

PRINCE DR.K.VASUDEVAN COLLEGE OF ENGINEERING AND TECHNOLOGY



ENERGY CONSERVATION POLICY

Our Values

Excellence, Passion, Team Work, Integrity, Innovation, Sustainability, Valuing Others and Supportiveness

INTRODUCTION

Prince Dr. K. Vasudevan College of Engineering and Technology is committed to a policy of energy efficiency, energy conservation, and the reduction of our environment impact, particularly during this time of increased environmental awareness, rising utility costs and tighter budgetary constraints. The goal of the policy is to create a realistic and comprehensive document that identifies energy and water conservation and efficiency as significant issues for the entire campus community as well as the reduction of the college's environment impact through development of improved operational methods. Our enhanced focus includes, beyond all of our conservation measures, operating methods with the least effort on the environment. This document outlines steps that will be taken to address these issues and to reach the goals of the college. Our mission focuses towards an efficient energy utilization and environment protection leading to improvement in quality of life.

CONSERVATION GOALS

PDKVCET has taken various measures over the years to conserve energy. Since its inception the management has prime focus on energy conservation and environmentally sustainable campus. In conjunction with the college's commitment to the society and the existing resource conservation component of the operational structure, PDKVCET has enhanced its focus and obligation not

only to energy/resource conservation, but to the minimization of our operational impact on the environment.

It is the college's policy to reduce energy consumption through the efforts of its faculty, staff and students. The College will pursue this policy through active and passive measures: active measures including asking the college community to close doors, turn off lights and engage in other , general conservation activities and education (i.e., staff forum, administrative forum, faculty meetings, student interest groups and outreach): Passive measure include installing energy – saving devices, designing new infrastructure with a goal of energy conservation , operating existing facilities in the most feasible energy- efficient manner, and developing procurement guidelines that incorporate energy – awareness . The policy will be reviewed periodically by appropriate staff and college committees to keep it current with new developments in energy conservation.

POLICY STATEMENT

PDKVCET is committed to operating all of its activities in a sustainable manner through minimizing the adverse impact of its activities on the environment and in promoting sound environmentally sustainable principles of sustainability .one of its key values , into its curriculum in order to increase awareness and understanding of environmental issues and subsequent solutions. PDKVCET is committed to the prevention of pollution and the continual improvement of its environmental performance by reducing its impacts on the environment. We ensure that all activities comply with relevant environmental legislation and other requirements to which the organization subscribes. Our college will comply with, or where possible exceed, the requirements prescribed by the internationally recognized standard ISO 9001:2015. Energy Management System provides a framework for setting, achieving and reviewing the set environmental objectives and targets. Our college is committed to providing appropriate resources to allow the objectives to be met.

OBJECTIVES OF ENERGY CONSERVATION POLICY

Objective 1	To continuously enhance energy efficiency by adopting suitable practices and use of energy efficient equipment and technologies.
Objective 2	To prevent energy wastages with full participation of the students, faculty members and employees.
Objective 3	To conduct regular management reviews to insure continuous improvement.
Objective 4	To conduct energy audit and energy conservation awareness programmes at regular intervals.
Objective 5	To create awareness and educate the community on energy conservation methods through research and extension activities.

SPECIFIC MEASURES: Buildings

- Windows and doors of the conditioned spaces should be kept closed when the systems are running. Free flow of air at other times is preferred.
- Personal computers, other office equipment, lights, window air conditioners and all electrical equipment should be turned off when not use.
- The use of personal electrical equipment and air conditioners is prohibited.
- Power management features of personal computers should be enabled.
- The Energy code should be followed not only in the design of buildings, but also in their operations.
- Contingent on available funds the building and mechanical systems will be connected to the campus – wide energy management system. This will permit greater control over operating schedules and temperatures as well as reduce energy costs.

SPECIFIC MEASURES: New Renovation & Construction

- All new renovations and construction should be designed and built to minimize energy use.
- All construction effort should consider LED criterion applicability and application where warranted and possible.

- The design process should be added to campus-wise energy management system for enhanced energy management capabilities.
- Alternatives energy sources such as solar (thermal and photovoltaic), wind, biomass, bio fuels, hydro (conventional and low-head), co-generation, and energy recovery should be considered, as well as daylighting and other strategies for decreasing building energy consumption.
- Primary consideration should be given to connecting and /or extending central systems for heating, cooling and other mechanical systems.
- Year round cooling needs should be met by utilizing the most energy efficient systems (best available technology).
- All new construction should include utility metering (water, natural gas, steam and electricity).

SPECIFIC MEASURES: Lighting

- Most lighting on campus is being retrofitted or upgraded to high efficiency lighting (such as TS Fluorescent, LED technology, etc.) with electronic ballasts. Remaining areas should be upgraded as funding is available.
- New construction and remodels should use high efficiency lighting and minimum incandescent lighting.
- Interior decorative lighting should be kept at a minimum and exterior decorative lighting should be discouraged.
- Increased use of day lighting and daylighting controls should be considered because use of daylight spaces decreases energy costs and may improve productivity.
- Lighting, wherever practical, should be controlled by our campus- wide energy management system (Siemens). Occupancy times, unoccupied period set - backs and environmental parameters, as well as campus – related (and athletic) activities will be coordinated to ensure that the best possible use (or conservation) of resources is taking place.

SPECIFIC MEASURES: Heating

During the winter seasons, room temperatures should be maintained at between 70 and 80 degrees F when occupied. The only exceptions to this policy are special areas such as research facilities that require constant or warmer temperatures. Facilities operations will utilize the most energy efficient means of supplying heat for approved off hour/holiday requests. Use of electric heaters in the college building should be minimized. Areas that are either too hot or too cold should be reported as soon as possible to campus monitoring team. Any deviation from these parameters will be granted only with the expressed permission of a department head level (as a minimum).

SPECIFIC MEASURES: Cooling

During the air – conditioning season, the room temperatures should be maintained at between 76 and 78 degrees F when occupied. The only exceptions to this policy are special areas such as research facilities that require constant or warmer temperatures. Consideration will be given to the installation of separate and dedicated, stand alone dehumidification equipment if this equipment if this equipment's operation will allow the lowering of the use of the building's cooling systems. Window air conditioners will continue to be used in areas that lack central cooling. Temperature settings for these units should be raised manually or the unit should be turned off when areas are not use. Areas that are either too hot or too cold should be reported as soon as possible to campus monitoring team. Any deviation from these parameters will be granted only with the expressed permission of a department head level (as a minimum).

SPECIFIC MEASURES: Transportation

Use of public transport, bicycles, car/van pooling should be promoted. Faculty, staff and students are encourage to walk or cycle to get around campus. Investigations into the feasibility of electric vehicles powered by battery will be encouraged and implementation will take place where practical. Acquisition of new college float vehicles should be reviewed thoroughly, and vehicles should be purchased with the highest fuel efficiency possible.

SPECIFIC MEASURES: Purchasing

Energy efficient products shall be purchased whenever possible. For examples, see the energy policy of India products list. Recyclable and reusable product should also be purchased when feasible to reduce disposal costs.

OPERATIONS AND MAINTENANCE

Operations:

Buildings will be operated in a manner conducive to energy/resource conservation. Doors and windows will not be opened (or left open) while the building's HVAC systems are in operation. "Turn-downs" of the campus HVAC systems during periods of low usage—such as between holidays, vacations, etc., - will be implemented whenever practical. Bio gas utilization is recommended in college canteen.

Maintenance:

Mechanical system efficiency tends to degrade over time. Proper maintenance is required to ensure the systems operate as efficiently as possible. The facilities monitoring team are committed not only to providing quality in all construction projects, but also in the maintenance of that quality throughout the life of the project. Maintenance and operational procedures will incorporate sound, resource conservation practices so as to reduce waste and minimize energy expenditure to the extent possible.

EDUCATION, TRAINING AND MONITORING

Education

PDKVCET's faculty, staff and student cooperation and support of the energy policy are key to its success. An education program that provides information on utility costs, trends and user impact on these costs will enable the campus population to understand the need for this policy, and how it can positively impact them by freeing up money from utilities for educational purposes. The ECO CLUB is charged with the development of this program.

Training

Training must be provided to ensure that both operations and service technicians have the skills and knowledge to effectively apply the technology used to achieve energy savings.

Monitoring

No energy conservation program will be successful if progress is not monitored on a continuing basis. Meter readings can be used to track utility consumption, and the data can be used to locate problem areas as well as determine if conservation goals are being met. The college currently has most of its campus building metered for electric consumption, other utilities (such as potable water) shall be metered on a “per – building basis” as funding is made available. We consider this an important initiative since this will enhance our ability to measure progress in our conservation/operational efforts.

CONCLUSION

PDKVCET ENERGY VISION 2030

PDKVCET’s Energy Policy aims at supporting the ambition to emerge as a well – developed and recent economy with high level of human development towards sustainable environment. Additionally, it helps prepare the students to anticipate the technological and market released changes in the energy Sector.

Any suggestions for ways of reducing energy consumption on campus should be addresses to the management: prince@princedrivasudevan.com