

Green Revolving Funds



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION



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SASKATCHEWAN

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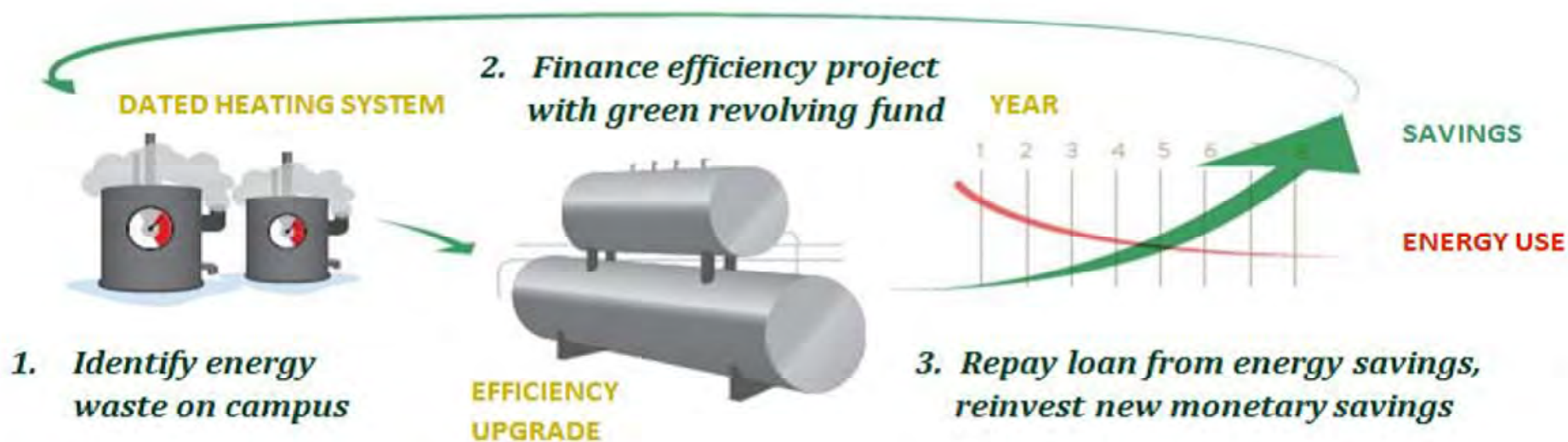
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Overview

- ✓ What is a green revolving fund?
- ✓ How do they work?
- ✓ The UofS experience
- ✓ Lessons learned



What is a Green Revolving Fund?



The Green Revolving Fund Capital Cycle

Rationale

- Strategic investment
- Short & long term savings
- Efficiency & environment
- Continuous re-investment
- Supports collaboration

Green Billion Dollar Challenge



- ✓ Over 60 universities in North America
- ✓ Hosted by Sustainable Endowments Institute

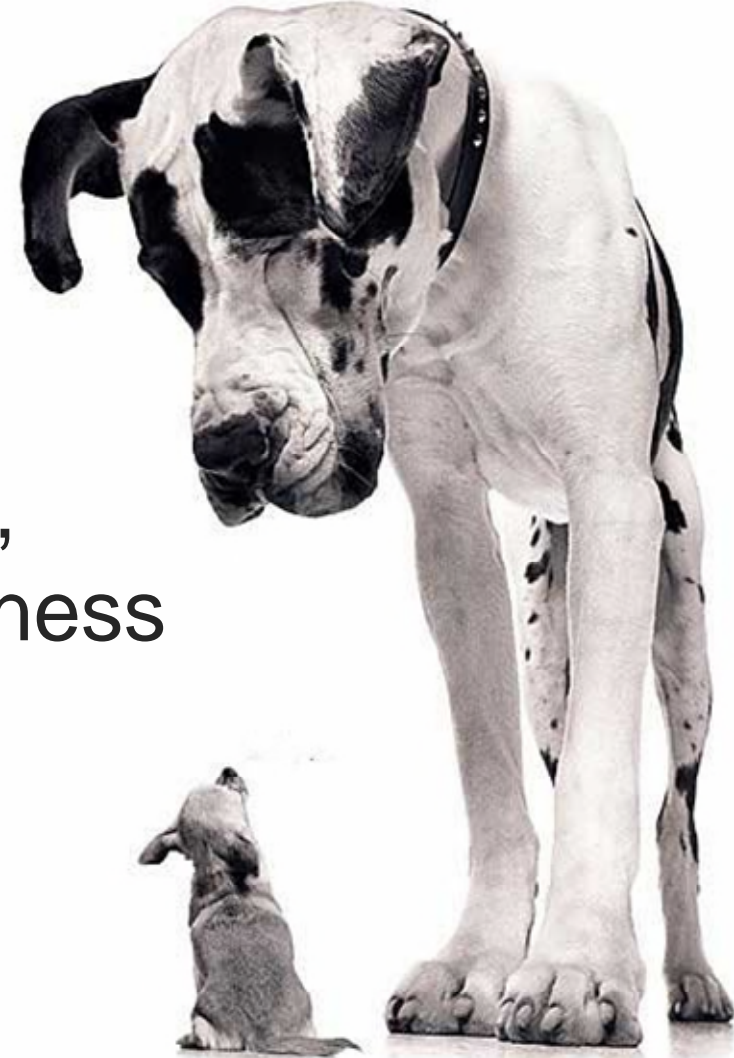
Seed Capital

- ★ Operating or capital budgets
 - Cash reserves yielding low returns
 - Incentive program from utilities
 - Government funding
 - “Green” fees or levies



Size of Fund

- Small: build structure, demonstrate effectiveness
- ★ Large: significant opportunities exist



Accounting Systems

- ★ Loan model:
 - Applicant repays from their savings
- ★ Accounting model:
 - Repaid from central operating budget (usually utilities)

Measuring Savings

- ★ Estimates based on engineering analysis
 - Measurement and verification based on actual performance



Payback Schedules

- Payback equivalent to savings
- Portion of savings repaid annually
- ★ Set payback timelines: 1,3, or 5 years
- ★ Repay an amount greater than 100%

**Tradeoff between making fund
attractive and replenishing fund quickly**

Fund Oversight

Who reviews and approves?

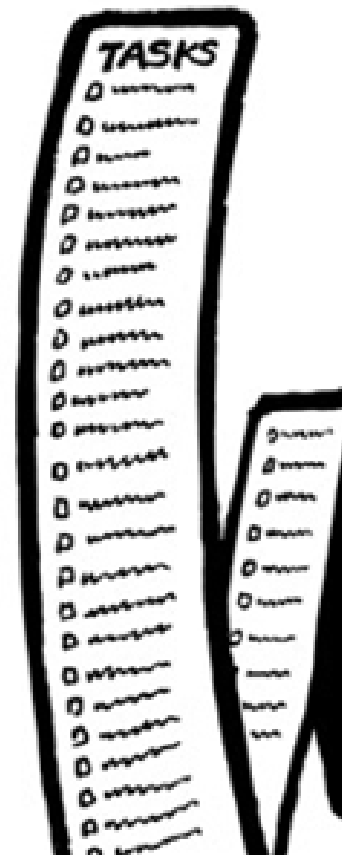
- ★ • Committee of relevant staff
- Dedicated manager
- Involvement of stakeholders



Finding Projects

- ★ Prioritized list of projects
 - Energy audit
 - Deferred maintenance list

- ★ Solicit project applications
 - Set scope and eligibility
 - Who can apply?
 - What type of projects?



★ Evaluation Criteria

- Advances Sustainability Plan
- Align Sustainability or Climate Plan
- Reduces utility or operating costs
- Reduces environmental impacts
- Reduces demands on infrastructure
- Stepping-stone for future sustainability

Timeline

2013	Committee established
2014	Seed funding transferred Terms of Reference finalized
2015	Seed funding transferred First project approved
2016	First repayment made back into fund

UofS Statistics

- 2 million in seed funding
- 5 payments, 3 funds, 2 years
- 17 projects approved
- \$ 1.1M committed
- ~ \$ 350,000 in annual savings
- Typical payback 3-5 years

Projects Funded

- LED lighting retrofit
- Lab freezer rebate program
- Steam insulation jackets
- AC Unit upgrades
- Plumbing upgrades
- Retro-commissioning
- Energy Management

Lessons Learned

- The best projects are not always the most exciting
- A revolving fund doesn't change the basic economics or ROI of technologies



Lessons Learned

- Get comfortable with estimates
- Administration efforts can add up
- Move quickly to make use of complementary funding



Lessons Learned

- Conservation projects aren't stand alone
- Other factors will affect prioritization
- It doesn't matter where the savings are



Lessons Learned

- A revolving fund is only a funding mechanism
- Person dedicated to efficiency or energy conservation is valuable



Lessons Learned

- Some may not believe how much savings potential really exists
- Some projects will exceed expectations



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