STUDENT SERVICES FEE
Progress Report

Please fill in the gray boxes with the information requested

<table>
<thead>
<tr>
<th>Department Name:</th>
<th>ASUA</th>
<th>Date: 12/21/09</th>
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<tbody>
<tr>
<td>Project Supported by Student Services Fee:</td>
<td>ASUA Solar Initiative (265813)</td>
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<td>Amount of Award:</td>
<td>$50,000</td>
<td>Project Type: Sustainability – Energy Production # Years Funded: .5</td>
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<tr>
<td>Contact Person:</td>
<td>Lesley Ash</td>
<td>Contact Information: <a href="mailto:asuasustainabilitydirector@gmail.com">asuasustainabilitydirector@gmail.com</a></td>
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Project Scope:
The $50,000 being allocated to ASUA Sustainability is primarily being used to purchase solar cogeneration systems for Villa del Puente Dorm (VDP) and the Harshbarger building. The systems will serve to reduce the U of A's carbon footprint and monthly utility costs and will offer educational opportunities to students at all stages of development including research, design, construction, and monitoring.

Outcomes:
The targeted outcomes for the VDP project are as follows, in proposed chronological order:

1) Purchase 48 photovoltaic panels for electricity production
2) Purchase 48 thermal collectors from Sundrum
3) Contract with an installer to install the panels on VDP
4) Purchase inverter(s)
5) Purchase/configure metering system for real-time energy monitoring, and export the data to the web for students and other interested parties to observe

At present, $10,080 of the allocated service fee has been spent on 21 PV panels from Solon, which is a local PV manufacturing company. The other 27 panels we wish to purchase will likely come from installation companies as part of a package deal, as we have already received multiple offers. The best offer from an installer so far is as follows: For $20,000, they will provide the rest of the PV panels and inverters, all labor/certification costs, and metering. The installer would also receive the TEP rebate (described in the “other funding sources” section) as part of the deal. We plan to use remaining student fee money to cover a portion of the expected cost for Sundrum panels and other secondary equipment.

Given the scope of this project and the many different variables, it is understandable for this to take some time to complete. However, ASUA Sustainability has already completed several major milestones, and we are targeting late Jan/early Feb as the completion date.

The Harshbarger building project is providing students the opportunity to design and construct their own heat sink system for use in conjunction with standard PV panel technology. A portion of the student fee will be used to fund preliminary manufacturing costs to build a pilot unit. A senior engineering capstone class finished their first semester designing the system. Eight teams submitted designs and one team was picked as the winner to move forward to the construction phase for this upcoming semester. The outcome of this project will be to furnish engineering students with an enhanced educational experience and install environmentally friendly, money saving energy system.

Student Response:
The Solar Dorm Initiative team, comprised of 7 ASUA Sustainability student interns, has researched necessary background information and associated costs of the VDP project and has developed appropriate contacts and proposals necessary for project implementation.

One 8-10 person student group from the Posada San Pedro dorm has enthusiastically supported the VDP project and is helping ASUA in completing certain fundraising tasks.
This VDP project will also have campus-wide benefits, as every student on campus indirectly benefits from the collectively reduced carbon footprint. In the long term, students living in residence halls can expect lower rent payments, because Res Life will be spending less money on utilities. In the short term, VDP residents are the ones who directly benefit from the hot water generation and electricity production.

The 40+ students involved in the Harshbarger Engineering project enjoyed the experience and learned more about solar PV and solar hot water systems. The winning team is looking forward to next semester.

Attempts to Obtain Additional Funding:
We applied for a $40,000 grant from Technicians for Sustainability, but were not selected as a recipient. We are currently waiting on the outcome for the $10,000 Brita Filter-For-Good Eco-challenge, and a decision will be made by Jan. 29th. The Tucson Metropolitan Energy Commission has designated $1,600 towards the project as well. We expect Residence Life to pay an upfront fee for ownership of the system, based on calculated utility savings. This amount has not yet been specified.

For the Harshbarger project, The Solar Store has agreed to donate two inverters. Additionally, Tuv Rheinland agreed to donate 19 PV panels for the Harshbarger project.

Other Funding Sources:
Tucson Electric Power offers a commercial rebate program which our group plans to take advantage of. The rebate is for $2.50/W of electricity generation capacity. After calculations, we expect to receive approximately $27,000 from TEP. This amount will likely increase from a similar rebate TEP offers for hot water generation, but we are still working out the specifics.

Provide:
$10,080 has already been spent to purchase 21 P270 model photovoltaic panels from Solon, which is a local PV manufacturer. As previously mentioned, we plan to use the remaining balance to purchase additional panels, metering, thermal collectors and pay for installation, so an unused balance is unlikely.