Request for Proposals
Website Developer

Contract Length and Location:
This project is in the California Center for Sustainable Communities at UCLA and is under the direction of Dr. Stephanie Pincetl. The project must be complete by December 2014.

Project Title
Interactive Energy Atlas for Los Angeles and Climate Action Wiki

Project Overview
This website will help policy makers, energy planners and members of the public better understand building energy consumption across space and time and will provide information and resources on how to reduce that consumption.

I. Interactive Atlas: The interactive atlas is a web-based application that decision-makers and members of the public can use to understand building energy consumption and greenhouse gas emissions over time and space in LA County. This project will enhance and expand an existing mapping website: (http://sustainablecommunities.environment.ucla.edu/maproom/index.html)

Users will enter the website and be able to view a series of interactive maps, charts and graphs. They will be able to tailor their experience to gain the specific information they need. For example one could enter "South Bay Council of Governments" into a search and pull up a map depicting electricity and natural gas use with in the SBCOG territory.[1] They could then, for example, hit play and see how energy consumption changes across the seasons and years. Other features might include the ability to zoom in to see more specific land use and other characteristics of certain areas. UCLA researches will develop the interactive GIS maps, the web developer will create a cohesive website that houses the maps and the best practices compendium (described below).

II. Best Practices Compendium: Two of the fundamental weaknesses of best practices documents are that they become quickly outdated and they do not have a platform to build communications and partnerships between users. This project will overcome both of these challenges by developing a platform that is dynamic, continually updated and has built within it a means for users to interact and collaborate. Juan Matute (a CCSC and LARC research affiliate) has created a TransitWiki, a MediaWiki-based site that serves as an example for the climate planning wiki. It is available here: http://www.transitwiki.org/

[1] This example is meant to illustrate the type of functionality possible with such a tool. Exact functionality will be determined through a series of stakeholder meetings.

Desired Qualifications

We are seeking a motivated and creative person or team that is able to develop a custom website throughout its entire project life cycle. Well-qualified candidates will have experience with rapid web development, take initiative, have prior-experience designing user-friendly applications, enjoy finding solutions to a variety of challenges, be comfortable taking feedback from and working with a diverse team and be excellent communicators. The website will house the interactive atlas, best practices compendium and related content.

The developer's primary tasks are described below.

1. Atlas Website Development

   The developer will envision and build an interactive website that elegantly engages front-end users in the findings of 1) an analysis conducted by UCLA researchers that maps and analyzes building energy consumption across space and time and 2) a compendium compiled by the LARC that assess best practices in energy conservation. He or she must develop site navigation and categorization of content that funnels users through content in a meaningful and useful way. The web developer will create a site layout and user interface from provided design concepts by using HMTL/CSS practices.

2. Interactive Map Integration

   Web-based mapping is a highly desired qualification, but is not required for this position (we have other team members who are GIS experts). The developer must have experience working with multiple web programs and applications. The developer will be responsible for integrating the interactive energy map with the atlas website.

3. Graphic Design

   The developer must have the ability to develop site content and graphics related to the Interactive Atlas and Best Practices Compendium projects. Design may include, but is not limited to, logos, icons, banners, infographics, and possibly audio/visual enhancements. It should look and feel like the host institutions as well so it is identified with CCSC and LARC.

Qualifications

Applicants should possess some combination of the following qualifications:

- Knowledge of common web development languages (PHP, JavaScript including strong familiarity with jQuery library, HTML5, CSS, etc.
- Familiarity with application programming interfaces and JavaScript libraries used in online mapping is a plus (one or more of: OpenLayers, Google Maps API, MapQuery, Leaflet)
- Knowledge and experience with designing large, secure relational databases optimized for the web (SQL or NoSQL variants)
- Experience administering a virtual private server or dedicated server hosted in a LAMP environment or another open source stack appropriate for the project

- Working knowledge of a Productivity Suite such as Microsoft Office, Open Office, or corresponding Google Apps
- Strong collaboration skills, this position requires working closely with the research team.
- Development experience for use on multiple internet browsers (Internet Explorer, Firefox, Safari, and Google Chrome) as well as multiple devices (phones, tablets, and computers)
- Understanding of standard web security protocols and procedures
- Ability to design, implement, and maintain secure databases
- Strong design skills
- Commitment to public interest research
- Independent worker who also enjoys being part of a team
- Strong communication skills to communicate with CCSC Researchers and LARC team members

The following skills are highly desired, but not required:

- Commitment to public interest research
- Interest in climate change and sustainability
- Experience with scalable web applications hosted on an elastic cloud computing platform (Amazon EC2, Eucalyptus, etc.) Experience with the ESRI Suite of GIS software and translating maps produced by this format into web-based maps using open source software, code, and libraries
- Experience building websites for the UC system or other large institutions

Application Process

Interested applicants should send a Cover letter, CV and either a portfolio of work or a link to online examples of work to jobs@californiasustainablecommunities.com. Applicants may address any questions to Zoe Elizabeth at 310 825 2421. Applications will be accepted on a rolling basis until the position is filled. We anticipate a start date of March 2014.