

# SIERRA



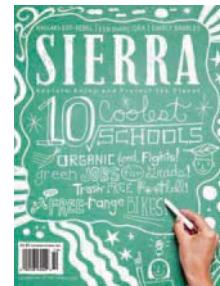
SIERRA MAGAZINE'S 2010 "COOLEST SCHOOLS" QUESTIONNAIRE



2007



2008



2009

EFFICIENCY

ENERGY SUPPLY

FOOD

ACADEMICS

PURCHASING

TRANSPORTATION

WASTE MANAGEMENT

ADMINISTRATION

FINANCIAL INVESTMENTS

OTHER INITIATIVES

# SIERRA

*Sierra*, the award-winning magazine of the Sierra Club, is compiling information for our fourth annual “Coolest Schools” issue, which will rate American colleges and universities according to their environmental practices, green initiatives, and caliber of sustainability-oriented education.

Schools that score highly in these realms may be contacted for further discussion and will receive recognition in the magazine’s September/October issue. Please fill out this interactive PDF as thoroughly as possible, save it with your responses as “2010\_coolschools\_your school’s name” and email it to [cool.schools@sierraclub.org](mailto:cool.schools@sierraclub.org) no later than **March 20, 2010**.

Note that this questionnaire will become a public document and that we will not be altering your responses before publishing them online. Please answer as thoroughly as possible. Questions left blank will receive no credit, and if a question requests a percentage, you must provide a percentage. The scoring key will be available online once the issue is published.

As the publication of the nation’s oldest and largest environmental nonprofit, *Sierra* has a readership of more than 1 million engaged and educated citizens.

Many thanks for your participation.

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**School’s city and state:** Stanford, California

**Number of students:** 6,878 (undergrad) + 8,441 (grad)

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**HONOR PLEDGE:** By completing and submitting this questionnaire, you are certifying that all statements in this document are true to the best of your knowledge.

**INITIAL:** FIA

**DATE:** 03/20/10

## Category 1: Energy Supply

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1. Please break down the energy types that your campus uses for electricity by percentage. If the school purchases its electricity from a utility company, this information should be available from that company.

<u>0</u> % Coal	<u>0</u> % Wind	<u>0</u> % Biomass
<u>98</u> % Natural Gas	<u>2</u> % Solar	<u>0</u> % Geothermal
<u>0</u> % Nuclear	<u>0</u> % Hydro	<u>0</u> % Other

Approximately 98% of Stanford's electricity comes from the on-campus cogeneration facility fueled by natural gas. Approximately 2% of Stanford's electricity comes from on-campus renewable energy sources, exclusively solar panels. The Leslie Sun Field Station at Jasper Ridge has a 20kW PV system and solar thermal water heating. Synergy House has a 10kW PV system. A 30kW PV system offsets energy used for pumping water into a storage reservoir, and the new Yang + Yamazaki Environment + Energy Building (Y2E2) showcases three types of PV systems for a total of 12kW. The President's residence has a PV installation that supplies all of the home's electricity. Stanford has the potential to supply up to the 10% of its electricity needs with PV and a proposal to add this capacity is under review.

2. What type(s) of energy does your campus use for heating buildings (e.g., natural gas, biomass, coal)?

<u>      </u> % Coal	<u>      </u> % Biomass
<u>100</u> % Natural Gas	<u>      </u> % Geothermal
<u>      </u> % Electricity	<u>      </u> % Fuel Oil

If cogeneration, please explain.

The vast majority of campus building heating needs are met by steam generated from Stanford's cogeneration facility fueled by natural gas. The remainder is provided by natural-gas fired furnaces or boilers at the building level.

In October 2009 Stanford released an Energy and Climate Plan detailing a major conversion from the existing combined heat and power cogeneration plant to a university-owned and operated separate heat and power plant with heat recovery. This will result in campus GHG emissions 20% below 1990 levels by 2020. The innovative heat recovery regeneration plant will capture low-grade/waste heat from the buildings and convert it to usable heat. Furthermore, the plan will convert the entire campus steam distribution system to a hot water system. The design of the conversion is underway, and it is anticipated that the new system will be in place within five to ten years. The new system promises major cost, greenhouse gas, and water use reductions for the Stanford campus.

To access the complete Stanford Climate and Energy Plan, please follow this link:  
[http://sustainable.stanford.edu/climate\\_action](http://sustainable.stanford.edu/climate_action)

## Category 2: Efficiency

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1. What percentage of campus buildings completed within the past three years have a LEED certification of at least silver?

\_\_\_\_\_ %

Note whether the certification is higher than silver.

Stanford's sustainable building guidelines (<http://sustainablestanford.stanford.edu/guidelines>) equate to LEED Gold. For example, they target energy efficiency in new buildings 30% below California Title 24/ASHRAE 90.1 (2004) and water use 25% below similar existing buildings. Stanford's schools independently opt for LEED certification. The 360,000 sqft GSB under construction is actively seeking LEED Platinum certification. The four new SEQ buildings are well beyond Stanford guidelines. Y2E2, the first building in the quad, featured a 42% energy reduction and plans to pursue LEED EBOM.

2. What percentage of water used for campus landscaping is from recovered, reclaimed, or untreated sources?

85 \_\_\_\_\_ %

In 2009 Stanford received the Silicon Valley Water Conservation Award. Domestic water use has decreased from 2.7MGD in 2000 - 2001 to 2.15MDG in the 2008 - 2009 academic year. Stanford uses ET controllers, as well as drought-tolerant planting to further reduce landscape water demand.

3. What percentage of campus lighting fixtures are energy-efficient (e.g., compact fluorescent, LED, or equipped with motion sensors, automatic daylight shutoff, or other energy-saving features)?

95 \_\_\_\_\_ %

For 16 years Stanford has had an Energy Retrofit Program that uses a variety of technologies to achieve energy savings. As a result of this program, and the University's sustainable building standards for new construction and major renovations, it is estimated that Stanford has 95% fluorescent or other energy-efficient lighting fixtures. All exterior lighting has daylight shutoff.

4. What percentage of campus appliances are Energy Star-rated?

\_\_\_\_\_ %

100% of new office equipment and dining appliances are now required to be Energy Star rated.

5. Does the institution have underway a program of energy-efficiency retrofitting projects, such as improving building insulation or sealing heating and cooling ducts?

Yes. Since 1993 Stanford's Energy Retrofit Program (ERP) has provided more than \$10 million for projects to improve energy efficiency, reduce building costs, reduce utility demand, and decrease maintenance costs. The result is an estimated cumulative savings of more than 240 million kilowatt-hours of electricity, or about 15 months of the University's current use. ERP projects are low risk and use technologies that are well understood. In addition, the Whole Building Retrofit Program is an effort to identify energy efficiency measures through comprehensive energy studies in Stanford's largest buildings. The original study of twelve buildings identified \$4 million of annual savings at a first cost of \$15 million dollars. Projects are underway. The second group of buildings are expected to achieve almost \$6 million of annual energy savings with a construction cost of roughly \$27 million.

## Category 3: Food

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1. What percentage (in dollars) of food served at cafeterias is grown or raised within 100 miles of the campus?

40\*\* %

\*\*Stanford continues to define local food as being sourced within 150 miles of campus. Using that definition, 40% of the food purchased is local. Stanford Dining, which has a full-time sustainability coordinator, purchases local produce from over 150 growers through select local distributors. Please visit [http://www.stanford.edu/dept/rde/dining/food\\_sys.htm](http://www.stanford.edu/dept/rde/dining/food_sys.htm) for more program details.

2. What percentage (in dollars) of food served at campus cafeterias is USDA-certified organic?

8 %

At present 100% of fat-free milk, 50% of yogurt, and 100% of hamburger patties are USDA-certified organic. Stanford Dining also has a partnership with 27 local farms to supply organic produce.

3. Do campus cafeterias source seafood that is deemed sustainable by the Marine Stewardship Council, the Monterey Bay Aquarium's Seafood Watch Program, or a similar program?

Yes. Stanford Dining is an institutional partner with the Seafood Watch Program at the Monterey Bay Aquarium. Above 80% of seafood purchased falls into the "best choices" or "good alternatives" categories with a goal of 100% during the current academic year (data compilation in progress). Stanford's Hopkins Marine Station is located adjacent to the aquarium and complements Stanford Dining's commitment to sustainable seafood.

4. What percentage of entrées served in campus dining locations include meat? If the meat is produced sustainably (for example, free-range or grass-fed), explain.

60 %

Stanford Dining made a commitment this year to serve only grass fed hamburger from Marin Sun Farms. Stanford Dining actively educates students about the environmental impact of meat consumption, including a collaborative event with 350.org called "Climate Conscious Food Week" during which students are given incentives to consume vegetarian or vegan entrees. Stanford Dining has engaged behavioral scientists and other faculty on campus to better understand how to communicate to students and/or design operations to encourage less meat consumption.

5. Are nutritionally complete vegetarian and/or vegan options available at every meal?

Yes. Stanford Dining offers vegetarian and/or vegan options at every meal at every campus eatery. All vegetarian, vegan, and gluten-free entrees are noted as such on the menu. Stanford Dining has a comprehensive sustainable food labeling system so students can have more of a connection to their food and make healthy, sustainable meal choices.

6. Is bottled water sold or distributed on campus?

Yes, especially at athletic-type events with a large, diverse audience, and for safety as part of earthquake preparedness programs. Widespread replacement with water filters is in progress.

7. Does your school maintain a campus farm or garden? Does it use organic methods? Please describe the garden and methods used.

Yes. Stanford has a one-acre student-run farm, as well as six community herb and vegetable gardens outside the dining halls, two funded by the Office of Sustainability. All supply produce to the dining halls. The campus garden and farm policy and practice is to use organic methods exclusively.

## Category 4: Academics

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1. Does your school offer any environmental- and/or sustainability-related majors, such as environmental studies, ecology, or sustainable agriculture? If so, please list them all.

Yes. All seven schools (Business, Law, Medicine, Humanities & Sciences, Earth Sciences, Engineering, & Education) and multiple research institutions (see Question 5 below) offer environmental programs, and the Initiative on Environment and Sustainability is one of four core interdisciplinary curriculum objectives. Examples of majors, minors, and graduate degree programs are as follows: (1) Earth Systems (2) Energy Resource Engineering (3) Environmental Earth System Sciences (4) Geological and Environmental Sciences (5) Atmosphere and Energy Engineering (6) Interdisciplinary Program in Environment and Resources (7) Environmental Engineering and (8) Civil Engineering.

2. Does your school offer classes about clean technologies, including topics such as energy efficiency and solar-wind energy engineering? If so, please list them all.

Yes. Currently available: (1) Green Buildings & Behavior [CEE] -- collaboration between students, research institutions, and the Office of Sustainability to implement the climate and energy plan (2) Renewable Energy for a Sustainable World [CHEM ENG] (3) Distributed Generation & Grid Integration of Renewables [CEE] (4) Electric Power: Renewables & Efficiency [CEE] (5) Renewable Energy Sources & Greener Energy Processes [EARTH SYS] and (6) Energy Resources [EARTH SYS].

3. Does your school provide students with a list of environmental and/or sustainability classes to make such courses easy to identify? Please provide a link, if available.

Yes. An Excel file with a complete listing is here: <http://sustainablestanford.stanford.edu/students>. Also, the I-Earth program guides students who are interested in such courses (<http://iearth.stanford.edu/>).

4. Please provide names of standout professors who work on environmental and/or sustainability issues and list their accomplishments, including awards, honors, and publications.

(1) Paul Ehrlich, author of "The Population Bomb" among other relevant books (2) Steve Schneider, one of several Stanford scientists participating in IPCC work, the scientific panel that shared the Nobel Peace Prize with former Vice-President Al Gore (3) Gretchen Daily, awarded the 2008 Sophie Prize by Norway's Sophie Foundation, co-founder of the Natural Capital Project to quantify the economic value of ecosystems and the services they provide (4) Harold Mooney, shared the 2008 Tyler Prize for Environmental Achievement (5) Chris Field, winner of the Heinz Award in 2009 (6) NOTE: Current U.S. Energy Secretary Steven Chu is an emeritus professor of physics.

5. Do you have environment- and/or sustainability-related centers, programs, or research institutions associated with your school? If so, please provide their names and a description.

(1) The Woods Institute for the Environment creates practical solutions for people and the planet.  
(2) Precourt Center promotes energy efficient technologies via economically attractive deployment.  
(3) The Global Climate & Energy Project seeks new sustainable energy solutions for a growing world.  
(4) The Carnegie Institution for Science explores behavior of earth systems and response to changes.

6. Is an environment-themed class a core curriculum requirement? If yes, please provide the name(s) of the course(s).

There is significant momentum on campus make I-Earth a core requirement (a set of courses to provide

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7. What percentage of academic departments offer environment- or sustainability-related classes?

67 %

All seven (100%) of Stanford's schools offer such classes. Out of 66 major fields of undergraduate study, 44 offer such classes. See the course list referenced previously in Question 3 of this category.

## Category 5: Purchasing

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1. Does your school have a sustainable-purchasing policy? If yes, briefly explain.

Yes. Stanford's Procurement Department developed Environmentally Preferable Purchasing (EPP) Guidelines. The full text of these sustainable procurement guidelines can be found here: <http://sustainable.stanford.edu/purchasing>. Consistent with Stanford's sustainability goals the purpose of this policy is to support and facilitate the purchase of products and materials that minimize harmful effects to the environment from their production, transportation, use and disposal. It is Stanford's goal to purchase and use Environmentally Preferable Products whenever they perform satisfactorily and can be acquired at similar total value (taking into account quality and Life Cycle Cost). The four main policy guidelines are as follows: (1) Stanford personnel will be encouraged to purchase Environmentally Preferable Products -- including minimized packaging/waste [see Question 4 in this category] (2) Stanford will promote the use of Environmentally Preferable Products, practices and suppliers by developing and implementing University-wide preferred supplier contracts and product standards (3) Stanford's Procurement Department will make every effort to secure contracts with suppliers that are environmental leaders in their respective markets whenever practicable and (4) Stanford will procure Environmentally Preferable Products with criteria established by governmental or other widely-recognized authorities (Energy Star, EPA Eco Purchasing Guidelines, etc.).

2. What percentage of paper used on campus is made from at least 30% postconsumer recycled content?

48.7 %

Does your school purchase paper that is Forest Stewardship Council-certified?

Stanford purchases both Xerox and HP office paper that is certified by the Sustainable Forestry Initiative ([www.sfiprograms.org](http://www.sfiprograms.org)).

3. Does your school have a policy to purchase Electronic Product Environmental Assessment Tool (EPEAT)-certified (or similar) electronics? If yes, please describe.

Yes. All Stanford-recommended computer systems are EPEAT Gold certified. Stanford worked with its IT vendors in 2009 to secure these electronics at a special price, which further motivated students, faculty, and staff to make the best choice in their purchases.

4. Do you have packaging agreements with suppliers that minimize waste? If yes, please describe.

Yes. For example: (1) Stanford Dining minimizes waste via the Sustainable Food Program and the "Love Food, Hate Waste" campaign (2) In 2008 Stanford aggregated its furniture vendors from hundreds down to two that could meet stringent requirements (3) Procurement also renegotiated all expiring dining contracts to include environmentally preferable practice and bulk orders (4) Campus-wide IT server and storage RPFs include a no waste stipulation. A pilot Dell laptop/desktop purchase with bulk packaging produced significant results and will likely become university policy.

5. Does your school specify in its purchasing contracts that products with energy-saving features be installed or delivered with these features enabled?

Yes. When IT configures machines, these features are enabled. Desktop Energy Management software is available for free to all faculty, staff, and students. This software has estimated savings of 2 million kWh/year in electricity for Stanford by turning off monitors and putting computers to sleep when not in use. Coupled with the SmartStrip program, where peripherals automatically turn off when a computer is in sleep mode, savings increase. As Climate Savers Computing members, Stanford committed to specifying systems that meet/exceed the latest ENERGY STAR specifications.

## Category 6: Transportation

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1. Does your school provide a free shuttle service around campus and town? If yes, briefly explain.

Yes. As part of a comprehensive Transportation Demand Management Program, the 41-bus fleet provides free transit to the Stanford community, visitors, and the general public, averaging over 79,000 service hours annually. More than 160 stops utilizing 14 different lines bring riders to campus locations, regional transit systems, Stanford Hospital and Clinics, Stanford Linear Accelerator, and a large variety of local shopping, entertainment, and lodging destinations. All Marguerite buses run on 5 percent biodiesel, and Stanford added two new diesel-electric hybrid buses in September 2009. All buses are wheelchair-accessible and have bike racks. Stanford's Parking and Transportation Services provides a real-time schedule and interactive shuttle map featuring real-time data, including a predictive bus departure feature, allowing passengers to efficiently and confidently make their shuttle connections. Please visit <http://transportation.stanford.edu/marguerite/realtime.shtml> for the real time schedule.

2. What has your school done to promote bicycling as a transportation method?

Stanford won the "Gold Level" Bicycle Friendly Communities Award for 2008 - 2012, and employs a full-time bicycle program coordinator to assist faculty, staff, and students with registration, route planning, training, and safety. The campus features 17 miles of bike lanes, 10 miles of bike routes, 5 miles of bike paths and 12,000+ bike rack spaces. Ample shower facilities and clothing lockers are available. A full-service campus bike shop offers sales, rentals, repairs, accessories, and equipment. Stanford offers a free one-week rental of a folding bike and a \$100 subsidy towards the purchase of such a bike. Helmet discounts, free rear lights and leg bands are available to all upon bike registration. Stanford also has nearly 100 bikes available for free through bike sharing programs on and off campus.

3. Does your school encourage its students and employees to use public transit, carpool, or use some other form of alternative transportation? If yes, what are the incentives?

Yes. Employees and students who do not commute by driving alone earn monthly cash payments via the Commute Club. Carpools and vanpools receive free parking passes, reserved spaces, and monthly subsidies. Eligible employees receive free passes for regional public transit systems including Caltrain, the Santa Clara VTA, the Dumbarton Express, and AC Transit's "Stanford Express," a transbay service initiated and partially funded by Stanford. Stanford houses 95% of undergraduates, prohibits freshmen from bringing cars, provides alternative transportation information at new employee orientation, and assesses fees on new campus development to help fund alternative transportation programs. The free Marguerite bus system, a bike-friendly campus, discounts for on-campus Zipcar, and Stanford's 511 Ridematching Service further encourage alternative transportation (<http://transportation.stanford.edu/>).

4. Approximately what percentage of students drive to school in a car?

15 %

Based on an annual user survey, the data breakdown is as follows: 3% of undergraduates drive alone and 1% carpool; 20% of graduate students drive alone and 4% carpool. Over 95% of undergraduates and over 55% percent of graduate students live on campus and thus bike or walk.

5. Approximately what percentage of faculty and staff drive to work in a car?

59 %

The data is further broken down as follows: 50% of faculty/staff drive alone and 9% of faculty/staff carpool to campus. Approximately 15% of faculty and staff reside on campus and many of these individuals bike, walk, or use the Marguerite bus to commute.

## Category 7: Waste Management

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1. What is your campus's current waste-diversion rate (i.e., percentage of campus waste being diverted from landfills)?

65 %

Stanford's Waste Reduction & Recycling Program has increased the campus diversion rate from 30% in 1994 to 65% today, with an ultimate zero waste goal. Stanford recently received the American Forest and Paper Association's College/University Recycling Award (2009) and scored in the top 20 in RecycleMania 2009 categories including per capita (16), gorilla (3), paper (9), food (6), & cardboard (17).

2. Does your campus provide recycling receptacles wherever there are trash cans?

Yes. There are over 4000 recycling bins on campus. In 2009 Stanford's waste minimization efforts continued with additional outfitting of public trash cans with recycling receptacles, including newly designed multipurpose furnishings. Stanford has a dual stream recycling program, thus there are actually two clearly labeled recycling containers for every one trash receptacle! Program outreach and activities, including waste audit participation, further increase campus and community awareness.

3. Are recycling bins readily available at large events such as football games?

Yes. Stanford has a comprehensive recycling program for large events such as football games. Published Green Event Guidelines encourage recycling and composting awareness at special events of all kinds. New sustainability initiatives for minimizing waste at events such as Commencement and Reunions/Homecoming were developed and disseminated campus-wide in 2009, and special efforts to "green" Commencement are made via collaboration with many departments. Please see the following: <http://commencement.stanford.edu/green/>.

4. Does your school compost? If yes, are compost receptacles available at all or most on-campus dining locations?

Yes. As of March 2010, all dining halls, 43 student managed houses, 19 cafes, the medical school, graduate housing, and two elementary schools on campus have compostable material collection service. Stanford is currently diverting about 108 tons of food waste monthly. Office break rooms are the next target for the program, but 100% of campus buildings can request composting service.

5. Is your school committed to waste-reduction goals, such as zero waste? Please explain.

Yes. Stanford committed to continual improvement (less absolute total waste per year) and has a Zero Waste Working Team that is specifically targeting key initiatives on campus that would consistently reduce the waste footprint for Stanford towards a zero waste goal. The group's interim goal is a 75% waste diversion rate. Waste audits have increased community awareness and involvement in the waste reduction program, as well as cooperative programs with other departments such as Stanford Dining and event planning teams.

6. Does your campus administer a donation program for clothing and other used goods when students are moving out of student housing? If so, are bins located in every dormitory?

Yes. Stanford runs a Green Moveout (<http://www.stanford.edu/dept/rde/greenmoveout/>). Collection points are available to every resident in every dormitory and large residence, as well as elsewhere around the campus. Clothing, shoes, furnishings, appliances, bedding, towels, books, utensils, dishware, bicycles and laundry supplies are collected for reuse. Additionally, Stanford has an active athletic shoe recycling/reuse program that runs year-round, sending collected shoes to war torn regions around the globe through a local non-profit organizations.

## Category 8: Administration

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1. Is environmental sustainability part of your institution's mission statement, guiding principles, or similar document? If so, please provide the text or link.

Yes. Stanford's commitment is integrated in action, and resides in four locations. (1) The University's commitment to the E&S Initiative within the Stanford Challenge, a multi-year, \$4.3B multi-disciplinary campaign aimed to produce new discoveries to address the most pressing research and academic challenges facing the world. The E&S Initiative target is \$250M. (2) Via the Sustainable Stanford Statement of Principles. This a university-wide commitment to reduce environmental impact, preserve resources and show sustainability in action. Stanford is determined to lead in research, teaching and practice of sustainability. All stated principles are here: <http://sustainable.stanford.edu/principles>. (3) The Sustainable Development Study (<http://sds.stanford.edu/>). (4) The Climate & Energy Plan issued in October 2009, which allocates another \$250 to E&S over the next decade. View the full plan here: ([http://sustainable.stanford.edu/sites/sem.stanford.edu/files/documents/StanfordEnergyandClimatePlan\\_11-10.pdf](http://sustainable.stanford.edu/sites/sem.stanford.edu/files/documents/StanfordEnergyandClimatePlan_11-10.pdf))

2. Does your school employ at least one person dedicated to overseeing campus environmental initiatives, such as a sustainability coordinator, or have a sustainability task force or committee? Is the coordinator position a part-time or full-time position?

Yes. The Department of Sustainability & Energy Management and Stanford's Residential & Dining Enterprises employ more than 25 full-time sustainability professionals. Over 100 other staff have roles that involve sustainability (university architect, project management, grounds, IT). The Sustainability Working Group convenes monthly to review policies and action on all key sustainability topics. There are 10 Sustainability Working Teams with at least 10 members each that target specific areas of concern.

3. Has your school made an official commitment to reducing its impact on climate change by setting goals of emission reductions by a certain date? If yes, does your school have a plan for achieving these reductions? If so, briefly explain the plan.

Yes. Stanford's Energy and Climate Plan, released in October 2009, sets forth a process through which the University can meet its target reduction in greenhouse gas emissions of 20% below 1990 levels by 2020. This will be achieved by converting the existing combined heat and power cogeneration plant (natural gas fueled) to a separate heat and power plant with heat recovery. The innovative heat recovery regeneration plant will capture low-grade/waste heat from buildings and convert it to usable heat. The entire campus steam distribution system will be converted to a hot water system. Stanford will not use RECs or offsets. View the complete plan here: [http://sustainable.stanford.edu/climate\\_action](http://sustainable.stanford.edu/climate_action).

4. Has your school conducted a complete greenhouse-gas-emissions audit of its campus?

Yes. Stanford has completed three audits to date. Stanford is a member of the California Climate Action Registry (CCAR) and has completed a greenhosus-gas-emissions audit each year since 2006 and reported results to the CCAR. For a full emissions inventory discussion, see the following: [http://sustainable.stanford.edu/emissions\\_inventory](http://sustainable.stanford.edu/emissions_inventory). Stanford's certified emissions inventory can be viewed at <https://www.climateregistry.org/CARROT/public/Reports.aspx>.

5. Has your school achieved a reduction in total annual carbon emissions? If yes, please explain and provide the benchmark year and percentage.

Yes. Stanford has consciously worked to reduce its total annual carbon emissions for more than two decades. Through its use of the natural-gas-fired cogeneration facility for all its energy supply since 1987, the Energy Conservation Incentive Program, and the Energy Retrofit Program, the university has saved one year's worth of electricity in the last decade, despite campus growth. The comprehensive Energy and Climate plan will transform the cogeneration facility into regeneration and Stanford's commitment to reducing greenhouse gas emissions to 20% below 1990 levels by 2020. Reported GHG emissions for 2008 are already expected to be about 1% lower than the 2007 inventory. The GHG emissions from commuting (as part of the Transportation Demand Management Program) are already below 1900 levels.

## Category 9: Financial Investments

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### 1. Is all information about your endowment fund publicly available? Briefly explain.

The Stanford Management Company (SMC) makes a list of all holdings available to trustees, senior administrators, and other select members of the school community. Stanford does not invest directly in individual companies; rather, the University applies Modern Portfolio Theory (MPT) to invest endowment assets by focusing on the performance of domestic and global market asset allocations, including public equity, private equity, absolute return, special situations, real estate, fixed income, and cash. SMC, through Stanford's Annual Report, publishes the University's endowment performance against benchmarks and its peers in asset allocation areas; this report is publicly available on the website.

### 2. Does your institution have an investment-responsibility committee that considers and acts on environmental issues?

Yes, the Stanford University Advisory Panel on Investment Responsibility and Licensing, which includes faculty, students, alumni, and staff, fulfills this role. The University developed Investment Responsibility-related Social Issue Policies and Proxy Voting Guidelines regarding several Core Social Issue categories, including the environment. Stanford has identified 15 environment issue sub-categories ranging from climate change to toxins to guide proxy voting. Any concerned Stanford constituent may create a "Request for Review" regarding potential portfolio holdings that may cause "substantial social injury" for inquiry and potential divestment. Votes cast on environmental proxy resolutions are available to members of the university community on a password-protected website.

### 3. Does your school make environmentally responsible investments? If so, briefly explain what they are and whether they're made on an ongoing basis.

Yes. Stanford is currently invested in renewable energy holdings and these investments are made on an ongoing basis. Stanford continues to explore further investment in renewable energy and similar investment vehicles.

## Category 10: Other Initiatives

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1. Have any of your school's students effected positive environmental change on a campus, state, or national level? If so, please describe. (To nominate a specific student for greater attention in our coverage, please email [cool.schools@sierraclub.org](mailto:cool.schools@sierraclub.org) with his or her name, accomplishments, and contact information.)

Yes. More than 15 student groups at Stanford work towards environmental change. A full list of groups is available on the Sustainable Stanford website: [http://sustainable.stanford.edu/student\\_groups](http://sustainable.stanford.edu/student_groups). Most groups combine undergraduate and graduate students, leveraging talent and passion to initiate change in everything from slow food to green living and solar cars. On 03-08-2010 the student organization "Green Alliance for Innovative Action" held a summit where U.S. Secretary of Energy Steven Chu presented the keynote address, "Meeting the Energy and Climate Challenge" and urged students to continue working for a national clean-energy revolution. The Stanford Student Green Fund provides grants (\$30k annual total) for innovative student-driven projects designed to create a more sustainable campus. Current winners and reports can be found here: [http://sustainable.stanford.edu/green\\_fund](http://sustainable.stanford.edu/green_fund).

2. Have students participated in environmental challenges or events such as the Solar Decathlon, environmental design contests, or environmental debates? If so, which events and how did they do?

(1) Stanford students won the 2009 AASHE award for Student Research on Campus Sustainability with their paper entitled: EVs with PVs: Analysis of Electric Vehicle Integration at Stanford University Using Solar PV Panels (2) Stanford Solar Car project competes in the World Solar Challenge and the North American Solar Challenge. The team has produced eight generations of award-winning cars, and the ninth-generation vehicle will compete in 2010. (3) Stanford's Green Living Council hosts "weekly green challenges" on campus for the Stanford community: <http://glc.stanford.edu/greenchallenge>

3. Has your school set aside part of its campus as natural habitat, stipulated limited campus development, or enacted programs preserving its land? If so, please explain.

Yes. Over 60% of Stanford's 8,180 acres of land has been retained as undeveloped open space and forest. This includes the Dish, Lake Lagunita, and the 1,200-acre Jasper Ridge biological preserve. Stanford completed a Sustainable Development Study which Santa Clara County approved in April 2009. This cross-department initiative addresses how the university will apply sustainable planning principles as it grows over the long term, and includes a specific chapter on Stanford's Sustainability Programs. As an example of controlled growth, in FY07 all new on-campus housing and 90% of other development were achieved by infill. Stanford filed a Habitat Conservation Plan with US Fish & Wildlife Service in 2008 to protect campus wildlife habitats, including those of three local threatened species. Please visit <http://hcp.stanford.edu/> for more details.

4. Does your school adhere to an indoor air-quality policy (e.g., the mandated use of nontoxic cleaning supplies)? If yes, describe the policy.

Yes. Stanford contracts with ABM for custodial services, and uses the "ABM Green Care" service, which is specifically designed to minimize the environmental impact of facility cleaning operations and improve indoor air quality via the use of procedures and products that meet current Green Seal and other requirements. Furthermore, Stanford's Lab Design Standards and Facility Design Guidelines address indoor air quality policies regarding everything from carpet adhesive to VAV fume hood configuration.

5. Does your school offer outdoor- or nature-based programs, classes, or extracurricular activities to students and/or faculty? If yes, please list and describe.

Yes. In addition to the class list referenced in Category 4: Question 3, many of which involve hands-on outdoor learning (Hopkins Marine Station, Stanford at Sea, Local Sustainable Agriculture, etc.), students and faculty/staff are able to learn local ecology and field techniques at the Jasper Ridge Biological Preserve while being trained as a docent, volunteer at Stanford Farm, attend a campus sustainability tour, "Walk the Farm" with the Bill Lane Center, become a Y2E2 docent, or perform a waste audit. Stanford's Outdoor Education Program teaches wilderness and backpacking skills teach quarter. SOEP also trains leaders who take incoming freshmen on week-long backpacking trips.

## Category 10: Other Initiatives, continued

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6. What specific actions has your school taken to improve its environmental sustainability since spring 2009? Please list all improvements.

(1) Comprehensive long-range Energy and Climate Plan with GHG targets 20% below 1990 levels by 2020 and correlated 15% reduction target for fresh water use for energy distribution (2) Drafts of sustainable water and sustainable transportation plans (3) BLSP launch -- new program with 3 successful pilots with substantial resource savings (4) Additional full-time sustainability professionals (new coordinator, associate director in building energy management, energy engineers) (5) Campus sustainability event during Earth Week with Denis Hayes (6) Publications of "A Guide for Sustainable Living at Stanford" the "Green Event Guidelines" and a quarterly newsletter "Cardinal Green" (7) Established regular office hours and town halls for student/administration communication (8) Formalization of a new campus sustainability tour to highlight operations and general education

7. Please use this space to address any other unique or interesting sustainability initiatives that have not been previously mentioned:

In 2009 Stanford launched the Building Level Sustainability Program, a platform for Schools and Departments to implement sustainability practices at a building level. The program aims to instigate behavioral change for all members of the campus community via education, and to harness the efforts of individuals to implement sustainability practices locally. The program includes a comprehensive, yet customizable, Toolkit to guide a qualified coordinator, be it a building manager, a trained student, or other staff appointed by Administrative Deans. The Office of Sustainability ran two BLSP pilots in 2009, both of which showed significant (10%+) reductions in energy consumption and corresponding payback periods of less than a year for modest investments in SmartStrips and timers.

In support of the BLSP, Stanford offered Civil and Environmental Engineering / Earth Systems 109 in the winter quarter of the 2009 - 2010 academic year. This represents the first overarching local sustainability course offered by Stanford, and students completed BLSP evaluations in two buildings for their final projects. Interviews will begin in the spring to hire student coordinators from this class to continue BLSP efforts in the targeted CEE/EARTHYS 109 buildings. The course will likely run again in the fall 2010 - 2011 quarter, and plans are in place for it to become an annual or semi-annual offering.

Stanford's new Sustainability Coordinator will also take on efforts related to the BLSP, including further official rollout and development of formal sustainability metrics and assessments through which participants can understand their individual impact in ways other than data found in utility bills.

Stanford University's Energy Conservation Incentive Program (ECIP) is a second example of a program designed to reduce energy use through department incentives (management behavior driven) rather than technology. The ECIP uses financial rewards and penalties to promote more efficient daily habits and purchasing decisions by Stanford's schools and administrative units. This program helps reduce electricity use inexpensively and has achieved an overall 3% reduction thus far while also fostering a campus culture that supports energy efficiency activities on both a personal and institutional level.

Stanford, one of the only higher education institutions to join The Green Grid ([www.thegreengrid.org](http://www.thegreengrid.org)), launched a Sustainable IT Working Group in July 2007 to identify opportunities to reduce greenhouse gas emissions from the university's IT infrastructure. In October 2008, Stanford formalized this role by hiring a Director of Sustainable IT. Projects undertaken by this group in the last year have reduced energy use from desktop computers, expanded server virtualization, led the energy retrofit of the campus datacenter, and analyzed energy use in distributed server rooms. Efforts so far reduce campus electrical energy use by over 4,000,000 kWh/year and reduce chilled water use by over 175,000 ton-hours/year.