

Partnerships for Energy Efficiency Lending

Multifamily Retrofits in Chicago

energy savers

A one-stop energy efficiency shop for multifamily building owners

1. Overview
2. How the Program Works
3. Financing
4. The Role of the Energy Efficiency (TA) Provider
5. Wrap-Up

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-Overview-

- Program to reduce energy consumption in multifamily rental buildings
- Jointly administered by Community Investment Corporation (CIC) and CNT Energy (CNTe), a division of Center for Neighborhood Technology.
- Since 2008:
 - Retrofits: 285 buildings / 10,000 units
 - Financed: 80 buildings / 3,000 units / \$8.5MM
- Average: \$3,000/unit → 30% savings
 - Typical 24 unit building /\$10,000 per year
 - 5-7 year payback

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Origins:

- The Preservation Compact → preserve affordable rental housing in Cook County
- Two costs most difficult to control:
 - Property taxes
 - Utility bills

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Partnership:

- CIC – a CDFI with experience in multifamily lending (\$1.1 billion/2,000 loans/since 1984)
- CNT Energy – an energy efficiency provider
- CNT provides:
 - Assessment
 - Advice
 - Construction Oversight
 - Ongoing Monitoring
- CIC provides:
 - Access to owners
 - Financing (if needed)

Energy Savers: How it works

A one-stop energy efficiency shop for owners of multifamily buildings that offers:

- Energy Analysis
- Cost-effective energy-saving recommendations
- Low-cost financing through CIC
- Construction Oversight
- Tracking of building performance to ensure savings

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Energy Savers Case Study

- Nautilus Investments
- Seven-story brick building with 55 units
- Constructed in 1928
- Steam heating system run on natural gas



Investment Package

- Improvements made:
 - New steam boiler
 - New boiler controls with indoor temperature sensors
 - High efficiency hot water heaters
 - Insulated heating pipes
- Investment: \$80,000 low-interest loan



- Energy Savings:
 - 45% gas savings
 - \$21,600/year

Old boiler and pipes



Energy saving improvements

- New steam boiler
- New boiler controls with indoor temperature sensors
- Replaced hot water heaters with high efficiency model



Installation of Cost Effective Measures

Table 1 Recommended retrofits

Recommendation	Cost (\$)	Savings (therms/year) (kWh/year)	Savings* (\$/year)	Simple payback (years)	Retrofit lifetime (year)	SIR
1. Install boiler controls in main building	6,000	2,539 therms/year	2,539	2.4	12	5.1
2. Replace rebuilt boiler in main building with a high-efficiency (92%+) boiler	80,000	9,336 therms/year	9,336	8.6	20	2.3
3. Replace all incandescent light bulbs in exit signs with LEDs	5,280	8,410 kWh/year	841	6.3	10	1.6
4. Convert T-12 fluorescent lights with more efficient T-8 lights in all common areas	1,720	2,800 kWh/year	280	6.1	10	1.6
5. Install low-flow shower heads (1.5 GPM) and faucet aerators (1.5 GPM kitchen; 1.0 GPM bathroom)	14,400	1,600 therms/year	1,600	9.0	10	1.1
6. Weatherstrip doors and install door sweeps in townhome units **	4,200	1,680 therms/year	1,680	2.5	10	4.0
TOTAL***	107,400	13,475 therms/year 11,210 kWh/year	14,596	7.4	-	-

* Assumes \$1.00 per therm of natural gas or \$0.10 per kWh of electricity. 1 therm = 29 kWh

** Savings for this measure will be seen by tenants, not owner. Cost, savings, and payback amounts not included in total.

*** Totals may not match due to rounding.

Bolded measures are eligible for utility rebates. Please see Table 2.

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-Financing-

- 2008-2012: 80 Buildings/3,000 units/\$8.5 million
 - Loan Structure:
 - Second mortgage loans
 - Personal recourse
 - 3% (money obtained at 1%)
 - Often behind CIC first mortgage
 - 1.15 DSCR (after retrofit)
 - 90% LTV (recent appraisal)
 - 7 year term
 - 7-10 year amortization
- NOTE: Energy savings should cover debt service.

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-Financing-

- Sources of funds:
 - Originally:
 - \$1 million, MacArthur Foundation
 - \$1 million, Grand Victoria Foundation
 - \$1 million, CIC
 - New Funding:
 - \$8 million, Bank of America
 - \$5 million, MacArthur Foundation
 - Both 10 year, 1% PRIs
 - Also:
 - \$500,000 grant, Bank of America, \$3.5 million in loan loss reserves (City of Chicago, CMAP)

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-Wrap-Up-

- Key Elements
 - Partnership— CIC-CNTe
 - Low barrier to entry (no cost assessment and TA)
 - Nothing mandatory – owner choice
 - Flexible
 - Low cost financing, if needed

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-Wrap-Up-

- Looking Ahead – challenges of going to scale
 - Source of money for assessments, TA
 - Source of capital
 - Security for loan repayment
- Utility bills??

Thank you & Questions

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