Financing Municipal Projects
Money used for energy efficiency (or renewables) is an investment, not an expense.

**Spend**  to use up or pay out

**Invest**  to commit money in order to gain a financial return; to devote for future advantage or benefit
Energy investments differ from traditional investments

Return on investment (ROI) is money that is NOT spent on future energy bills. To determine the ROI, compare the actual energy cost with what it would have been; the difference is the ROI.

Traditional investments generally have some end value of the original investment (sale or maturity of an asset). In an energy investment, the initial investment is made and ROI comes from future energy savings—unless the energy improvements add to resale value.
Paying for it

- Grants
- Efficiency Incentives
- Budget/Capital Reserves
- Bonding
- Loans
- Tax-Exempt Lease Purchase
Align the period of payment with the period of the savings
Combining Non-Energy and Energy Measures

Mold Remediation
Total Amount Borrowed $500,000
Rate and Term 2.0%, 15 yrs.
Total Cost $579,158

Energy Efficiency Project - Lighting
Total Amount Borrowed $45,451
Total Cost $52,647
Total Energy Savings(15 yrs.) $152,765

Combined
Total Amount Borrowed $545,451
Total Net Cost $479,040
Combining Non-Energy and Energy Measures

Cumulative Cash Flows

- Year
- Thousands
- $-(100)
- $-(200)
- $-(300)
- $-(400)
- $-(500)
- $-(600)
- $-(700)

Mold Remediation Only
Combined with EE
Leasing

- Leases affect operating expenses (income statement), not capital expenditures (balance sheet)
- Net positive cash flow reduces the risk perceived by lessor
- No “rate,” just payment multipliers or “factors”
Leasing, continued

- Leases as small as $1,000 are possible
- Rarely longer than 5 years, but may be as long as 10 years
- No penalty for early payoff
- Leasing cost often ends up being higher than a loan and sometimes higher than bonding
Tax-Exempt Leasing

- "Termination for non-appropriation" clause enables the lessee to account for the lease obligation as a current expense instead of debt

- If lessee is unable to obtain funding for future payments, lessee can terminate the lease agreement at the end of the current appropriation period without further obligation or penalty. This is an important provision for public entities that receive funding for one year at a time
Tax-Exempt Leasing, continued

• Interest income on a tax-exempt lease is generally not taxable for the lessor, so the cost can be lower.

• “Full payout” contract to purchase the equipment (rather than a series of rental payments as with traditional commercial leases), so the financing is structured so that there is no residual value, balloon payment or purchase option to consider.

• There is a good overview and FAQ here: www.aglf.org/faq
Example: project cashflow with financing

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Operation &amp; Maintenance Savings (Costs)</th>
<th>Annual Electric Savings (Costs)</th>
<th>Annual Fuel Savings (Costs)</th>
<th>Annual Payments (Principal &amp; Interest)</th>
<th>Net Annual Cashflow</th>
<th>Net Cumulative Cashflow</th>
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Key issues: Energy efficiency financing

- financing is the *last* piece of the puzzle
- total cost is frequently less important than positive cash flow
- longer-term financing
  - better aligns the period of payment with the period of the savings (life of measures)
  - could allow most or all of the required investment to be paid for out of savings
• Modern, 3-story, 105K sq. ft., 500 K-8 students
• Inefficient lighting identified by SEMP
• Team formed: Facility Manager, Efficiency Vermont, Supplier, Contractor
• Team put together project scope, estimates for costs & savings. Efficiency VT calculated an incentive.
• Project presented to Tom Petit. Too big for budget, too small for bond. A tax-exempt lease allowed LTS to proceed with no upfront costs
• Project completed early 2011
Lyndon Town School

Project Scope
• Replaced T12 lamps throughout school with HPT8 lamps/ballasts
• Replaced 12 metal halide fixtures (320 Watt) in gym with T5 high-output fluorescents
• Installed lighting controls (occupancy sensors) throughout school

Project Economics
• Estimated Net Project Costs (after incentive): $70,800
• Estimated Annual Project Savings (estimates): $18,000 annually
• Estimated Rate of Return on Investment (pretax): 25%
• Simple Payback: 3.9 Years
Lyndon Town School

Project Financing
- Tax-exempt lease obtained through Municipal Leasing Consultants
- 4 years, semi-annual payments, low interest rate
- Lease payments are paid from utility savings each year (savings exceeds lease payments)

Project Partners
- Wells & Son Electric
- Green Mountain Electrical Supply
- Municipal Leasing Consultants
- Lyndon Town School -Caledonia North SU
- VSA, School Energy Management Program
- Efficiency Vermont