# *Thank you for your commitment to green initiatives at the University of Illinois. One of the final steps in completing the terms of the funding agreement for your project is the submission of a Final Report with key information about your project. You will also need to submit a detailed report of expenses (if you don't list it within this document) as well as supporting photos to showcase your project.*

# *Please be as accurate as possible in describing the project (including possible setbacks or challenges in meeting the initial goals of the project). Not fully meeting your project's goals will not disqualify you from making future funding requests as long as your reports are as complete and accurate as possible. If you have any questions, please contact the Student Sustainability Committee, at* *sustainability-committee@illinois.edu**.*

**Project Name:** Thermal Response Test Unit

**Date of Report Submission:** 1/10/2017

**Project Purpose:**

The overall goal of the project is to assess the viability of geothermal heat exchange on this campus as well as the best implementation of this technology. But the specific funding will be for the design and construction of a thermal response test unit that will measure the ability of the local geology to support geothermal heat exchange in the future. The unit will be designed to be used in all future geothermal projects.

**Project Summary:**

The design and initial development of a plan took longer than intially planned but was fruitful in allowing time for the design to have some iteration before parts were ordered. Once parts arrived at the end of the spring semester 2017, construction began and took the next few months to conduct testing and verification of the hydraulic and electrical performance. AS of now the device is constructed and tested and is being integrated into ISGS experiments.

**Summary of Project Expenditures:**

Please see the attached spreadsheet for the expenditures.

**Problems/Challenges Encountered**

The setbacks faced by the group were more numerous than initially expected. Mostly related to the skills required in construction, the lead time required for specific parts as well as personnel changes and the change in design as the project progressed. In regards to the dates set by the original application, they were quite bold and unrealistic but each milestone was completed to satisfactory levels.

**Student Involvement and Outreach to Date:**

Students were the prime designers and builders of the TRT device. The students learned how to sweat pipe and the steps required to properly test and verify the device.

**Marketing and Promotion Efforts to Date:**

Promotion is through the SSC and ISEE presentations and field visits from other universities.

**Additional Comments:**

Thank you for the opportunity to design and build a device with the SSC funding. It truly was a unique opportunity for the students involved.

In addition to the above fields, please provide a detailed accounting of how the funding was spent as well as pictures of the final project in an email to sustainability-committee@illinois.edu. Thank you again for your commitment to sustainability.