



UNIVERSITEIT VAN PRETORIA  
UNIVERSITY OF PRETORIA  
YUNIBESITHI YA PRETORIA

UNIVERSITY OF PRETORIA  
Department Facilities Management

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## Energy Management Policy

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### CONTENTS

1. PURPOSE .....	1
2. ORGANISATIONAL SCOPE .....	2
3. POLICY STATEMENT .....	3
4. ASSOCIATED DOCUMENTS .....	5
5. RESPONSIBILITY FOR IMPLEMENTATION .....	6
6. POLICY LIFE CYCLE .....	6
7. DOCUMENT METADATA .....	6

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### 1. PURPOSE

The purpose of the Energy Management Policy is to serve as a driver to improve and promote energy efficiency and conservation at the University of Pretoria.

Chapter 1 Section 2 of the Energy Act of 2008 objectives that are applicable to the University of Pretoria are as follows:

- Promote diversity of supply of energy and its sources;
  - Facilitate effective management of energy demand and its conservation;
  - Promote energy research;
  - Promote appropriate standards and specifications for the equipment, systems and processes used for producing, supplying and consuming energy;
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- Ensure collection of data and information relating to energy supply, transportation and demand;
- Provide for optimal supply, transformation, transportation, storage and demand energy that are planned, organised and implemented in accordance with a balanced consideration of security of supply, economics, consumer protection and a sustainable development;
- Provide for certain safety, health, and environment matters that pertain to energy;
- Facilitate energy access for improvement of the quality of life of the people (UP personnel, students, and communities around UP campuses);
- Commercialise energy-related technologies;
- Ensure effective planning for the energy supply, transportation and consumption; and
- Contribute to sustainable development of South Africa's economy.

University of Pretoria Energy Management Policy shall commit to the following internal objectives drawn up from the above-mentioned Energy Act which will be applicable to all campuses:

A commitment:

- To draft and implement a strategic plan to achieve energy efficiency and conservation.
- To comply with the Act and regulations framed thereunder.
- To improve energy efficiency and conservation.
- To provide resources as and when required to conserve energy and achieve energy efficiency.
- To train staff to ensure that they are capable of conserving energy and of using it efficiently.
- That the policy will be endorsed by top management.
- That staff will be familiarised with the contents of the policy.

## **2. ORGANISATIONAL SCOPE**

The policy for energy management is a University-wide policy which applies to all staff members, students and contractors on all campuses and other properties of the University of Pretoria.

### **3. POLICY STATEMENT**

The University of Pretoria is committed to adopting energy conservation practices by:

- Ensuring compliance with relevant legal and other requirements: and
- Improving its policies and practices continually to adapt to a dynamic environment and changing technologies, and fostering energy conservation.

The University of Pretoria aims to address these commitments through the following actions where reasonable and practical and in a financially viable manner:

#### **3.1 Energy monitoring**

Implementing an energy usage monitoring programme to determine the actual energy consumption for:

- Individual campuses; and
- Clusters of buildings per campus.

Monitoring will be extended to building unit level as well as to energy intensive equipment level such as central air-conditioning and hot-water plants.

Monitoring will be done regularly and measurements will be compared with national standards and internal criteria. Suitable initiatives will be implemented to address problem areas and to reduce general energy consumption.

#### **3.2 Implementing an energy conservation programme**

The energy conservation programme will focus on;

a. Changing the energy usage profile of the University:

A considerable saving in energy cost can be realised by moving loads out of peak periods especially during the high-demand season, which lasts from June till August. Peak-demand consumption can for example be reduced significantly if lectures were to start an hour later during the peak period in the high-demand season.

b. Reducing high-season peak consumption:

Energy cost can be reduced by running generators during peak-demand periods in the high-demand season. Although it is not economical for an enterprise to generate its own electricity by means of standby diesel generators, it will be advantageous for the University to do so during peak demand periods since this will:

- Reduce maximum demand, and  
Reduce consumption during peak-tariff periods.
- c. Efficient operation of plant and equipment  
This will be effected by:
- Only operating plant and equipment when buildings and venues are in use; and
  - Operating plant and equipment as far as possible at the design parameters thereof, provided that where air conditioning is concerned, a 2% variance from an ambient temperature of 23 °C (regarded as optimal for human comfort) will be allowed.
- d. Effective maintenance of plant and equipment  
This will be achieved by:
- Ensuring the effectiveness of plant and equipment through planned maintenance,
  - Executing plant efficiency tests to determine the efficiency of planned maintenance, and
  - Applying condition monitoring techniques to ensure optimal plant performance.
- e. Prioritising energy conservation during the refurbishment and upgrade of buildings and of plant and equipment.  
Energy conservation will be an important consideration when plant and equipment are replaced, for example:
- Replacing conventional light fittings with energy-efficient alternatives;
  - Installing movement sensors to activate and deactivate lights; and
  - Replacing HVAC equipment with equipment that is more energy efficient.
- f. The design of new buildings  
In the design of new buildings, the most suitable energy efficient technologies and standards will be employed where financially feasible.
- g. Raising awareness of the importance of energy conservation  
Suitable measures will be implemented to raise the awareness of staff and students of the critical need to conserve energy. Examples of simple rules that can be promoted to save energy are:
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- Switch off lights and air conditioners when leaving the office;
- The power settings of PC's and printers as well as UP's computer and IT infrastructure will have to be reconfigured to reduce power usage;
- Apply power saving mode and screen savers on PCs when left inoperative for periods of 15 min or more;
- Only heat and cool venues such as lecture halls when in use; and
- Ensure that energy efficiency is prioritised when energy intensive equipment is purchased.

### **3.3 Promoting the use of renewable energy**

Alternative energy sources will be investigated in order to reduce the University's reliance on fossil fuels and to gradually introduce renewable sources of energy where practical and economically feasible.

### **3.4 Reducing the energy tariff**

The University will ensure that the most favourable energy tariff is negotiated with the City of Tshwane Metropolitan Municipality.

## **4. ASSOCIATED DOCUMENTS**

### **4.1 Governing documents**

The UP Strategic Plan

The UP Council approved Campus Spatial Development Plan for the University of Pretoria

### **4.2 Legislation**

Constitution of the Republic of South Africa, 1996

Energy Act, 2008

National Building Regulations and Building Standards Act, 1977

National Energy Act, 2008

## 5. RESPONSIBILITY FOR IMPLEMENTATION

The Executive member responsible for Facilities Management will be responsible for the University-wide implementation of this policy.

## 6. POLICY LIFE CYCLE

This policy should be reviewed every three years

## 7. DOCUMENT METADATA

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