Institute Policy

on

Environment and Climate

(Ver.2.0)

Vellore Institute of Technology (VIT) aims to ensure that our activities are carried out in conformance with environmental legislation and compliance obligations, including requirements relating to protection of the environment, prevention of pollution and climate change. We endeavour to provide and promote a cleaner, safer environment and are proactive in progressing environmental matters. VIT is committed to making a positive impact through outstanding environmental sustainability performance. The Environmental Sustainability Strategy comprises of (I) Water Use Policy (II) Waster Management Policy and (III) Energy Use Policy.

I. Water Use Policy

1. Introduction

1.1 Purpose of the Policy

The purpose of this policy is to set out a broad set of guidelines for Vellore Institute of Technology (VIT), Vellore to reduce its per capita water use and to implement sustainable water use practices.

1.2 Scope of the Policy

This policy is applicable to all faculty, students, consultants, staff, and contractors.

1.3 Definitions

Greywater – domestic wastewater generated in households or office buildings from streams without faecal contamination.

Rainwater Harvesting – is the collection and storage of rain, rather than allowing it to run off.

2. Vision

2.1 United Nations Sustainable Development Goals (SDGs) - Global Context

VIT has a financial, legislative and ethical responsibility to reduce its water consumption by adopting effective practices. The availability of clean and accessible water is a global concern. This risk is clearly represented in the SDGs as

Goal 6 "Clean water and sanitation for all"

The United Nations adopted the SDGs in 2015 with targets to achieve by 2030. The targets include addressing the inequality, poverty, environmental degradation, climate, prosperity and peace and justice.

The target of this goal is "By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity".

2.2 Target for reducing the water consumption

This policy targets a 10% reduction in the consumption of water by keeping the baseline as 2022/23 academic year which needs to be achieved by 2025/26 academic year.

(The feasibility of achieving the 10% reduction target has been evaluated through a comprehensive analysis of ongoing and future water reduction initiatives. This assessment encompasses a review of the current water conservation projects that are currently underway and those that have been funded for implementation. Additionally, the anticipated water savings resulting from these initiatives have been thoroughly examined. Furthermore, the assessment takes into consideration the Institute's projected development plans and expected fluctuations in student enrolment figures. By analysing all these factors, the capability to meet the target of 10% reduction has been carefully evaluated.)

3. Principles of the Policy

3.1 Water Use Assessment

VIT will assess water consumption using water meters in all the buildings. The water meter used to assess water consumption will be periodically cross checked. The consumption patterns and the discharge trends will also be monitored to identify excess abnormal usage and leaks.

3.2 Compliance

The compliance provided by the legislative authorities will be ensured by the institute for conserving the water and its management.

3.3 Water Conservation

VIT will conduct a comprehensive assessment of water consumption across its facilities, which includes the evaluation of equipment, especially in washroom facilities of the institute, hostels and residential buildings. Also, the university will prioritize the replacement of existing equipment/method with water-efficient alternatives. Some of these outdated fixtures may have issues such as leaks or the potential to be left running unnecessarily. By implementing a targeted program of renovations and upgrades throughout the Institute, the institute aims to significantly reduce water usage.

3.4 Use of grey water /treated wastewater/rainwater harvesting

VIT will best utilize the rainwater harvesting principles and reuse of treated wastewater from the campus for gardening, premises cleaning and flushing.

Building and Maintenance Standards

VIT will follow best standards of maintenance like identifying and repairing leaks to reduce the water use onsite. Institute will ensure that maintenance team will frequently visits all areas where routine water consumption is there.

3.5 Engagement and Collaboration

VIT will engage all its faculty, staff and students in reducing water consumption. The institute will take initiatives like awareness programme regarding the need for water conservation and effective water consumption without any water loss and to take action in reducing water use.

4. Policy Statement

VIT committed to reduce the water consumption and increase its efficiency. In 2022/23, VIT used 1669510 cu.m of water. About 10% reduction has set as target in water consumption by 2025/26 academic year. All students, staff, faculty, contractors and consultants are anticipated to cooperate to achieve the target.

The following adequate resources will be provided by VIT to meet required objectives

1. Continuously monitor and measure water consumption to identify any significant or abnormal usage patterns, including promptly detecting and addressing leaks.
2. Ensure compliance with all relevant legal requirements related to water usage.
3. Enhance water efficiency in existing buildings and facilities.
4. Minimize water usage by implementing best practices in maintenance and cleaning routines.
5. Water conservation equipment will be introduced to meet the standards as an integral part of the procurement processes.
6. Engage with VIT students and staff, inspiring and encouraging them to take actions that contribute to reducing water consumption.
7. Foster collaboration with VIT academics on research projects focused on water efficiency.
8. Communicate regularly with staff and students to raise awareness and promote water-saving behaviors, emphasizing the importance of conserving water resources.

Annual progress of the 2025/26 target will be reported to the Institute Core Group.

5. Governance

5.1 Implementation Strategy

The draft would be circulated at the Policy Development and Monitoring Group 1 (Centre for Clean Environment, CO2 Research and Green Technologies Centre, Centre for Disaster Mitigation and Management, School of Civil Engineering, VIT School of Agricultural Innovations and Advanced Learning) as well as Deans/ Directors of Schools/Centres whose activities will be directly affected by the policy objectives.

The policy will be communicated on the VIT website. Employees will be made aware of the policy in the institute induction programme.

5.2 Policy Revision and Updation

This policy will be reviewed and revised once in 3 years. The revised policy will be submitted to the Institute Core Group for more suggestions and approval.

5.3 Reporting

The targets will be cross checked for its effectiveness on a yearly basis by the Policy Development and Monitoring Group 1. The outcome will be reported to the Deans/ Directors of Schools/Centres.

6. Legislative context

VIT will meet all relevant legal requirements of Government of India and Local Urban Body by Government of Tamil Nadu.

II. Waste Management Policy

1. Introduction

Purpose of the Policy

The main purpose is to frame the objectives that the Vellore Institute of Technology needs to meet to reduce its waste, by reduction at generation source, reusing, recycling and working towards waste to wealth.

1.1 Scope of the Policy

This policy is applicable to all faculty, students, consultants, staff, and contractors.

1.2 Definitions

1. Reduce means to minimise the amount of waste we create.

2. Reuse refers to using items more than once.

3. Recycle means putting a product to a new use instead of throwing it away.

4. Waste to wealth refers to processing of waste to generate energy, recycle materials, and extract value added products.

2 Vision

2.1 United Nations Sustainable Development Goals (SDGs) - Global Context

VIT has a financial, legislative and ethical responsibility to reduce the consumption and waste to realise our vision of being one of the sustainable institute in the world by encouraging responsible consumption and production in relation to waste and the promotion of the circular economy. This will ultimately help to meet the Sustainable Development Goals 6 and 13. The goal of which is to ensure access to water and sanitation for all, reduce climate change, pollution, and the loss of both aquatic and land related biodiversity.

Goal 6 "Clean water and sanitation for all"

Goal 13 "Climate action"

The United Nations adopted the SDGs in 2015 with targets to achieve by 2030. The targets include addressing the inequality, poverty, environmental degradation, climate, prosperity and peace and justice.

2.2 Reduce per capita generation of waste

This policy targets a 10% reduction in the waste generation by keeping the baseline as 2022/23 academic year which needs to be achieved by 2025/26 academic year.

The feasibility of achieving the 10% reduction target has been evaluated through a comprehensive analysis of ongoing and future solid waste management option. The assessment encompasses a review of the current waste management practices that are currently underway and those that have been funded for implementation. Furthermore, the assessment takes into consideration the Institute's projected development plans and expected fluctuations in student enrolment figures. By analysing all these factors, the capability to meet the 10% reduction target has been carefully evaluated.

3 Principles

3.1 Waste Hierarchy

VIT as an institution, support the use of the waste hierarchy to guide waste management decisions and education. We will always try to prioritise waste reduction, reuse, and recycling, with waste recovery and disposal only used as last resort options.

Reduce – we will reduce the volume of waste produced by:

a) Reducing the number of disposable items that we procure (including single-use plastics)

b) The food waste collected from the canteen is being sent to the nearby village for cattle feedings.

c) Educating faculty, staff, students and the wider community on the merits of the circular economy and how they can be more sustainable in their daily lives.

Reuse – we will support the collection of items for charity and redistribution amongst both our campus community and the wider community.

Recycle – we will send the recyclable waste for recycling through private stake holders and attain the target of waste reduction.

Recovery – we will continue to meet our obligation of sending zero biodegradable waste to landfill. Instead, all biodegradable waste will be converted to compost or anaerobically digested.

Disposal – under specific circumstances we may need to dispose of certain types of hazardous waste in a secure manner that protects the environment, including aquatic ecosystems.

3.2 Source Segregation and Centralized Collection Facility

VIT will improve and enhance the functionality of current waste management practices implemented within the campus like source separated collection of waste in different bins for biodegradable and non-biodegradable waste, waste collection on daily basis and further segregation in a centralized collection facility, managing all non-biodegradables and inert waste. Composting of biodegradable waste in the in-house composting yard and managing food waste from the hostels and canteens by sending to nearby village for cattle feeding.

3.3 Engagement and Collaboration

VIT will engage all its faculty, staff and students in reducing the generation of solid waste. The institute will take initiatives like awareness programme regarding the waste management and working towards waste to wealth.

4. Policy Statement

VIT committed to reduce the waste generation within the campus. In 2022/23, VIT generated 0.3 to 0.6 kg per capita of solid waste. VIT has set a target of a 10% reduction in waste generation by 2025/26 academic year. All staff, consultants, students, faculty, and contractors are expected to cooperate to achieve the target.

The following adequate resources will be provided by VIT to meet required objectives

1. Continuously monitor and measure consumption and waste generation.
2. Ensure compliance with all relevant legal requirements related to sanitation and waste management.
3. Enhance to reduce, reuse and recycling options of waste.
4. Implementation of best practices in sanitation and waste management.
5. Involve staff and students by inspiring and encouraging them to take actions that contribute to reducing consumption and waste generation.

6. Encourage paperless communication practices to reduce the volume of paper waste generated within the campus.

7. Foster collaboration with VIT academics on research projects focused on waste management.

8. Communicate regularly with staff and students to raise awareness and promote healthy consumption and waste to wealth practices.

Annual progress of the 2025/26 target will be reported to the Institute Core Group.

5. Governance

5.1 Implementation Strategy

The draft would be circulated at the Policy Development and Monitoring Group 1 (Centre for Clean Environment, CO2 Research and Green Technologies Centre, Centre for Disaster Mitigation and Management, School of Civil Engineering, VIT School of Agricultural Innovations and Advanced Learning) as well as Deans/ Directors of Schools/Centres.
The policy will be communicated on the VIT website. Employees will be made aware of the policy in the institute induction programme.

5.2 Policy Revision and Updation

This policy will be reviewed and revised once in 3 years. The revised policy will be submitted to the Institute Core Group for more suggestions and approval.

5.3 Reporting

The targets will be cross checked for its effectiveness on a yearly basis by the Policy Development and Monitoring Group 1. The outcome will be reported to the Deans/ Directors of Schools/Centres.

6. Legislative context

VIT will meet all relevant legal requirements of Government of India and Local Urban Body by Government of Tamil Nadu.

III. Energy Use Policy

1 Introduction

1.1 Purpose of the Policy

The main purpose is to frame the objectives that the Vellore Institute of Technology needs to reduce its energy use and limit its influence on climate change impact.

1.2 Scope of the Policy

This policy is applicable to all faculty, students, consultants, staff, and contractors.

2 Vision

2.1 United Nations Sustainable Development Goals (SDGs) - Global Context

VIT has a financial, legislative and ethical responsibility to reduce energy use and associated carbon dioxide emissions. By reducing energy use, VIT reduces its impact on global climate change. The United Nations adopted the SDGs in 2015 with targets to achieve by 2030. The targets include addressing the inequality, poverty, environmental degradation, climate, prosperity and peace and justice. There are two goals which link strongly to this policy.

Goal 7 "Affordable and Clean Energy"

Goal 13 "Climate action"

3 Principles

3.1 Energy Assessment

VIT will monitor electricity, gas and heat use via a series of sub-meters across the institute's buildings. VIT will quantify energy consumption and identify its usage trends to prioritize projects and interventions.

3.2 Target for Reducing the Energy Consumption

This policy targets a 10% reduction in the consumption of energy by keeping the baseline as 2022/23 academic year which needs to be achieved by 2025/26 academic year.

(The feasibility of achieving the 10% reduction target has been evaluated through a comprehensive analysis of ongoing and future energy reduction initiatives. This assessment encompasses a review of the current energy conservation projects that are currently underway

and those that have been funded for implementation. Additionally, the anticipated energy savings resulting from these initiatives have been thoroughly examined. Furthermore, the assessment takes into consideration the Institute's projected development plans and expected fluctuations in student enrolment figures. By analysing all these factors, the capability to meet the 10% reduction target.)

3.3 Conserving Energy

VIT will monitor, control the use and maintenance of electrical power generator and HVAC systems through building management and facilities team. VIT will replace older less efficient lighting with new more efficient Light Emitting Diodes (LEDs) over a wide variety of buildings and locations in the campus. VIT will also increase the installation of solar panels. Conduct thorough investigations into potential opportunities for implementing on-site renewable energy generation and actively develop strategies to utilize renewable energy sources within the campus.

3.4 Compliance

The compliance provided by the legislative authorities will be ensured by the institute for conserving the energy and its management.

3.5 Building and Maintenance Standards

VIT will pursue the best standards of energy efficiency in construction and refurbishment of buildings to minimize the emissions. VIT will follow and provide good standards of maintenance, proper training and guidance for utilizing equipment to reduce the energy consumption.

3.6 Procurement

VIT will assess its suppliers, designers or construction companies by having a clear idea on the energy policy and its requirements during the tender stage itself for the betterment of sustainability. In near future, VIT will strive to balance the cost of renewable and non-renewable energy sources.

3.7 Engagement and Collaboration

VIT will engage all its faculty, staff and students in reducing electricity consumption. The institute will take initiatives like awareness programme regarding the need for energy conservation and effective electricity consumption without any loss and to take action in reducing electricity usage.

4 Policy Statement

VIT committed to reduce the energy consumption and increase its efficiency. In 2022/23, VIT used 4206000 kWh of energy. About 10% reduction has set as target in energy consumption by 2025/26 academic year. All students, staff, faculty, contractors and consultants are anticipated to cooperate to achieve the target.

The following adequate resources will be provided by VIT to meet required objectives

1. Assess and quantify energy use across VIT and reporting its effectiveness.
2. Ensure compliance with all relevant legal requirements related to energy.
3. Energy performance of VIT will be optimized by adopting best building management operations control systems for HVAC and lighting.
4. VIT will study the possible opportunities for different renewable energy sources
5. Introduce standards for low energy consumption equipment as part of all procurement processes.
6. Involve faculty, students and staff by inspiring them towards energy conservation.
7. Collaborate with and support academics and students on sustainable energy research and projects.

5. Governance

5.1 Implementation Strategy

The draft would be circulated at the Policy Development and Monitoring Group 2 (Centre for Clean Environment, CO_2 Research and Green Technologies Centre, Centre for Disaster Mitigation and Management, School of Civil Engineering, School of Mechanical Engineering and School of Electrical Engineering) as well as Deans/ Directors of Schools/Centres.

The policy will be communicated on the VIT website. Employees will be made aware of the policy in the institute induction programme.

5.2 Policy Revision and Updation

This policy will be reviewed and revised once in 3 years. The revised policy will be submitted to the Institute Core Group for more suggestions and approval.

5.3 Reporting

Performance against the target established in this policy will be monitored on a yearly basis by the Policy Development and Monitoring Group 2. The outcome will be reported to the Deans/ Directors of Schools/Centres.

6. Legislative context

VIT will meet all relevant legal requirements of Government of India and Local Urban Body by Government of Tamil Nadu.

T. Fayal
Registrar