**Live Green Loan Fund – Project Proposal**

**Live Green Loan Fund – Project Profile**

**College of Liberal Arts and Sciences –**

**Freezer Replacement**

**Project Background:**

With approximately 1,800 laboratories on Iowa State University’s campus, there is considerable opportunity to reduce energy usage through reducing plug load. A specifically focused opportunity for significant plug load energy savings exists through the replacement of aged and oversized laboratory equipment including, but not limited to, freezers, refrigerators, ovens and dehumidifiers.

Coupled with energy savings is the opportunity to also address another component of sustainability and priority of campus laboratories, safety. Consideration of specialty-use (and safety corresponding) equipment as well as energy efficiency in replacement procurement – provides savings well beyond energy costs as well as support of the Live Green! Initiative through showcasing the support of all facets of sustainability (economic, environmental and social).

This project will specifically focus on two main task areas:

1. Providing a pilot project for additional laboratory purchases of energy-efficient, specialty use freezer equipment through monitoring energy savings and durability.
2. Assisting in the establishment of a purchasing program/protocol to encourage and support future purchases of freezers by other research groups at ISU.

**Project Description: Project # LG0027 College of Liberal Arts and Sciences Freezer Replacement:**

This project focuses on the replacement of a laboratory freezer with an energy-efficient, ultra-low temperature freezer.

Specific project deliverables include:

* Demonstration of operational cost-savings;
* Reduced energy consumption; and
* Increased consideration of on laboratory equipment safety in procurement.

Project completion is targeted for Fall 2017.

**Project Contact:** Reuben Peters, 515-294-8580,[**rjpeters@iastate.edu**](mailto:rjpeters@iastate.edu)

Department of Biochemistry/Biophysics & Molecular Biology, College of Liberal Arts and Sciences

**Project Return on Investment:**

Total project costs are estimated at $12,626.32. All but $1,500 of the funding is being provided by the Department of Biochemistry/Biophysics & Molecular Biology. A $1,500 loan is requested. Expected annual savings equals $237/year, with a total project payback period of 5 years. Payback period for funding request has been confirmed for 5 years.

**Project Outcomes:**

In continuing focus on increased efficiency of campus operations through environmental sustainability, there are specific areas of opportunity that offer immediate and significant achievements toward reaching this goal. Increasing the efficiency of our numerous laboratory spaces is one area of significant opportunity.

This project also furthers the collective impact of all energy efficiency and sustainability-focused projects and initiatives through building upon and expanding their success and achievements. In addition, this approach to increasing efficiency and commitment to sustainability, through focus on and development of a procurement program/protocol is very transferrable to other educational institutions as well as businesses and communities.

**Applicant**

Name/Contact Info: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Project Name/Location: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

****

**Confirmation of Due Diligence:**

Technical and financial viability is considered satisfactory for the scope of this project.

Required signatures for project administrative approval have been received (see attached application signature page).

**Funding Recommendation by Live Green Loan Fund Committee:**

$1,500

**Approved Action by Live Green Loan Fund Committee:**

Project approval by Director of Sustainability and signature of attached Funding Agreement.

**On Behalf of the Live Green Loan Fund Committee**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Director of Sustainability Date