



ENERGY TASK FORCE Report

**State University of New York
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March 20, 2007**



ENERGY TASK FORCE

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ENERGY TASK FORCE

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Mission Statement

**The University will assume
a national leadership role
in energy sustainability,
research, education,
technology, economics
and public policy through
the transformational
integration of practice,
teaching and research.**





The University Today

One of largest energy users in NYS

- **More than 90 million GSF in 2,829 buildings**
- **Annual energy consumption 11.446 trillion BTUs—equal to 67,000 homes**
- **Nearly \$300 million projected utility costs for 2006-07**



The University Today

Energy Accomplishments

- 38.47 % energy reduction per OGSF since 73-74, 16.38 % since 89-90
- \$1.148 billion in cumulative cost savings
- \$100 million+ invested in energy conservation since 1992, \$121 million of projects currently in design or construction
- SUNY Electricity Buying Group saves campuses \$1 million annually
- Natural gas contracts provide savings and predictability



The University Today

Energy Efficiency Peer Comparisons

SUNY compares favorably with national peer averages

Carnegie Classification	Average of APPA Respondents*	SUNY Campuses
Doctorial/Research Extensive	189	141
Doctorial/Research Intensive	150	114
Masters	114	118
Baccalaureate	131	111

* Average Annual MBTU/GSF

Source: Association of Higher Education
Facilities Officers (APPA)



The University Today

Current Challenges

- Volatility in energy prices
- Growth in enrollment, residence hall power usage, and campus research facilities
- Aging infrastructure, deferred maintenance, limited capital funding for plant upgrades
- Energy management and procurement expertise varies widely among campuses
- Quality/consistency of data for benchmarking, best practices, planning and analysis

Energy Task Force Goal Areas

- Conservation and Sustainability
- Transformational Opportunities
- Management and Planning





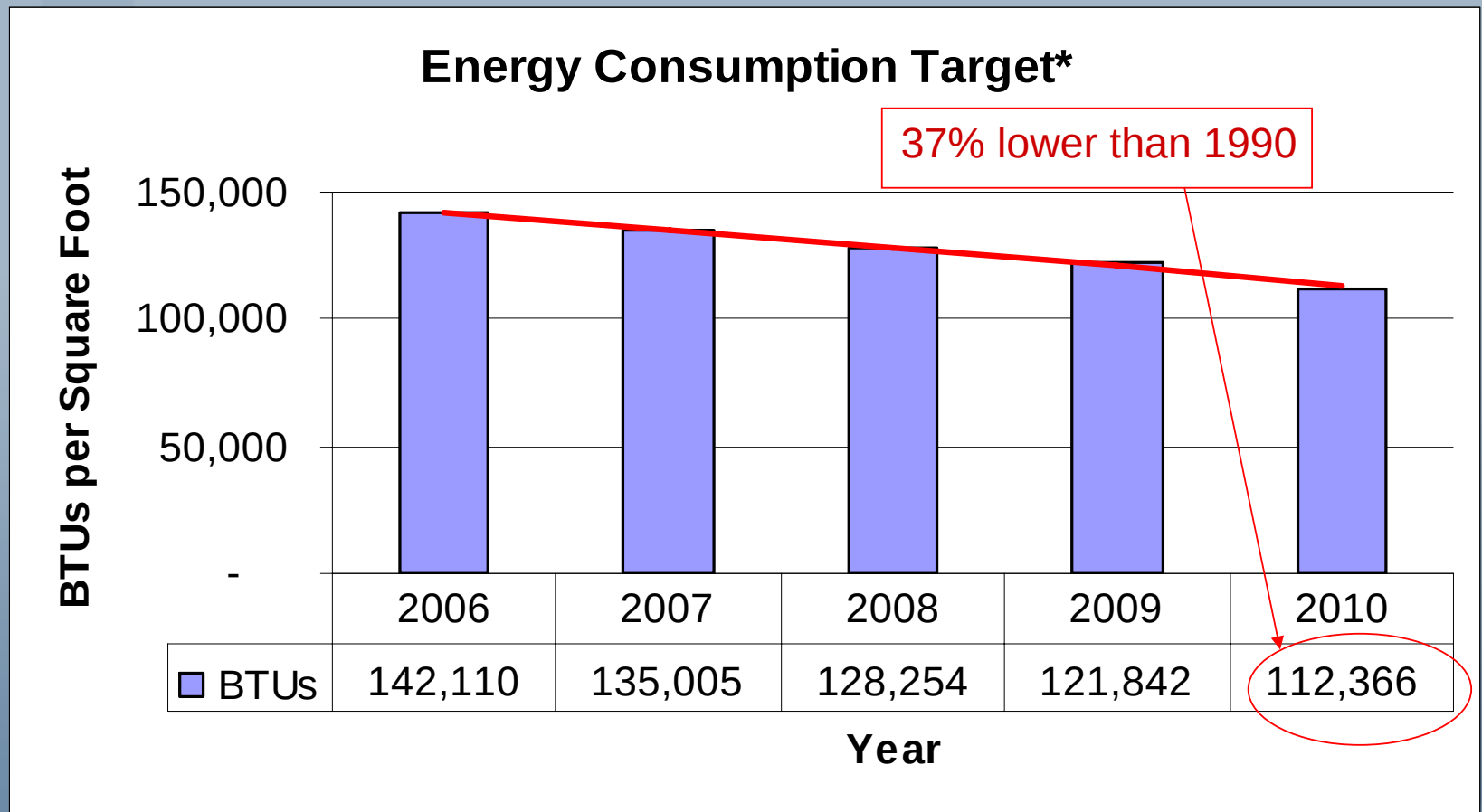
Campus Conservation Targets

- Reduce campus energy consumption 37 % by 2010
- Cap and Reduce Green House Gas Emissions 20 % by 2014
- Increase use of Renewable Energy 30 % by 2014
- Increase use of biofuels 10 % by 2010
- Develop five new Combined Heat and Power projects by 2010
- New and rehabilitated buildings must meet or exceed the L.E.E.D. Silver standards



Decrease Consumption

“Reduce Electricity Usage 37% by 2010”



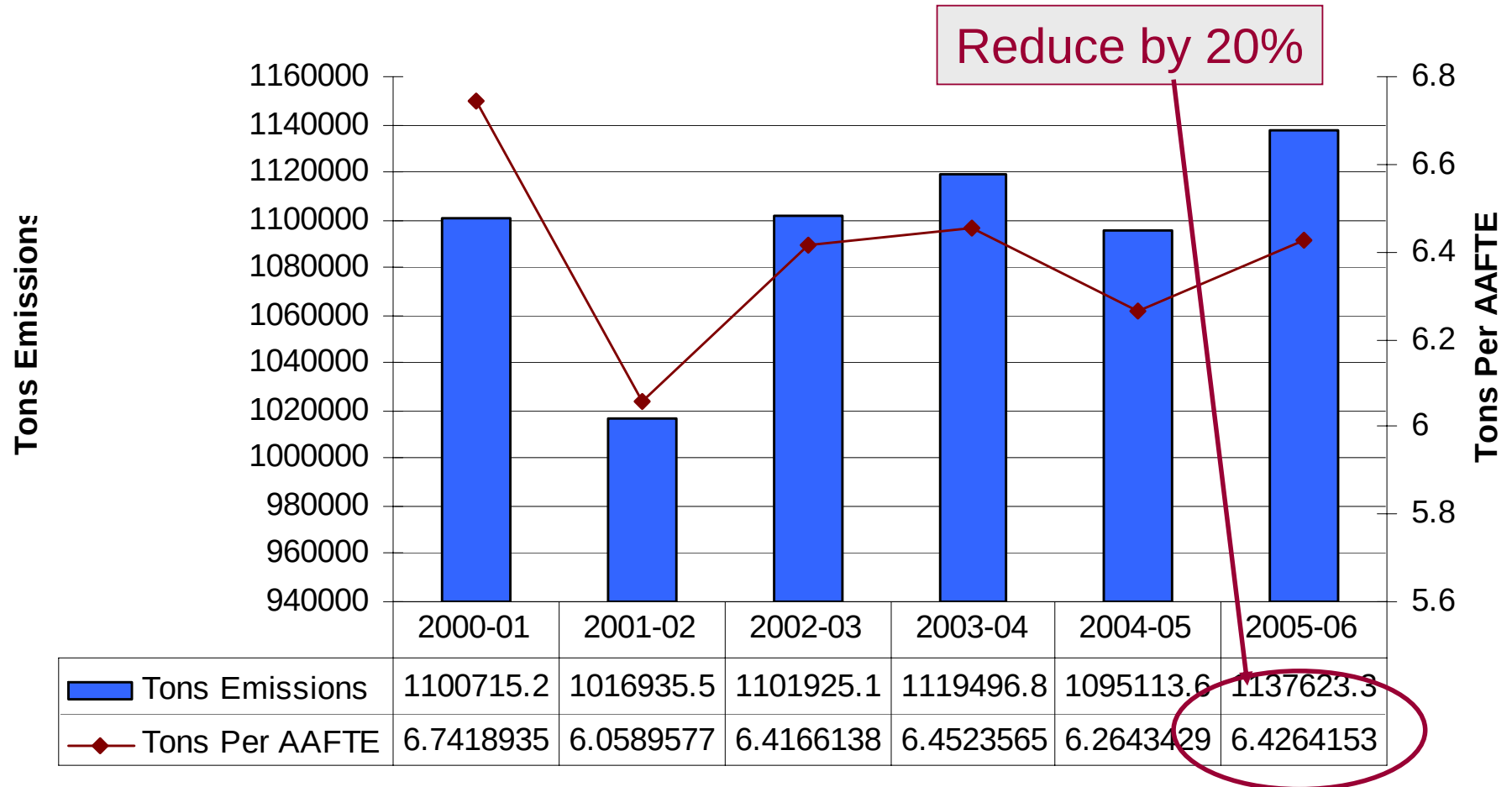
*From 1989-90 Baseline



Reduce Environmental Impact

“Decrease Green House Gas Emissions 20% by 2014”

State University of New York
Emissions - Tons Per AAFTE



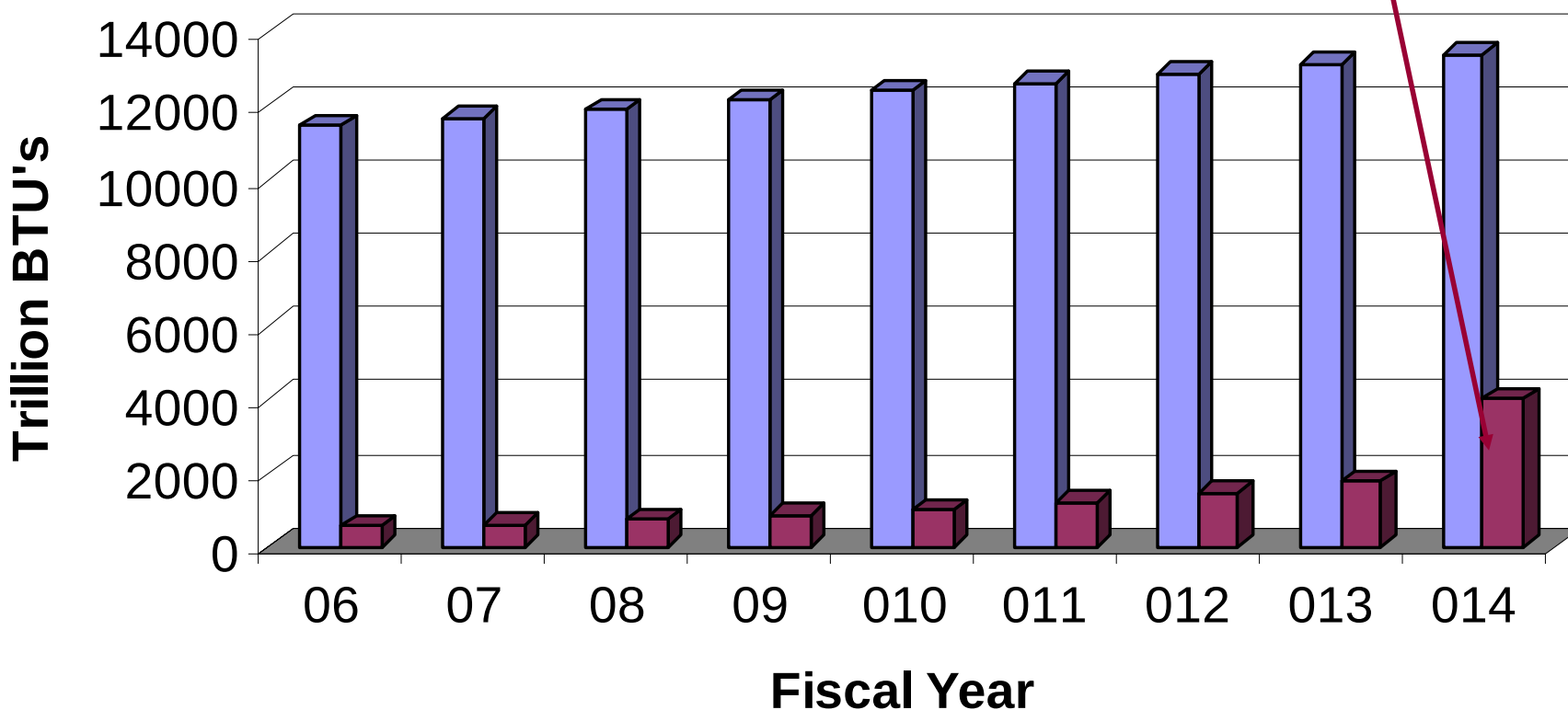


Increase Use of Renewable Energy

"Use 30% Renewable Energy by 2014"

State University of New York Renewable Energy Usage

30% in 2014



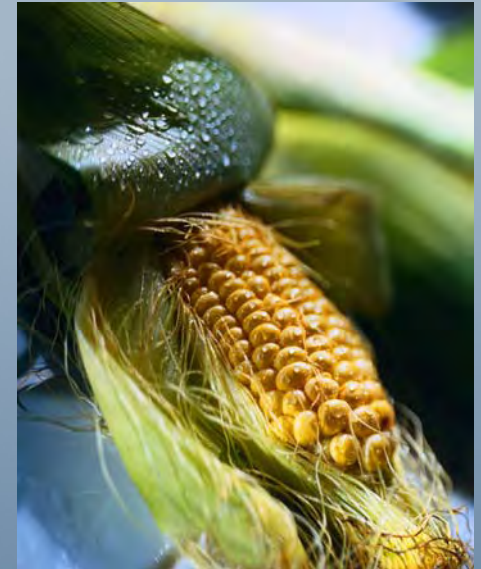
Increase Use of Renewable Energy

"Bio-Fuels"

Conservation and Sustainability



Increase use of
bio-fuels 10 % by
2010



Develop Combined Heat and Power

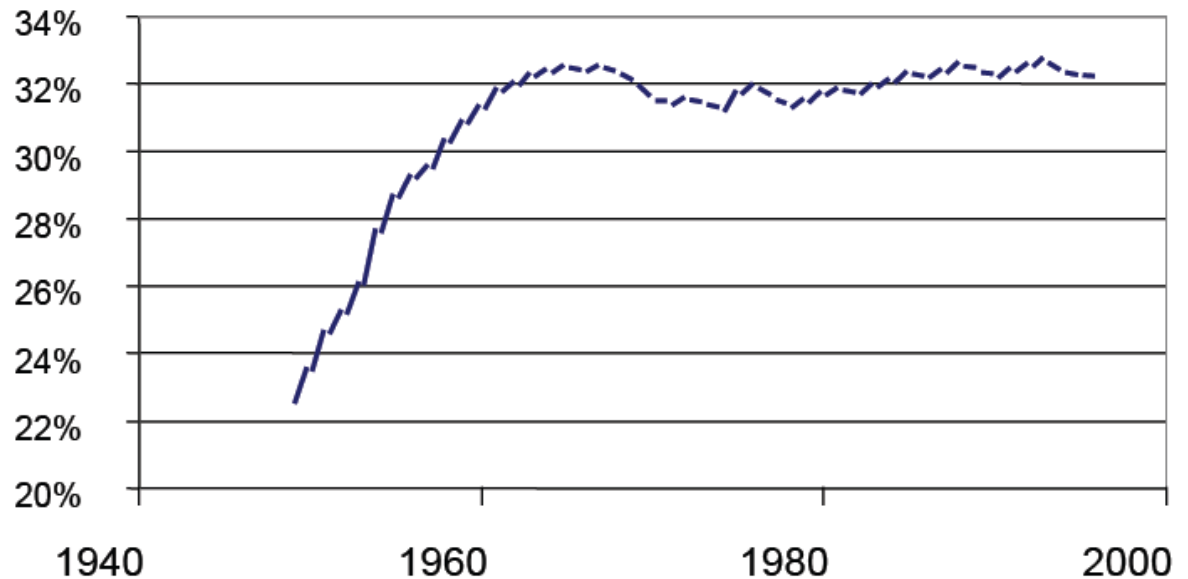
"Five New CH & Power Projects by 2010"

- Stony Brook 40MW
- Old Westbury 1.9MW
- Potsdam 3.5MW
- Binghamton 5-8MW

**Five New
CH&P
Projects
by 2010**

Energy Efficiency

America's electric grid efficiency has stagnated at about 32% efficiency



Fossil Electric Generation Efficiency (at plant, W/O T&D)

Source: EIA, Annual Energy Review 1996

Design and Construct New Buildings Using Silver+ LEED Criteria

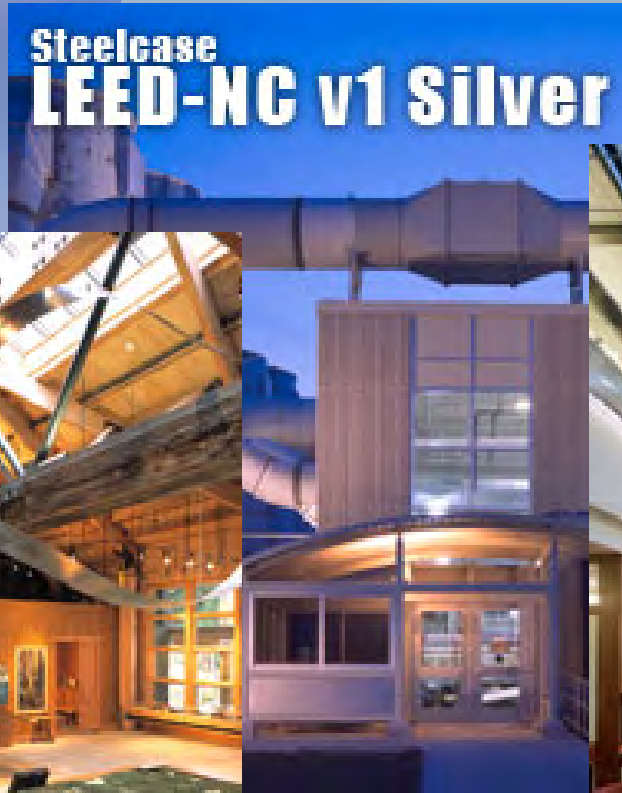
Conservation and Sustainability

American Honda
LEED-NC v2 Gold

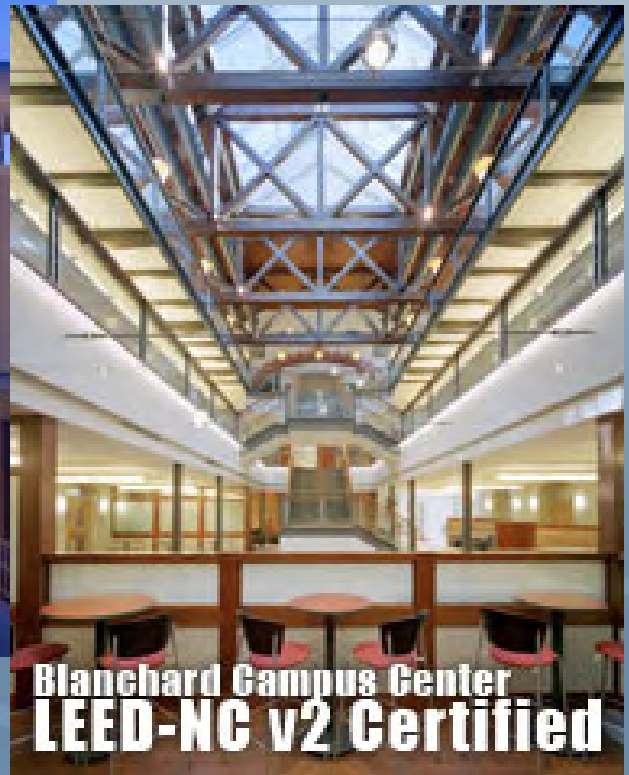
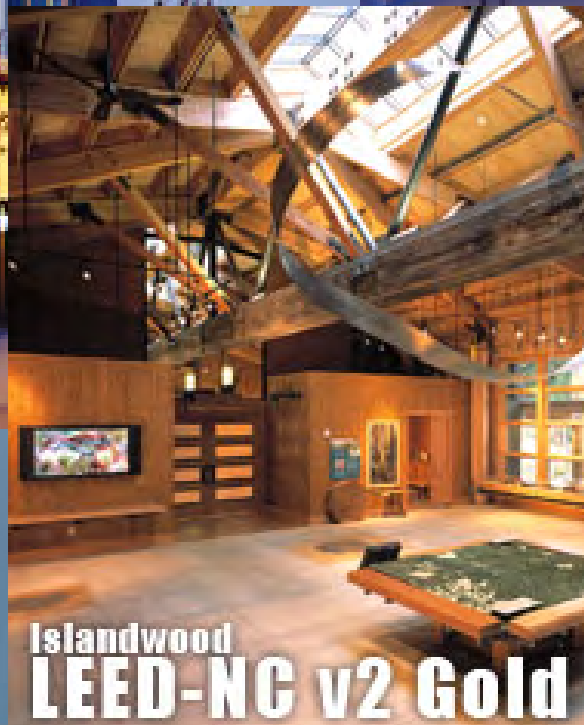


US Green Building Council
**LEED: Leadership in Energy and
Environmental Design**

Steelcase
LEED-NC v1 Silver



Islandwood
LEED-NC v2 Gold



Blanchard Campus Center
LEED-NC v2 Certified



Advance SUNY's Education Mission in Energy and the Environment

Transformational Opportunities

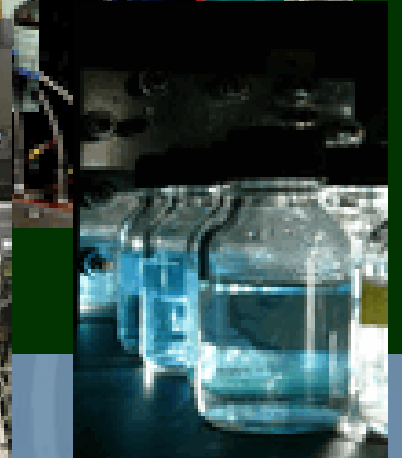
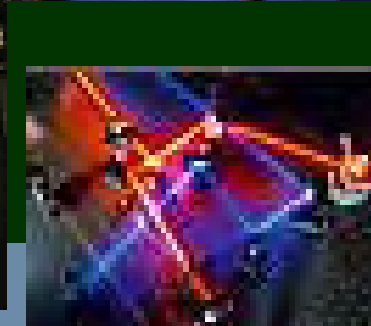
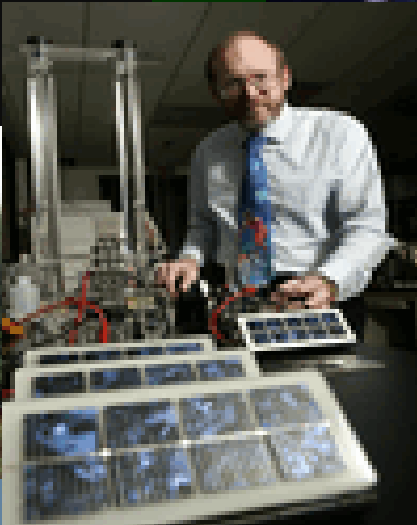
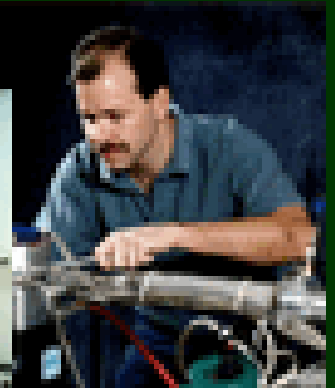
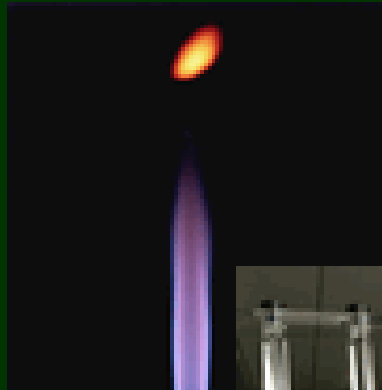
- **Academic Programs**
 - **Energy and environmental programs**
- **General Education**
- **K-12 Teacher Education**
- **Work Force Training**
- **Raise Awareness**



Expand University Energy-Related Research

Transformational Opportunities

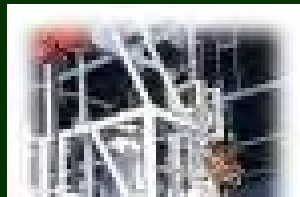
- Expand Energy-Related Research to Achieve National Leadership



Build Strategic Alliances

Transformational Opportunities

Build Strategic Alliances with Public and Private Interests





Optimize “System-ness”

- 
- **Optimize “System-ness”**
 - **Greater inter-campus communications and cooperation**
 - **Best practices**
 - **Campus-based initiatives**
 - **Externally funded projects**

Energy Procurement and Risk Management

- **Energy Procurement**
 - **Competitively priced**
 - **Fossil Fuels**
 - **Renewable fuels**
 - **Electricity**
- **Risk Management**
 - **Control price risk to 5 % of budget**
 - **Based on sound policies and procedures**





Role with Regulatory Commissions

- **Assume a Proactive Role in Rate Cases**

- **New York State Public Service Commission**
- **Federal Energy Regulatory Commission**



Questions or Comments

vision

Thank You