

# Barriers to Energy Efficiency & the Uptake of Green Revolving Funds in Ontario Hospitals

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# Research Purpose & Methods

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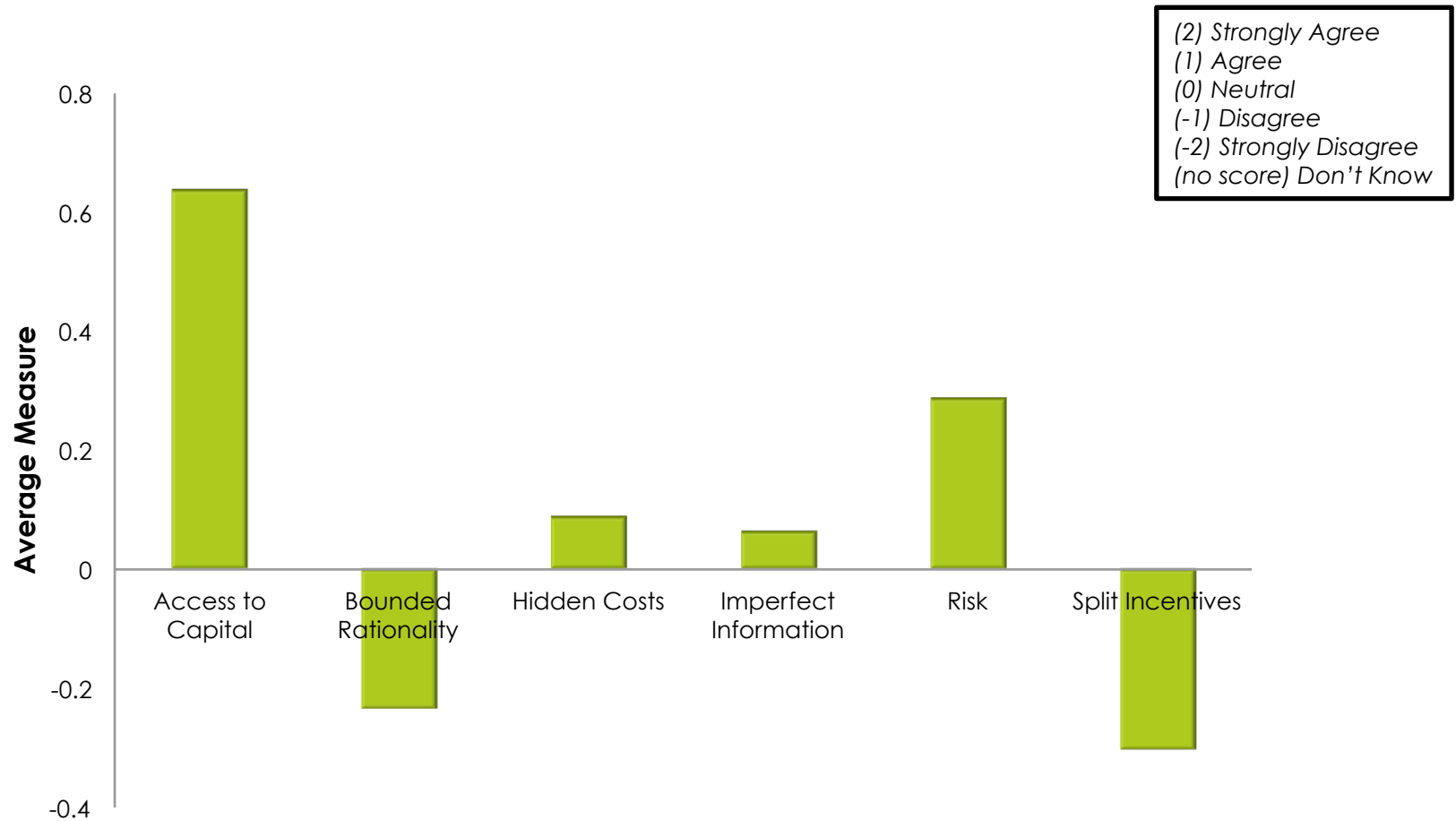
To investigate:

- ① **barriers to energy efficiency** in Ontario Hospitals
- ② the effectiveness of **green revolving funds** to confront barriers to energy efficiency in Ontario Hospitals

Methods:

- A review of the literature
- Interviews of senior administrators of 14 hospitals making use of both qualitative and quantitative methods

# Findings: Barriers to Energy Efficiency at Ontario Hospitals



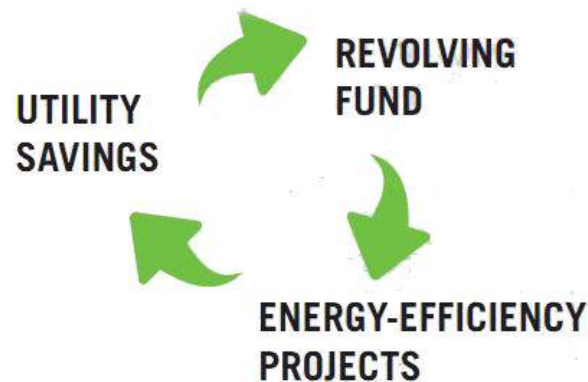
# Qualitative Investigation of Barriers

Three major themes emerged as barriers to energy efficiency projects in Ontario hospitals:

- ① Energy Efficiency has Low Priority
- ② Balanced Budget Requirement
- ③ Risk Aversion

# What is a Green Revolving Fund (GRF)?

- **An investment vehicle providing financing** to parties for implementing energy efficiency **that generate cost-savings.**



- **Savings are tracked** and used to **replenish the fund** for the next round of green investments
- **Establishes a sustainable funding cycle** while cutting operating costs and reducing environmental impact.

# Top 8 Benefits of Green Revolving Funds

- ① Transforms Expenses into Investments
- ② Alleviates pressure from tight budgets
- ③ Institutionalizes a mechanism for reinvesting
- ④ Knowledge Sharing
- ⑤ Scalability
- ⑥ Allow Full Impact Donations
- ⑦ Addresses Deferred Maintenance Costs
- ⑧ Hedging against rising energy prices

# Strong Support for Green Revolving Funds in Ontario Hospitals

To conclude the interviews, participants were asked:

*“If a revolving fund for Ontario hospitals were created, would you use it to complete energy efficiency projects? If so, why? If not, why not?”*

Of the 13 respondents asked:

- 7 indicated they would use an established GRF
- 6 stated it depended on governance issues, the interest rate charged, or permission to borrow

# Recommendations

- If **the province** hopes to garner energy related cost savings, it will have to **take on a larger role**. **Reduction targets** would **spur hospitals to take on greater risk** in pursuing energy efficiency projects, with the associated increase in urgency and expectation
- For the province, or hospitals to formalize a process to address both capital and organizational barriers by **introducing green revolving** funds



# 1) Energy Efficiency has Low Priority

Respondents indicated:

- Energy Efficiency is a **low priority when compared** to funding geared towards patient care
- **Limited 'push'** from the senior level & the process to gain approval is arduous
- Individuals that make the commitment and **bear the risk** of the project, including absorption of cost, technical risk and even job security, **seldom reap any rewards** if it is successful

## 2) Balanced Budget Requirement

- Ontario's Excellent Care for All Act', became law in June of 2010, requiring all Ontario hospitals to run a balanced budget
- Many respondents are reluctant to take on any expenses, perceiving it more difficult to balance their budget
- Sense of fragility with balancing the books, as the obligation to balance them creates excessive financial risk aversion or *“increased variability in your books”*

## 3) Risk Aversion

*Who are the ultimate gatekeepers of energy efficiency in Ontario hospitals?*

- From a provincial point of view, small-ish losses at chance hospitals would be worth the overall large gains.

AT TENSION WITH:

- From the personnel and hospital's standpoint, the risk of the individual projects exceed the reward in many cases.

# University Revolving Fund Return on Investment (SEI, 2012)

INSTITUTION	FUND NAME	ESTABLISHED	FUND SIZE	PROJECTS	ROI
Western Michigan University	Quasi GRF	1980	\$365,000**	101	47%
Harvard University	Green Loan Fund	2001	\$12,000,000	185	30%
University of Utah	Energy Office Conservation Program	2007	\$220,000	47	30%
Iowa State University	Live Green Revolving Loan Fund	2008	\$3,000,000	11	29%
Oberlin College	Green EDGE Fund	2008	\$40,000	9	31%*
University of Colorado, Boulder	Energy and Climate Revolving Fund	2008	\$500,000	5	38%
California Institute of Technology	Caltech Energy Conservation Investment Program	2009	\$8,000,000	13	33%
University of Denver	Energy Reserve Fund	2009	\$1,900,000	19	63%

# Quantitative Results

## Reluctance to formalize processes:

- 14% have an energy policy
- 36% have an energy manager
- 23% have an energy committee

## Weak ongoing financial commitment:

- 38% have a portion of their annual budget dedicated to energy efficiency improvements
- 10% invest energy savings into further energy efficiency projects.

## Opportunities for Projects:

- 6 of 9 agreed a wide range of projects could be implemented (<4 yr. payback)
- 7 of 9 respondents interviewed disagreed (6) or strongly disagreed (1) they were running out of projects to implement