Amount Requested

$23,000

Proposal Summary

The goal of Phase I is to develop the design and construction plans (prescriptive specs) for both the electrical and structural components of the SRC Solar PV Project to the specifications of the University of Alaska Fairbanks and thus Alaska state law.

Technical Advisors and Collaborators

Mike Ruckhaus Facilities Services, Design and Construction x5797
Charles Ward UAF, Power Plant x5608
Richard Wies UAF, Electrical & Computer Engineering Department x7071

Budget Detail

Services:

Remote Power or comparable company- $10,000.00
Civil Engineering firm - $10,000.00
UAF Design and Construction - $3,000.00

Total - $23,000.00

Budget Justification

$10,000 - for the cost benefit analysis of the two different systems we are proposing and the development of prescriptive spec's for the more economical choice. These spec's will meet the requirements laid out by state law and UAF.

$10,000 - for the prescriptive specs required to insure structural requirements are met. This will satisfy both UAF requirements and state law.

$3,000.00 - UAF Design and Construction for time spent as a liaison between these two entities.

Project Value

This phase will be the first financial commitment to the SRC Solar PV Project.

This project's intent is to use the SIREN fund for renewable energy on campus as well as for a project that directly benefits the students. The SRC is a student funded building and any reduced electrical costs will directly benefit the students throughout the life of a Solar PV system.

The SRC is a socially prominent building, marked by the master plan as a space for community engagement and often acting as the center of UAF events. It is hard to measure the social impact this project might have on UAF’s image, the impact for the community of Fairbanks, and the changed perspective of future student. This would be the first large renewable energy project for UAF and will bring one of the goals and vision of the university, and the student body into realization.
The impact of a 30kW solar PV array at UAF:

-This project will offset ≈15 tons of CO2 per year. This is in addition to the reduction of other pollutants such as NOx (nitrogen oxides) and SO₂ (Sulfur dioxide).

-This project will save the university ≈ 29,000kW-hr per year of non-renewable energy production.

-This project will save the University ≈$6,000 per year in electricity costs at the current price. (projected to rise)

-This project will demonstrate UAF’s commitment to sustainability, raising our College Sustainability Report Card mark.

-This project will show in increased commitment to sustainability, which has been written into the UAF Master Plan and the recommended UAF Sustainability Plan.

- UAF as a Land Grant University has a responsibility to demonstrate its commitment to promoting and utilizing technology for the advancement of sustainability in the far north.

Implementation Plan

$23,000.00 Phase I  - approximately 6 weeks - Jessie Huff and Mike Ruckhaus Facilities Services, Design and Construction x5797 will oversee this Phase. We will report to the RISE Board and the Student body when finished.

$3,000.00 Phase II   - (January or February) at least three weeks of advertising for bids on construction.

$339,000.00 Phase III  - Construction - Purchasing - Installation

Qualifications & Experience

I have been a project manager in many different capacities, such as theater production, digital media production, construction and materials handling as well as social/educational events.

I would gladly provide the board with references if desired.

Group/Department

student/ energy

Sustainability Area

Energy

Supporting Documentation (if provided) follows: