the financing requirement of large-scale industries, project aggregation approach covering ESCO projects, MSME clusters, etc. This facility will be anchored by a Public Financial Institution.

FEEF: Framework for Energy Efficiency Financing - This financing initiative has been established by BEE specifically for the financing requirement of large-scale industries, project aggregation approach covering ESCO projects, MSME clusters, etc. This facility will be anchored by a Public Financial Institution.

ESCerts: Energy-Saving certificates - On over achievement of set energy savings target, the designated consumers receive ESCerts. These ESCerts can be then traded and sold to the designated consumers who have under-performed i.e., who were not able to achieve their energy saving targets.

OBF: On-Bill Financing – This financing mechanism, being done in partnership with a utility company, the consumer pays back based on the monthly utility bill generated.

Capital Subsidy: Financial instrument capital subsidy is granted by the state government towards the energy efficiency related projects/investments, to cover capital expenses incurred for during incorporating the energy efficiency improvement mechanisms.

ADI: Accelerated depreciation based incentivization – In this instrument, the project developers get the opportunity to take the advantage of the higher depreciation during the initial years, which acts as a catalyst for incentivizing industries to implement energy efficiency schemes.

PRGF: Loan loss recovery/partial risk guarantee fund - this financial instrument provides a partial guarantee over the associated risk, a pre-specified percentage of loan loss is covered.

CGTMSE: Credit Guarantee Fund Trust for Micro and Small Enterprises - This market instrument established by MoMSME, SIDBI, provides collateral-free credit guarantee of up to 85% on loans up to INR 200 lakh, to micro and small enterprises.

SVCL: SIDBI Venture Capital Limited - Under this funding mechanism, an investment management company under SIDBI extends equity capital to early-stage SMEs and start-ups for select sectors namely in manufacturing, agricultural and service.

Promoting market transformation for energy efficiency in MSMEs- This initiative, established by GEF, EESL, UNIDO, BEE, MoMSME, SIDBI act as a catalyst in increasing the availability of funds for MSMEs by setting up revolving fund mechanism, which would also ensure replicability of the project.

Other Central government financing schemes by government – Production Linked Incentivization (PLI) scheme by Department for Promotion of Industry and Internal Trade. Technology Upgradation Fund Scheme (TUFS) by Ministry of Textiles. Integrated Development of Leather Sector (IDLS) by Ministry of Industries & Commerce. Credit Linked Capital Subsidy Scheme for Technology Upgradation (CLCSS) by Ministry of MSME. Technology & Quality Upgradation Support for MSMEs (TEQUP) by Ministry of MSME.

Summary

Through extensive research and collaboration with various stakeholders, the Madhya Pradesh Urja Vikas Nigam Limited (MUVNL), and ASSOCHAM in consultation with Bureau of Energy Efficiency has developed a comprehensive State Energy Efficiency Action Plan for the State of Madhya Pradesh. This plan recognizes the necessity, potential, and opportunities for energy efficiency within the state. The action plan outlines a detailed roadmap for implementing these strategies, while also emphasizing the importance of monitoring their implementation through involvement from multiple stakeholders.

By projecting the state's total final energy consumption (TFEC) based on energy consumption and economic growth, it is estimated that Madhya Pradesh's TFEC will reach 70.02 Mtoe by FY 2031.

In light of this projection, the action plan identifies Industry, Buildings, Transport, and Agriculture as the key focus sectors. It further analyses sector-specific strategies to achieve energy savings. In the moderate scenario, the implementation of this plan is expected to result in a reduction of 4.28 Mtoe in total energy consumption by FY 2031. In the ambitious scenario, the reduction is projected to 6.79 Mtoe. Additionally, this plan aims to generate awareness at a mass level and create a market potential of approximately Rs. **12,489** Crore in the energy efficiency sector. Furthermore, it is anticipated to contribute to a reduction of 13.40 MtCO₂e in the moderate scenario in terms of CO₂ emissions by FY 2031.

Sectors	Energy Saving Potential (Mtoe)		Emission Saving Potential (MtCO ₂)		Market Potential
	Moderate	Ambitious	Moderate	Ambitious	(INR Crore)
Industry	0.81	1.57	2.53	4.91	2886
Transport	3.01	4.60	9.42	14.40	8464
Buildings	0.17	0.22	0.52	0.68	399
Agriculture	0.30	0.40	0.95	1.26	741
Total	4.28	6.79	13.40	21.24	~ 12,489

Table 1: Energy Savings Summary and Investment Potential