

## #124 EXECUTIVE SUMMARY

# State University of New York at Buffalo

University campuses, like large military installations and other types of large institutional facilities, are essentially micro-cities ripe with energy efficiency opportunities. Unfortunately, their budgets tend to be filled with competing interests. Thus efficiency upgrades often fall by the wayside despite the fact that they are investments that pay for themselves over time and which can thus support rather than detract from the educational process. At the State University of New York at Buffalo, thanks in part to the dedication and determination of Energy Officer, Walter Simpson, energy efficiency became a priority which has provided the campus with attractive returns on investment while fulfilling a moral obligation to use energy judiciously. Furthermore, in the process of retrofitting the campus, the University at Buffalo (UB) has educated its student body, faculty, and staff of the importance and potentials for efficiency.

For two decades UB has been engaged in plugging the leaks of energy and dollars from its campus. It has financed efficiency upgrades in a number of ways, leveraging change through a variety of capital sources including the University's own operating and capital budgets, loans from the state, and most recently by engaging the services of an energy service company that drew incentives from the local utility and helped secure financing for the remaining investment through a tax-exempt lease.

Following the energy crises of the 1970s, UB undertook an important and relatively low capital cost energy tune-up. When Walter Simpson became the University's first Energy Officer in 1982 the formal "Conserve UB" program was born and evolved into a program that resulted in over 300 retrofit activities. Then in the 1990s, UB entered a partnership with CES/Way International. Supported by over \$4 million in incentives from Niagara Mohawk, the University engaged in a comprehensive \$17+ million retrofit that has addressed heat recovery, upgrading lighting systems, the installation of high efficiency motors and drives, as well as controls and energy management systems to cut energy use while maintaining if not enhancing the quality of its buildings and facilities.

While many universities have performed energy efficiency retrofits, UB stands out as a model of an integrated approach. It has at once focused on saving energy and dollars in the short term through technical measures that have created annual savings of over \$9 million and \$65 million in cumulative cost savings, while fostering an ethic and awareness on campus related to long-term judicious resource use. The Conserve UB approach has been a dual-pronged effort, drawing upon top-level support while shoring up the foundation with grassroots awareness of efficiency's promise and potentials. Driven by a self-espoused "conservation zealot," UB's comprehensive program is one that contains many rich and inspiring lessons.

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## STATE UNIVERSITY OF NEW YORK UNIVERSITY AT BUFFALO

Measures:	Broad range of measures including delamping; operations curtailment and shutdown; HVAC modifications; lighting and HVAC retrofits; heat exchanger loop; weatherization; motors and equipment replacement; etc.
Mechanism:	Comprehensive efforts ranges

- from no-cost solutions to contracting an ESCO for a campus-wide project. Financial resources include internal sources, state and federal grants, utility incentives, and private sector loans
- **History:** Grassroots efforts began in the seventies; Conserve UB was established in 1982; ESCO project began in 1994

### PROGRAM DATA (1973-1996)

Annual energy savings:	167,780 MWh
Cumulative energy savings:	335,560 MWh
Lifecycle energy savings:	2,516,700 MWh

The Results Center produced 126 profiles of the most successful energy efficiency and renewable energy programs in the United States and around the world in the early and mid 1990s. With the support of the John D. and Catherine T. MacArthur Foundation, Ted Flanigan directed a research team at Colorado-based IRT Environment to produce and distribute these exceptional examples. Thanks to strong demand for solid case studies, The Results Center was supported by dozens of major utilities and energy associations worldwide. Today, The Results Center is managed again by Ted Flanigan, now at California-based EcoMotion Incorporated, a firm focused on strategic consulting, information dissemination, program design, outreach services, and aggressive implementation. To nominate highly successful programs, contact: The Results Center, c/o EcoMotion, 15375 Barranca Parkway, F-104, Irvine, CA 92618, (949) 450-7155, or TFlanigan@EcoMotion.us