

Revolving Loan Fund

FY2017 Project Selection Meeting

May 1, 2017



Introductions

Agenda

Revolving Loan Fund Overview

Selection Process

Presentation of Projects

Voting Process

Results

Conclusion



Revolving Loan Fund Overview

Established in 2011

Utility reduction projects with less than a 10 year payback

Annual savings will be used to repay the loan

Major Contributors:

<i>Office of the Chancellor</i>	<i>\$1M</i>
<i>Student Sustainability Committee (SSC)</i>	<i>\$500K</i>
<i>The Office of the President</i>	<i>\$750K</i>
<i>Carbon Credit Sales</i>	<i>\$750K</i>

Available For FY2017

<i>Fund Balance:</i>	<i>\$1.1M</i>
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Selection Process

General Overview:

Call for projects: Winter 2016/2017

Compiled and reviewed by F&S

Projects selected contained adequate information

Final project list meets minimum requirements

Present individual projects to RLF Selection Committee

Score projects

Review results and finalize selections



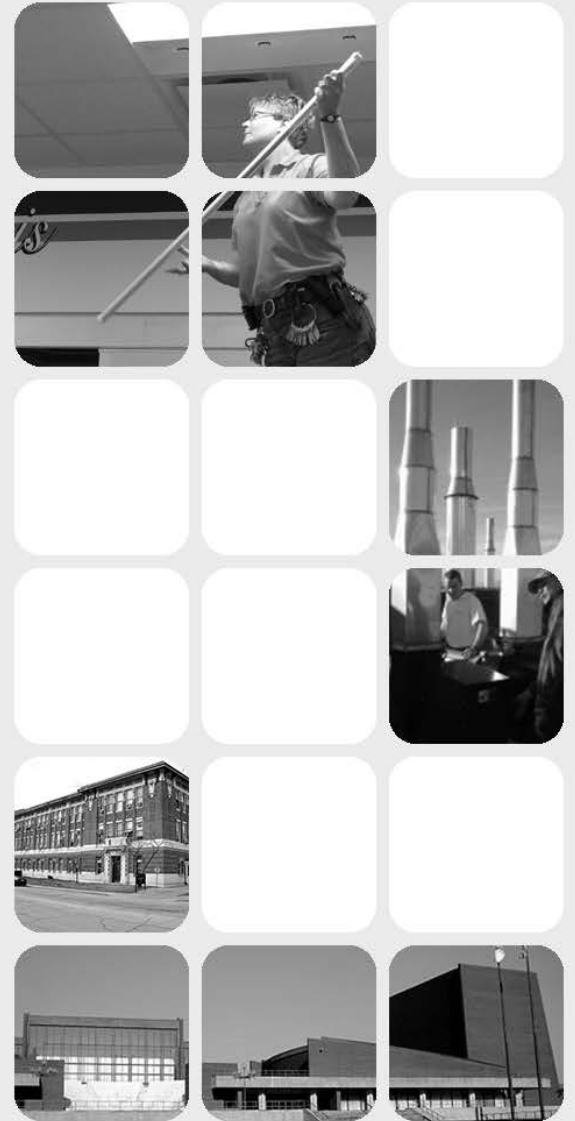
Selection Process

Current Selection Overview

Available funding: ~ \$1.1M
Total requested funds: ~ \$820K
10 Projects presented across at least 16 facilities
More funds available than requested
Balance to be carried to next round

Project Selection Criteria/Weights

Payback Period	30%
Reduction of Greenhouse Gas	25%
Revolving Loan Fund Size Impact	20%
Visibility	5%
Project Coordination	20%



Projects

- #1 Campus Walkways – LED Lighting Upgrade
- #2 Multiple Buildings – Steam Valve Automation
- #3 Meat Science Laboratory – Steam Boiler Installation
- #4 Multiple Buildings – Steam Trap Replacement
- #5 Multiple Buildings – LED Lighting Upgrade
- #6 Oak Street Library Facility – LED Lighting Upgrade
- #7 Psychology Laboratory – Occupancy Sensor Installation
- #8 Psychology Laboratory – Variable Frequency Drive Installation
- #9 Multiple Buildings – Occupancy Sensor Installation
- #10 Multiple Buildings – Door Seals & Weather Stripping

Funding Request

\$58,000
\$100,000
\$150,000
\$40,000
\$41,000
\$115,600
\$25,000
\$10,000
\$250,000
\$31,000

Annual Savings

\$9,300
\$33,000
\$34,600
\$12,200
\$6,000
\$12,100
\$3,300
\$7,000
\$50,000
\$14,800

Total: ~\$820,000

~\$182,500



Project #1: LED Lighting Upgrade

Location: Campus Walkways

Scope of Work:

This project will replace approximately 350 globe lights with LED fixtures. Areas that will be affected range from the Northern edge of campus near Beckman Institute to as far South as the Stock Pavilion and many walkways between those two particular buildings.

Total Project Cost: \$58,000
Annual Energy Cost Savings: \$9,300

RLF Request: \$58,000
Approximate Payback: 6 Years



Project #2: Steam Valve Automation

Location: Multiple Buildings

Scope of Work:

This request is to install automated isolation valves that are controlled by outside air temperature. This will eliminate the simultaneous heating and cooling situations and also the labor for the steam distribution shop to go through the buildings and manually operate them.

Total Project Cost: \$100,000

Annual Energy Cost Savings: \$33,000

RLF Request: \$100,000

Approximate Payback: 3 Years



Project #3: Steam Boiler Installation

Location: Meat Science Laboratory

Scope of Work:

This request is for switching the source of steam for the building from the central campus distribution system to a localized steam boiler.

Total Project Cost: \$150,000

Annual Energy Cost Savings: \$34,600

RLF Request: \$150,000

Approximate Payback: 4 Years



Project #4: Steam Trap Replacement

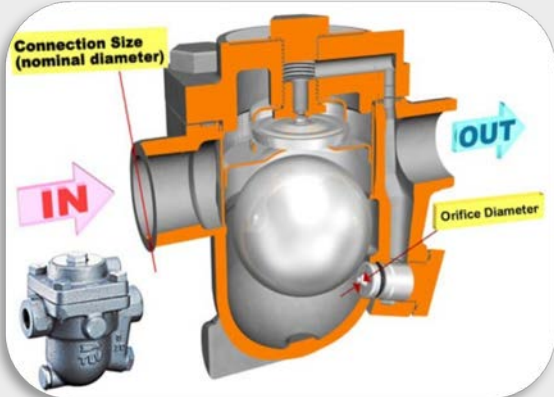
Location: Multiple Buildings

Scope of Work:

This project will replace failed steam traps eliminating energy waste in multiple campus locations which may include Foellinger and Noyes.

Total Project Cost: \$40,000
Annual Energy Cost Savings: \$12,200

RLF Request: \$40,000
Approximate Payback: 3 Years



Project #5: LED Lighting Upgrade

Location: Multiple Buildings

Scope of Work:

This request is for upgrading lighting in specific areas of three campus buildings including Talbot Laboratory, Newmark Civil Engineering Library, and Nuclear Physics Laboratory. The areas targeted within these buildings contain approximately 50 incandescent high bay fixtures which will be replaced with LED fixtures.

Total Project Cost: \$41,000

Annual Energy Cost Savings: \$6,000

RLF Request: \$41,000

Approximate Payback: 7 Years



Project #6: LED Lighting Upgrade

Location: Oak Street Library Facility

Scope of Work:

This request is for upgrading lighting in vaults I, II, and III of the Oak Street Library Facility including installation of occupancy sensors. The areas targeted within this building contain metal halide fixtures which will be replaced with LED fixtures.

Total Project Cost: \$115,600
Annual Energy Cost Savings: \$12,100

RLF Request: \$115,600
Approximate Payback: 9.5 Years



Project #7: Occupancy Sensor Installation

Location: Psychology Laboratory

Scope of Work:

This request is for installing occupancy sensors throughout areas of the Psychology Laboratory. Staff have observed lights in this nine floor building to be on constantly including nights when few people are present. Occupancy sensor installations have proven highly successful in many areas of campus and the expectation would be the same in this building as well.

Total Project Cost: \$25,000

Annual Energy Cost Savings: \$3,300

RLF Request: \$25,000

Approximate Payback: 7.5 Years



Project #8: Variable Frequency Drive Installation

Location: Psychology Laboratory

Scope of Work:

This project involves VFD Installation for the 4th floor air handlers. These are fans SF7 & RF7. This area was not done with the balance of the facility because of a server room that was utilizing building air for cooling. This has changed and the servers are no longer in the building. The VFD's can now be incorporated to reduce air flow and save fan, heating, and cooling energy.

Total Project Cost: \$10,000

Annual Energy Cost Savings: \$7,000

RLF Request: \$10,000

Approximate Payback: 1.5 Years



Project #9: Occupancy Sensor Installation

Location: Multiple Buildings

Scope of Work:

This funding request will be used to install occupancy sensors to control one or more of the following: VAV boxes (for temperature set-back during unoccupied modes), lighting, or exhaust fans serving restrooms or other non-hazardous spaces.

Total Project Cost: \$250,000

Annual Energy Cost Savings: \$50,000

RLF Request: \$250,000

Approximate Payback: 5 Years



Project #10: Door Seals & Weather Stripping

Location: Multiple Buildings

Scope of Work:

Installation of door seals and sweeps on various exterior doors to stop infiltration and improve occupant comfort.

Total Project Cost: \$30,000
Annual Energy Cost Savings: \$14,800

RLF Request: \$30,000
Approximate Payback: 2 Years



Voting Process

Score Individual Project Criteria

Range: 1 – 10 (1 Being the Lowest and 10 the Highest)

Input Scores

Rankings

Discussion

Finalize Results

Looking Forward

The level of funding available will determine the date of the next selection process. The fund balance, if all projects this time are selected, is estimated at \$300K. The committee will not need to get together until that balance increases significantly. We'll communicate our plans in the future.

Thanks again for all of your participation!

