



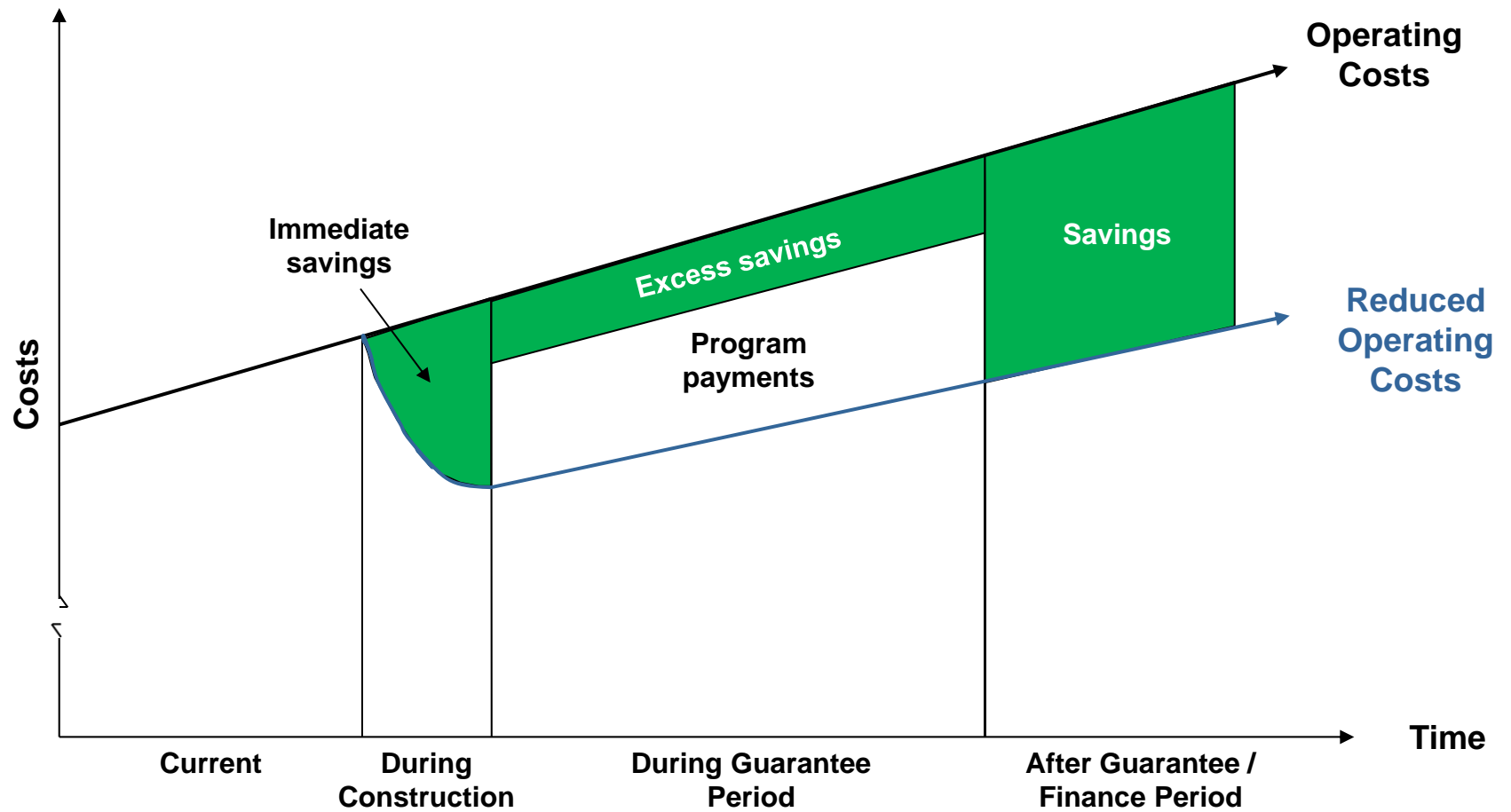
Strategies for Successfully Financing Energy Efficiency Projects

(How to fund upgrades without capital)

Siemens Industry, Inc.
Energy & Environmental Solutions

April 27, 2016

Understanding Energy Efficiency (EE) Project Financing Cash Flow



Common Characteristics of EE Project Financing

1. Designed to protect **budget neutrality**; Escalating payments possible with payments \leq project savings
2. **Fixed, long-term loans**; tax-exempt rates for public entities; taxable rates for private entities
3. Payments scheduled **after construction** and owner savings begin
4. Special terms for public entities:
 - Capital Lease Purchase Agreements have **non-appropriation clauses**
 - AHFC EE Revolving Loan Program considered **non-recourse** debt

EE Project Financing Options Utilized in Alaska

- » Tax-exempt General Obligation Bonds / Alaska Municipal Bond Bank = **Lake and Peninsula Borough – LPSD EE School Upgrades**
- » Tax-exempt Capital Lease Purchase Agreement = **State of Alaska Dept. of Corrections and Dept. of Transportation & Public Facilities – Northern Region Energy Performance Contracts**
- » US Dept. of Agriculture Rural Development, Community Direct Grants & Loans = **Begich Towers, Inc. (private non-profit HOA in Whittier)**
- » Alaska Industrial Development and Export Authority – SETS Energy Development Finance Program = **Alaska Pacific University**
- » Alaska Housing Finance Corporation’s Alaska Energy Efficiency Revolving Loan Program = **City of Galena**

Capital Lease Purchase Agreement

- Eligibility – Public and private entities (taxable vs. tax exempt)
- Differences – non-appropriation clause for public leases
- No Minimum or Maximum \$\$ Amount
- Term – 15 year maximum; Energy savings must repay the loan including interest
- Interest Rate – Based on client's credit (tax exempt lease = 2.4% for 14-year term September 2015)
- Saving Guarantee Optional



AHFC's Alaska Energy Efficiency Revolving Loan Program

- Eligibility - All publically-owned State, school district, university, and municipal buildings within Alaska (*)
- Differences - State AG deemed “non-recourse”
- No Maximum \$\$ Amount - Loans greater than \$1.5M require AHFC Board approval.
- Term – 15 year maximum (*); Energy savings must repay the loan and be cash flow neutral (including interest)
- Interest Rate – Updated weekly; (3.50% for 15-year term on 4/11/2016)
- Saving Guarantee Required - Loans greater than \$500K require performance contract savings guarantee

(* or as determined by AHFC)



USDA Rural Development Community Direct Loans

- Eligibility - All public entities / community buildings
- Differences – Rural, low income areas
- No Maximum \$\$ Amount - no early repayment penalty
- Term – Up to 40 years; client must be able to repay the loan including interest
- Interest Rate – Updated quarterly; (3.125% fixed for 40-year term in January 2016)
- Saving Guarantee Optional



Other Alternative EE Project Financing Options

- » **Commercial Leases & Refinancing Loans with Owner's Bank = Key Bank , up to 10 years terms**
- » **Power Purchase Agreements (PPAs): Solar PV and Combined Heat-Power Generation – up to 20 year terms**
- » **Siemens ConservTM: Complex Option for Highly Leveraged Private Entities; EE Loan Repaid with Actual Savings Guaranteed by Siemens with Independent Investor**
- » **Property Assessed Clean Energy Act (PACE): 2016 Legislation(*) Authorizing Municipalities to Establish Tax Incentives to Encourage EE Improvements**

Common Barriers to Energy Efficiency Projects

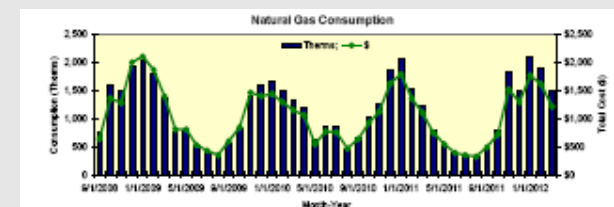
1. Insufficient Funding to Meet Facility Needs - State Budget Crisis / Limited Federal Funding
2. Shortage of Staff Time – No Dedicated EE Champion to Guide Project from Conception to Construction
3. Limited Technical Resources –Pace of Technology Advances
4. Inability to Quantify Project Benefits to Secure Needed Executive Support for Financing



Strategies to Overcome EE Project Hurdles

Enlist Technical Expertise of EEPD/ESCO to help:

1. Extend Existing In-House Resources with Dedicated Project Support and Management
2. Calculate Overall Costs & Benefits Upfront for Executive Decision Makers for Budget Neutral, Self-Funding Investment
3. Quantify the Cost of Doing Nothing
4. Evaluate and Deploy Latest EE Technology
5. Mitigate Risk with Performance Savings Guarantees



Thank you!

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