

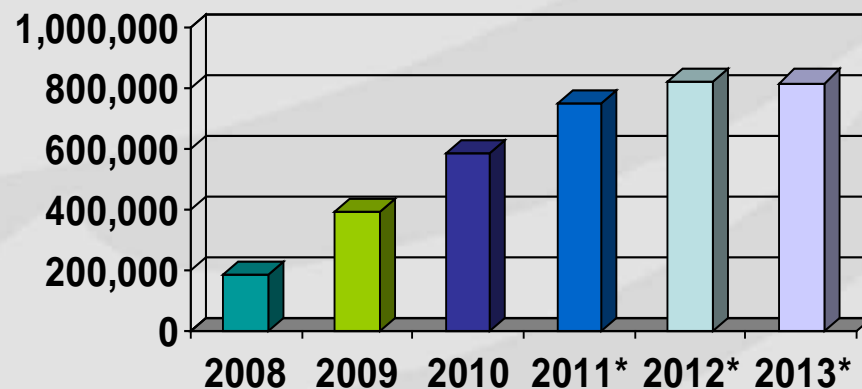
Smart Ideas for Your Business®

Will County Green
May 10, 2011
Bill Beattie
Outreach Manager

Where Smart Ideas Started . . .

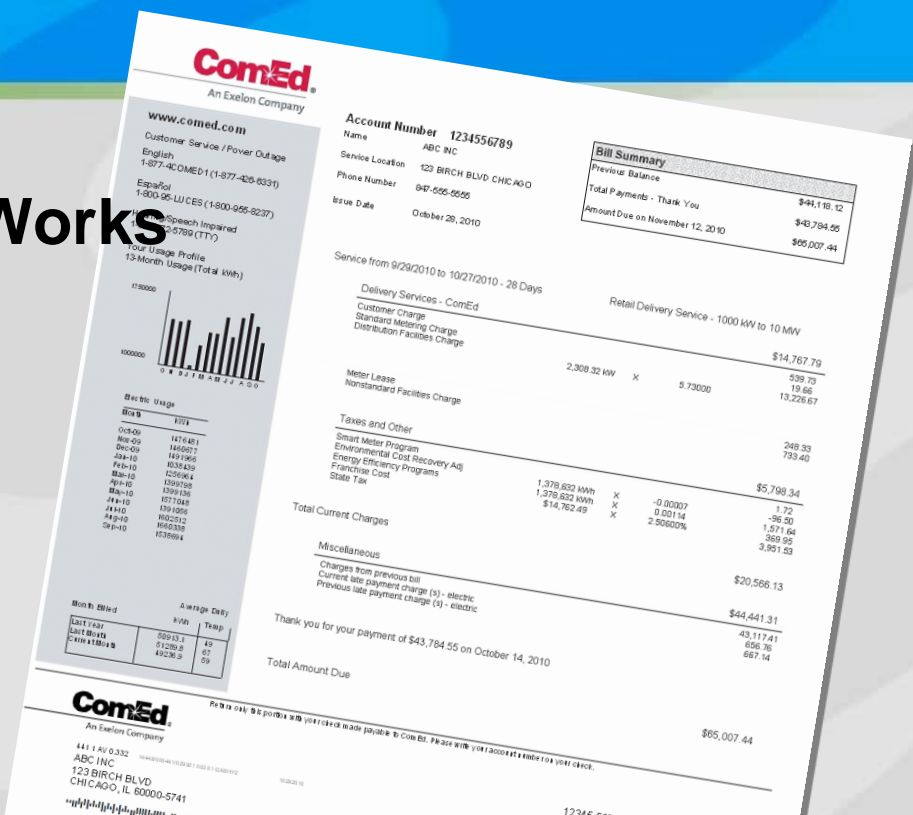
- **Provides incentives for energy efficiency upgrades and equipment**
- Part of Illinois energy legislation passed in 2007
- Program implemented by ComEd, Ameren Illinois and the Illinois Department of Commerce and Economic Opportunity
- Fourth year of program begins June 1
- Ratepayer funded program

Smart Ideas Energy Efficiency Goals
(MWh)



How Ratepayer Funding Works

- Energy Efficiency Programs charge on your monthly bill
- Based on kWh usage
- How much are you contributing?

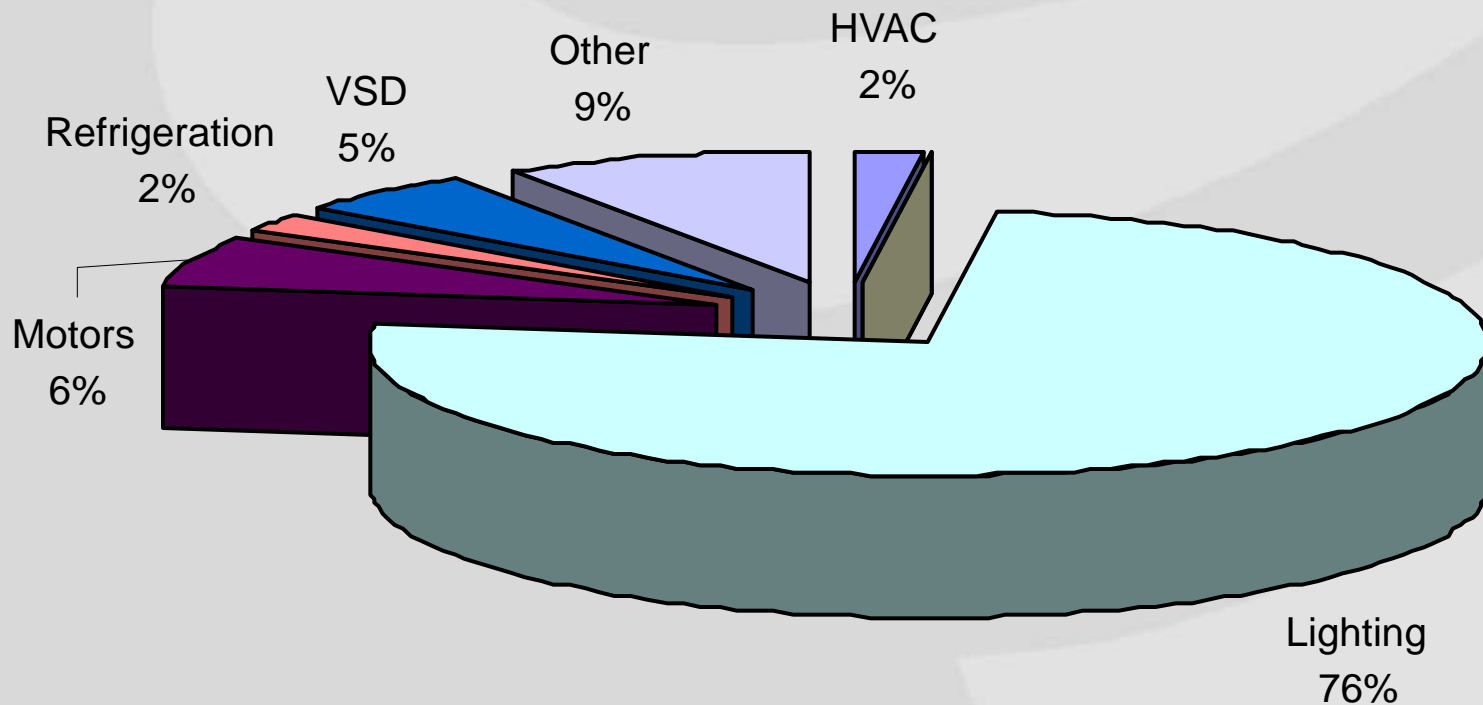


Taxes and Other				\$5,798.34
Smart Meter Program				1.72
Environmental Cost Recovery Adj	1,378,632 kWh	X	-0.00007	-96.50
Energy Efficiency Programs	1,378,632 kWh	X	0.00114	1,571.64
Franchise Cost	\$14,762.49	X	2.50600%	369.55
State Tax				3,951.53
Total Current Charges				\$20,566.13

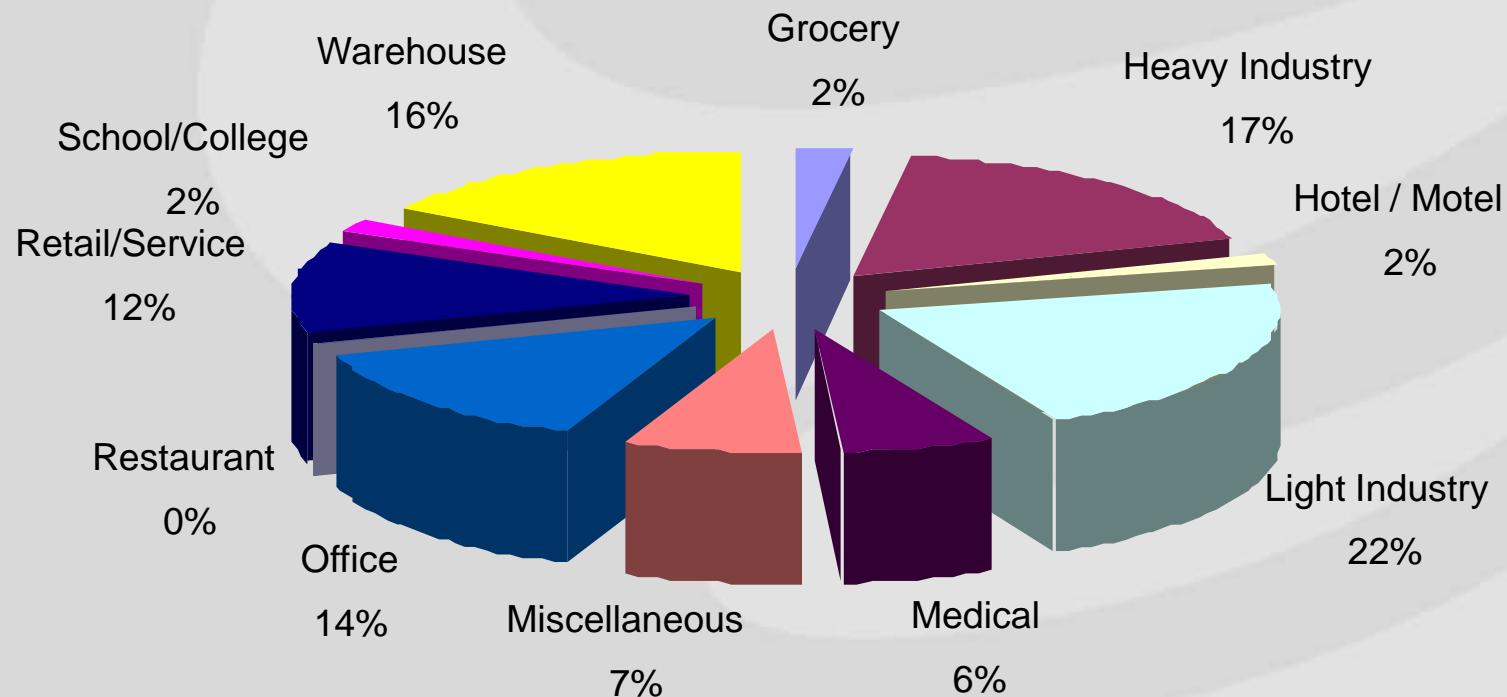


Where the Energy Savings Come From

Smart Ideas kWh Savings



Who Receives Incentives from *Smart Ideas for Your Business?*

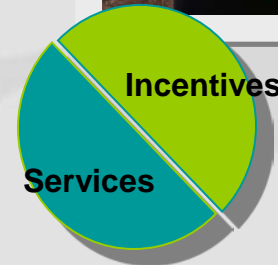
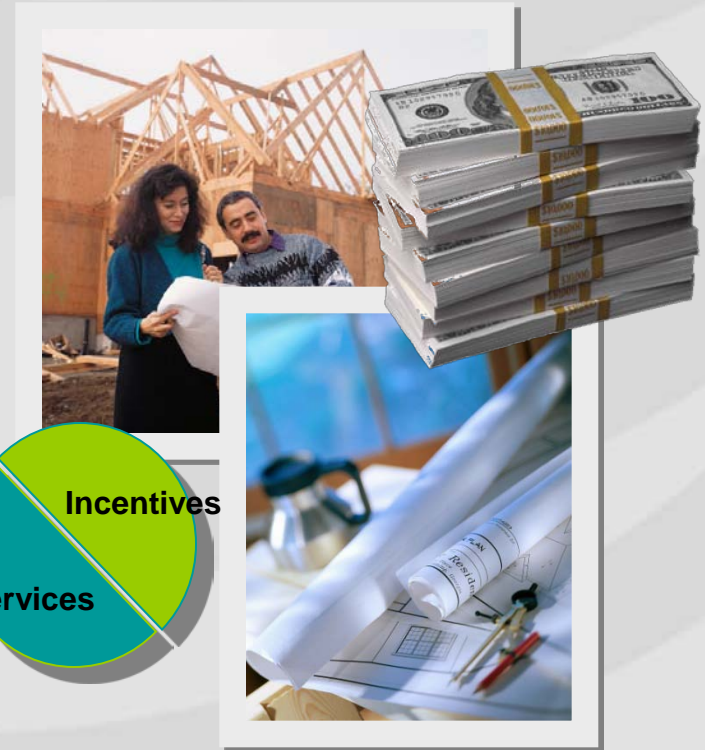


By kWh, 2008 to Present



Smart Ideas Helps You Become More Energy Efficient

- Prescriptive and custom incentive program (KEMA)
- New construction program (ECW)
- Retro-commissioning program; compressed air studies (Nexant)
- Small Business program; under 100 kw (Nexant, Franklin)



Prescriptive and Custom Incentives

Prescriptive Measures

“Off-the-shelf” equipment retrofits, replacements and upgrades:

- Lighting
- HVAC
- VSDs
- Refrigeration
- Commercial kitchen/food service equipment
- Controls and sensors
- Compressor retrofit to 100HP

Custom Measures

Tailored-for-you energy efficiency upgrades, such as:

- Energy management systems
- Industrial process improvements
- And other efficiency improvements not captured by the prescriptive program





Where Are Your Opportunities to Improve Energy Efficiency?

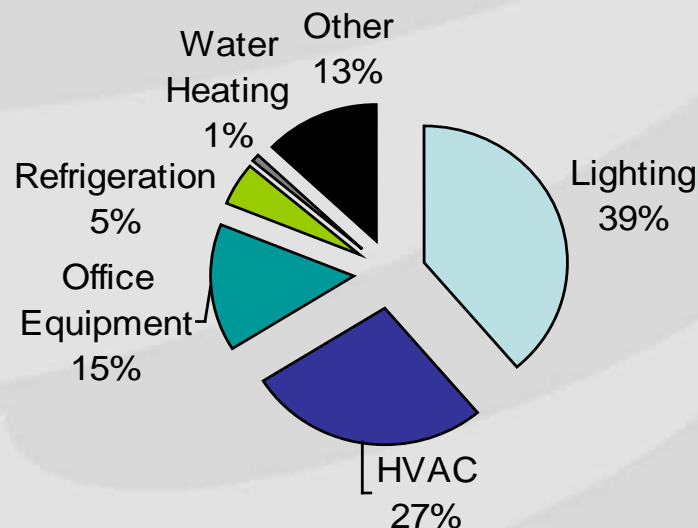


Energy Efficiency Opportunities in Office Buildings

- **Lighting**
 - Replace old overhead T12 tubes with more efficient T8s and electronic ballasts and save 35% of lighting energy use.
- **HVAC/VSD**
 - Install VSDs on fans and compressors and save 12-28%, depending on your application.
- **Controls and sensors**
 - Install occupancy sensors in storage areas and meeting rooms and reduce energy use 45-65%.
- **Exit signs**
 - Replace incandescent exit signs with LED exit signs and save about 300 kWh per year per sign.

(Savings estimates based on average use.)

Energy Use in Office Buildings

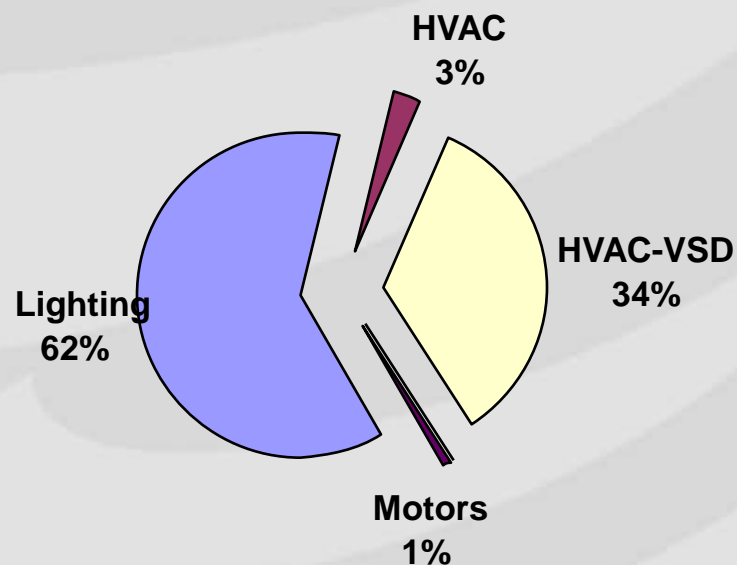


Office Buildings in the *Smart Ideas* Program

- Best Bet: Upgrade lighting and add occupancy sensors
- Most popular projects: Installing new T8 or T5 fluorescent light fixtures and upgrading incandescent exit signs to LED exit signs
- Average incentive: \$10,616

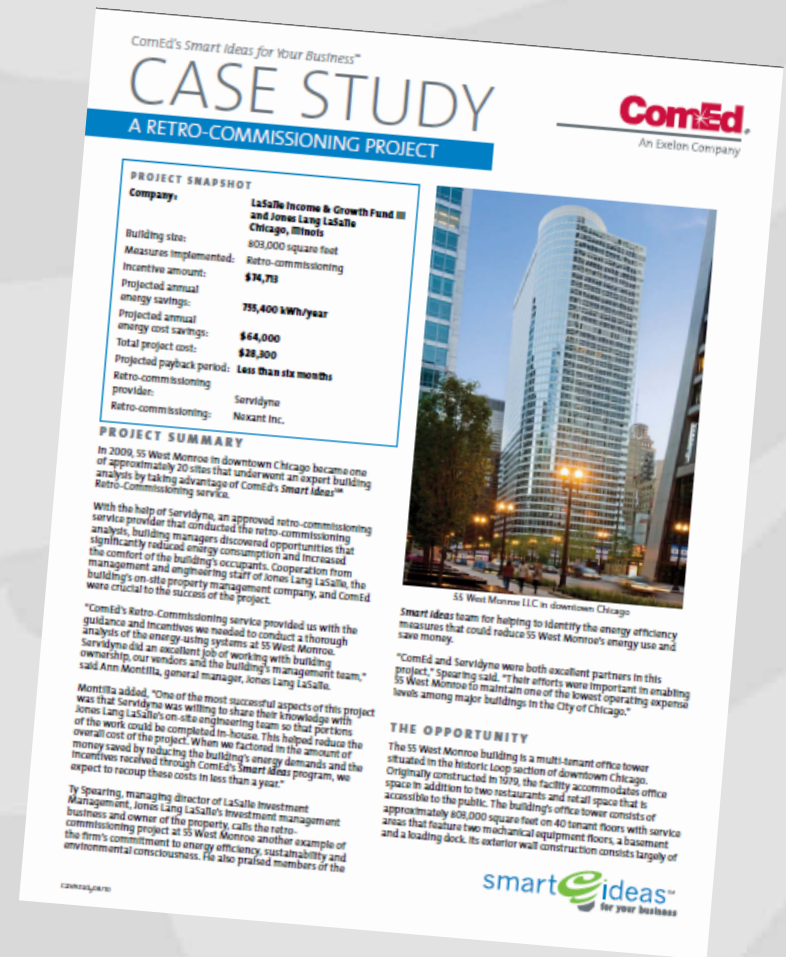
Over \$8,500 in estimated annual savings *per project*

Smart Ideas kWh Savings in Office Buildings



Case Study: LaSalle Income & Growth Fund III and Jones Lang LaSalle

Measures implemented:	Retro-commissioning
Building size:	803,000 sq. ft.
Incentive amount:	\$74,713
Projected annual energy savings:	755,400 kWh
Projected annual energy cost savings:	\$64,000
Total project cost:	\$28,300
Projected payback period:	Less than six months



ComEd's Smart Ideas for Your Business™

CASE STUDY

A RETRO-COMMISSIONING PROJECT

ComEd
An Exelon Company

PROJECT SNAPSHOT

Company: LaSalle Income & Growth Fund III and Jones Lang LaSalle
Chicago, Illinois

Building size: 803,000 square feet

Measures implemented: Retro-commissioning

Incentive amount: \$74,713

Projected annual energy savings: 755,400 kWh/year

Projected annual energy cost savings: \$64,000

Total project cost: \$28,300

Projected payback period: Less than six months

Retro-commissioning provider: Servidyne

Retro-commissioning: Noxant Inc.

PROJECT SUMMARY

In 2009, 55 West Monroe in downtown Chicago became one of approximately 20 sites that underwent an expert building analysis by taking advantage of ComEd's Smart Ideas™ Retro-Commissioning service.

With the help of Servidyne, an approved retro-commissioning service provider that conducted the retro-commissioning analysis, building managers discovered opportunities that significantly reduced energy consumption and increased the comfort of the building's occupants. Cooperation from management and engineering staff of Jones Lang LaSalle, the building's on-site property management company, and ComEd were crucial to the success of the project.

"ComEd's Retro-Commissioning service provided us with the guidance and incentives we needed to conduct a thorough analysis of the energy-using systems at 55 West Monroe. Servidyne did an excellent job of working with building ownership, our vendors and the building's management team," said Ann Montilla, general manager, Jones Lang LaSalle.

Montilla added, "One of the most successful aspects of this project was that Servidyne was willing to share their knowledge with Jones Lang LaSalle's on-site engineering team so that portions of the work could be completed in-house. This helped reduce the overall cost of the project. When we factored in the amount of money saved by reducing the building's energy demands and the incentives received through ComEd's Smart Ideas program, we expect to recoup these costs in less than a year."

Ty Spearing, managing director of LaSalle Investment Management, Jones Lang LaSalle's investment management business and owner of the property, calls the retro-commissioning project at 55 West Monroe another example of the firm's commitment to energy efficiency, sustainability and environmental consciousness. He also praised members of the

THE OPPORTUNITY

The 55 West Monroe building is a multi-tenant office tower situated in the historic Loop section of downtown Chicago. Originally constructed in 1970, the facility accommodates office space in addition to two restaurants and retail space that is accessible to the public. The building's office tower consists of approximately 406,000 square feet on 40 tenant floors with service areas that feature two mechanical equipment floors, a basement and a loading dock. Its exterior wall construction consists largely of

55 West Monroe LLC in downtown Chicago

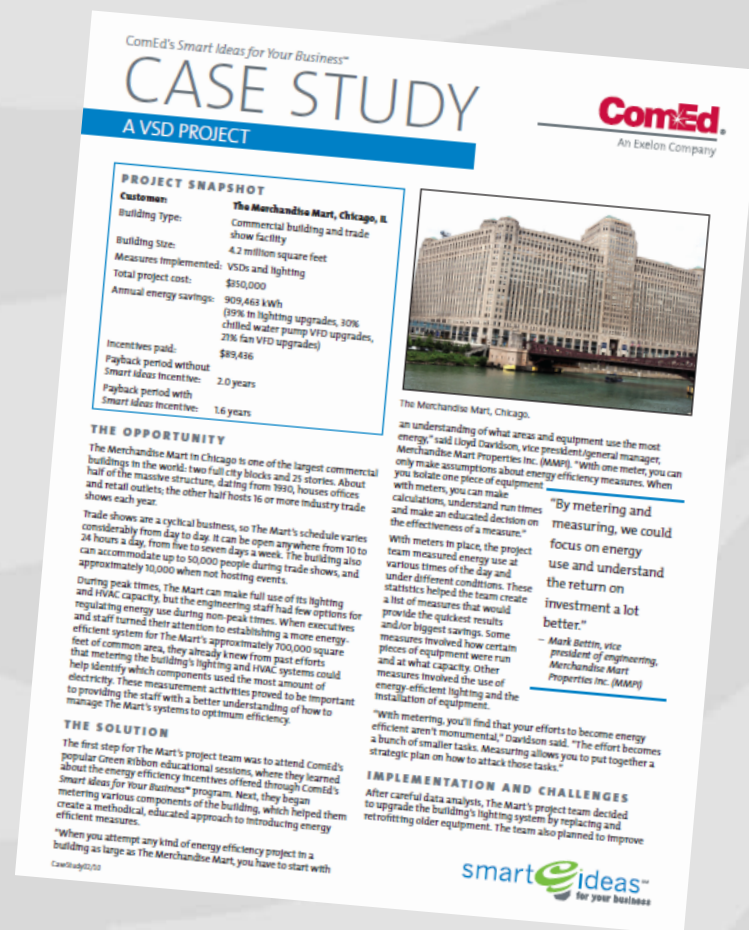
Smart Ideas team for helping to identify the energy efficiency measures that could reduce 55 West Monroe's energy use and save money.

"ComEd and Servidyne were both excellent partners in this project," Spearing said. "Their efforts were important in enabling 55 West Monroe to maintain one of the lowest operating expense levels among major buildings in the City of Chicago."

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Case Study: Merchandise Mart

Measures implemented:	Lighting and VSDs on HVAC
Total project cost:	\$350,000
Projected annual energy savings:	909,463 kWh
Incentives paid:	\$89,436
Payback period without <i>Smart Ideas</i> incentive:	2.0 years
Payback period with <i>Smart Ideas</i> incentive:	1.6 years



PROJECT SNAPSHOT

Customer:	The Merchandise Mart, Chicago, IL
Building Type:	Commercial building and trade show facility
Building Size:	4.2 million square feet
Measures Implemented:	VSDs and lighting
Total project cost:	\$350,000
Annual energy savings:	909,463 kWh (59% in lighting upgrades, 30% chilled water pump VFD upgrades, 21% fan VFD upgrades)
Incentives paid:	\$89,436
Payback period without Smart Ideas Incentive:	2.0 years
Payback period with Smart Ideas Incentive:	1.6 years

THE OPPORTUNITY

The Merchandise Mart in Chicago is one of the largest commercial buildings in the world. Two full city blocks and 21 stories, about half of the massive structure, dating from 1910, houses offices and retail outlets; the other half hosts 16 or more industry trade shows each year.

Trade shows are a cyclical business, so The Mart's schedule varies considerably from day to day. It can be open anywhere from 10 to 24 hours a day, from five to seven days a week. The building also can accommodate up to 50,000 people during trade shows, and approximately 30,000 when not hosting events.

During peak times, The Mart can make full use of its lighting and HVAC capacity, but the engineering staff had few options for and staff turned their attention to establishing a more energy-efficient system for The Mart's approximately 700,000 square feet of common area, they already knew from past efforts that metering the building's lighting and HVAC systems could help identify which components used the most amount of electricity. These measurement activities proved to be important to providing the staff with a better understanding of how to manage The Mart's systems to optimum efficiency.

THE SOLUTION

The first step for The Mart's project team was to attend ComEd's popular Green Ribbon educational sessions, where they learned about the energy efficiency incentives offered through ComEd's *Smart Ideas for Your Business* program. Next, they began metering various components of the building, which helped them create a methodical, educated approach to introducing energy efficient measures.

"When you attempt any kind of energy efficiency project in a building as large as The Merchandise Mart, you have to start with an understanding of what areas and equipment use the most energy," said Lloyd Davidson, vice president/general manager, Merchandise Mart Properties Inc. (MMP). "With one meter, you can only make assumptions about energy efficiency measures. When you isolate one piece of equipment with meters, you can make calculations, understand run times and make an educated decision on the effectiveness of a measure."

With meters in place, the project team measured energy use at various times of the day and under different conditions. These statistics helped the team create a list of measures that would provide the quickest results and/or biggest savings. Some pieces of equipment were run and at what capacity. Other measures involved the use of energy-efficient lighting and the installation of equipment.

"With metering, you'll find that your efforts to become energy efficient aren't monumental," Davidson said. "The effort becomes a bunch of smaller tasks. Measuring allows you to put together a strategic plan on how to attack those tasks."

IMPLEMENTATION AND CHALLENGES

After careful data analysis, The Mart's project team decided to upgrade the building's lighting system by replacing and retrofitting older equipment. The team also planned to improve

ComEd
An Exelon Company

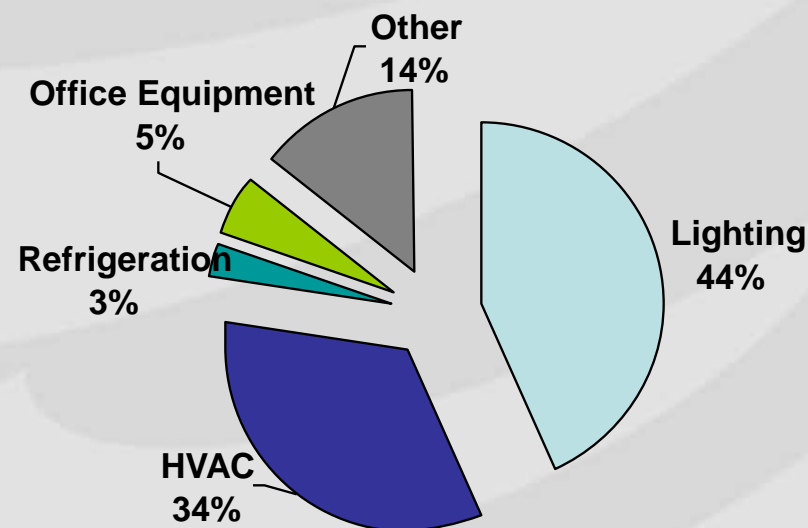
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Energy Efficiency Opportunities in Healthcare

- Lighting
 - Upgrade to more energy efficient lighting.
 - Install occupancy sensors in storage rooms and meeting rooms.
 - Replace your incandescent exit signs with LED exit signs.
- ENERGY STAR® equipment and demand-controlled ventilation in the kitchens
- Guest room energy management systems
 - Occupancy sensor or key card controls heating and AC.
- Medical compressed air
- Ice machines
 - ENERGY STAR® commercial ice machines are on average 15% more energy efficient than standard models.

(Savings estimates based on average use.)

Energy Use in Healthcare Facilities

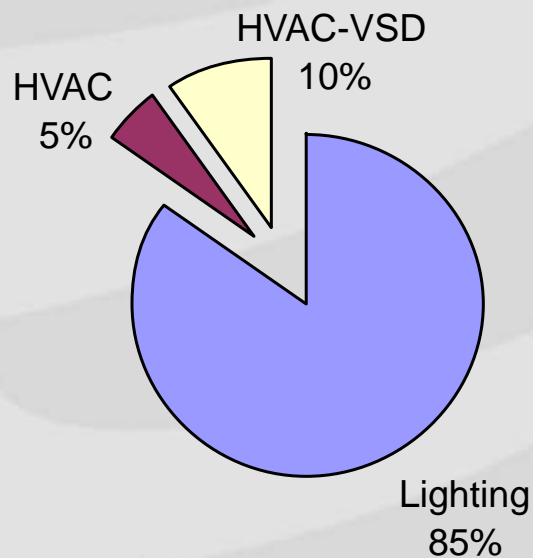


Medical Facilities in the *Smart Ideas* Program

- Best Bet: Upgrade lighting, install occupancy sensors
- Most popular project: Upgrading obsolete T12 fluorescent lighting to T8 or T5 fluorescent lighting
- Average incentive: \$16,494

Over \$25,000 in estimated annual savings *per project*

Smart Ideas kWh Savings in Medical Facilities



Snapshots: Healthcare Facilities

A Hospital in the North Suburbs

- Specializes in emergency and cardiac care, so lights are on 24/7 – 8,760 hours per year
- Upgraded almost 3,000 obsolete T12 fluorescent light fixtures to energy efficient T8 fluorescent fixtures
- Upgraded 90 exit signs to LEDs
- Project cost: \$167,700
- Incentive: \$48,500
- Projected annual savings: Over 1 million kWh
- Payback: 1.2 years

A Hospital in Chicago

- Operates kitchen 15 hours a day, seven days a week, to prepare food for 400 patients, 2,300 staff members plus visitors.
- Installed demand controlled ventilation system on kitchen exhaust and makeup air fans
- Cost of running fans will drop by almost 50%, and system also saves wear and tear on the fan motors.
- Keeping air conditioned and heated air in the building will save another \$4,700.
- Project cost:\$58,900
- Projected annual energy savings: 186,115 kWh
- Incentive:\$9,000
- Payback:2.4 years

Energy Efficiency Opportunities in Warehouses

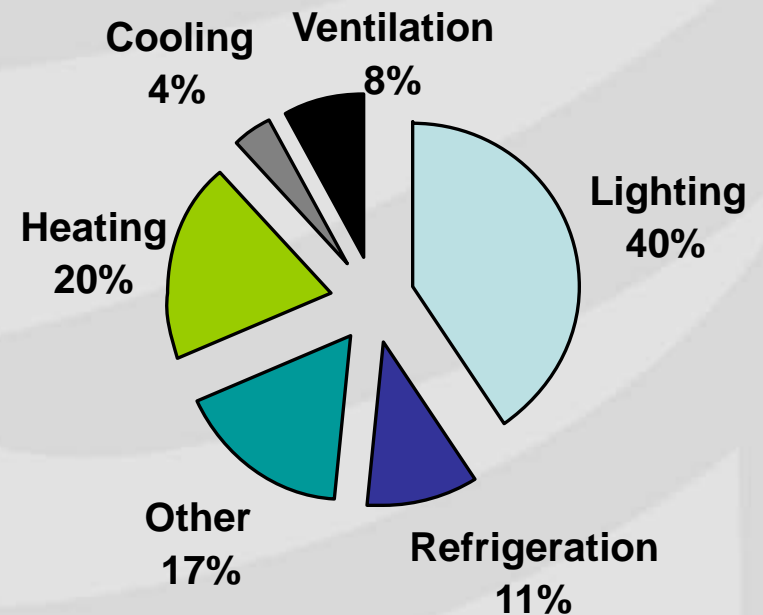
- **Lighting**

- Upgrade inefficient hi-bay lighting.
- Install occupancy sensors and other controls to turn lights out when not needed.
- Look at outdoor and parking lot lighting, including sensors and timers.
- Install LED exit signs.

- **Refrigeration**

- In refrigerated warehouses, look at refrigerated doors and cooler lighting.

Energy Use in Warehouses





Warehouses in the *Smart Ideas* Program

- Best Bet: Upgrade lighting and install occupancy sensors
- Most popular project: Replacing high-bay lighting with new T8 or T5 fluorescent light fixtures and installing occupancy sensors
- Average incentive: \$16,983

Smart Ideas kWh Savings in Warehouses

HVAC

0.12%



Lighting

99.88%

Over \$25,000 in estimated annual savings *per project*

Snapshots: Warehouses

A new 208,000-sq.-ft. warehouse operating 24/5 (6,240 hours per year) had built-in energy savings measures: 160 skylights and 280 T5 fixtures. For additional energy savings, the owners installed occupancy sensors and daylight sensors on all 280 T5 fixtures.

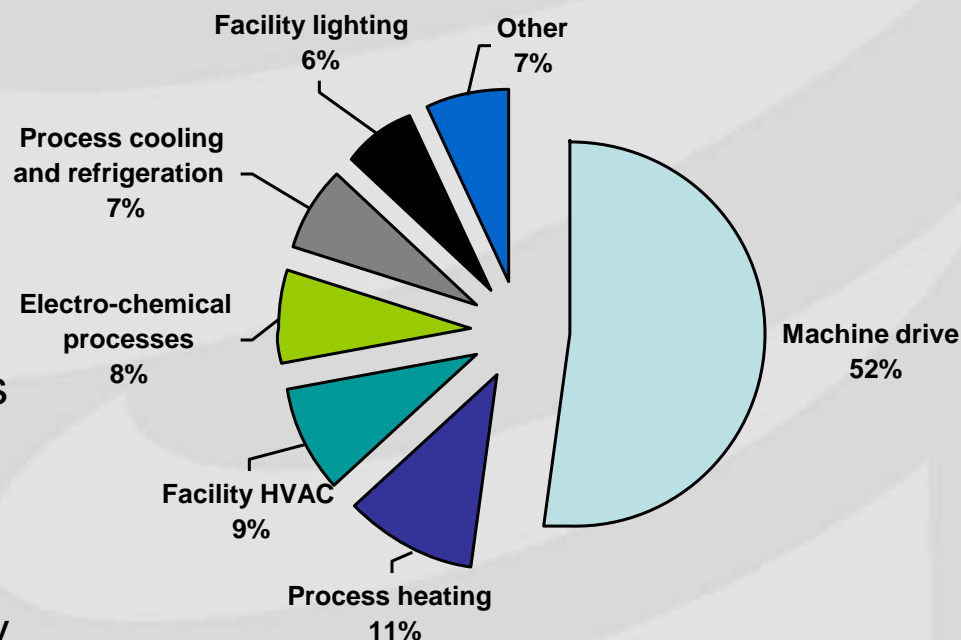
The occupancy sensors reduced the hours of operation/year to 3,750, and the daylight sensors further reduced hours of operation/year to 3,000.

Installing the sensors cost just under \$10,000 and saved 79,466 kWh per year. With a \$4,877 incentive from ComEd's *Smart Ideas for Your Business* program, the project paid for itself in seven months.

Energy Efficiency Opportunities in Industry

- Improve common plant systems such as motors, compressed air and process cooling.
- Control HVAC with an energy management system.
- Check the lights:
 - Replace old fluorescent and incandescent lighting with T-8s or another energy-efficient lighting system.
 - Maximize task lighting, daylight, and use of occupancy sensors.

Energy Use in Industry

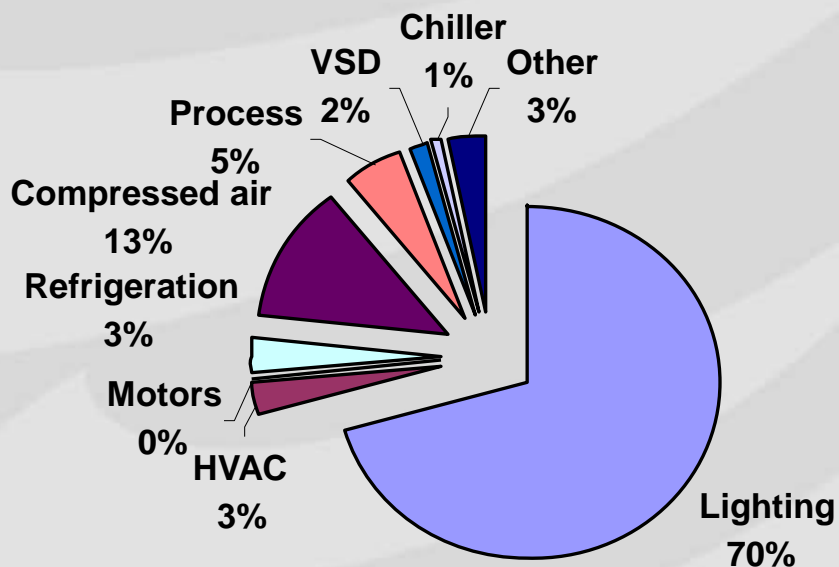


Industrial Facilities in the *Smart Ideas* Program

- Best Bets: Lighting, compressed air
- Most popular project: Replacing inefficient lighting with new T8 or T5 fluorescent light fixtures and installing occupancy sensors
- Average incentive: \$36,437

Almost \$25,000 in estimated annual savings *per project*

Smart Ideas kWh Savings in Industrial Facilities



Case Study: Ford Motor Company

Measures implemented:	Lighting
Total project cost:	\$212,800
Projected annual energy savings:	1,184,582 kWh
Incentives paid:	\$90,685
Payback period without <i>Smart Ideas</i> incentive:	Less than 3 years
Payback period with <i>Smart Ideas</i> incentive:	2 years



ComEd's Smart Ideas for Your Business™
CASE STUDY
A LIGHTING RETROFIT PROJECT
ComEd
 An Exelon Company

PROJECT SNAPSHOT

Customer: Ford Motor Company, Chicago Heights, IL
Building type: 2,046,220-square-foot stamping plant
Measures implemented: Lighting retrofit
Total project cost: \$212,800
Annual energy savings: 1,184,582 kWh
Incentives paid: \$90,685
Payback period without Smart Ideas incentive: Less than 3 years
Payback period with Smart Ideas incentive: 2 years

PROJECT SUMMARY

Ford Motor Company has a long history of participating in energy efficient, environmentally friendly "green" programs. So when management began investigating ways to improve the efficiency of lighting at its stamping plant in Chicago Heights, IL, they turned to ComEd's Smart Ideas™ team. In 2008, Ford upgraded more than 1,000 lighting fixtures and installed another 1,000 occupancy sensors at the plant. Today, the company expects these measures to yield enough energy savings annually to allow the cost of the project to be paid back in less than three years.

PROJECT DESCRIPTION

Ford replaced more than 1,000 high-pressure sodium and metal halide lighting fixtures with high performance, energy efficient T8 and T5 fixtures. These fixtures use approximately 50 percent less energy than the old fixtures and have a longer life.

Ford also installed nearly 1,000 occupancy sensors in areas of the plant where continuous lighting was not required. These sensors helped ensure that the lighting fixtures were turned off when no one was in the room, resulting in even greater energy savings.

"Ford Motor Company is committed to the responsible use of resources," said Gloria Georger, plant manager at Ford's Chicago-area facility. "By working with ComEd, we have been able to identify ways to improve our energy efficiency while reducing our facility costs at the Chicago-area stamping plant."

PROJECT BENEFITS

Ford officials say the project is expected to reduce the amount of electricity used at the Chicago Heights facility by nearly 1.2 million kWh annually. ComEd estimates that this is the equivalent of the annual greenhouse gas emissions from 116 passenger vehicles. But Georger notes that savings isn't the only benefit it has realized. "The improvements to our lighting provide

Ford Motor Company, based in Dearborn, MI, manufactures or distributes automobiles in 200 markets across six continents. The company's automotive brands include Ford, Lincoln, Mercury and Volvo. Approximately 1,000 employees work at Ford's Chicago Heights plant, where they produce body panels for vehicles made at Ford's Chicago assembly plant, including the Ford Taurus.

"As a result, we've seen an increase in our productivity," Georger said. "Since implementing the lighting retrofit, Ford has again partnered with ComEd's Smart Ideas to complete a walk-through efficiency audit, which Ford says will assist in identifying other potential energy efficiency projects to pursue."

ABOUT COMED'S SMART IDEAS PROGRAM

ComEd's Smart Ideas for Your Business™ program can provide your business with information on incentives, tools and tips to help your organization become more energy efficient. The Smart Ideas team can also provide you to work hand-in-hand with the facility's staff the opportunity energy engineers to increase and effective operation of your building's systems.

For more information, go to www.comed.com/BizIncentives or call the Smart Ideas hotline at 1-888-806-2278.

"By working with ComEd, Ford Motor Company has been able to identify ways to improve our energy efficiency while reducing our facility costs at the Chicago-area stamping plant."
 — Gloria Georger, plant manager, Chicago Stamping Plant

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 for your business

Case Study: Armacell Plant

Measures implemented:	Chiller retrofit
Total project cost:	\$248,523
Projected annual energy savings:	1,596,269 kWh
Incentives paid:	\$100,000
Payback period without <i>Smart Ideas</i> incentive:	2.4 years
Payback period with <i>Smart Ideas</i> incentive:	1.7 years

ComEd's Smart Ideas for Your Business™


CASE STUDY

A CUSTOM/PROCESS CHILLER PROJECT

ComEd
An Exelon Company

PROJECT SNAPSHOT

Customer: Armacell LLC, South Holland, IL
Building Type: Manufacturing plant
Measures Implemented: Chiller retrofit
Projected annual energy savings: 1,596,269 kWh
Total project cost: \$248,523
Incentives paid: \$100,000
Payback period without Smart Ideas incentive: 2.4 years
Payback period with Smart Ideas incentive: 1.7 years



PROJECT SUMMARY

Armacell is a global market leader in engineered foams for the automotive, industrial, sports, leisure and packaging industries. As a market leader, Armacell has experienced tremendous growth over the years, particularly at its manufacturing plant in South Holland, IL.

Since 1980, the South Holland plant has undergone at least half a dozen expansions and upgrades to keep up with technology and to its existing chilled water system. By 2007, Armacell's South Holland plant found itself with a multi-unit chiller system that management felt was not energy efficient. But to improve it, Enter ComEd's *Smart Ideas for Your Business™* program. Because of the energy efficiency Armacell would achieve with its plan for a single, revamped chiller system, the South Holland plant qualified for \$100,000 in *Smart Ideas* incentives — which Armacell says turned a costly project into a financially attainable one.

Armacell is a global market leader in engineered foams, including its trademarked Clotex polyolefin products and Armatex foable foam in South Holland, IL, where it manufactures Clotex foams for the automotive, industrial, sports, leisure and packaging industries.

THE OPPORTUNITY

For years, Armacell operated two separate, small, chilled-water systems for process cooling at its South Holland plant. The first produces sheet foam used as insulation and other flat-foam products. By 2009 the VE system was supported by a series of four chiller units. Armacell even considered adding a fifth chiller to keep up with demand.

A second system provided cooling to Armacell's "bun line," which creates individual pieces of pillow-shaped foam that can be carved based on customer's specifications (e.g., car dashboard material or foam-chiller unit, management considered adding a second unit in 2009 to keep up with the increased production in this area as well. The pumps in these systems were designed to run at full rated

speed whenever the cooling systems were on. Any time cooling was required from either system, regardless of the load, all of the pumps were required to run — a major inefficiency in the system design.

To make both operations and energy use more efficient, Armacell decided to combine these two chiller systems into a single system that incorporated multiple efficiency improvements, such as more efficient pumping, increased free cooling, variable frequency drives (VFDs) and system controls.

CHALLENGES

The first hurdle that Armacell had to overcome was the fact that there were very few — if any — examples of other companies operating with the same design as Armacell's South Holland plant. This initially made it difficult to calculate energy efficiency and cost savings.

The second hurdle was cost. Despite the backing of energy efficiency-minded management, the Armacell South office was reluctant to approve the expense of the retrofit without solid guarantees of the projected benefits.

"The incentives ComEd's Smart Ideas program offers turned a project with a marginal return into a financial winner."

— Richard Stuba, plant manager, Armacell's South Holland plant

CaseStudy0210

smart ideas™
for your business

Case Study: Tribune Direct

Measures implemented:	Compressed air
Total project cost:	\$116,942
Projected annual energy savings:	495,102 kWh
Incentives paid:	\$34,597
Payback period without <i>Smart Ideas</i> incentive:	2.28 years
Payback period with <i>Smart Ideas</i> incentive:	1.16 years

ComEd's Smart Ideas for Your Business™

CASE STUDY

A COMPRESSED AIR PROJECT

ComEd
An Exelon Company

PROJECT SNAPSHOT

Company: Tribune Direct
Building type: Industrial
Measures implemented: Compressed air
Total project cost: \$116,942.04
Annual energy savings: 495,102 kWh
Projected annual savings: \$36,142.51
Incentives paid: \$34,597.08
Payback period without Smart Ideas Incentive: 2.28 years
Payback period with Smart Ideas Incentive: 1.16 years



Tribune Direct's 300,000-square-foot facility in Northlake, IL

PROJECT SUMMARY

Direct mail is big business any way you look at it, and Tribune Direct is a major player in this business. Tribune Direct's 300,000-square-foot facility in suburban Northlake, Ill., is equipped to produce and distribute nearly every type of mail anywhere in the United States. Each week approximately six million shared-mail packages are produced and mailed to households in the Chicago, St. Louis and Buffalo, N.Y., markets. Additionally, more than 500 million solo mail pieces are distributed nationally each year.

Highly sophisticated database marketing software and machinery create direct mail packages tailored by ZIP code or street address, so you receive offers that zero in on your preferences. With business growth, Tribune Direct needed a new inserter. With Hoppers hold the specific pieces that go into each tailored direct mail package, and the inserter puts each package into the correct wrapper.

The typical compressed air system consists of multiple compressors delivering air to a common plant air header. The demands on the system fluctuate dramatically and rapidly — causing the system to fluctuate by thousands of SCFM in minutes. Compressors are most efficient when they operate fully loaded. However, if a compressed air system is sized for peaks, the compressors can be idle most of the time — which means they operate inefficiently and inflate energy demand. A modulating compressor operating at 40 percent output could still consume 80 percent of its full load power requirement.

"You have to look at the total cost — start to finish. We're spending more now, but we'll save in the long run."

— Craig Spivack, director of technology and engineering at Tribune Direct

THE OPPORTUNITY

Along with 70 percent of the manufacturing facilities in the United States, Tribune Direct uses compressed air to drive key pieces of machinery. Tribune Direct needed additional compressed air capacity for the new inserter, so Air Services Co., a Smart Ideas program trade ally, helped them find a way to get it while improving the efficiency of the system.

THE SOLUTION

The new inserter is expected to demand a maximum of 294 SCFM when running and Tribune Direct estimates that it, like the existing inserters, will run about 50 percent of the time.

The use of compressed air is so common in manufacturing that it is often taken for granted. In fact, compressed air is one of the biggest energy expenses for an industrial facility.

According to the U.S. Department of Energy, the annual energy cost for a compressed air system can be equal to the system's purchase price. And this does not factor in the annual cost for system maintenance — 10 percent of the system purchase price each year.

Tribune Direct had two fixed speed air compressors, one 150 horsepower (HP) and another 50 HP, both of which ran 8,760 hours a year. The increased air system demand could be met by installing a new 150-HP modulating compressor and using it in combination with the existing 150-HP compressor.

smart ideas™
For your business



How to Cash In





1

Reserve your cash

2

Do project

3

Get paid

Next Steps . . .

What can our resource team do to help you leverage *Smart Ideas for Your Business* incentive opportunities to get some of your projects done?

What projects starting soon could take advantage of this program?



Smart Ideas Trade Allies

- Independent businesses with *Smart Ideas* experience and training
- Trade Allies can help you:
 - Identify opportunities
 - Select, purchase and install equipment
 - Manage your project
 - Complete and submit your paperwork



www.comed.com/TradeAllyDirectory

For Answers to Your Questions . . .

- For general program information and application forms:

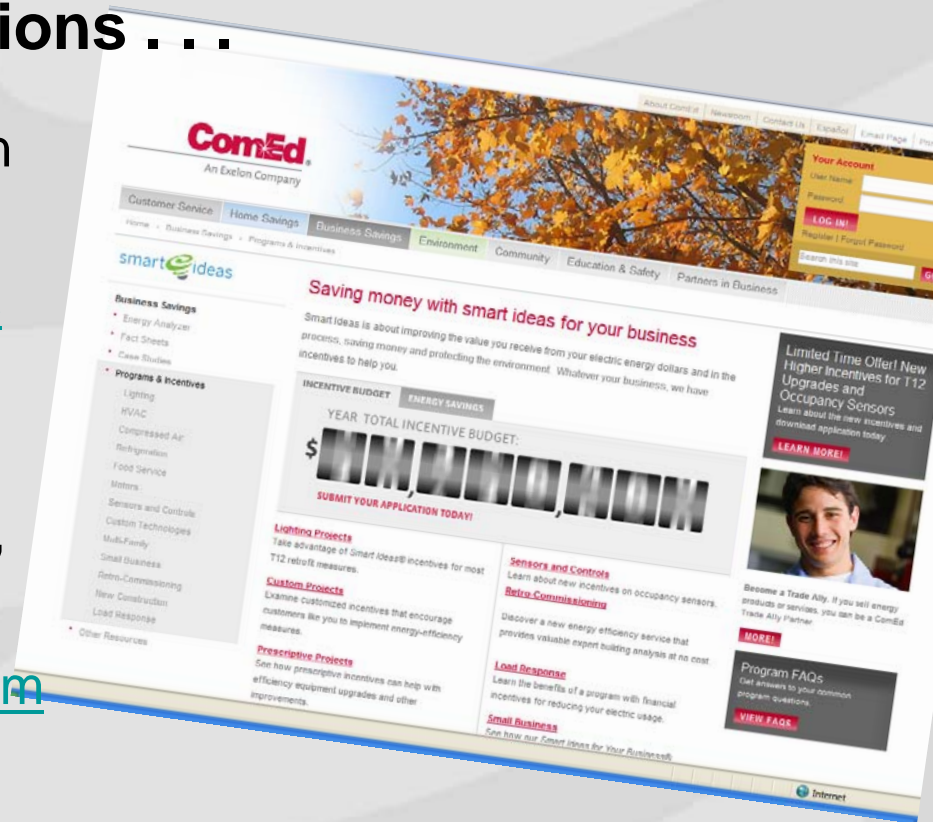
www.ComEd.com/BizIncentives

- Questions about eligibility, specifications, how to fill out applications, finding a trade ally, and anything else:

ComEdSmartIdeas@KEMA.com

(888) 806-2273

Fax: 1-630-480-3436



Thank You!