(Renewal) Energy Audit Certificate

The study is conducted as per Indian and International Green Building Standards initiated in the capacity of an Accredited & Certified Green Building Professional

It is awarded for **2021-2022 and 2022-2023 (Analysed for 2 years)** to the Esteemed Institution

Viswambhara Educational Society's

Vaagdevi Pharmacy College

Bollikunta (Village),, Khila Warangal (Mandal), Warangal (Dist.) - 506 005, Warangal, Telangana, 506005

As part of the Institution's initiatives for a Healthy & Sustainable Institute the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Energy Management and Conservation.

Issued for data pertaining **June 2021 to May 2023**   Issued on **Friday, 30 June 2023** valid till **31 May 2024**

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Solutions

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ENERGY AUDIT

STUDY PERIOD (TWO YEARS) 2021 – 2022 AND 2022 – 2023

RENEWAL AUDIT REPORT

Sustainability study

Studied for

Iswambhar Educational Society's

Vaagdevi Pharmacy College

Bollikunta (Village)/Kila Warangal (Mandal),
Warangal (Dist) - 506 005, Warangal, Telangana, 506005

Studied in the capacity of

Accredited and Certified
Green Building Professional

Studied by
Greenovia

Website: https://thegreenviso...
Email: green...

Valid till 31 May 2026

7.1.6.4

Disclaimer

The Audit Team has prepared this report for the **Viswambhara Educational Society's Vaagdevi Pharmacy College** located at _Bollikunta (Village), Khila Warangal (Mandal), Warangal (Dist.) - 506 005, Warangal, Telangana, 506005_ based on input data submitted by the Institute analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on a comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase-wise or as a whole depending on the decision taken by the Hon'ble Management and Institute. The warranty or undertaking, expressed or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements, or forecasts in the report.

The audit is a thorough study based on the inspection and investigation of data collected over a while and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied or regenerated in any form.

The Report is prepared by the Team of Greenvio Solutions under their brand and department – Sustainable Academe as Consultancy firm with the Project Head - Ar. Nahida Shaikh who is an Accredited and Certified Green Building Professional. Green Building consultancy is her forte and she is one of the most sought-after names when it comes to providing excellent quality services within the stipulated time frame.

The Study is conducted incapacity of an Accredited & Certified Green Building Professional with extensive experience.

Greenvio Solutions

Developing Healthy and Sustainable Environments
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Acknowledgment

The Audit Assessment Team thanks the **Viswambhara Educational Society's Vaagdevi Pharmacy College, Telangana** for assigning this important work of Energy Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are extended are due to **everyone from the Management and the Head of the Institute**.

We are also thankful for **Institute Taskforce.**

We highly appreciate the assistance of the **entire Teaching, Non-teaching, and Admin staff** for their support while collecting the data.

Sustainable Academe

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208

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Contents

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Bollikunta, Warangal-506005 (T.S)

1. Introduction

1.1 About the Institute

Vaagdevi Pharmacy College is the first Pharmacy College to be started in the Warangal region under JNTU, Hyderabad.

It is one of the pioneered institutions in the region of Telangana to provide a good pharmacy education and to meet the needs of the present-day healthcare system where a pharmacist has to play important role in society. To impart the professional course effectively, the institution is located in a peaceful locality away from a busy, noisy, and pollution-free atmosphere.

The premises are well equipped with a wide range of facilities that make life in academia comfortable and fulfilling. The academic life is vibrant and engaging.

1.2 About the Mission Statement of the Institute

The College seeks to realize its Vision with a Mission to **_"To leverage the society reputation by an image composing of unique destination for standing out learning processes, success in profession and endow with a foundation towards research and development activities."_**

1.3 About the timeline of activities for research

As the Institute had undergone a renewal for the Academic year 2021-2022 and 2022-2023, data collection processes for verification purposes were asked to be submitted.

- ➲ Allotment and Initiation by the Institute

- ➲ Process discussion with team

- ➲ Submission of the files

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2. Compliance

The compliance study was carried out through investigative ways. This was done to understand the **extent of suggestions and their implementations based on previous report of Academic years 2019-2020 and 2020-2021.**

The details of the suggestions are based on the Original Report as in 2021 is further documented below. It is based on the data collection process.

S. No.	Recommendation Title	Compliance Status
1.	Adaptive reuse of existing spaces through design intervention	Partially implemented
2.	Facility management systems and controls	Not implemented

Table 1: Details of the compliance study

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3. Observations

Investigative suggestions

The following suggestions are to be considered as a *first priority* for implementation. These **should be executed within the next 1.5 to 2.5 years from the date of the Report submission.** The Institute can execute a plan after discussion with Project Head.

Certain aspects noted below in red font should be upgraded as per the convenience of the Institute; these are common to the site and can be considered for entire premises wherever there are similar areas.

⮑ **Earth pit zones**
  - Add signboard about 'Outdoor Electrical area'
  - Code the earthing pits in the courtyard.

⮑ **DG and Transformer area**
  - Add safety *signages* such as 'Danger-do not touch' etc.
  - Add *signboards* about as 'Transformer areas' and 'Diesel Generator area'
  - Every user in this space should compulsorily jacket, helmet, gloves, boots while working and being a part of this space.

⮑ **General safety aspects**
  - Rubber flooring in the laboratories to avoid an electric shock.
  - Introduce *'PASS' information board* about how to use Fire extinguisher and *'FIRE ZONE' display board* where safety equipments are kept.

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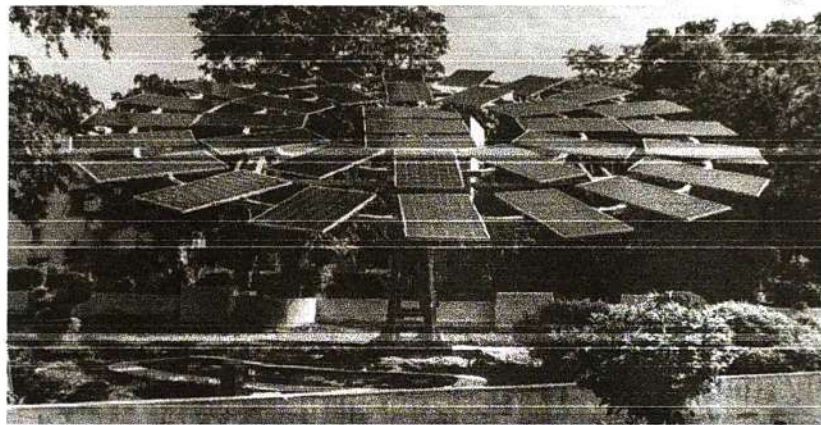Vaagdevi Pharmacy College
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4. Inferences

Entire site recommendations

The following details are consolidated study recommendations related to 'entire Institute' and should be considered as **_second priority_** for implementation.

4.1.2 Solar tree

Since there is availability of space; the solar trees can be installed in multiple places as they will provide dual benefits of aesthetic and energy reduction.
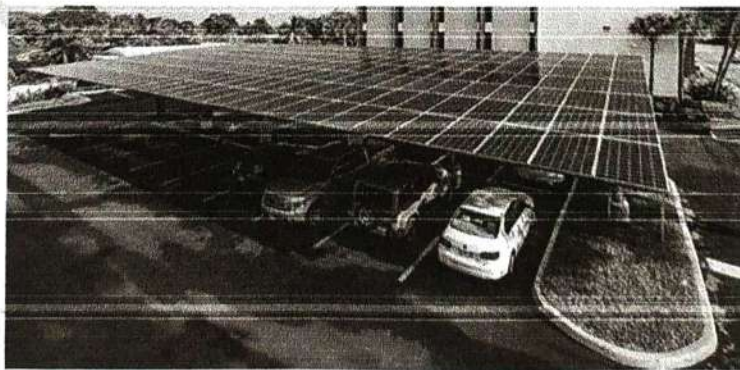

Plate 1: Solar tree concept for the Institute (For reference purpose only)

Source: Image by https://timesofindia.indiatimes.com/india/cmeri-installed-the-worlds-largest-solar-tree-at-durgapur/articleshow/77856790.cms

4.1.3 Solar parking

The Institute can turn its existing parking areas into solar panel powered parking areas. This will provide shade and renewable energy benefit to the Institute.

Plate 2: Solar parking concept for the Institute (For reference purpose only)

Source: Image by https://solarpowerproject.in/solar-panels-for-parking-lots.php

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4.1.2   Alternatives towards Smart premises mechanisms

4.1.2.1   Smart gardening

The Institute can undertake a Smart Gardening system using IoT Technology. This will result in saving time by scheduling time for watering; saving money through automated water schedules tracking dampness of soil to know when, how much water garden needs.

Plate 3: Solar farm concept for the Institute (For reference purpose only)
Image source: https://housing.com/news/smart-gardening/
Data source: https://www.happysprout.com/inspiration/what-is-smart-gardening/

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5. Compilation

The study is based on the data collected, analysed, rechecked, and confirmed through multiple modes. For the quality study, some standards/ notes have been referred to. These are listed and noted below. However, no direct references have been used anywhere. These are used as a base to analyse and study the data collected.

Specific references for study related to energy

- https://www.energy.gov/eere/buildings/zero-energy-buildings
- https://www.dsaarch.com/zero-net-positive-energy
- U.S. Energy Information Administration

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