Spectrum Health Energy Program

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Spectrum Health Background

Hospital Group, Medical Group, Priority Health

- 21,500 staff
- 1,150 physicians
- $294.6 million in community benefit
Energy in Health Care

- Inpatient Hospitals 2\textsuperscript{nd} Largest Commercial Energy User (EPA)
- Energy costs increased in hospitals by 56\% between 2003-2008 (DOE)

- Energy consumption and human health
  - GHG Emissions
  - Mercury
  - NOx
  - SOx
Spectrum Health Energy Program

- Conservation and Efficiency
- Commissioning
- Data Management and Rebates
- Design and Construction
Conservation and Efficiency

- Lighting Technology Upgrades
- HVAC Setbacks
- Equipment Upgrades
- Motion and Solar Sensors
Butterworth MultiStack Chiller

- $80,000 in Rebates
- $59,000 in energy, water and chemical savings
- ROI of 3.8 Years
Blodgett Light Sensor Initiative

- 578 Light Sensors Installed
- Total Energy Reduction 529,000 kWh
- Cost Savings $47,000
- $16,000 Rebate
Commissioning

- Occupancy and Weekly Scheduling
- HVAC Efficiency
- Equipment Efficiencies
Data Management and Rebates

- Monthly Tracking Usage
- Project Future Costs
- Manage Rebates
Design and Construction

- Standardizing Design
- Investing in Efficiency
- Adding Sustainability into Design Features
Integrated Care Campus on East Beltline

- 100% LED Lighting
- Solar Thermal
- Green Roof
- Native Plant Meadow
Sustainability Fund Overview

**Sustainability Fund**

**SHGR Capital Budget**
Provides seed money and annually replenishes Sustainability Fund based on calculated savings.

**Sustainability Fund**
Provides funding for sustainability projects that advance performance, lower costs, and conserve natural resources. All Sustainability Fund finance activity, project approval, BRN’s, P.O.'s, etc. are handled by Sustainability Fund Committee.

Entities receive capital from Sustainability Fund for approved sustainability projects. Entities realize immediate expense reduction and no re-payment of capital is required.
Sustainability Fund Overview

- Sustainability Fund Committee
- Sustainability Fund Manager
- Eligibility for Fund is cost over $5,000 and less than $150,000
- The Payback period should be more than 1 year and meet the following criteria:
  - $5,000 to $29,999 project cost $\leq 5$ years.
  - $30,000 to $49,999 project cost $\leq 4$ years.
  - $50,000 to $99,999 project cost $\leq 3$ years.
  - $100,000 to $150,000 project cost $\leq 2$ years.
How the Fund Works

• Project submission to the fund manager includes:
  - Fund Proposal / Agreement form.
  - Material Cost Quotes
  - Labor Cost Quotes
  - Estimated Energy or Waste Savings
  - Utility Rebate Estimate if applicable
How the Fund Works

Sustainability Fund Project Proposal/Agreement Form

Project Name:
Site Location:
Date:
Document Prepared By:

Project Overview

- **Current State**
  - Brief summary of current conditions.

- **Project Scope**
  - Brief project description/summary.

- **Business Objectives**
  - Summary of financial savings (please attach supporting documentation).

- **Major Deliverables**
  - List major equipment, systems, or products.

- **Project Timing**
  - List or describe schedules, timelines, etc.

- **Risks / Issues**
  - Describe potential risks and issues associated with this project.

- **Other Documents to Provide**
  - a. Contractor/consultant energy saving proposals
  - b. Other related financial information
How The Fund Works

The Fund manager will:

1. Review the submitted documentation.
2. Perform cost analysis to verify that the project meets the requirements of the fund.
3. Track and monitor fund projects.
4. Present the projects to be reviewed & voted on during the Fund meeting.
How the Fund Works

• Project Manager runs the project and reports the progress.
• Project is complete, the energy savings is returned to the fund annually.
• Once the payback has been reached, one additional payment is added to the Fund.
• This allows the sustainability fund to grow and provide continuous support for additional projects.
Sustainability Fund Update

- 42 projects have been approved
- Yielded $99,000 in utility rebates
- $410,000 in energy savings.
- The Fund has supplied $971,000 for sustainability and energy projects.
Sustainability Fund Project Examples

- Projects Include:
  - Women’s & Children’s Pavilion T-12 retrofit - $62,217
  - VNA Nurse’s T-12 Light retrofit - $12,296
  - AHU -140 VFD & Controls - $26,765
  - CITS Liebert Ductwork - $18,312
  - Butterworth South Ramp Pole Lights - $6,429
  - 426 Michigan T-12 Lighting Retrofit - $17,743
  - Kalamazoo Dish Machine Replacement - $41,000
Sustainability Fund Project Example

GE Ramp Lighting Video
Questions?
For more information about our sustainability program visit www.SpectrumHealth.org/Sustainability

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