Strategic Aspects of Integrating Sustainability in University Management

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Vision
Open University 21

"To act as a responsible member of society, addressing the social and environmental challenges of this century by disseminating the knowledge and methods we have accumulated as an academic organization."

I Innovation
A Accountability
L Leadership

Hosei Locations at Ichigaya, Tama and Koganei

Faculties, Students and Academic Staff

The Green University Initiative

www.hosei.ac.jp
The Green University Initiative

External Stakeholders
Students / Alumni
Communities

Integration into existing Faculties and Institutes
Faculty of Humanity & Environment
Graduate School of Environmental Management
Laboratory of Ecology and Urban Design

Research & Education
Environmental Management System
Auditing & Reporting
EMS-Education Courses for internal and external Stakeholders

Mechanisms; Support; Governance

Stimulation

Support
Coordination

Structures, Processes & Responsibilities
Continual Improvement
Auditing & Reporting
EMS-Education Courses for internal and external Stakeholders

ESCO - Concept

ESCO is a business that develops, installs, and finances projects designed to improve the energy efficiency and maintenance costs for facilities over about 10 year time period.

ESCO Implemented Energy-Saving Techniques
1. High efficiency air-cooling heat-pump chiller (COP 4.1) with Ice storage air-conditioning system
2. VAV control and Heat transport system utilizing large temperature differential
3. VAV Control and Cold air-conditioning system
4. Control the volume of outdoor air intake
5. Intermittence drive of ventilation fans in Machinery rooms
6. Intermittence drive of ventilation fans in Parking lot
7. Lighting Control system
8. Ultra high efficiency electric transformer

Contracted Improvements for the New Sotobori Building
Sotobori Building for Education, Administration, Shop
Total Floor Space: 21,849m², Opened in April 2007
ESCO introduced with subsidy from NEDO (METI)

Primary Energy

Sustainable Campus Conference

Best Practice - Future Challenges
Zurich, April 25 - 27 2007
Prof. Dr. Susumu Nagai
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Thank you for your attention

12,216 (GJ/yr)

22.0%

22.0%

28.7%

0.0%

2.5%

444 (ton/yr)

18.9%

* Figures based on comparison with conventional system