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# Carbon Free Assessment

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Prepared for

***Robert Lindblom Math & Science Academy***

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## EXECUTIVE SUMMARY

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### Financial Benefit

We estimate your Facility has the potential for:

	<b>Annual Savings</b>	<b>\$1,397</b>
<b>ComEd® Energy Efficiency Program Incentive</b>		<b>\$50,530</b>

### Annual Energy Benefit

<b>Before</b>	<b>1,890,900 kWh/yr</b>	<b>Up to 16% Energy Savings</b>
<b>After</b>	<b>2,688,300 kWh/yr</b>	<b>Up to 300,400 kWh Reduced</b>

### Annual Environmental Benefit

Can Reduce Your Carbon Footprint by up to...

**2,040 Metric Tons of CO<sub>2</sub> Equivalent**

**or 455 Cars off the Road Annually**

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Or visit: [ComEd.com/BizIncentives](http://ComEd.com/BizIncentives) to learn more

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# Public School Assessment

## Financial Benefit by Simple Payback

### Estimated <2 Year Payback Opportunities

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Chilled Water Reset Controls	\$370	\$1,000	\$1,000	0.0
Install Lighting Controls	\$5,630	\$16,350	\$14,520	0.3
Install Automatic Door Closers	\$90	\$160	\$120	0.4
<b>Subtotal</b>	<b>\$6,090</b>	<b>\$17,510</b>	<b>\$15,640</b>	<b>0.3</b>

### Estimated 2-5 Year Payback Opportunities

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Replace Evaporator Fan Motors and Install Controls	\$410	\$1,400	\$270	2.8
Install Demand Controlled Ventilation	\$1,410	\$6,000	\$800	3.7
<b>Subtotal</b>	<b>\$1,820</b>	<b>\$7,400</b>	<b>\$1,070</b>	<b>3.5</b>

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## Estimated >5 Year Payback Opportunities

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Demand Defrost Controls in Walk-in Freezers and Coolers	\$50	\$380	\$60	6.4
Retrofit HVAC Pumps	\$1,560	\$17,900	\$7,500	6.7
Replace Freezer	\$60	\$1,100	\$100	16.7
Replace Chillers	\$1,600	\$41,100	\$10,800	18.9
Install Kitchen Fume Hood Exhaust Controls	\$2,000	\$51,300	\$800	25.3
Replace Ice Makers	\$30	\$980	\$100	DNP
<b>Subtotal</b>	<b>\$5,300</b>	<b>\$112,760</b>	<b>\$19,360</b>	<b>17.6</b>

For the Standard Incentives program, the total incentive paid cannot exceed 100 percent of the incremental measure cost and 100 percent of the total project cost.

## Instant Discount Incentives

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Relamp T8 Lighting	\$16,600	\$79,000	\$13,160	4.0
Relamp High Intensity Discharge Lighting	\$1,900	\$21,200	\$1,300	10.5
<b>Subtotal</b>	<b>\$18,500</b>	<b>\$100,200</b>	<b>\$14,460</b>	<b>4.6</b>

Please see section titled "Energy Efficiency Measure Details" later on in this report for further information on listed Opportunities

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## Energy Efficiency Electrification

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Air-Source Heat Pump	- \$31,990	\$796,900	\$0	DNP
Install ENERGY STAR Combination Oven	- \$623	\$300	\$0	DNP
<b>Subtotal</b>	<b>- \$32,613</b>	<b>\$797,200</b>	<b>\$0</b>	<b>- 24.4</b>
<b>ASSESSMENT TOTAL</b>	<b>- \$903</b>	<b>\$1,035,070</b>	<b>\$50,530</b>	<b>- 1090.3</b>

Please see section titled "Energy Efficiency Electrification" later on in this report for further information on listed Opportunities

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# Footnotes

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Values rounded for simplicity.

For the Standard Incentives program, the total incentives paid cannot exceed 100% of the incremental measure cost or 100% of the total project cost.

Programmed Start ballasts are recommended for all lighting sensor applications. (i.e. Occupancy Sensors, Daylighting Controls, etc.)

- A** Discounts are available through participating distributors in the Instant Discounts Program. Incentive is in the form of a discounted product cost provided at the time of purchase. Learn more and find a list of participating distributors at [www.ComEd.com/InstantDiscounts](http://www.ComEd.com/InstantDiscounts)
- B** Both A-Type and B-Type TLEDs are eligible for incentives through the Instant Discounts program. A-Type TLEDs operate using the existing electronic fluorescent ballast, while B-Type TLEDs bypass the existing ballast and the lamp operates using an internal integrated driver. Lamp life may vary depending on TLED lamp type and existing installed ballasts. If installing A-Type TLEDs, check compatibility with existing ballasts before implementing.
- C** Two Chillers serve the north side of the building and two serve the south side. Because these are two separate systems there would be a increased cost of two secessions of programing.
- D** Indicates that the estimated cost of this solution is equal to the incremental cost difference between the energy-efficient equipment and the standard efficiency option.
- E** Discounts are available through participating distributors in the Illinois Commercial Food Service program. Incentive is in the form of a discounted product cost provided at the time of purchase. Learn more and find a list of participating distributors at [www.il-foodservicerebates.com](http://www.il-foodservicerebates.com).
- F** Evaporator Fan Motors are concealed and assumed to be Shaded-Pole type. If motors are Electronically Commutated, there is still an incentive to retrofit with fan controls.
- G** To realize savings with VSDs, any three-way valve systems must be replaced with two-way valves to allow the flow to modulate at part load. The estimated project cost is for the Variable Speed Drives only and does not account for valve replacements or piping modifications. It is recommended to work with an Energy Efficiency Service Provider or other design consultant to further develop this measure before implementation.
- H** Two separate loops, one pump serving each loop.

**DNP** = Does Not Payback

Electricity Cost = \$0.1000/kWh (provided by the customer)

Natural Gas Cost = \$0.700/therm (provided by the customer)

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# APPLICATION PROCESS

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1

## CHECK PROJECT AND EQUIPMENT ELIGIBILITY

- Project must be a new improvement at an existing facility that results in a permanent reduction in electrical usage (kWh).
- All installed equipment must meet or exceed the ComEd Energy Efficiency Program incentive specifications and be installed in facilities served by ComEd. Customers must have a valid ComEd account number on a ComEd non-residential rate.

2

## SUBMIT A PRE-APPLICATION (IF REQUIRED)

- A pre-application is required for certain projects, including all Custom projects. A pre-application is not required for a Standard project when requesting incentives of less than \$1,000 or DX tune-up incentives.
- If your Standard project requires a pre-application, complete and submit the ComEd Energy Efficiency Program Standard Application and applicable Incentive Worksheets. If your project requires pre-application, you'll need to wait to start your project until you receive a reservation letter.
- If you are applying for custom incentives, complete and submit a Custom Application. Wait to start your project until you receive a reservation letter.
- Once you receive your reservation letter, incentive funds for your project will be set aside for 90 days or until the end of the program year, whichever comes first.
- A pre-installation inspection may be required. If so, we will contact you to schedule the inspection.

3

## INSTALL EQUIPMENT OR PERFORM PROJECT WORK

- The incentive reservation allows you 90 days to complete your project. Contact the ComEd Energy Efficiency Program team if you think your project will require more than 90 days.
- Verify that the equipment to be installed meets or exceeds the specifications found on the ComEd Energy Efficiency Program Incentive Worksheet.

4

## SUBMIT A FINAL APPLICATION

- Submit a Final Application as soon as your project is completed, but no more than 60 days after completion. Final Applications received more than 60 days after completion will be rejected.
- The ComEd Energy Efficiency Program team will review your Final Application. You may be contacted during the final review to schedule a post-installation inspection.

5

## RECEIVE INCENTIVE PAYMENT

- The incentive check will be sent four to six weeks after your complete Final Application is submitted.

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# ENERGY MANAGEMENT RESOURCES

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## Business Energy Analyzer

The ComEd Business Energy Analyzer is a free tool that allows non-residential customers to analyze their facility's energy usage, learn how the facility's energy-use patterns compare with similar facilities, and track energy usage savings before and after implementing energy efficiency project. To sign up, please visit [www.ComEd.com/BEA](http://www.ComEd.com/BEA) and register using the facility's ComEd account number and zip code.

## Voluntary Load Reduction

The ComEd Smart Returns Voluntary Load Reduction (VLR) program offers all non-residential customers financial rewards for reducing electricity use during peak periods on the grid. This program is strictly voluntary and there are never any penalties. Incentive levels and the frequency of VLR events will vary depending upon market and/or system conditions. To sign up, please email [SmartReturns@exeloncorp.com](mailto:SmartReturns@exeloncorp.com) or call ComEd at 1-877-426-6331. For more information, please visit [www.ComEd.com/VLR](http://www.ComEd.com/VLR).

## Energy Usage Data System

Building owners, property managers, and benchmarking representatives can use the Energy Usage Data System (EUDS) tool to help retrieve the aggregate energy usage data of their single-tenant and multi-tenant (4 tenants or more) commercial, residential and industrial buildings. EUDS enables users to view whole building energy usage data per month, send usage data to ENERGY STAR® Portfolio Manager® and retrieve building performance metrics from ENERGY STAR Portfolio Manager. Please note that this tool can be used to meet local benchmarking ordinances. Learn more at [www.ComEd.com/EnergyUsageData](http://www.ComEd.com/EnergyUsageData).

## Electric Vehicles

Driving an electric vehicle can be three to five times cheaper than gasoline and diesel-powered cars, depending on your local gasoline and electric rates. If your facility is considering adding an electric vehicle infrastructure, ComEd has tools to help you determine the savings, benefits & incentives associated with electric vehicles. To learn more, please visit [www.ComEd.com/EV](http://www.ComEd.com/EV).

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# DISCLAIMER

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All values shown in this report are estimates, including potential incentive amounts. Further development and cost analysis of the opportunities are recommended prior to investment. The incentive amounts and application approvals are subject to the terms and conditions of the ComEd Energy Efficiency Program. This letter in no way implies approval of incentive amounts or applications or serves as a pre-approval.

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