

Carbon Free Assessment

Prepared for
***Grayslake Community High School
District 127***

By: Katherine Huber • PSCFA Engineer • (872) 316-1028 • kthuber@michaelsenergy.com
Acct. Number ending in 1222 • , , • 8/26/2025

EXECUTIVE SUMMARY

Financial Benefit

We estimate your Facility has the potential for:

	Annual Savings	- \$14,200
ComEd® Energy Efficiency Program Incentive		\$128,390

Annual Energy Benefit

Before

1,060,400 kWh/yr

Up to -13% Energy
Savings

After

1,199,200 kWh/yr

**Up to - 138,820
kWh Reduced**

Annual Environmental Benefit

Can Reduce Your Carbon Footprint by up to...

2,612 Metric Tons of CO₂ Equivalent

or 584 Cars off the Road Annually

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

Public School Assessment

Financial Benefit by Simple Payback

Estimated <2 Year Payback Opportunities

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Automatic Door Closers	\$960	\$1,000	\$360	0.7
Retrofit HVAC Fans with Variable Speed Drives	\$10,600	\$22,200	\$14,000	0.8
Replace Chiller	\$12,000	\$101,700 ^A	\$78,700	1.9
Replace T5 Lighting	\$8,320	\$32,400	\$16,400	1.9
Subtotal	\$31,880	\$157,300	\$109,460	1.5

Estimated 2-5 Year Payback Opportunities

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Replace Evaporator Fan Motors and Install Controls	\$180	\$1,010	\$420	3.3
Replace Electric Water Heaters	\$400	\$1,800 ^A	\$250	3.9
Install Lighting Controls	\$1,760	\$18,600	\$9,900	4.9
Subtotal	\$2,340	\$21,410	\$10,570	4.6

Estimated >5 Year Payback Opportunities

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Demand Controlled Ventilation	\$1,290	\$41,300	\$1,400	30.9
Subtotal	\$1,290	\$41,300	\$1,400	30.9

For the Standard Incentives program, the total incentives paid cannot exceed 90% of the incremental measure cost or 90% of the total project cost.

Want to get Started?... Let us help
 Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
 Outreach Professional
 (872) 327-8405
pawedder@michaelsenergy.com

Public School Assessment

Illinois Commercial Food Services Program

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Hot Food Holding Cabinets	\$3,700	\$16,200	\$1,400	4.0
Install ENERGY STAR Convection Ovens	- \$2,400	\$11,500	\$4,800	- 2.8
Subtotal	\$1,300	\$27,700	\$6,200	16.5

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

Building Envelope and Mechanical Insulation

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Weather Stripping	\$580	\$560	\$0	1.0
Subtotal	\$580	\$560	\$0	1.0

Please see section titled "Building Envelope and Mechanical Insulation" later on in this report for further information on listed Opportunities

Energy Efficiency Electrification

Measure	Annual Cost Savings	Project Cost	Incentive	Simple Payback (Years)
Install Heat Pump Water Heaters	- \$4,390	\$6,200 ^A	\$0	- 1.4
Install Electric Storage Water Heaters	- \$1,000	\$2,400	\$0	
Install Ground Source Heat Pumps	- \$63,100	\$12,474,100 ^A	\$0	
Subtotal	- \$68,490	\$12,482,700	\$0	

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

Want to get Started?... Let us help
 Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
 Outreach Professional
 (872) 327-8405
pawedder@michaelsenergy.com

ADDITIONAL PROGRAM OFFERINGS

Available Offerings

In addition to Standard Incentives, your facility may also be eligible for the following:

☒ Building Operator Certification

- | | |
|---|---|
| ☒ Retro-Commissioning | ☒ Strategic Energy Management |
| ☐ Industrial Systems | ☐ New Construction |
| ☐ Small Business | ☐ Multi-Family Assessment |

Building Operator Certification

Offering Description:

Building Operator Certification® (BOC) is a nationally recognized training and certification program focusing on energy-efficient building O&M procedures. Facilities with BOC graduates are proven to save energy, have lower energy bills, and offer improved comfort for occupants. Facility staff with at least one year work experience plus an additional year of work and/or training are eligible. Go to BOCCentral.org/ComEd for information on Illinois tuition and training schedules. ComEd customers are eligible for a full tuition rebate upon completion of training.

Opportunity at Your Facility:

ComEd customers in Illinois can benefit from discounted rates for BOC training, with tuition set at \$1400, nearly \$300 lower than standard fees. Furthermore, in addition to full tuition reimbursement upon successful completion of the training, ComEd customers are also eligible for an additional incentive of up to \$6,850 (dependent upon facility area and building operator pay scale). Eligible participants must meet course requirements, including attending classes, passing assessments, completing homework assignments, and submitting a signed Training Certificate of Completion Application. Various BOC training sessions are available, including in-person and online options, with detailed schedules provided for registration. For further inquiries or to join the mailing list, individuals can contact boc@mwalliance.org.

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ADDITIONAL PROGRAM OFFERINGS

Retro-Commissioning

Offering Description:

Retro-Commissioning is a building efficiency tune-up process that is designed to help your commercial or industrial building perform optimally. Through a systematic evaluation of mechanical and electrical systems, retro-commissioning helps you identify low-cost and no-cost energy saving operational improvements that will pay for themselves in 18 months or less.

Opportunity at Your Facility: Retro-Commissioning Flex

ComEd's Retro-Commissioning (RCx) Flex Program is a fully funded study that the school is eligible for. It involves a time commitment of 3-6 hours per month for 6-15 months and a financial commitment of at least \$1,000 to implement any energy savings measures. The RCx program identifies low cost energy savings measures and can be expected to save 5-10% of the school's annual energy usage. We expect this program will help the school optimize their HVAC schedule, economizers setpoints etc.

Estimated Electricity Energy Savings: 138,000 kWh/yr

Estimated Gas Energy Savings: 5,000 Therms/yr

Estimated Annual Savings: \$14,200

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ADDITIONAL PROGRAM OFFERINGS

Strategic Energy Management

Offering Description:

Strategic Energy Management (SEM) is a holistic program identifying opportunities to save energy through operational and behavioral projects. SEM provides coaching and other resources so customers can develop their own energy management capabilities in a peer learning environment.

Opportunity at Your Facility:

ComEd's Strategic Energy Management (SEM) Program is a good next step for the school to take in improving energy efficiency. SEM offers a long-term partnership with the school through workshops and coaching sessions. At no cost, ComEd will assign the school an energy coach and a support team. They will perform an energy assessment of the site, model and monitor the school's energy consumption over the course of a year, identify operational and behavioral changes that can help reduce energy usage, as well as provide materials and training to help school employees save energy while on the job. In addition to the direct cost savings from reduced energy use, ComEd offers \$0.02/kWh saved from implementing behavioral and/or operational changes, along with an opportunity to earn up to \$2,000 in additional savings.

Estimated Electricity Energy Savings: 26,500 kWh/yr

Estimated Annual Savings: \$2,700

Estimated Incentive: \$760

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ELECTRIC VEHICLE OPPORTUNITIES

NO INTRO ENTERED

Plan Scope

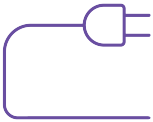
Proposed Vehicle replacement and chargers:



- 3 Replace Light Duty Vehicles
- 3 Upgrade Infrastructure for Level 2 Chargers

Operations

Operational impact of full implementation:



- Average of \$16,900 year of O&M savings
- \$17,900 Estimated Annual Fuel Savings
- 29 Metric Tons of CO₂ Equivalent

Investments

Return on investment:



- \$108,000 incremental cost of EVs and charging infrastructure
- \$30,999 available rebates
- \$77,001 net, incremental investment
- 45.19% IRR*

**Including rebates*

Charging Infrastructure cost assumes make-ready and charger costs

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ELECTRIC VEHICLE OPPORTUNITIES

EV Model Specifications



Selected Electric Vehicle

Model: **2025 Mercedes-Benz eSprinter - 113 kWh (1.82 mi/kWh)**
Estimated Vehicle Range: **206 miles/charge**
Battery capacity: **113 kWh**

Charging Hint: With proper route planning, you should only need to charge once per day, but plan to keep the charge around 30% in extra capacity for adverse weather, terrain and to maintain battery health.*

Charging Infrastructure Plan

Vehicle Count	Vehicle Miles/Day	Est. miles/kWh	kWh/Day/Vehicle
1	67	1.82	36.81

Days per Week (Currently showing Charging Schedule for "Mon-Fri")

S M T W T F S

Set Primary Charging Time

Primary Charging	Vehicles/Charger	Inefficiency	Charging Time
9.6 kW / 40 A / 1	1:1	10%	11:00 PM - 6:00 AM

Charging
☒ Staggered
☐ Simultaneous

† Level 2 charge rate of 9.6 kW is being used for calculation, with 10% charging inefficiency applied.

Cost of Ownership Calculation

Cost of ownership is the total cost operating, maintaining, and owning the proposed electrical vehicle. This is a calculated based on existing information provided and standard industry assumptions where needed.

eSprinter 113 kWh					Class 1 Gas - Cargo Van - 3.5L				
Upfront Costs					Upfront Costs				
1	MSRP		75855	\$75,855	1	MSRP	45000	\$45,000	
1	Charger	9.6 kW / 40 A / Level 2	3500	\$3,500				\$0	
1	Charger	Design & Construction / EVSE Est.	6500	\$6,500				\$0	
	Adjustment	If you would like to add fees						\$0	
1	Incentive	To apply per unit	(5333)	\$5,333				\$0	
	Incentive	To apply per project	(5000)					\$0	
				\$75,522					
Annual Costs					Annual Costs				
	Charging	All Vehicles	\$1,294.73	\$1,294.73		Fuel Cost	\$13,250.82	\$13,250.82	
16080	Maintenance	Est. maintenance per mile	0.06	\$964.80	16080	Maintenance	0.1	\$1,608.00	
				\$2,259.53					
Carbon Use					Carbon Use				
				3.5341 MT					

ELECTRIC VEHICLE OPPORTUNITIES

EV Model Specifications



Selected Electric Vehicle

Model: **2025 Tesla Model 3 Long Range AWD (3.79 mi/kWh)**
Estimated Vehicle Range: **346 miles/charge**
Battery capacity: **82 kWh**

Charging Hint: With proper route planning, you should only need to charge once per day, but plan to keep the charge around 30% in extra capacity for adverse weather, terrain and to maintain battery health.*

Charging Infrastructure Plan

Vehicle Count	Vehicle Miles/Day	Est. miles/kWh	kWh/Day/Vehicle
2	180	3.79	47.49

Days per Week (Currently showing Charging Schedule for "Mon-Fri")

S M T W T F S

Set Primary Charging Time

Primary Charging [?] Vehicles/Charger [?] Inefficiency [?] 11:00 PM

11.5 kW / 48 A [†] 1:1 10% 6:00 AM

Charging [?]
☒ Staggered
☐ Simultaneous

[†] Level 2 charge rate of **11.5 kW** is being used for calculation, with **10%** charging inefficiency applied.

Cost of Ownership Calculation

Cost of ownership is the total cost operating, maintaining, and owning the proposed electrical vehicle. This is a calculated based on existing information provided and standard industry assumptions where needed.

Model 3 Long Range AWD					Civic 4Dr				
Upfront Costs					Upfront Costs				
2	MSRP		45000	\$90,000	2	MSRP	25400	\$50,800	
2	Charger	11.5 kW / 48 A / Level 2	3500	\$7,000				\$0	
2	Charger	Design & Construction / EVSE Est.	6500	\$13,000				\$0	
	Adjustment	If you would like to add fees						\$0	
2	Incentive	To apply per unit	(5333)	\$10,666				\$0	
	Incentive	To apply per project	(1000)					\$0	
				\$98,334					\$50,800
Annual Costs					Annual Costs				
	Charging	All Vehicles	\$1,294.73	\$1,294.73		Fuel Cost	\$13,250.82	\$13,250.82	
86400	Maintenance	Est. maintenance per mile	0.1	\$8,640.00	86400	Maintenance	0.1	\$8,640.00	
				\$9,934.73					\$21,890.82
Carbon Use					Carbon Use				
				9.1187 MT					22.4640 MT

Charging infrastructure cost assumes make-ready and charger costs

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

Energy Efficiency Measure Details

Lighting Solutions

Install Lighting Controls

Install sensors which turn lights on/off based on space occupancy and/or ambient light levels

Location	Qty	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Classrooms	700	28W LED Tubular LED (TLED) Fixtures (28W)	Install Occupancy Sensors	8,500	\$870	\$9,200	\$4,900	4.9
Hallways	500	40W LED Tubular LED (TLED) Fixtures (40W)	Install Occupancy Sensors	8,600	\$890	\$9,400	\$5,000	4.9
Subtotal				17,100	\$1,760	\$18,600	\$9,900	4.9

Replace T5 Lighting

Replace T5 Fluorescent Fixtures with LED Fixtures, which are more efficient and provide comparable lighting levels

Location	Qty	Existing	Proposed ^B	Estimated Energy Savings (kWh/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Gym 1	60	6 lamp - 4 foot -T5 (340W)	LED Fixtures (150W)	44,500	\$4,600	\$18,000	\$9,100	1.9
Gym 2	12	6 lamp - 4 foot -T5 (340W)	LED Fixtures (150W)	8,900	\$920	\$3,600	\$1,800	2.0
Gym 3	36	6 lamp - 4 foot -T5 (340W)	LED Fixtures (150W)	26,700	\$2,800	\$10,800	\$5,500	1.9
Subtotal				80,100	\$8,320	\$32,400	\$16,400	1.9

Lighting Solutions Total	Subtotal	97,200	\$10,080	\$51,000	\$26,300	2.5
---------------------------------	-----------------	---------------	-----------------	-----------------	-----------------	------------

Energy Efficiency Measure Details

HVAC Solutions

Replace Rooftop Units^C

Replace existing Rooftop Units with higher efficiency models

Location	Qty	Baseline	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$) ^A	Estimated Incentive (\$)	Payback (Years)
Rooftop ^D	1	44 Ton Rooftop Unit	New High Efficiency 44 Ton Rooftop Unit with IEER of 15	4,700	500	\$480	\$5,300	\$1,800	7.3
Rooftop ^D	2	5 Ton Rooftop Units	New High Efficiency 5 Ton Rooftop Units with IEER of 15.5	1,000	0	\$100	\$1,200	\$420	7.8
Rooftop ^D	1	10 Ton Rooftop Unit	New High Efficiency 10 Ton Rooftop Unit with IEER of 17	900	0	\$90	\$1,200	\$440	8.4
Rooftop ^D	1	33 Ton Rooftop Unit	New High Efficiency 33 Ton Rooftop Unit with IEER of 15	3,100	0	\$320	\$4,000	\$1,200	8.8
Subtotal				9,700	500	\$990	\$11,700	\$3,860	7.9

Energy Efficiency Measure Details

HVAC Solutions

Retrofit HVAC Fans with Variable Speed Drives

Install Variable Speed Drives on fan motors, which control the motor load to meet demand, reducing the energy consumed by the motor

Location	Qty	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Mechanical Room	1	25 HP HVAC Supply Fan without Variable Speed Controls	Add Variable Speed Drive Controls to the Fan	36,300	0	\$3,700	\$7,100	\$5,000	0.6
Mechanical Room	1	15 HP HVAC Return Fan without Variable Speed Controls	Add Variable Speed Drive Controls to the Fan	22,200	0	\$2,300	\$5,000	\$3,000	0.9
Mechanical Rooms	2	15 HP HVAC Supply Fans without Variable Speed Controls	Add Variable Speed Drive Controls to each Fan	44,500	0	\$4,600	\$10,100	\$6,000	0.9
Subtotal				103,000	0	\$10,600	\$22,200	\$14,000	0.8

Energy Efficiency Measure Details

HVAC Solutions

Replace Chiller

Replace an existing Chiller with a higher efficiency model. It is recommended that this change be made near the end of an existing chiller's life

Location	Qty	Baseline	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$) ^A	Estimated Incentive (\$)	Payback (Years)
Outside	2	New 300 Ton Air-Cooled Chillers with Minimum Efficiency (IPLV = 0.75 kW/ton)	High Efficiency Air-Cooled Chillers (IPLV ≤ 0.6 kW/ton)	79,500	0	\$8,200	\$64,400	\$54,000	1.3
Chiller Room	1	New 100 Ton Water-Cooled Chiller with Minimum Efficiency (IPLV = 0.75 kW/ton)	High Efficiency Water-Cooled Chiller (IPLV ≤ 0.65 kW/ton)	8,800	0	\$910	\$7,200	\$6,000	1.3
Outside	1	New 155 Ton Air-Cooled Chiller with Minimum Efficiency (IPLV = 0.76 kW/ton)	High Efficiency Air-Cooled Chiller (IPLV ≤ 0.6 kW/ton)	21,900	0	\$2,300	\$23,900	\$14,900	3.9
Outside	1	New 40 Ton Air-Cooled Chiller with Minimum Efficiency (IPLV = 0.76 kW/ton)	High Efficiency Air-Cooled Chiller (IPLV ≤ 0.6 kW/ton)	5,700	0	\$590	\$6,200	\$3,800	4.1
Subtotal				115,900	0	\$12,000	\$101,700	\$78,700	1.9

Energy Efficiency Measure Details

HVAC Solutions

Install Demand Controlled Ventilation

Retrofit the existing building ventilation system with controls that modulate outside air ventilation based on real-time occupancy

Location	Size (sqft)	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Gym 2	10,000	Conditioned Space without Demand Controlled Ventilation and Gas Heat	Install Demand Ventilation Controls	3,600	710	\$370	\$11,800	\$400	30.8
Gym 3	5,000	Conditioned Space without Demand Controlled Ventilation and Gas Heat	Install Demand Ventilation Controls	1,800	360	\$180	\$5,900	\$200	31.7
Gym 1	20,000	Conditioned Space without Demand Controlled Ventilation and Gas Heat	Install Demand Ventilation Controls	7,200	1,400	\$740	\$23,600	\$800	30.8
Subtotal				12,600	2,470	\$1,290	\$41,300	\$1,400	30.9
HVAC Solutions Total			Subtotal	231,500	2,470	\$23,890	\$165,200	\$94,100	3.0

Energy Efficiency Measure Details

Refrigeration Solutions

Install Automatic Door Closers

Install automatic closers to the main insulated opaque door(s) of a walk-in cooler or freezer

Location	Qty	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Kitchen	1	Walk-In Freezer without Automatic Door Closer	Install Automatic Door Closer	6,900	\$710	\$500	\$180	0.5
Kitchen	1	Walk-In Cooler without Automatic Door Closer	Install Automatic Door Closer	2,400	\$250	\$500	\$180	1.3
Subtotal				9,300	\$960	\$1,000	\$360	0.7

Replace Evaporator Fan Motors and Install Controls

Install more efficient motors and controls that reduce fan air-flow when there is no refrigerant flow

Location	Qty	Existing ^E	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Kitchen	1	1/15 Horsepower Shaded Pole Motor with No Controls	Install Electronically Commutated Motor with Evaporator Fan Controls	850	\$90	\$430	\$210	2.4
Kitchen	1	1/15 Horsepower Shaded Pole Motor with No Controls	Install Electronically Commutated Motor with Evaporator Fan Controls	850	\$90	\$580	\$210	4.1
Subtotal				1,700	\$180	\$1,010	\$420	3.3

Refrigeration Solutions Total	Subtotal	11,000	\$1,140	\$2,010	\$780	1.1
--------------------------------------	-----------------	---------------	----------------	----------------	--------------	------------

Energy Efficiency Measure Details

Commercial Kitchen Solutions

Install Hot Food Holding Cabinets

Install new ENERGY STAR rated hot food holding cabinets

Location	Qty	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$) ^F	Payback (Years)
Cafeteria	9	Conventional Hot Food Holding Cabinets	ENERGY STAR Hot Food Holding Cabinets	35,500	\$3,700	\$16,200	\$1,400	4.0
Subtotal				35,500	\$3,700	\$16,200	\$1,400	4.0
Commercial Kitchen Solutions Total			Subtotal	35,500	\$3,700	\$16,200	\$1,400	4.0

Energy Efficiency Measure Details

Special Purpose Equipment Solutions

Replace Electric Water Heaters

Replace older Electric Resistance Water Heaters with Heat Pump Water Heaters

Location	Qty	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$) ^A	Estimated Incentive (\$)	Payback (Years)
Kitchen	1	50-Gallon Electric Resistance Water Heater	50-Gallon Heat Pump Water Heater	3,900	\$400	\$1,800	\$250	3.9
Subtotal				3,900	\$400	\$1,800	\$250	3.9
Special Purpose Equipment Solutions Total			Subtotal	3,900	\$400	\$1,800	\$250	3.9

Energy Efficiency Measure Details

Energy Efficiency Electrification

Install Heat Pump Water Heaters

Install Heat Pump Water Heaters to improve system efficiency and reduce your building's overall carbon emissions

Location	Qty	Existing	Proposed ^G	Estimated Electric Energy Usage (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$) ^A	Estimated Incentive (\$)	Payback (Years)
Mechanical Room	1	Natural Gas-Fired Water Heater	Heat Pump Water Heater	39,600	4,400	- \$4,100	\$3,100	\$0	- 0.8
Mechanical Room	1	Natural Gas-Fired Water Heater	Heat Pump Water Heater	2,800	310	- \$290	\$3,100	\$0	
Subtotal				42,400	4,710	- \$4,390	\$6,200	\$0	- 1.4

Install ENERGY STAR Convection Ovens

Install ENERGY STAR Electric Convection Ovens to improve system efficiency and reduce your building's overall carbon emissions

Location	Qty	Existing	Proposed	Estimated Electric Energy Usage (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$) ^F	Payback (Years)
Classroom	12	Full Size (< 5 Pans) Natural Gas Convection Ovens	ENERGY STAR Electric Convection Ovens	23,100	8,800	- \$2,400	\$11,500	\$4,800	- 2.8
Subtotal				23,100	8,800	- \$2,400	\$11,500	\$4,800	- 2.8

Energy Efficiency Measure Details

Energy Efficiency Electrification

Install Electric Storage Water Heaters

Install Electric Storage Water Heaters to improve system efficiency and reduce your building's overall carbon emissions

Location	Qty	Existing	Proposed ^G	Estimated Electric Energy Usage (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$)	Payback (Years)
Kitchen	1	Natural Gas-Fired Storage Tank Water Heater	Electric Storage Tank Water Heater	9,900	400	- \$1,000	\$2,400	\$0	
Subtotal				9,900	400	- \$1,000	\$2,400	\$0	

Install Ground Source Heat Pumps

Install Ground Source Heat Pumps to improve HVAC system efficiency and reduce your building's overall carbon emissions

Location	Qty	Existing	Proposed ^G	Estimated Electric Energy Usage (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$) ^A	Estimated Incentive (\$)	Payback (Years)
Throughout Facility	1	Hot Water Boilers, Air Cooled Chillers, Air Handling Units, Rooftop Units	Brine to Water Ground Loop Heat Pump System	612,500	212,000	- \$63,100	\$12,474,100	\$0	
Subtotal				612,500	212,000	- \$63,100	\$12,474,100	\$0	

Energy Efficiency Measure Details

Energy Efficiency Electrification

Install Air Source Heat Pumps^C

Install Air Source Heat Pumps to improve system efficiency and reduce your building's overall carbon emissions

Location	Qty	Baseline	Proposed	Estimated Electric	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Estimated Incentive (\$) ^H	Payback (Years)
				Energy Usage (kWh/Yr)					
Throughout Facility ^D	1	Hot Water Boilers, Air Cooled Chillers, Air Handling Units, Rooftop Units	Cold Climate Air-Source Heat Pumps	1,320,200	212,000	- \$136,000	\$2,254,300	\$205,600	- 15.1
Subtotal				1,320,200	212,000	- \$136,000	\$2,254,300	\$205,600	- 15.1
Energy Efficiency Electrification Total			Subtotal	687,890	225,910	- \$70,890	\$12,494,200	\$4,800	- 176.2

Building Envelope and Mechanical Insulation

Building Envelope and Mechanical Insulation address the insulation or efficient material use for Walls, Windows Roof and Mechanical Equipment such as pipes and valves. Using efficient insulation or materials helps improve efficiency for supporting systems such as HVAC and Water heating by reducing the loss of energy through heat transfer to the outside or surrounding environment.

Install Weather Stripping

Install or replace Weather Stripping on external facing doors to eliminate drafts, reduce energy costs, and enhance indoor comfort.

Location	Length (ft)	Existing	Proposed	Estimated Energy Savings (kWh/Yr)	Estimated Energy Savings (Therm/Yr)	Estimated Savings (\$/Yr)	Estimated Cost (\$)	Payback (Years)	
Exterior Doors	7	Feet of Visible Gaps on External Doors	Install Weather Stripping	5,600	260	\$580	\$560	1.0	
Subtotal				5,600	260	\$580	\$560	1.0	
Building Envelope and Mechanical Insulation Total				Subtotal	5,600	260	\$580	\$560	1.0

Electrification Baseline Conditions

Baseline System Conditions

Facility System: Building Condition

Grayslake Central High School was originally constructed in 1947. It has undergone several additions with the most recent one being in 2001. The total facility area is estimated to be about 407,000 square feet. As the natural gas data was not available, the facility's annual natural gas usage is estimated to be about 212,047 therms using benchmarking data. We considered a buffer factor in our analysis to accommodate year-to-year weather variation. The facility already has solar, so no further analysis was performed.

Facility System: Building and Mechanical Insulation

The facility's building envelope and mechanical insulation was inspected using thermal imaging during the site visit, yielding the following findings:

1. The facility had solid brick walls, which would make it difficult to add insulation. As a result, no recommendations are being made.
2. The piping in the building was inspected and no measures are recommended.
3. The seams and glass of the windows in the building were inspected, and no measures are deemed necessary.
4. The exterior doors of the building were examined for conditioned air loss and relevant measures are recommended.
5. The roof was assessed and no measures are recommended.

Facility System: HVAC

The facility is mainly conditioned by a combination of air handling units (AHU) with hot water coils for heating and chilled water coils for cooling. The AHUs serve vav and fan powered boxes throughout the facility. There are (9) hot water boilers, (4) air cooled chillers, and (1) water cooled chiller of varying capacities that provide hot and chilled water to the AHUs. The boilers and chillers also serve several unit ventilators throughout the building. There are also (5) rooftop units that provide additional cooling and heating throughout the building. All HVAC equipment is controlled by a building automation system. For HVAC system electrification, it is recommended to replace the existing gas-fired equipment with a ground source heat pump (GSHP) system. An air source heat pump (ASHP) system is also presented in this report as an alternative for comparison.

Facility System: Domestic Hot Water

Domestic hot water is provided by (1) 71-gallon 120,000 btu/hr gas water heater, (1) 91-gallon 199,990 btu/hr gas water heater, (1) 1,200 MBH hot water boiler, and (1) 50-gallon 15 kW electric water heater. Because the 91-gallon water heater is located in a smaller space, it is recommended to replace it with an electric storage tank water heater. For the other water heaters, a heat pump water heater system is the recommended replacement.

Facility System: Lighting

Most of the interior of the facility is illuminated by LED fixtures with the exception of the gyms. The gyms have fluorescent fixtures that are controlled by sensors. The LED fixtures in the classrooms are controlled about 50% by sensors and 50% by manual on/off switches. The rest of the interior fixtures are controlled by manual switches. The exterior lights are all LED that are controlled by timers.

Want to get Started?... Let us help

Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder

Outreach Professional

(872) 327-8405

pawedder@michaelsenergy.com

Electrification Baseline Conditions

Facility System: **Transportation**

According to facility staff, this site has two driver's education passenger vehicles and one activities bus. An EV analysis has been conducted for these vehicles.

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

Electrification Infrastructure

Electrification Infrastructure Upgrades

The following opportunities were identified for electrical infrastructure upgrades to your facility needed to support added load of suggested building and transportation electrification measures. While ComEd suggests these upgrades to the following system, it is strongly recommended you work with an electrical designer to investigate the required changes further.

Opportunity at Your Facility: **Upgrading Electrical Infrastructure**

Upgrading your electrical infrastructure may be necessary if the load on the system is increased significantly. With electrification, the electric load is expected to increase and it would likely be necessary to upgrade your current electric infrastructure to accommodate this. This might include installing new transformers, main and sub distribution panels, wiring and conduit in the walls and ceilings. The cost shown here is a rough estimate of that upgrade, which is separate from the cost of electrification measures.

Estimated Cost: **\$350,000**

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ADDITIONAL FUNDING OFFERINGS

Available Funding Offerings

In addition to Energy Efficiency Incentives Incentives, your facility may also be eligible for the following third party funding offerings:

- | | |
|--|---|
| ☒ School Construction Grant | ☒ School Maintenance Grant |
| ☐ Charging Incentive Program | ☐ Illinois Shines Renewable Energy Credits |
| ☐ K-12 Solar Schools Grant | ☐ Cook County Solar Schools Grant |
| ☐ Clean School Bus Program | ☐ Distributed Generation Rebate |
| ☐ The Investment Tax Credit | ☒ The Investment Tax Credit - GSHP |

School Construction Grant

Offering Description:

The School Construction Grant Program (<https://www.isbe.net/Pages/School-Construction.aspx>) contributes to the cost of building or renovating public school buildings, based on enrollment and needs of the district. The program historically has covered between 35% and 75% of the cost to build or renovate buildings. School districts that apply for a grant on or after 6/1/23 must submit a copy of their PSCFA Report.

Funding Opportunity: \$150,000

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ADDITIONAL FUNDING OFFERINGS

School Maintenance Grant

Offering Description:

The School Maintenance Grant Program (<https://www.isbe.net/Pages/School-Maintenance-Project-Grant.aspx>) is a dollar-for-dollar state matching grant open to school districts, cooperative high schools, vocational centers, and special education cooperatives. Eligible applicants can receive up to \$50,000 to put toward completing proposed maintenance projects. This grant is awarded by school district not individual school and the district must provide matching funds for the project, equal to the awarded grant.

Funding Opportunity: \$50,000

The Investment Tax Credit - GSHP

Offering Description:

The Investment Tax Credit (ITC) is a federal tax credit available up to 49% of eligible expenses for qualifying installations and entities. To be conservative, we considered a 30% credit in our analysis, and it is shown as the incentive on the “EEE” page under Ground Source Heat Pump measure. Through provisions established in the Inflation Reduction Act, tax exempt organizations can take advantage of the tax credits through either direct pay or a transfer of credit. For more information, please visit the White House website([Inflation-Reduction-Act-Guidebook.pdf \(whitehouse.gov\)](https://www.whitehouse.gov/wp-content/uploads/2022/08/Inflation-Reduction-Act-Guidebook.pdf))-Page 14.

Funding Opportunity: \$37,422,300

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

Footnotes

Values rounded for simplicity

The majority of estimated costs in this report are based on the [2025 Illinois Statewide Technical Reference Manual for Energy Efficiency](#).

For the Standard Incentives program, the total incentive paid cannot exceed 90% of the incremental measure cost or 90% of the total project cost

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

- A** 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.
- B** Product must be listed on DesignLights™ Consortium (DLC) Qualified Products list, available at www.designlights.org.
- C** Presented as an alternative to a previous measure and shown for comparison purposes. Please note this recommendation is not included in the totals
- D** Presented as an alternative to the line item above and shown for comparison purposes. Please note this recommendation is not included in the totals.
- E** 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.
- F** Discounts are available through participating distributors in the Illinois Commercial Food Services 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 il-foodservicerebates.com
- G** Incentives for these types of fuel-switching measures are not currently available but may be available in the future. Please consult with your Outreach Professional to determine eligibility.
- H** 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 ComEd.com/InstantDiscounts.



= Does Not Payback



= Project will only result in carbon emission savings. Total utility charges may increase as a result of the project.

Electricity Cost = \$0.1030/kWh (average commercial retail price for the State of Illinois in 2024) - [Energy Information Administration](#).

Natural Gas Cost = \$0.000/therm (average commercial retail price for the State of Illinois in 2024) - Energy Information Administration

APPLICATION PROCESS

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.

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

ENERGY MANAGEMENT RESOURCES

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 and register using the facility's ComEd account number and zip code.

Voluntary Load Reduction

The ComEd 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 VLR@ComEd.com. For more information, please visit 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.

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.

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com

DISCLAIMER

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.

This report was prepared by Commonwealth Edison (ComEd) to assist the customer in making energy decisions. Neither ComEd, nor any person acting on their behalf: (a) makes any warranty, either expressed or implied, with respect to the use of any information, apparatus, method, or process disclosed in this letter or that such use may not infringe privately owned rights; or (Ab) assumes any liabilities with the respect to the use of, or for damages resulting from the use of, any information, apparatus, method, or process disclosed in the letter. Ultimately, the customer maintains all of the responsibility in making energy saving decisions.

© 2025 Commonwealth Edison Company

This information contained in this Letter was prepared by Commonwealth Edison for the use of the ComEd customer to whom it is addressed. It is intended to assist the recipient in evaluating energy options. Reproduction of this document without the expressed written consent of Commonwealth Edison is prohibited and in violation of copyright laws.

Want to get Started?... Let us help
Or visit: ComEd.com/BizIncentives to learn more



Paityn Wedder
Outreach Professional
(872) 327-8405
pawedder@michaelsenergy.com