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# Swami Vivekanand Subharti University
# Commitment to Achieving Net Zero Emissions

## Introduction

Swami Vivekanand Subharti University, Meerut, is dedicated to achieving Net Zero emissions by 2040 through an integrated approach encompassing Scope 1, Scope 2, and Scope 3 emissions. The University incorporates sustainability into its campus operations, infrastructure, and community practices, recognizing the vital role that higher education institutions play in addressing climate change. The strategy emphasises the reduction of direct emissions from on-campus activities, the minimisation of indirect emissions from electricity usage via renewable energy implementation, and the mitigation of value chain emissions associated with transportation, waste, water, and procurement. The University seeks to create a quantifiable and time-specific strategy for achieving a carbon-neutral and sustainable campus, supported by ongoing environmental monitoring, policy initiatives, and stakeholder involvement.

## Vision

*To achieve a carbon-neutral and environmentally sustainable campus through the implementation of renewable energy, efficient resource management, green infrastructure, and the promotion of environmental responsibility among all stakeholders.*

## Objective

*To mitigate carbon emissions via the implementation of renewable energy, sustainable transportation, and the efficient management of energy, water, and waste resources at Swami Vivekanand Subharti University, Meerut.*

## Net Zero Strategy in Terms of Scope

**Scope 1:** Emissions, encompassing direct emissions from university-owned vehicles, diesel generator sets, and on-campus fuel usage, are being gradually reduced through a blend of technological enhancements and behavioural modifications. The University has instituted measures, including designated car-free days to restrict vehicle usage, the promotion of electric vehicles, and the progressive electrification of campus transport systems to diminish reliance on fossil fuels. The University has equipped all DG sets with Retrofit Emission Control Devices

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(RECDs), substantially reducing particulate matter, carbon monoxide, and other detrimental emissions during operation. These measures not only mitigate the immediate environmental impact but also enhance local air quality on the campus. The University intends to further reduce DG set usage by incorporating renewable energy sources and energy storage solutions, thereby diminishing dependence on diesel-based backup systems. The University has established a definitive objective of attaining a 70% reduction in Scope 1 emissions by 2030 and the total eradication of direct fossil fuel-based emissions by 2040, facilitating a shift towards clean, efficient, and sustainable campus operations.

## Target:

- Seventy percent reduction by 2030
- Complete eradication of fossil fuel-derived emissions by 2040

**Scope 2**: Swami Vivekanand Subharti University, Meerut, is actively mitigating Scope 2 emissions by substantially increasing its renewable energy capacity, particularly through the expansion of solar power installations, thereby reducing reliance on grid-based electricity. The University has exhibited a steady escalation in solar energy production, increasing from 500 kWh in 2019–20 to more than 4000 kWh in 2024–25, indicative of a robust shift towards clean energy utilisation. This transition is essential as electricity consumption generally constitutes the predominant source of indirect emissions on university campuses, which operate akin to small cities with substantial energy requirements. The University has installed sensor-based LED lighting systems and energy-efficient equipment to enhance renewable energy generation, thereby decreasing overall electricity consumption and optimising energy performance. The incorporation of solar energy diminishes greenhouse gas emissions, decreases dependence on traditional grid electricity, bolsters energy autonomy, and yields enduring cost savings. The University intends to expand rooftop and ground-mounted solar installations, implement intelligent energy management systems, and investigate energy storage solutions to guarantee continuous access to clean energy. The University aims to fulfil 60% of its electricity requirements from renewable sources by 2030 and to convert to a campus powered entirely by renewable energy by 2040.

## Targets:

- Sixty percent renewable energy by 2030
- Complete reliance on renewable energy by 2040

**Scope 3:** Swami Vivekanand Subharti University, Meerut, is implementing a comprehensive and multi-faceted strategy to reduce its environmental impact by addressing Scope 3 emissions, which encompass indirect emissions from commuting, waste generation, water usage, and procurement activities. The University promotes sustainable mobility by advocating for electric vehicles and bicycles, evidenced by a consistent rise in EV adoption on campus (from 5 vehicles in 2019 to over 50 by 2025), alongside the introduction of car-free days to diminish reliance on conventional fuel-based commuting. The University has instituted a plastic-free campus policy and executed systematic waste segregation at the source, alongside composting, recycling, and the secure disposal of biomedical and electronic waste through accredited agencies. Water sustainability is a primary focus, featuring advanced infrastructure such as a 1.1 MLD Sewage Treatment Plant (STP), Effluent Treatment Plants (30 KLD and 10 KLD), and 33 rainwater harvesting pits, which facilitate water reuse, groundwater recharge, and minimise environmental discharge. The University is adopting green procurement practices, emphasising eco-friendly materials, energy-efficient equipment, and sustainable vendors to minimise lifecycle emissions. These initiatives are bolstered by consistent monitoring of air, water, and noise quality, in addition to periodic environmental audits and awareness programs that promote behavioural change among students and staff. The University seeks to attain a 50% reduction in Scope 3 emissions by 2030 and achieve net-zero Scope 3 emissions by 2040 through the integration of infrastructure, policy, and community engagement, thereby significantly advancing its Net Zero commitment and fostering a comprehensive, sustainable campus ecosystem.

**Targets:**

- Sixty percent renewable energy by the year 2030
- Complete reliance on renewable energy by 2040

## Key Sustainability Initiatives

| Area | Initiatives | Data / Metrics (SVSU Meerut) |
|---|---|---|
| **Energy Management** | Solar energy expansion, energy-efficient systems, and smart monitoring | Solar capacity increased from 500 kWh (2019–20) to 4011 kWh (2024–25); campus-wide sensor-based LED systems installed |
| **Sustainable Transportation** | Car-free campus days, EV & bicycle promotion, pedestrian infrastructure | Car-free days (2 days/week); EV growth from 5 (2019) to 51 (2025); increasing bicycle usage |
| **Water Conservation** | Rainwater harvesting, wastewater reuse, and efficient systems | 1.1 MLD STP, ETPs: 30 KLD & 10 KLD, 33 rainwater harvesting pits |
| **Waste Management** | Waste segregation, recycling, composting, e-waste management | Plastic-free campus, composting systems operational, e-waste handled by authorized vendors |
| **Pollution Control** | Air, water, and noise monitoring, emission reduction | Regular environmental monitoring conducted; RECD installed in DG sets for emission control |

## Carbon Reduction Strategy (2025–2040)

Swami Vivekanand Subharti University, Meerut, has implemented a systematic and quantifiable carbon reduction strategy to attain Net Zero emissions by 2040. The year 2025 serves as the baseline (100% emissions), denoting the University's current carbon footprint. The University intends to decrease emissions by approximately 40% by 2030 through the expansion of renewable energy, sustainable transportation initiatives, energy efficiency measures, and enhanced waste and water management systems.

The enhancement of these interventions, such as extensive solar implementation, heightened electrification of campus transportation, and zero-waste initiatives, is anticipated to reduce emissions to approximately 13% by 2035. By 2040, the University aims to achieve total net emissions elimination (0%) through a comprehensive transition to renewable energy, zero-emission transportation, and carbon offset initiatives, including afforestation and green infrastructure development.

This pathway embodies a systematic, time-sensitive, and data-informed strategy, underpinned by ongoing monitoring, carbon assessments, and policy measures, guaranteeing a feasible and attainable transition to a carbon-neutral and sustainable campus.

## Prospective Plan

Swami Vivekanand Subharti University, Meerut, has established a systematic roadmap with quantifiable objectives to attain Net Zero emissions by 2040.

In the near term (1–3 years), the University intends to accomplish a 20–30% reduction in total emissions, elevate the renewable energy proportion to 30–40%, enhance electric vehicle infrastructure with a minimum 25–30% shift to electric mobility, and achieve 50% efficiency in waste segregation and recycling.

In the medium term (3–7 years), the University aims for a 50–70% reduction in emissions, an increase in renewable energy utilisation to 60–70%, a 60% transition to electric mobility, and an advancement towards 80–90% waste recycling and composting, alongside efforts to achieve water neutrality through reuse and conservation systems.

By 2040, the University intends to attain a complete reduction in net emissions (Net Zero), transition to entirely renewable energy, implement a fully zero-emission transportation system, and create a zero-waste campus through 100% recycling, reuse, and circular resource management.

## Conclusion

Swami Vivekanand Subharti University, Meerut, is resolutely dedicated to attaining Net Zero emissions by 2040 via a systematic, quantifiable, and time-sensitive strategy. The University is incorporating renewable energy, sustainable transportation, efficient resource management, and responsible waste practices into its core operations by systematically diminishing Scope 1, Scope 2, and Scope 3 emissions. Current initiatives, including the expansion of solar energy, implementation of car-free campus policies, promotion of electric vehicles, establishment of

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water conservation systems, and the pursuit of a plastic-free environment, establish a robust foundation for this transition.

The University will enhance these initiatives through technological advancements, policy implementation, and the active involvement of students, faculty, and staff. Ongoing monitoring, carbon assessments, and performance evaluation will guarantee transparency and accountability in meeting objectives. The University seeks to attain Net Zero emissions while positioning itself as a benchmark green campus, thereby contributing to national sustainability objectives and global climate initiatives.


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