

## Energy Management Policy

Document type: Policy  
Policy Category: Support Service

Document number: Rt228/16

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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.

Section 110 of the Energy Act, 2006 stipulates that energy users must draw up and apply an Energy Management Policy, which must include the following:

- A commitment to draft and implement a strategic plan to achieve energy efficiency and conservation.
- A commitment to comply with the Act and regulations framed thereunder.
- A commitment to improve energy efficiency and conservation.
- A commitment to provide resources as and when required to conserve energy and achieve energy efficiency.
- A commitment to train staff to ensure that they are capable of conserving energy and of using it efficiently.
- A commitment that the policy will be endorsed by top management.
- A commitment 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,
- 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,
- reduce consumption during peak-tariff periods, and
- prevent the problem of diesel ageing in generator storage tanks.

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 effected 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:

- 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 document

##### 4.1 Governing documents

The UP Strategic Plan

##### 4.2 Legislation

Constitution of the Republic of South Africa, 1996

Energy Act, 2006

National Building Regulations and Building Standards Act, 1977

#### 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

Document number:	<i>Rt228/16</i>
Document version:	<i>Rt228/16 newly approved version</i>
Document approval authority:	<i>Executive</i>
Document approval date:	<i>24 May 2016</i>
Document owner:	<i>Director: Facilities Management</i>
Document author(s):	<i>C Slabbert, A Meyer and L van der Merwe</i>
Date:	<i>29 July 2015</i>
Visibility:	
Display on staff intranet	√
Display on student intranet	√
Display on public web	√