

## REQUEST FOR QUALIFICATIONS CAMPUS DECARBONIZATION AND ELECTRIFICATION STUDY

for  
University of California, Irvine

Under the guidelines of Calif. Public Contract Code 10510.4 - 10510.9, the University of California, Irvine (hereinafter referred to as “UCI” or the “University”) seeks at least two (2) consultants to provide architectural design services (hereinafter referred to as “Consultant”). Consultant will provide services for a variety of projects, with the expectation that the Consultant can provide a quick turnaround on deliverables.

### Project Summary

The University of California, Irvine (hereinafter referred to as “UCI” or the “University”) seeks qualified consultants to provide engineering study services (hereinafter referred to as “Consultant” or “Consultants”). Consultants will provide a decarbonization and electrification plan focused on Scope 1 emissions from the campus Central Plant and Medical Center Central Plant.

In the fall of 2022 UC President Michael Drake convened the Pathways to a Fossil Free UC Task Force (P2FFUC) under the UC Global Climate Leadership Council (GCLC) to address the challenge of decarbonizing UC location’s central energy systems. The goals of the Task Force are to develop recommendations on steps and timelines to eliminate fossil fuels in each location’s energy systems – including change management needs, budget implications, as well as opportunities to advance climate research, education, and student experience. This decarbonization study’s results will be reported to the P2FFUC and ultimately President Drake.

### Required Services

The University seeks the qualifications of engineering professionals that are interested in providing decarbonization and electrification pre-design study services. This project will investigate and document replacement or retrofit options for existing campus fossil fuel energy systems. The specific focus of this study is the UCI campus Central Plant and microgrid, serving approximately 7 million square feet, and the UCI Medical Center central steam plant, serving approximately 1 million square feet.

The study services provided on this project must result in deliverables that address the following five objectives:

1. Provide a strategy for 90% or greater reduction in scope 1 emissions from fossil gas use in primary campus energy systems.
2. Provide high level estimates of total capital and operational costs/savings.

For objectives 1 and 2 above, a project of this complexity will require a multi-criteria decision framework.

The consultant shall perform a full assessment and document the existing energy infrastructure. Upon gaining a full understanding of the existing conditions, the consultant shall consider various scenarios such as:

- Additional renewable energy and/or battery storage deployment
- Local fuel switching for the combustion turbine (e.g. hydrogen)
- Electrification of existing systems
- New local and/or distributed major electric equipment, such as boilers, heat recovery chillers, or heat pumps
- Compatibility of existing hydronic infrastructure with recommendations
- Electrical infrastructure upgrades required to accomplish electrification
- Accounting for addition of new buildings to campus microgrid and hydronic utility distribution network
- Analyzing resiliency from modified or discontinued use of existing cogeneration plant
- Performing engineering calculations to support technical solutions listed above

- Considering up-front, financing, and ongoing life-cycle costs, and UC's social cost of carbon for each scenario
3. Identify climate justice and equity considerations related to the transition of campus/ health system energy systems to fossil fuel free and propose solutions or next steps to identify solutions. These considerations reference the [UC Framework for EJ&CJ in Climate Action\\_Draft2 .pdf](#) and should:
    1. Assess vulnerability of labor and surrounding community to transition to fossil free
    2. Develop and evaluate equity indicators on transition impacts and opportunities
    3. Incorporate four major climate and environmental justice concepts:
      - i. Procedural: fairness of the decision-making process
      - ii. Recognition: respecting different values, cultures, opinions and structures within communities
      - iii. Distributive: just allocation of resources, benefits, and burdens
      - iv. Restorative: responsive to those impacted by the transition
  4. Document knowledge gaps, and subsequent studies and analyses needed to conduct Net-Zero planning that addresses the following.
    - a) Interim reduction targets and dates covering all applicable scope 1, 2, and 3 emissions
    - b) All fossil fuel uses
    - c) A comprehensive institutional boundary
    - d) Climate and environmental justice
    - e) Risk minimization (financial, operational, and reputational)

Note: This deliverable should list key components needed to conduct Net-Zero planning. It is not intended to be a full Net Zero Plan.

5. Document knowledge gaps, and subsequent analyses and engagement activities needed to conduct climate action and resiliency planning for an academic and healthcare setting, inclusive of:
  - a) Living laboratory opportunities for research demonstrations, courses, or student projects, or other involvement
  - b) Service activities and scalable, replicable knowledge sharing
  - c) Resiliency within a community context and framed within a climate and environmental justice lens
  - d) See deliverable #3 and the University of California Framework for Incorporating Environmental & Climate Justice into Climate Action
  - e) Biodiversity and habitat protection

### Procedures

Request for Qualifications will be available electronically at **4 PM on April 10, 2023** from UCI Design & Construction Services. Contact Abel Saldana at (949) 824-6330, email [abelrs@uci.edu](mailto:abelrs@uci.edu) to obtain required forms.

### Submittal Requirements

Send one (1) electronic copy of Statements of Qualifications to Abel Saldana, Contracts Analyst at [abelrs@uci.edu](mailto:abelrs@uci.edu). UC Irvine Design & Construction Services, 101 Academy, Suite 200, Irvine, CA 92697-2450.

**Deadline for submittals is May 10, 2023 @ 5 PM**

**Estimated Contract Duration: 3 Years**

Every effort will be made to ensure that all persons have equal access to contracts and other business opportunities with the University within the limits imposed by law or University policy. Interested firms will be required to show evidence of their equal employment opportunity policy.