



PHYSICAL PLANNING AND CONSTRUCTION

SANTA CRUZ, CALIFORNIA 95064

31 January, 14

**TO INTERESTED PROFESSIONALS AND CONSULTANT FIRMS**

**Re: Request for Information (RFI)  
Integrated Climate and Energy Strategy**

Dear Colleague:

The University of California, Santa Cruz is pleased to be issuing a Request for Information for the Integrated Climate and Energy Strategy (ICES). This package includes information on the request and requirements for submitting your response to the RFI. The material provided from this RFI will inform the campus in developing a Request for Proposal (RFP) or Request for Qualifications (RFQ) for ICES.

**The complete responses to the RFI are due by: 4:00 p.m. February 26, 2014.**

Email inquiries regarding this Request for Information will be accepted until 4:00 P.M. PST, 02/13/14. Questions are to be emailed to: [cathomure@ucsc.edu](mailto:cathomure@ucsc.edu). Responses to all inquiries will be generated and shared [here](http://sustainability.ucsc.edu/topics/Energy.html) (<http://sustainability.ucsc.edu/topics/Energy.html>) by 4:00 P.M. PST, 02/18/14.

Thank you for your time and consideration in assisting our campus achieve its sustainability goals.

Sincerely yours,

John Barnes, AIA  
Campus Architect  
Associate Vice Chancellor Physical Planning and Construction (PPC)

January 31, 2014

**REQUEST FOR INFORMATION**

**INTEGRATED CLIMATE & ENERGY STRATEGY**

**UNIVERSITY OF CALIFORNIA, SANTA CRUZ**

**DUE: 4:00 P.M., PST, 02/26/14**

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## SECTION I – REQUEST FOR INFORMATION

University of CA- Santa Cruz (UCSC) is requesting information from qualified firms or individuals for consideration in developing an **INTEGRATED CLIMATE & ENERGY STRATEGY (ICES)**. The material provided from this Request for Information (RFI) will inform the campus in developing a Request for Proposal (RFP) or Request for Qualifications (RFQ) for ICES.

Packets are to be emailed to:

Chrissy Thomure, Climate Action Manager  
[cthomure@ucsc.edu](mailto:cthomure@ucsc.edu)

Email inquiries regarding this Request for Information will be accepted until 4:00 P.M. PST, 02/13/14. Responses to all inquiries will be generated and shared [here](http://sustainability.ucsc.edu/topics/Energy.html) (<http://sustainability.ucsc.edu/topics/Energy.html>) by 4:00 P.M. PST, 02/18/14.

The University of California Santa Cruz reserves the right to suspend, cancel or reissue this Request for Information at any time without prior notice.

Packets are due on or before 4:00 P.M. PST, 02/26/14. **No packets of information will be accepted after this time.** Since this request will not result in a contract nor will it be evaluated, no other public disclosure will be made.

UNIVERSITY OF CALIFORNIA- SANTA CRUZ



John Barnes, Campus Architect

## **SECTION II – PURPOSE OF THE REQUEST FOR INFORMATION**

### 1.1 INTENT

*Background:* University of California Santa Cruz (UCSC) aspires to achieve carbon neutrality by 2025 and to reduce its Scope 1 stationary emissions to below the California Cap & Trade program's threshold for regulation of 25,000 MT CO<sub>2</sub>e. University of California President Janet Napolitano recently issued a directive, which can be viewed by clicking [here](#), for all UC campuses to reach carbon neutrality by 2025. In 2007, the UC system signed on to the American College and University President's Climate Commitment pledge to achieve 1990 level emissions by 2020 for scopes 1-3. UCSC adopted this policy internally and continues to strive to meet these goals. The University's Climate Action Plan is at [http://rs.acupcc.org/site\\_media/uploads/cap/935-cap\\_2.pdf](http://rs.acupcc.org/site_media/uploads/cap/935-cap_2.pdf) and its Campus Sustainability Plan is at <http://sustainability.ucsc.edu/governance/plans-reports/campus-sust-plan/>. Please note the Climate Action Plan is outdated but can serve as a historical reference. Also, UCSC is currently constructing a new cogeneration facility that will provide about 60% of the campus' electricity needs and will come online in 2015.

*Intent:* UCSC is currently seeking information through the Request for Information (RFI) process. The information gathered from this RFI will be considered in the development of a Request for Qualifications (RFQ) or a Request for Proposals (RFP) to implement the Integrated Climate and Energy Strategy (ICES). The RFQ/RFP will set the University's expectations, and invite potential alliance firms to state how they would meet or exceed these expectations, and to also state what measurement system they might put in place so that both the alliance firm and the University will know if the alliance firm is doing so. UCSC seeks to form an alliance with a firm or firms to implement ICES, a process that includes; the collection and analysis of pertinent data and information, development of various scenarios for adequately meeting the University's climate goals, the evaluation of the various alternatives identified and the development of a detailed, specific roadmap for meeting the goals using the preferred alternative.

The process of developing this roadmap may include (but is not limited to) the following steps that would result in development of a final strategy for achieving the goals stated above:

1. Gathering and analyzing energy data for the University's approximately 5.9 million square feet of facilities,
2. Conducting Level 1 & 2 ASHRAE audits for energy savings for a large percentage of the campuses' buildings- and potentially some Level 3 audits for targeted therm savings,
3. Conducting a feasibility study that identifies and evaluates the potential for onsite sustainable energy sources such as solar thermal, wind, solar PV, waste-to-energy, fuel cell, micro-hydro & other developing technologies,

4. Evaluating procurement opportunities such as renewable energy credits, Cap & Trade compliance instruments, biogas and other offsets to help offset UCSC's energy use,
5. Developing a strategy and recommending policies, programs, priority projects and funding mechanisms that will help UCSC meet its goals.

The process and plan will help the University identify the most sustainable and cost-effective combination of strategies for reducing its emissions and meeting its climate goals. The final product will be a strategic plan with associated audit reports & studies that includes suggested policy revisions to support plan implementation. UCSC intends for the alliance to utilize faculty expertise and integrate student involvement in this process as part of its broader commitment to supporting sustainability education on campus and would expect the selected firm or firms to support this objective. The University also expects this alliance to share its process and strategies and promote the final product to other entities with similar objectives. The University encourages firms to partner where an alliance would build a stronger, more effective team.

UCSC intends to issue an RFQ/RFP that includes a scope of work that incorporates a campus-wide energy audit in continuation of our [Strategic Energy Plan](#) (SEP) and identify projects to be performed in calendar years 2014 - 2017. UC Santa Cruz has actively been completing energy efficiency projects since 2004 under the Higher Education Partnership Program with PG&E. The University funds the majority of its projects, which have a requirement of about a seven to ten-year payback, through low cost bonds. The campus built environment consists primarily of offices, classrooms, laboratories, residential, and recreational spaces. Most of the projects have been in buildings such as these and were 50,000 square feet or more.

Moving forward we will be looking at implementing additional energy efficiency (E2) projects campus-wide, with a focus on deep retrofits in larger campus buildings (>30,000 sqft) as well as exploring opportunities for smaller buildings, dining and housing facilities. The scope of work in this audit might include the following tasks:

1. Gather & analyze existing energy data, assist staff in disaggregating data by building, calculate EUI
2. Frequently meet with the Strategic Energy Plan (SEP) administrative team gather information about the buildings on campus, obtain information on previous E2 projects and currently identified potential projects, conduct analysis to develop a preliminary list of target buildings and Energy Efficiency Measure (EEM) projects that would be viable candidates for the next phase of work and develop a plan for implementing projects.
3. Identify energy conservation opportunities (energy efficiency, load management and operations & maintenance)
4. Evaluate kWh/therm savings by conducting site visits, Level 2 audits (and potentially some Level 3 audits for targeted therm savings)
5. Calculate Peak Savings (kW), Electricity Savings (kWh), Gas Savings (therms), Annual Cost Savings, CO<sub>2</sub>e Savings Measure Cost (broken down

into materials and labor costs), Potential PG&E Incentive (based on campus' Higher Education Partnership incentive rates, w/ PG&E Measure Code Name, Measure Code Number), Net Measure Cost, Estimated Usable Life of hardware, NPV, Simple Payback (yr). Energy savings should be presented pre-retrofit energy usage, post-retrofit energy usage, and savings. Baseline energy use should be included for energy savings verification. Cost per kWh, cost per therm, emissions factor and discount rate should all be in a separate table, and absolutely referenced in formulas, so that they can be adjusted as necessary.

6. Provide a list of these projects in an Excel spreadsheet template for submittal to the Higher Education Partnership Administrative Team

Additionally, UCSC is interested in exploring creative arrangements that provide capital & resources for project identification and implementation that expand beyond our existing capital infrastructure and funding mechanisms.

The University expects that the RFQ/RFP would be issued sometime in mid-March and may result in a one-year agreement. The general timeline for ICES is below:

Integrated Climate & Energy Strategy 2014				
Task	Jan-Apr	May-Jul	Aug-Oct	Nov-Jan
Requests for Information	X			
Requests for Proposals/Qualifications	X			
Initiate Therm Savings Study		X		
Initiate Energy Efficiency Study		X		
Initiate Renewable Energy Feasibility Study		X		
Official Recommendation on Cap & Trade Opt-In Opportunity			Sep. 1	
Draft Studies & Report			X	
Wrap up & Recommendations				X
Begin Project Implementation				X

*Information Request:* An interdisciplinary team of twelve members will be developing the RFQ/RFP. They make up two teams: The Cap & Trade Task Force and the Energy & Greenhouse Gas Working Group and represent the following areas of operation on campus: Physical Plant, Physical Planning & Construction, Office of Budget & Finance, Sustainability Office, Housing, Environmental Health & Safety and Dining Services. This group is interested in obtaining the following information from interested firms:

1. General Qualifications:
  - a. General information on the experience level your firm has in the following areas:
    - i. Climate action planning
    - ii. CA Cap & Trade program

- iii. ASHRAE Level 1-3 energy audits for large research universities, wet labs and data centers
    - iv. Renewable energy feasibility & development
    - v. CA higher education financing options & innovative opportunities
  - b. If your firm does not have expert-level experience in any of the above areas, what might it do to fill those gaps? Has your firm partnered with other firms before on similar areas? If so, with whom and did you meet the client's expectations?
  - c. Provide some examples of recent, innovative plans your firm has created or projects that your firm has implemented that would support the work intended in UCSC's pending request.
  - d. How does your firm evaluate its progress in meeting client's expectations and goals?
  - e. How does your firm evaluate your client's satisfaction with your services?
  - f. Has your firm completed any projects similar to the proposed ICES scope? If so, please provide detailed information and examples on these projects; explain the process followed in achieving your client's goals and the outcomes. Provide references from the clients (specifically the project managers you worked with on the project).
- 2. Request for Qualification/Request for Proposal
  - a. Given the complexity of these goals and the very limited resources available to support them, how would you advise the University develop an RFQ/RFP that addresses the teams' expectations while ensuring that the budget is prudent and efficiently managed?
  - b. UCSC is looking for a partner that is eager to develop an exemplary plan that can become a national model to be promoted and shared. What information and requests should be included in the RFQ/RFP to ensure that we select the right partners that will strive to meet our expectations?
  - c. Please share any model scope, RFQ/RFP based on similar projects.
- 3. Budget Planning
  - a. Given the limited resources to implement ICES, the University needs to thoroughly understand the potential costs associated with implementing every aspect of the scope. How can we ensure that UCSC gets the most detailed cost estimate to implement the ICES scope at the time of selection and mitigate changes in scope/budget increases?
  - b. What information and resources could the RFQ/RFP provide that would help potential bidders to provide the most detailed cost estimate possible?
  - c. Provide general cost ranges for the following:
    - i. Hourly rates for various professional services
    - ii. Cost/SF for Level I, II & III audits for various types of buildings

*Qualifications:* The University desires to form an alliance with a team who can strategically plan at a high level while also providing detailed technical expertise. Please note that the primary firm of any team answering this Request for Information must have a licensed architect or engineer in a structural, mechanical, electrical, or civil discipline as part of their team. The ideal team will be versatile and proven experts in the following areas:

1. Climate action planning
2. CA Cap & Trade program
3. ASHRAE Level 1-3 energy audits, especially with regard to large research universities, wet labs and data centers
4. Renewable energy feasibility & development
5. CA higher education financing options & innovative opportunities
6. Working in a academic setting to support student learning and faculty research as appropriate

The ideal team will also identify climate action innovations and new business opportunities for UCSC, not just provide strategies based on the status quo, and will become a partner with UCSC in its quest to achieve climate neutrality as much as a direct provider of services. Due to the complexity and aggressiveness of the University's goals, it expects this alliance to go above and beyond to develop an exceptional, attainable plan that can serve as a national model for universities and colleges, as well as provide an experiential learning opportunity for students.

### **SECTION III - BACKGROUND INFORMATION**

#### **1.1. DEPARTMENT BACKGROUND/INFO**

This solicitation is being done in association with the University's Sustainability Office. The Sustainability Office oversees the coordination and implementation of the Campus Sustainability Plan (CSP), a broad transformational initiative to increase sustainability campus-wide and move UCSC toward its vision. The CSP is updated every three years and provides a comprehensive and detailed framework for advancing sustainability in nine interconnected topic areas, establishing goals, objectives, and metrics to guide and track progress. At the core of UCSC's CSP are nine ongoing working groups, each addressing a critical topic related to campus sustainability. More information on the topic areas is available at <http://sustainability.ucsc.edu/topics/>.

The Energy and Greenhouse Gas (EGWG) working group has identified the implementation of the Integrated Climate and Energy Strategy as the priority task for achieving its Campus Sustainability Plan goals and objectives. The EGWG, which comprises fourteen members involved in physical planning, construction and campus operations, will serve as the internal team supporting and guiding the implementation of ICES. Each member will serve a critical role in the implementation of ICES by providing information, data and insight as the process unfolds. The Sustainability Office's Climate Action Manager and the Physical Plant's Energy Manager are the co-chairs of the

Working Group and will be the main points of contact for the selected consultant team.

More information on the University's Sustainability Office is available at <http://sustainability.ucsc.edu>.

## 1.2. UNIVERSITY OF CALIFORNIA- SANTA CRUZ

Since its inception, UCSC has been dedicated to excellence in undergraduate education, graduate studies, and research. The University is one of the premier public research universities in the nation. UCSC is research-driven but focused on learning - teaching is carried out in a context that encourages the creation of new knowledge. UCSC maintains a tradition of academic excellence in core disciplines and has become an important global center for innovative interdisciplinary teaching and research.

UCSC's projected fall/winter/spring enrollment in 2012-13 is 16,770 students. This includes 15,335 undergraduates and 1,435 graduate students. The average ratio of student FTE to budgeted faculty FTE was 19.4 to 1 in 2010-11. UCSC offers instruction in the traditional fall-winter-spring quarters, as well as during the summer and in off-campus venues such as Education Abroad and UCDC at the University of California Washington DC Center. Currently, about 90 percent of the students are undergraduates enrolled in one or more of UCSC's 57 majors.

The UCSC main campus consists of approximately 2,000 acres of land overlooking Monterey Bay. Its 559 buildings (including residential and leased facilities) provide approximately 5.9 million gross square feet of space. UCSC leases over 163,000 square feet of space at 8 different locations in Santa Cruz, and 1 location in Silicon Valley. The campus has research facilities located on Monterey Bay (the 73-acre Marine Science Campus about 2 miles from the main campus and the 483-acre Monterey Bay Education Science and Technology Center near Monterey, California), at Lick Observatory on a 3,600-acre site atop Mount Hamilton in San Jose, California, and at NASA Ames in Silicon Valley. UCSC oversees nearly 5,000 acres of natural reserves, and provides instruction in Silicon Valley via UC Santa Cruz Extension. UCSC also manages a University Affiliated Research Center (UARC) under a 10-year \$330 million contract with NASA Ames Research Center in Mountain View, California.

The campus is the largest single employer in Santa Cruz County. Over 11,300 W-2 statements were issued to faculty, staff, and student employees in 2011. In 2011-12, UCSC generated \$1.3 billion in economic activity within the Monterey Bay Area. This supported over 15,750 jobs for area residents. In addition, UCSC faculty, staff and students contribute approximately one million hours of community service, which represents an economic value of more than \$12 million to the local economy. 280 non-profit organizations in Santa Cruz County rely on the Student Volunteer Center for student help, and 44% of all UCSC students participated in community service or volunteer activities in 2012.

## **SECTION IV – PROJECT EXPECTATIONS**

The following are the University's expectations. Potential alliance firms are invited to state how they might meet or exceed these expectations, and to also state what measurement system they might put in place so that both the alliance firm and the University will know if the alliance firm is doing so.

The alliance firm would be expected to:

1. Maintain feedback loops with the utility master plan update team, Cap & Trade Task Force, Energy and Greenhouse Gas Working Group, other sustainability working groups, [IDEASS](#) students and other pertinent stakeholders.
2. Recommend strategies for streamlining data collection, data reporting & other processes.
3. Integrate faculty & students into process to support experiential learning.
4. Understand the full depth and breadth of the University's sustainability goals, objectives and aspirations.
5. Understand the full depth and breadth of the University's unique situation related to pending Cap & Trade regulation and how the timeline for decision-making and various ICES strategies will financially impact this position.
6. Identify innovative projects and initiatives that will assist the University in achieving institutional climate neutrality and addressing Cap & Trade.
7. Rank these projects in terms of their lifecycle costs and benefits.
8. In cooperation with Physical Plant staff, create project delivery mechanisms to accomplish these projects.
9. Recommend strategies for the creation of a revolving pool of funds or other financing mechanisms to move projects and technologies through the development process.
10. Where appropriate, assist in the implementation of projects.
11. Suggest alternative approaches to achieve the University's sustainability objectives.

## **SECTION VI – EVALUATION CRITERIA**

Responses to the Request for Information will not be officially evaluated. However, below are some examples of criteria UCSC may use in evaluating future ICES proposals.

1. The completeness of the responses to the questions and requests in the RFP/RFQ
2. The experience of the firm in developing large and small-scale projects that reduce energy consumption or develop energy from renewable sources.
3. The ability of the proposer to identify and implement innovations to assist UCSC in achieving institutional climate neutrality.
4. Proven creativity in addressing the challenges posed in the request.
5. The commitment of the firm to sustainable project development.
6. Any additional value offered.