

# Office for Sustainability

Facilities Management

Annual Report, FY-2011



**THE NEW SCHOOL**

## EXECUTIVE SUMMARY

The New School Office for Sustainability's Annual Report FY-2011 marks the first time all efforts to steer the university to becoming more sustainable has been documented in a single report. It is the intention of Facilities Management to issue a report every year to share with the university community and the public progress made in this arena and towards our commitments.

## STAFF

Gwen Kilvert, Assistant Director for Sustainability & Energy Management

Joshua Cohen, Sustainability Coordinator

## INTRODUCTION

### Office for Sustainability

With the creation of the Assistant Director for Sustainability & Energy Management position, the Office for Sustainability was formed within Facilities Management in May 2010. In Fall 2010, a Sustainability Coordinator was hired. A student intern was hired in Spring 2011 as support.

### Public Sustainability Commitments

- PlaNYC University Challenge
- American College & University Presidents' Climate Commitment (ACUPCC)
- The Talloires Declaration
- Sustainability Tracking, Assessment, & Rating System (STARS)



The New School achieved STARS Silver in August 2011.

## Affiliation Highlights

- The university became a member of the America Association for the Advancement of Sustainability in Higher Education (AASHE)
- Renewed the university's US Green Building Council corporate membership
- Signed on to AASHE's Sustainability Tracking, Assessment, and Rating System (STARS) as a Charter Participant
- Completed the College Sustainability Report Card – 2011 grade received B (up from a C+ in 2010)
- Included in *The Princeton Review's Guide to 311 Green Colleges 2011*
- Signed an open letter – with 23 other higher education institutions – that was delivered to the College Sustainability Report Card, the Green School List as well as the *Chronicle of Higher Education* and *Inside Higher Education* challenging them to be fully transparent and more accountable
- Supported an application for the NYC Department of Environmental Protection's 2011 Green Infrastructure Grant Program

### Sustainability Advisory Committee

After President Kerrey signed the ACUPCC in 2007, The New School formed a committee of faculty, staff, and students named the *Sustainability Advisory Committee* (SAC). The objective of the SAC is to steer the university towards becoming more sustainable.

For FY-2011, The Assistant Director for Sustainability & Energy Management, the chair, expanded the committee members to include more administrative departments and academic divisions, among them:

- Mannes, Office of the Dean
- Office of Development
- Human Resources
- Milano students
- Parsons' alum

## ENERGY

Managing energy usage on campus is the responsibility of Facilities Management. As a risk management strategy, energy reduction measures will become more of a priority in FY12 as will be necessary to meet the university's public carbon reduction commitments as well as reduce spending.

See Appendices for FY11 energy mix, use, intensity, and expenditures.

## Procurement

Facilities Management, as a cost center, tracks the university's energy spending as well as consumption of energy. With a competitive open electricity market in New York State, Facilities Management secured a lower fixed rate for electricity for FY11-13 via a competitive bid process.

### Electricity pricing:

Rate: \$0.09397/kWh  
(vs. \$0.106455/kWh historic rate)

### "Green Power" pricing:

Rate: \$0.000134/kWh

Purchased 26,302 Green-e Renewable Energy Certificates (RECs), totaling 26,302,000 kWh, approximately 100% of our electricity usage for two years

**NEXT:** Competitive pricing for natural gas.

## Monitoring

Tracking energy use is still completed manually, but efforts were made to improve this monitoring system. Currently, the Office for Sustainability tracks 88 electricity, 19 gas, eight heating oil and two steam accounts. The major challenge was to track The New School's consumption in leased spaces, which were not monitored in prior years. Today, all of this data is housed in one spreadsheet.

**NEXT:** Evaluate management systems that would automate this tracking.

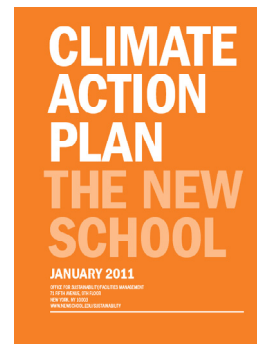
## Carbon Emissions

The Office for Sustainability authored the university's first *Climate Action Plan*. This fulfills a major component of the commitment President Kerrey made to the ACUPCC. This carbon emissions reduction plan lays out both short- and long-term mitigation measures to achieve carbon neutrality by 2040.

### Mitigation Work

### HVAC Systems

Facilities Management replaced the 50-year-old boilers in Lang with more efficient boilers that burn a cleaner, less carbon-intensive heating oil (phasing out the use of #6 heating oil on campus). The roof at Johnson/Kaplan Hall was replaced with insulation and topped with a "cool" Thermoplastic olefin (TPO) roof, which meets Energy Star standards for reflectivity.



This roof will reduce the absorption of solar heat during the hottest months of the year.

### ***Energy Audits & Retro-Commissioning***

The Office for Sustainability received Request for Proposals from five firms for energy audits and retro-commissioning of 500,000 gsf on campus – beginning the work laid out in the Climate Action Plan as well as complying with New York City Local Laws 84 & 87. Buildings included in this scope of work include:

- Parsons East
- Arnhold Hall
- Fanton Hall
- Sheila C. Johnson Design Center
- Johnson/Kaplan and Lang

Facilities Management hired AKF Engineers to perform this work. As of July 2011, AKF had benchmarked five buildings as required by Local Law 84 (and submitted data to the City), completed energy audits of all 500,000 gsf in five buildings, conducted façade and data center analysis, presented the capital plan for Lang and Johnson/Kaplan Hall complex and is drafting the capital plan for the remaining buildings.

**The New School received \$136,582 from the New York State Energy Research & Development Authority (NYSERDA) for AKF's work.**

**NEXT:** AKF Engineers will commence retro-commissioning in five buildings in Fall 2011.

### ***Efficient Lighting***

The Office for Sustainability continued to upgrade lighting around campus. The focus was on phasing out T12 fluorescents and incandescents, but effort was also made to further reduce wattages in fixtures that were upgraded a few years ago. Another goal was to install occupancy sensors in all bathrooms on campus. The following buildings underwent lighting upgrades in FY11:

- Parsons East
- Arnhold Hall
- Fanton Hall
- Sheila C. Johnson Design Center
- Johnson/Kaplan and Lang

**NYSERDA contributed \$3,660.**

**NEXT:** The Office for Sustainability has scheduled more lighting upgrades in Arnhold Hall, including LED lighting in August 2011. Con Edison will provide rebates.

### ***Green Building Standards***

The office is also working with Design & Construction staff to draft Green Building Guidelines, enhancing existing specifications for renovation projects on campus with more environmentally responsible practices and products. To date, a Construction & Demolition Waste specification, which mandates a 75% recycling rate for all waste generated by renovation projects, has been implemented. The first projects to be subject to these waste recycling guidelines included the construction of Student Health Services (80 Fifth Avenue) and the Student Study Center (90 Fifth Avenue).

**NEXT:** Finalize the rest of the sections in the Green Building Guidelines.

### **Plug Load Management**

The Office for Sustainability invited “satellite” computer lab staff to discuss “Power Down” strategies. Ensuring the computer stations are shut down after hours and only powered on when needed are critical components to a power-saving plan on campus. Academic Technology currently applies these best practices in their labs; those labs that fall outside of their jurisdiction were a part of this discussion.

**NEXT:** Draft a Power Down Plan.

### **University Center**

The Office for Sustainability has been involved in ongoing LEED planning for University Center, managing NYSERDA funding opportunities in addition to incorporating “green” educational features into the building. The office also collaborated on the submission of a NYC Department of Environmental Preservation (DEP) green infrastructure grant for the building’s green roof.

## **TRANSPORTATION**

As an urban campus situated within a major public transportation hub, The New School has less work to do in this area than a rural or suburban campus. And without a campus fleet, the university’s transportation footprint and the associated carbon emissions are minimal. Regardless, Facilities Management is dedicated to supporting less carbon intensive forms of transportation particularly biking.

## **Measuring**

The Office for Sustainability conducted a student commuter survey for STARS during FY11. The sample size was 868 respondents of 10,678 total credit students – approximately 8% of the total student body.

### **Results**

- 24% walk, bike, telecommute or use other forms of non-motorized means
- 1% van or carpool
- 68% use public transportation
- 7% drive alone

## **Bicycling**

The results of the biking survey conducted in FY10 were compiled into the document, *The New School Bike Survey*, drafted by bicycle consultant BICI Planning and supplemented with recommendations for improvements. The suggestions that have been implemented to date include:

- Offering secure bike parking at the Imperial Parking Garage
- Submitting an extensive request to the Department of Transportation for 55 new bike racks to be installed in front of New School buildings, increasing parking capacity by 60%. The request has been received but has yet to be fulfilled as of June 2011.
- Drafting a pamphlet on biking around campus with maps and resources
- Drafting The New School Bicycling Parking & Storage policy

**NEXT:** Issue final versions of these materials to the campus community. Form a university Bicycle Task Force.

## Air Travel

A very carbon intensive activity, air travel is included in the university's carbon inventory. The Office for Sustainability analyzed the carbon emissions associated with the air travel of faculty and staff for FY11. The data is provided by the university's air travel provider, Sabre Airline Solutions.

*FY11 Air Travel CO2 Emissions (metric tons):*  
734.71

**NEXT:** Consider the cost to offset the emissions associated with air travel.

## WATER

Facilities Management also addressed the impacts of water usage on campus. On average, Americans flush the toilet five times a day at home, using 18.5 gallons of water for this alone. Realizing what cannot be measured cannot be managed, the department set out to benchmark water use in all owned buildings.

### Measuring

The Office for Sustainability installed new Automated Meter Reading (AMR) units in three academic buildings and four residences, bringing the total number of buildings with this wireless meter reading technology to 11. Once all units are connected, staff will be able to track water consumption in real-time.

**NEXT:** Complete connections of water meters; benchmark water usage for FY12.

National Water Service, Inc. conducted a water audit of 16 buildings on campus, which yielded recommendations for upgrade opportunities in the residence halls as a first priority having the shortest payback periods, one as low as 2.24 years. Mannes had the overall lowest payback period at 1.68 years.

### Efficiency Standard

Facilities Management seeks to develop a preferred standard for low-flow toilets, lavatories and showerheads on campus. The installation of dual-flush toilets in 71 Fifth Avenue and 66 W. 12th Street will help inform this decision as will the fixture selection for the new University Center.

**NEXT:** Finalize water fixture standard.

## WASTE

Facilities Management recognizes the responsibility it shares in New York City's "garbage crisis." As a large institution, the university can contribute to solving the challenges the City faces. The carbon emissions associated with waste sent to landfills begs for improvements in recycling practices and expansion of compost collection on campus.

### Measuring

The results of consultant Great Forest's waste audit for The New School show a 23% diversion rate for FY10 and a list of recommendations for increasing the amount of waste diverted from landfills. A tool to measure ongoing waste generation on campus was also developed for the Office for Sustainability.

The Office for Sustainability with Facilities staff measured FY11 waste streams via bag counting exercises for two high periods and one low period.

The FY11 diversion rate was 26.20% (up from 23.98% in FY10) with 80 lbs of trash per capita.<sup>1</sup>

**NEXT:** Develop better metrics for future waste tracking, incorporating hauler data.

## Evaluating

Facilities Management is under-going a review of how waste is collected on campus and the recovery rates of the recycling plants managed by waste haulers in the metropolitan area. With the goal of improving the university's diversion rate, Facilities seeks to select a hauler who can help achieve this goal.

**NEXT:** Tour three recycling plants and determine best practices on campus for waste collection. Draft a Request for Proposals for waste hauling for The New School. Improve diversion rate to at least 50%.

## Electronic Waste Recycling

In May 2011, the Office for Sustainability sought a vendor with the highest e-waste recycling standards. The 4th Bin was selected because it abides by the highest standards for e-waste recycling, offer better reporting with number and type of electronics per bin, and do not export the electronic waste to developing countries. They are also a Manhattan-based vendor that recycles e-waste through WeRecycle, one of the only e-Steward certified companies in the area.

E-waste collected during FY11 totalled 13,109.6 lbs, or 1.23 lbs per capita.<sup>1</sup>

**NEXT:** Publish quantities of e-waste collected on campus.

## New Signage

The Office for Sustainability adapted a concept developed by Parsons students and funded by The New School Green Fund to develop new signage with the department of Communications & External Affairs (CEA). The signs emphasized images over text to explain the waste streams. The focus was on getting more bins and signs into classrooms in the following buildings:

- Student Health Services
- Student Study Center
- Fanton Hall
- Johnson/Kaplan and Lang
- 6 East 16th Street
- Gibbs

The new signs also went into trash and recycling rooms in these Student Residences:

- Stuyvesant Park
- 20th Street Residence

**NEXT:** Produce and distribute signage in Loeb Hall and 13th Street Residences.

## Compost

The Office for Sustainability expanded composting on campus, which is currently picked-up by the university's waste hauler who delivers the organic waste to Peninsula, an industrial compost facility in Wilmington, DE.

<sup>1</sup> Per capita numbers are based on The New School's *Fact Book* (Fall 2010), derived using a weighted campus user calculation [ (1 X on-campus residents) + (0.75 X non-residential/commuter full-time students, faculty, and staff) + (0.5 X non-residential/commuter part-time students, faculty, and staff) ] used by AASHE for the Sustainability Tracking, Assessment & Rating System (v1.0).

The abovementioned design of the new signs were adapted to include compost waste.

**NEXT:** Collect compost at catered events on campus. Launch a pilot compost collection program in a residence hall.

## **Waste Minimization**

### **Reusable Water Bottles**

The Office for Sustainability distributed nearly 1,250 reusable Klean Kanteen bottles to students in FY11 and approximately 250 bottles to staff and faculty. Complimenting the university's ban of selling plastic water bottles on campus, this effort encouraged students to bring their own reusable bottles.

**NEXT:** Give 1,500 to freshmen in FY12.

### **Water Bottle Filling Stations**

Facilities Management expanded the stations on campus that provide free, chilled and filtered water throughout campus with 11 new locations (up from five original stations).

New locations:

- 25 East 13th Street, (2nd-5th floors)
- 55 West 13th Street (4th floor)
- 65 West 11th Street (Lang Café, 2nd floor)
- 79 Fifth Avenue (12th floor)
- 80 Fifth Avenue (8th floor)
- 90 Fifth Avenue (2nd floor)
- 232 West 40th Street (11th floor)

**NEXT:** Continue to install more units.

### **BYOMug Campaign**

Disposable coffee cups are ubiquitous in the university's trash. Working with Dining Services, the Office for Sustainability promoted a Bring Your Own (BYO) Mug campaign. Signage at point of sale promoted the savings gained from bringing a reusable mug for coffee and tea to campus – it was determined as much as \$80/semester could be saved. CEA also tweeted about the campaign.

**NEXT:** Utilize more social media around the campaign. Evaluate feasibility of subsidized reusable, New School-branded mugs for sale on campus.

### **Block Party 2010**

Facilities Management coordinated the waste collection of this new student festival on West 12th Street. Signs were developed and bins provided for composting and recycling of all event waste. ReNew School members manned each waste station and informed their peers about what can be recycled and composted.

**NEXT:** Improve waste management of all Welcome Weekend and Orientation events in 2011. Measure the waste diverted from landfills at Block Party 2011.

### **Staff Training**

Facilities staff received training on recycling and composting twice in FY11.

### **Art and Design Material Reuse**

The Office for Sustainability supported the

efforts of the Parsons Technical Advisory Committee to open a material reuse center on campus. In the spring, the Green Supply Center (GSC) opened in the Sheila C. Johnson Design Center with the help of a Green Fund 2011 award. Today the center has large quantities of used wood, cardboard, technoscrap and furniture available for reuse.

**NEXT:** Encourage expansion of the GSC to Parsons School of Fashion and support with social media advertising.

## **OUTREACH**

The Office for Sustainability set out to bridge the gap between students and the administration through a series of outreach campaigns as well as partnerships. It was equally important to engage staff and faculty to participate and inform them of our progress in reducing our environmental impacts.

## **The Green Fund**

The second round of funding was awarded in December 2010. The Green Fund Committee supported four research seed grants and eight projects – out of 33 proposals. Among them include:

- The Green Supply Center at Sheila C. Johnson Design Center, which collects scrap material for reuse
- A student-run garden at the 20th Street Residence
- Researching low- and non-toxic printmaking options at Parsons
- Building Information Modeling for The New School's Solar Decathlon 2011 Team

**NEXT:** Improve funding distribution, launch Green Fund 2012, increasing the number of proposals.

## **The Sustainability Pledge**

The Office for Sustainability collaborated with the Sustainability Advisory Committee (SAC) and ReNew School to promote this online pledge to take personal steps towards helping the university become a more sustainable institution. To date, approximately 700 members of the university community have taken the pledge.

**NEXT:** Continue to promote the pledge.

## **Campus Sustainability Week**

On October 25–29, the Office for Sustainability held The New School's first Campus Sustainability Week, a national initiative dedicated to promoting social, economic, and environmental sustainability in higher education. The Office for Sustainability hosted five days of presentations and workshops, from an alumni panel to a sustainability town hall meeting.

## **The Graduation Pledge**

The Office for Sustainability and the SAC launched the university's first Graduation Pledge. Working with the Graduation Pledge Alliance, the department collaborated with the Office of the Registrar to encourage 2011 graduates to participate in this commitment to furthering social and environmental justice through careers.

377 graduates signed the pledge, out of 3,250 graduates.

## Communications

The Office for Sustainability worked with Communications & External Affairs to develop various outreach strategies to reach students as well as staff and faculty.

Emails from the Office for Sustainability went out to the entire campus about:

**October:** Campus Sustainability Week

**December & May:** E-waste collection on campus

**April:** Earth Day

Social media was utilized to inform students about projects the department was working on, events and news. Over 9,000 people follow the university's Facebook page and over 10,000 follow the university's tweets.

## ReNew School

The student environmental group on campus, ReNew School, partnered with the Office for Sustainability on the following initiatives:

- Great Forest waste audit
- Waste Ambassadors at Block Party 2010
- Campus Sustainability Week 2010
- Water Week 2010
- The Sustainability Pledge

## Sustainability Club

A new graduate environmental student group was formed in spring 2011. The Office for Sustainability collaborated with this group to host a sustainability town hall meeting for Earth Day (April 22) open to the greater New School community.

## Committees

The Office for Sustainability serves on the following committees:

- Parsons' Sustainability Curriculum Committee
- Graduation Committee
- Dining Services Committee

The Office for Sustainability also met with the Advisory Committee on Investment Responsibility (ACIR) to discuss ways to incorporate sustainability into investment policies.

## Speaking Engagements

The Office for Sustainability presented to the following audiences about sustainability at The New School:

- Senior Staff Meeting
- USS Sustainability Town Hall Meeting
- Parsons School of Constructed Environments Leadership Committee
- Parsons Technical Advisory Committee
- University Curriculum Committee
- University Facilities Committee
- Orientation for incoming freshmen and transfer students, coordinated by the Office of Student Development and Activities (OSDA)

Office for Sustainability classroom appearances included:

- Architecture & Social Practice II: Water - Is It the New Oil?, Parsons
- Sustainable Design Thinking, Parsons

- Design 4: Visual Organization and Information Design, Parsons, Design and Management
- Sustainability Perspectives and Practice, Milano
- Environmental Studies 2011 thesis presentations

### **“Greening” Commencement**

The Office for Sustainability worked with the Chief of Staff and Vice President and Secretary of the Corporation and the Graduation Committee to extend the university’s sustainability best practices to Commencement 2011.

The following elements were included:

- Commencement gowns made with Repeve, a fabric made with 100% recycled polyester and plastic bottles
- Flowers locally sourced and seasonal
- Programs, flyers, and invitations printed on paper certified by the Forest Stewardship Council (FSC)
- Banners made from eco-friendly, durable materials
- Updated and expanded copy on university’s website informing students and their families how to reduce their impact Commencement weekend.

### **The New School Employee Sustainability Guide**

This guide was developed and is now available online at:

<http://www.newschool.edu/sustainability/guide>

### **Eco-Reps pilot**

In conjunction with a student’s thesis project, the Office for Sustainability supported a No Impact Week activity to determine feasibility as an alternative to a peer-to-peer Eco-Reps program for The New School.

### **Tabling**

The Office for Sustainability participates in tabling events in association with other departments on campus. This year, the following public events were attended:

- Block Party
- Winter Warm Up and Activities Fair
- International Festival
- Graduation Fair

### **CURRICULUM**

#### **Defining Sustainability**

The Office for Sustainability, in conjunction with faculty member, Cameron Tonkinwise, set out to define sustainability so to inventory all curriculum and faculty research that currently addresses the topic.

In FY11, The New School defined sustainability “*as a concern about future generations’ equitable access to complex materials, dense energy sources, clean air and water, when a diversity of non-human species also depend upon all those for their well-being.*” See the next page for a full definition.

Courses were identified that were either sustainability-focused (with assessment tasks that involve two of the three sections of the definition below) or sustainability-related (involving at least one of the three sections).

At The New School, learning about sustainability involves understanding:

**1. Rationales for concern about sustainability, such as valuing:**

- *Being precautionary (by limiting the extent of what is done or ensuring its reversibility)*
- *Equity (across peoples of different race and culture and between current and future generations)*
- *A diversity of non-human species and the uniqueness of places*
- *Democratic principles of transparency and inclusiveness*

**2. Qualities of sustainable systems, such as natural ecosystems, that tend to be:**

- *Negentropic (attempting wherever possible to stem the cosmic dissipation of energy into less concentrated and ordered forms)*
- *Resilient (with redundancies and networking that can absorb unexpected impacts)*
- *Biocompatible (with outputs that can be non-destructive inputs to mostly non-human (i.e. 'natural') systems, or non-interfering of those systems (i.e., valuable inputs to subsequent industrial systems)*
- *Dematerializing (decoupling demand satisfaction and value creation from material resource consumption)*

**3. Capacities of institutions and communities to prioritize those rationales and qualities, by incorporating:**

- *Scientifically-produced knowledge into decision-making*
- *Long term planning that take account of variable scenarios and risks*
- *Whole-of-life costing, internalizing environmental costs and restoration*
- *Timely, authentic consultation with a wide set of stakeholders and communities*
- *Accounts of humans that assume culturally-specific reasonableness constrained by socio-technical systems and routine everyday practices.*

## Sustainability in the Curriculum

An inventory was then conducted of all New School courses. (*Includes Fall 2010 & Spring 2011*)

- *Sustainability-Focused Courses:*  
65 out of 2,802
- *Sustainability-Related Courses:*  
21 out of 2,802
- *Sustainability Courses by Department:*  
17 out of 23

## Climate Action Plan

As stated in The New School's Climate Action Plan (CAP), integrating the document into curriculum is a component of ACUPCC's commitment. The Office for Sustainability presented to the University Curriculum Committee to solicit ideas for using the CAP in the classroom.

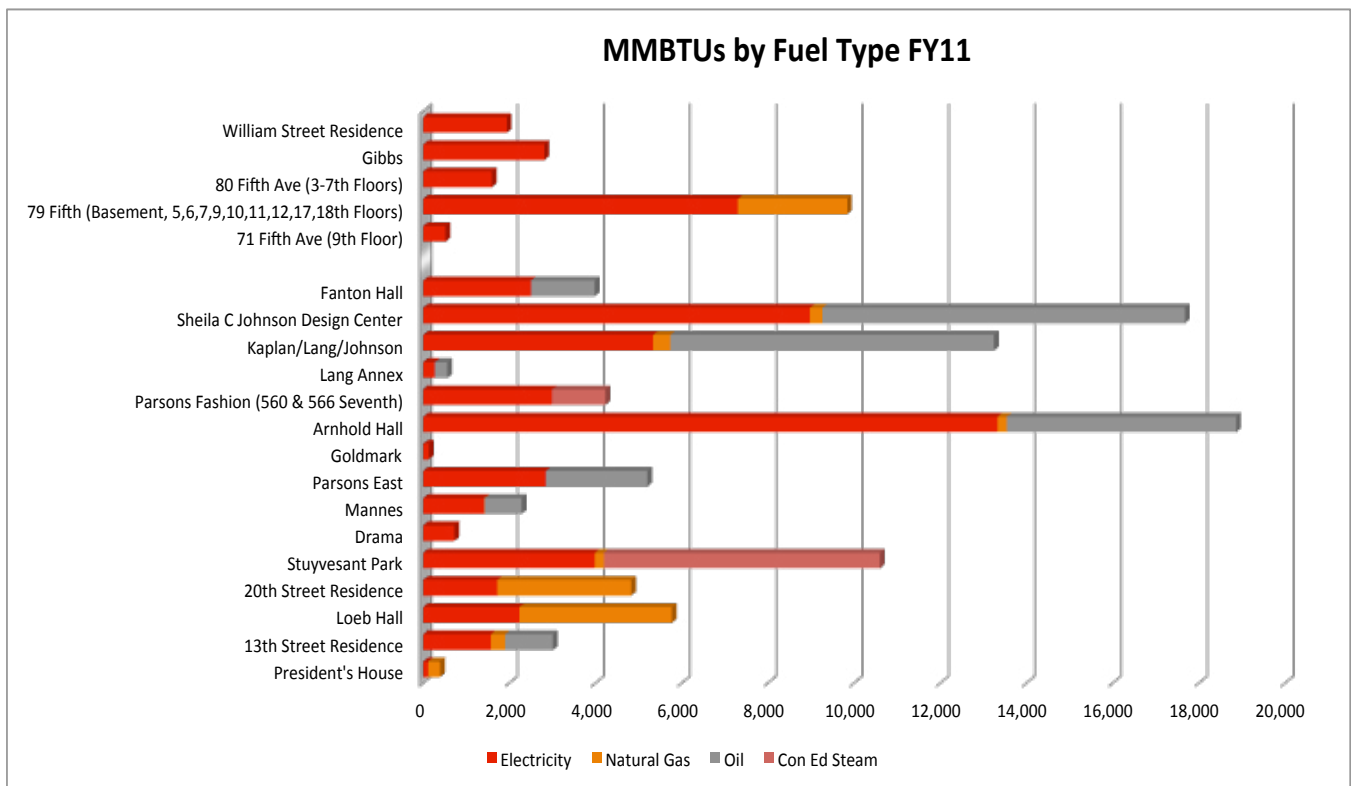
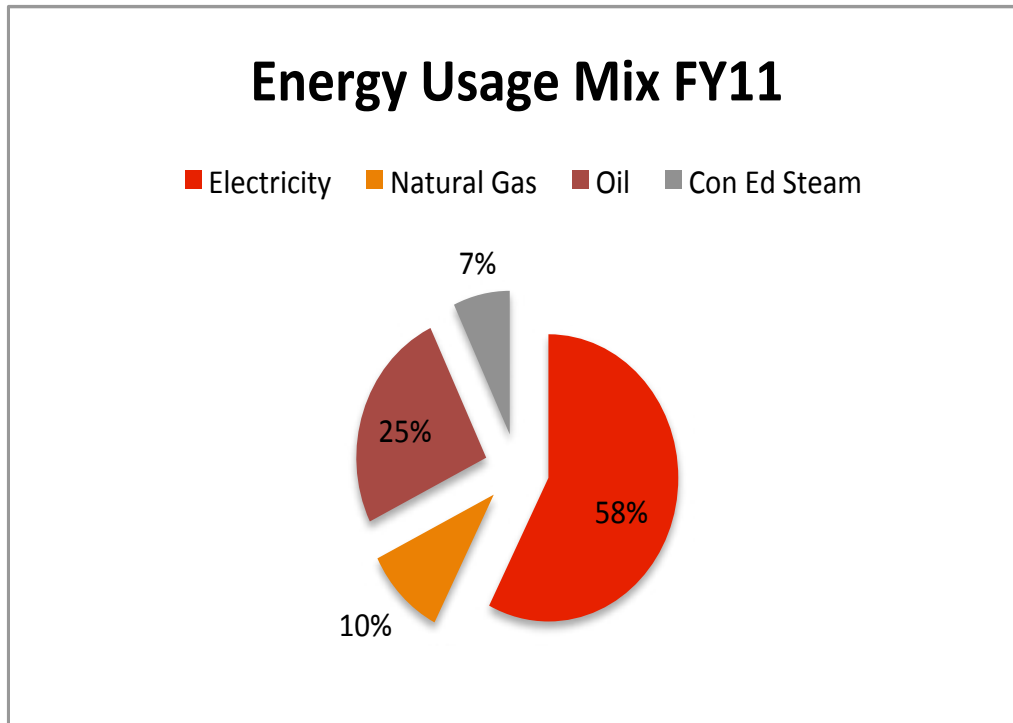
**NEXT:** Support faculty proposals for CAP in the classroom; work with artist Jamie Kruse on the *Thingness of Energy*, a Vera List Center for Art and Politics at The New School project to adapt the CAP to an interactive exhibit for Spring 2012.

## Literacy Assessment

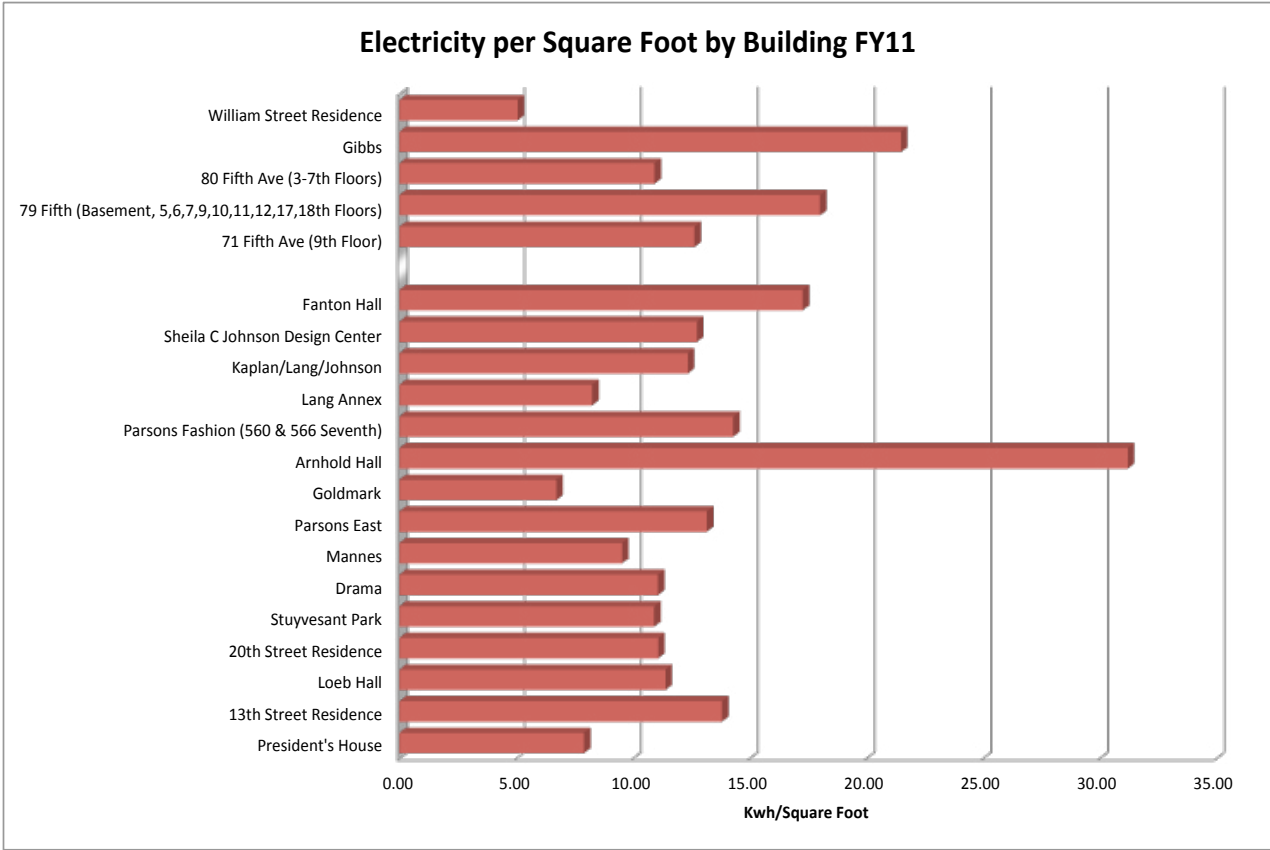
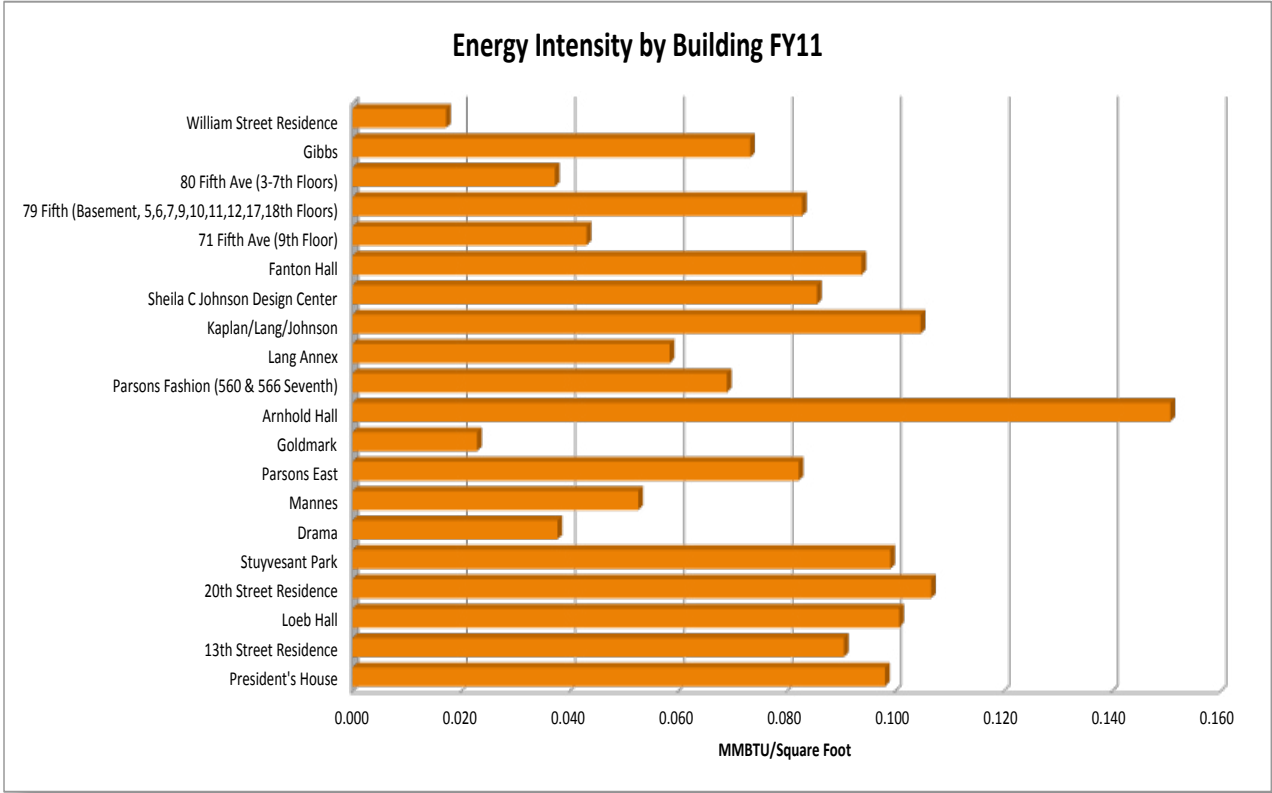
The Office for Sustainability has a strong interest in supporting the development of eco-literacy assessment across all divisions. As credit can be earned in STARS and it is a valuable measurement of how knowledgeable New School students are about environmental and social justice issues, an initial assessment was conducted at Parsons by committee.

**NEXT:** Expand to include all divisions.

## Appendix A: The New School's Energy Mix & Use FY11

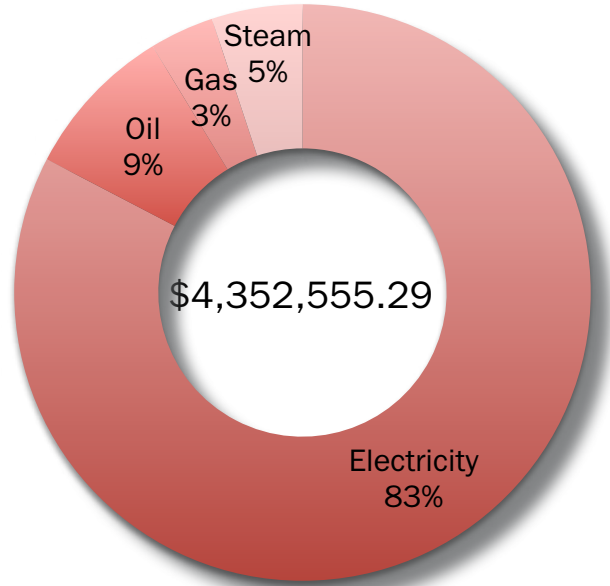


# Appendix B: The New School's Energy Intensity FY11



**Appendix C:**  
**The New School's Energy Spending FY10-FY11**

**FY10**



**FY11**

