Cornell University

Martha E. Pollack
President

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Association for the Advancement of Sustainability in Higher Education
2401 Walnut Street, Suite 102
Philadelphia, PA 19103

Re: 2017 Cornell University STARS 2.1 Submission

I am pleased to endorse the AASHE STARS online assessment for Cornell University using version 2.1 reporting platform.

Sustainability is a signature area of excellence at Cornell University. Our Ithaca campus submits STARS annually to make our achievements and progress accessible and transparent to campus constituents, our peers, and the world. I am proud of the innovation and commitment our faculty, staff, and students display in addressing complex sustainability problems through operational improvement and living laboratory collaborations.

This year our STARS innovation credits highlight campus solutions to reducing energy and water use. Cornell is proud to report zero growth in net campus energy use since 2000, in spite of a 20% increase in campus square footage, as one indicator of the success of these solutions.

Cornell Energy and Water Cooling Conservation Loop

Previously Cornell's on-site energy plant created waste heat and used un-reclaimed potable water to prevent generator overheating. Utilities engineer Garret Quist redesigned the system using heat exchanger–based water-cooling from the campus chilled-water network. By creating this feedback loop with existing systems, previously wasted energy is a part of a closed-loop energy system. The new system, built for about $42,000, saves the university $24,000 annually in water, sewer, and treatment costs, and reduces an annual 475,000-gallon water loss to zero.

Open Data for Water Conservation

During our campus drought in 2016, Cornell quickly developed an open-source data tool to share daily water use and comparisons to historic baselines for 160 buildings on campus. Deployed with an engagement campaign, this tool enabled the campus to set and achieve a goal of reducing water use 20% over the duration of the drought. The tool can be used alongside existing metering in the campus Energy Dashboard, allowing community members to explore how personal behaviors and operational choices impact resource use at the energy-water nexus.

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Campus-Wide Energy Direct Billing

Cornell's new budget model, which went into effect FY 2014, makes each college/unit on campus responsible for its own utility bill. This model provides a compelling incentive for colleges and units to reduce their energy consumption and increase cost-saving measures, allowing users and energy staff to engage with data for campus engagement and behavior change programs. For example, an energy reduction competition in one college achieved an overall 17.1% reduction, and participating residence halls achieved a 16.2% reduction.

Lighting Control Standard

Cornell now uses the building automation (controls) to control lighting instead of the industry standard of a separate, more expensive, and harder to maintain proprietary lighting control system. A true paradigm change, this shift has won Cornell and our automated logic controls dealer, Logical Control Solutions, a "project of the year" international award for Klarman Hall. This lighting solution has proved to be lower in cost and more effective than traditional lighting control solutions and is now standard for all current and future project designs.

Sincerely,

Martha E. Pollack