This concept brief is intended for commercial real estate organizations that are interested in learning about revolving loan funds (RLF) for energy efficiency or renewable energy projects. A revolving loan fund, also known as a green revolving fund (GRF), is a pool of internal capital used to fund multiple rounds of energy efficiency, renewable energy, and other sustainability projects that generate cost savings. The savings achieved through these projects are used to replenish the fund (i.e. "revolved"), thus creating a sustainable funding cycle that can be maintained indefinitely. This differs from the capital investment fund approach, which does not include a revolving component.

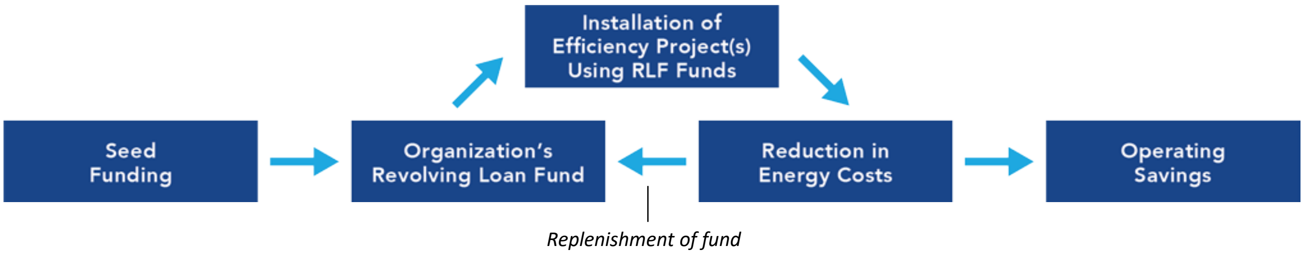
The higher education sector has so far led the industry on the adoption of revolving loan funds. As of 2015, there were 140+ active funds with an average size of $1.4M. Though adoption by commercial real estate organizations has been limited to this point, the revolving loan fund model has high potential for the sector.

## Potential Benefits

- Replenishes its own funds, creating a long-term mechanism for improving energy and sustainability performance while prioritizing projects with the highest return on investment
- Engages facility managers and other stakeholders to identify projects for funding and potentially participate on a management committee
- Builds trust with tenants and increases the likelihood that a tenant will renew its lease
- Demonstrates ongoing commitment to improving building performance
- Provides dedicated pool of money for projects that can be efficiently managed and tracked
- Increases likelihood of achieving additional energy savings through qualifying for utility or city/state incentives

## Potential Barriers

- Requires approval from stakeholders to allocate money into fund
- Requires initial capital (seed funding) to implement a fund
- Can create additional accounting complexity
- Executives want liquidity and could be hesitant to allocate money into a set fund
- May cause bandwidth issues among staff and uncertainty over who should oversee the fund
- High hurdle rates may restrict the range of viable projects for an organization to undertake
- Certain lease structures may create complications with recouping operational savings benefits




## Elements to Consider

### Seed Funding

Revolving loan funds are established through an initial allocation of capital into the fund which is typically referred to as seed funding. Seed funding can occur in one allocation or multiple allocations over time. Factors to consider when assessing fund sizing include project volume and potential return on investment, organizational capital that is available for use, and staff bandwidth to manage fund.

### Accounting

The accounting system of a revolving loan fund dictates the procedures for how capital is transferred to and from the fund, enabling the financing of projects and recouping of operational savings. Organizations may create a discrete fund account or simply track costs and savings separately in existing accounts.

### Fund Replenishment

The installed energy efficiency or renewable energy projects at each property will generate immediate savings through lowered operating costs. These savings will in turn help to replenish the revolving loan fund over time, and both the portion of annual savings revolved as well as the total amount of savings revolving in the fund can vary based on need. There is often a tradeoff between sharing operational savings with properties and the need to quickly replenish and expand the fund, and the mechanisms of how the fund is replenished can be tailored to suit the needs of an organization.

### Oversight

A revolving loan fund may be managed by a single individual, an organizational department or office, or a committee of stakeholders drawn from throughout the organization. The size and scope of the fund will likely determine the necessary management strategy.

## Taking Action at your Organization

### Assess the Feasibility

It's important to first assess the feasibility of a revolving loan fund at your organization. While the components of a fund could be altered to meet the needs of any business model, revolving loan funds are generally best suited for single-fund organizations that typically have longer hold periods for properties and less structural complexity.

### Assess the Opportunity

Assess the opportunity for operational savings by identifying potential projects and evaluating the numbers for key metrics such as total project cost, total savings, annual return on investment, average payback period, etc. Having strong cost and savings estimates will likely make it much easier to build buy-in with stakeholders. The initial assessment could be limited to select properties with the greatest savings potential or take a broader approach to analyze the entire portfolio. Another option is to identify if an external energy consultant, energy audit, or similar service would be worthwhile to determine opportunities (facilities teams may not even know what opportunities they are missing).

### Identify Stakeholders

Determine the key stakeholders and decisionmakers who will be involved in the approval and management of the revolving loan fund. Stakeholders may include property managers, asset managers, portfolio managers, senior management, and relevant tenants.

## Case Studies

The case studies below are examples of revolving loan funds or related concepts in the commercial sector.

- Cleveland Clinic Case Study
  Cleveland Clinic announced at the 2016 Better Buildings Summit that it had established an unprecedented $7.5 million Green Revolving Fund to strengthen their commitment to energy efficiency. The fund stands out as one of the largest annual commitments in any business sector nationally and as the largest for healthcare.
- Vornado Energy Efficiency Capital Expenditure Fund
  Vornado's Energy Efficiency Capital Expenditure (CAPEX) Fund has invested $15 million in sustainability projects since 2012 with an average payback of three years. The fund allows the company to invest in building retrofit projects at properties across its portfolio.
- Adidas Green Energy Fund
  Adidas developed a greenENERGY Fund within the company that identifies investments in leased and owned stores, manages project risk, and monitors and verifies project savings. Between June 2012 and Nov 2015, Adidas invested $5.5 million in 49 projects and forecasted an internal rate of return of 33% across project portfolio.
- Venture North Revolving Loan Fund
  Venture North's revolving loan fund provides small businesses with the upfront capital necessary to implement energy efficiency measures. Through 2017 the program had extended more than $300,000 in loans to 12 projects.