Colorado State University

Facilities Management
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Innovation Credit Letter
Sustainability Tracking, Assessment & Rating System
Public - Private Partnerships for Renewable Development at Colorado State University

February 17, 2014

To Whom It May Concern:

It is my pleasure to endorse Colorado State University's efforts in Public Private Partnerships for Renewable Development for the fulfillment of the STARS Innovation Credit. As the Energy Engineer in charge of renewable energy and energy & water efficiency projects on campus, I feel qualified to assess the sustainable value of this effort. My work experience includes renewable energy applications, energy & water efficiency, green buildings, GHG accounting, and utility systems maintenance & operation. I have devoted nearly 15 years to the implementation of efficiency & renewable projects on campus. I am a licensed professional engineer, LEED AP and Certified Water Professional.

Financing renewable energy projects on college campuses is a challenge in times of tight budgets. Colorado State has learned to use public – private partnerships (P3) to advance projects in these areas. It began in 2006 when the university had an interest in developing a large scale solar plant on campus. The learning curve was tough & it didn't happen quickly, but four years later the university had the Chrisman Field Solar Project - a 5,300 kW, 30 acre solar plant. The plant was funded by third party investors and the university commitment involved a site lease and a power purchase agreement (which benefitted the university by locking in the price of electricity from the plant for 20 years).

The example set by the P3 partnership at Chrisman Field has opened the door to several new renewable projects in the last few years. Projects using this model include:

- Utility scale wind farm on a 3000+ acre campus in eastern Colorado - Colorado State & the private partner are in the midst of assessing the wind speed at the site. The meteorological tower was installed last September at the expense of the partner. However, as an added benefit, the vendor partnered with interested Engineering students in the tower installation & data collection process. Additional student participation is planned in the field assessment phase.
- Additional solar installations on campus – The University partnered with a solar developer to apply for incentives from the local utility to install additional photovoltaic systems on campus. The partner provided all the project development work at their cost. The utility incentives were insufficient to meet the need, so the university will be moving forward with a 100 kW system (we had hoped for up to 1,200 kW of projects).
- Large biomass cogeneration facility – Colorado State has a small scale biomass plant. However, there was a desire for a larger plant that would utilize additional biomass resources and serve a larger percentage of the campus load. The third party developer invested in two years of project development work, but the current record low price of natural gas has this project on hold.

In addition to these projects currently being studied, Colorado State hopes to engage 3rd party partners in add'l renewable projects including a geoexchange system to heat & cool the athletic building complex on campus (basketball arena, swimming pool, and health & exercise science facility) and solar thermal application for either swimming pool or domestic hot water in the residence halls.

The benefits of the P3 partnerships are many.

- the university is not required to raise scarce capital for renewable projects
- the power purchase agreements allow the university to lock in energy rates and provide a hedge against future utility costs increases
- can create a collaboration to include students and faculty with the partner
- third party developers can utilize federal, state & local renewable energy incentives
- third party developers bring expertise to the table that doesn't exist at most higher education institutions

These unique partnerships open up a wide array of possibilities that were previously unimaginable due to the large capital requirements for the feasibility studies and ultimately installation of many of these initiatives. CSU plans to continue to use this model to advance renewable energy development on campus.

Sincerely,

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