



# **DHA SUFFA UNIVERSITY**

DG 78, Off Khayaban-e-Tufall, Phase-VII (Extension), DHA, Karachi-75500

## **Comprehensive Energy-Saving and Carbon Footprint Reduction Policy**

### **Objective:**

To implement energy-efficient practices, promote sustainable energy use, and reduce the overall carbon footprint of the organization by embracing innovative technologies and green energy solutions.

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### **1. Energy-Efficient Air Conditioning Policy**

- **Technology Standard:**  
All new air conditioning installations will use inverter-based technology to ensure maximum energy efficiency.
  - **Temperature Settings:**  
Air conditioners must be set within the range of 25°C to 27°C, optimizing energy use while maintaining comfort.
  - **Operational Hours:**  
AC usage will be restricted to 10:00 AM to 4:00 PM, aligning with peak office hours to minimize energy waste.
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### **2. Transition to Green Energy**

- **Solar Energy Conversion:**  
The organization will convert 60% of its energy consumption to solar power, leveraging photovoltaic systems to reduce dependency on non-renewable energy sources.
  - **Grid Contribution:**  
Excess energy generated from solar panels will be fed back into the grid to support the broader community's transition to green energy. Real-time monitoring systems will ensure efficient grid integration and optimize energy distribution.
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### **3. Replacement of Electrical Fixtures**

- **LED Lighting:**  
Replace all conventional lighting systems with LED technology, which consumes significantly less energy and has a longer lifespan.
  - **Inverter-Based Fans:**  
Upgrade all fans to inverter-based models, reducing electricity consumption by up to 50% compared to traditional fans.
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#### 4. Water Reuse Practices

- **WADU System for Gardening:**  
Treated wastewater (WADU system) will be utilized for irrigation purposes in gardens and green spaces, conserving freshwater resources.
  - **Reuse in Mechanical Systems:**  
Repurposed water will also be employed in mechanical furnace laboratories, ensuring efficient water usage across all operations.
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#### 5. Intelligent Energy Monitoring and Control

- **Installation of IT-Integrated Systems:**  
Advanced smart switches and monitoring systems will be installed across all facilities to enable automated control of energy usage and real-time tracking of consumption patterns.
  - **Centralized Management:**  
A dedicated team will oversee the energy monitoring dashboard, ensuring compliance with energy-saving targets and quickly addressing inefficiencies.
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#### Expected Outcomes:

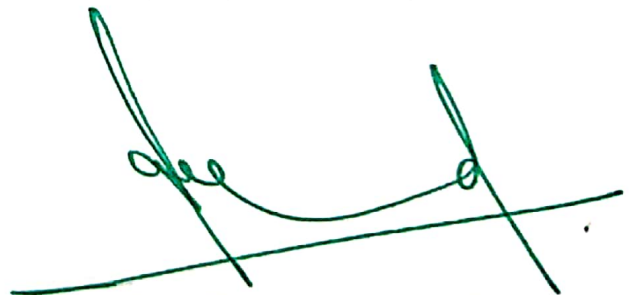
- **Energy Savings:**  
A projected reduction of 30-40% in overall electricity consumption.
  - **Carbon Footprint Reduction:**  
Significant reduction in carbon emissions, contributing to environmental sustainability goals.
  - **Community Impact:**  
Promoting societal use of green energy through grid-fed solar contributions.
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#### Policy Review and Updates:

This policy will be reviewed annually to incorporate advancements in technology and align with updated environmental standards. Regular audits will ensure adherence and identify areas for improvement.

#### Commitment to Sustainability:

This policy reinforces the organization's dedication to responsible energy usage, contributing to a sustainable future while reducing operational costs.



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