

Introductions

Holly Wallace: Moderator
- *Senior Manager of Member Programs, Illinois ASBO*



Haj Young: Speaker
- *Managing Director, IEC Powered by Future Green*



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IEC's Major Cost Savings Programs

The IEC Powered by Future Green Saves Member Districts money in principally 3 ways:

1. Energy Brokerage Program

- Deliver Electricity Supply services at the lowest possible price
- Deliver Natural Gas services at the lowest possible price

2. Solar and Renewable Energy Development Program

- Develop on site power generation to maximize savings at scale across the consortium

3. Trademarked Bus2Grid Program

- Integrated software, storage, solar, EV and microgrid solutions



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IEC Programs – Overview

Brokerage

- Access to 120+ suppliers for electricity and natural gas
- Remove limitations on energy efficiency and on-site solar
- Flexibility on product structure and term
- Reverse auction platform

Solar Development

- Increase savings beyond simple commodity brokerage
- Stable, long-term budgeting
- Meet environmental and renewable energy targets
- No investment or additional obligations required from the member



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IEC Programs – Overview (Cont'd)

Renewable Procurement

- Opportunities for group purchasing of offsite renewable generation
- Lower, stable prices at below-market rates
- Economic development engine for the region
- Opens up more potential avenues for savings

Fleet Electrification

- No up-front investment
- Includes procurement of vehicles, grid upgrades, chargers, etc...
- Same cost as operating a conventional diesel fleet
- Batteries serve as capacity on the electric grid, revenue earnings potential



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There is POWER in Numbers!!

Economies of Scale drive savings for Members in the Electricity & Natural Gas Supply Programs

2022-23 Academic Year

Over 200 Districts in Electricity Program

284,000+ Megawatt Hours under management

Over \$6 Million in Savings

2022-23 Academic Year

Over 210 Districts in Natural Gas Program

1,375,000+ Dekatherms under management

Over \$2 Million in Savings

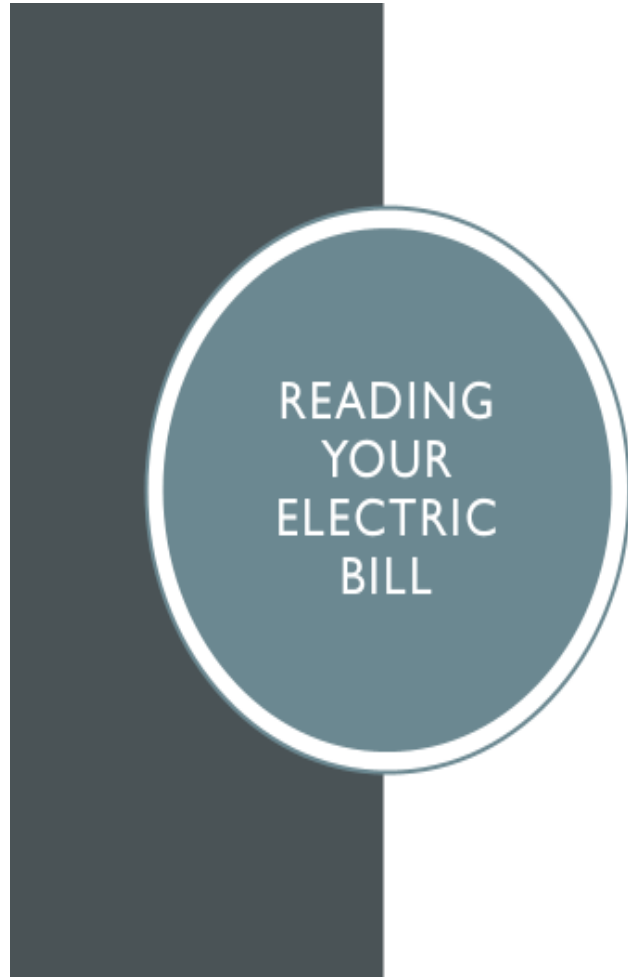


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Analyze Spend to Understand Savings



Generate Your Own Power & Save

WHY ON-SITE SOLAR REDUCES ENERGY SPEND?

- The “Grid” is a toll road.
 - You are charged delivery fees and tax for your energy using the toll road.
- On-Site allows your school to avoid the “toll fees” within your energy cost.
- On-site energy creation gives us leverage as consumers to avoid a large portions of our current energy cost.



 **2024**
ANNUAL
CONFERENCE

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The Benefits of Solar Generation

REDUCING YOUR ENERGY SPEND

The Case For Solar Array Installation



- ❖ Assumes electricity price increase at average historical inflation rate of 4%
- ❖ PPA price includes a modest escalator of 1%



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Spotlight District Savings!!



Argenta-Oreana High School
500 N. Main St. Argenta, IL 62501



System Information

PPA Term: **25 years**

Est. PPA Price: **.0588 KWH**

Est. Escalator: **1.5% annual**

O&M: **Included**

Insurance: **Included**

Management: **Included**

Lease Rate: **\$1/year**

Upgrades: **Not Included**

Est. System Size: **827.1 KW**

Est. Year 1 Production: **1,215,382 KWH**

Est. 1st Year Savings: **\$20,150.00**

Next Step: **Power Purchase Agreement**

Proprietary and Confidential



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Magnify Savings!!!

Adding a Backup Battery to Store Your Green Energy Increases the Savings to Your District!!

SOLAR + STORAGE
= THE SMARTEST
OPTION

Battery storage

Optimizes Solar output

Improved Resiliency

Additional savings and opportunities
to further reduce energy spend



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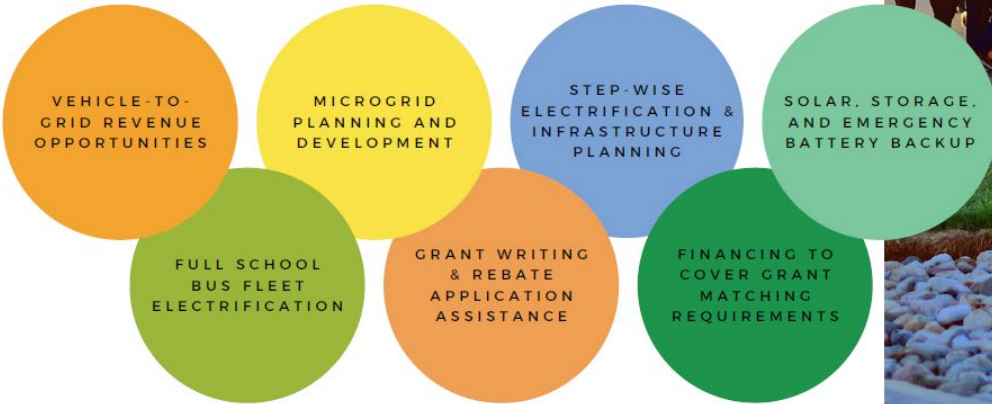
The IEC's Bus2Grid Program



MISSION

IEC Powered by Future Green's Bus to Grid Program seeks to help every Illinois school district electrify their school bus fleets with little to no out-of-pocket cost and significantly improve the quality of air our children breathe. A central focus is to ensure school districts are in the driver's seat and are equipped with all the resources required so that they directly benefit from savings and revenue-sharing opportunities.

SERVICES



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Bus2Grid Applies for Funding

BUS2GRID GRANT FUNDING

Applied for \$45M Department of Energy Grant - April 2023

On January 26, we submitted a concept paper for the Department of Energy's Renew America's Schools grant. The application was due April 21, with program funding expected to be January 2024.

On March 17, we submitted a Smart Grid grant application to the Department Of Energy. Awards are expected to be announced in June 2023. If we secure this funding, it would mean over \$16M of investment for solar, storage, electric vehicle chargers, electric school buses, and other micro-grid infrastructure for over 18 districts across Illinois. This project would eliminate the burning of over 52,000 gallons of diesel fuel and generate 22.6 gWh of clean electricity per year.



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Bus2Grid Applies for Funding



EPA Clean School Bus Program – Round 3

High Level Overview

- Application opened September 2023, Deadline January 31, 2024, Selection April 2024
- One application allowed per district
- Can apply for Electric, Compressed Natural Gas (CNG) or Propane Buses
- EPA estimates awarding \$500M in Rebates
- Funding Max: \$345K per bus for Priority and \$200K per bus for Non-Priority Districts
- 60% of funds for this round go to Priority Districts and 40% to Non-Priority Districts
- Projects can range in size from 1 bus to 25 buses
- Applicants must apply through the EPA portal, Must have active SAM.gov registration
- Required forms are Bus Data, School Board Awareness and Utility

Bus2Grid – Also provides financial and application support for DOE, DOT and VW grant opportunities



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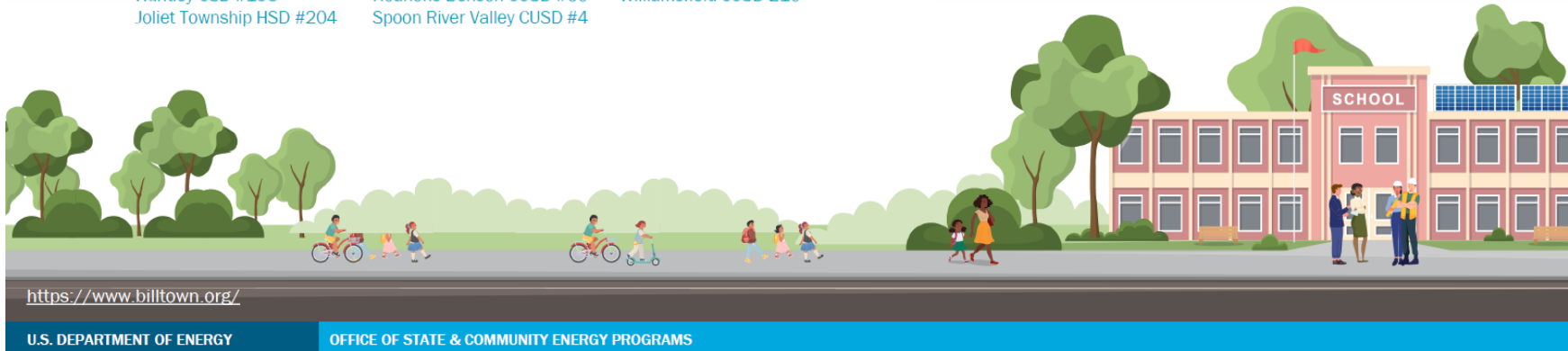
Bus2Grid Wins Funding!!!

Williamsfield Schools (CUSD #210) (Williamsfield, IL)

This project will install and deploy functional microgrids on the campus of 20 Illinois public school districts. On-site solar production, stationary storage, innovative HVAC controls, and bidirectional electric school bus batteries will be leveraged for financial savings and emissions reductions. Each microgrid will establish the resilience necessary for the building to serve as an emergency shelter during extended grid outages & or weather-related events. Project objectives include at least: 20 active microgrids, 22 gigawatts hours of added solar production, 10 megawatts of callable energy storage during times of peak demand, 8 megawatts of mobile emergency backup power to leverage during outages, 20 local emergency shelters available during outages, and increased energy resilience.

- | | | |
|--------------------------|----------------------------|---------------------------|
| Amboy CUSD #272 | Meridian CUSD #223 | Stark County CUSD #100 |
| Dixon Public School #170 | Pembroke CCSD #259 | United CUSD #304 |
| East Moline SD #37 | Peoria SD #150 | Vienna HSD #133 |
| Herscher CUSD #2 | Prairie-Hills SD #144 | Washington Central SD #51 |
| Hollis CSD #328 | River Trails SD #26 | Wethersfield CUSD #230 |
| Huntley CSD #158 | Roanoke-Benson CUSD #60 | Williamsfield CUSD 210 |
| Joliet Township HSD #204 | Spoon River Valley CUSD #4 | |

Team Members	
<ul style="list-style-type: none">University of Illinois at ChicagoIEC-FGEconergy	
Total Funds Requested	\$ 14,994,951
Proposed Cost Share (%)	\$ 847,635 (5%)
Number of Buildings	24



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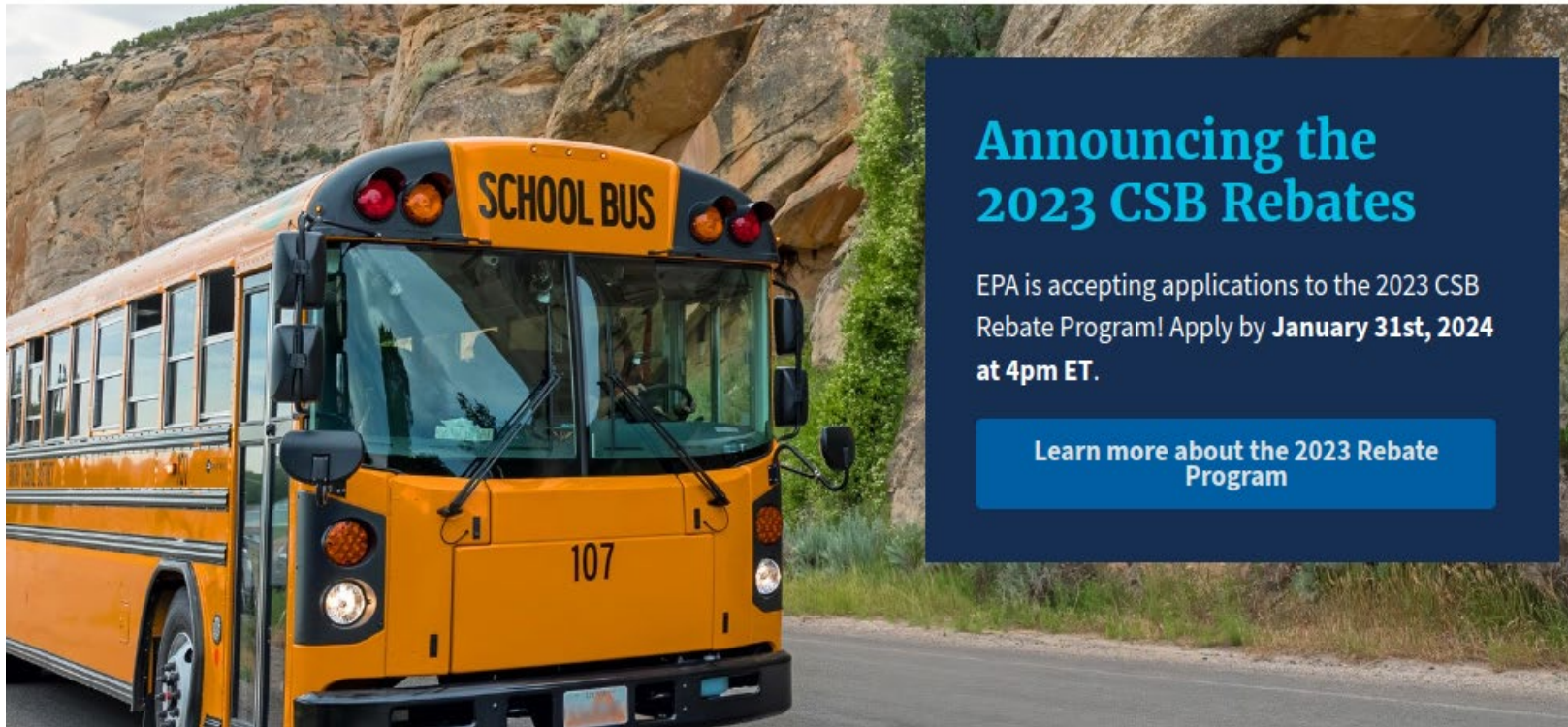


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Bus2Grid Wins Funding!!!

IEC Also Won Funding for School Districts in Every Round of the EPA Clean School Bus Program!!!

Clean School Bus Program



Announcing the 2023 CSB Rebates

EPA is accepting applications to the 2023 CSB Rebate Program! Apply by **January 31st, 2024** at 4pm ET.

[Learn more about the 2023 Rebate Program](#)



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Williamsfield Schools Won EPA Rd 1 Grant

Superintendent Tim Farquer is Administrative Lead of IEC's Bus2Grid Program



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Williamsfield: Operational Savings

In addition to saving the cost to buy new buses in the future, there are savings on maintenance and fuel!!

Utilization and savings takeaways:

- ⚡ Economy is slightly below average @ 67.kWh per mile.
 - This includes OOS units, so some may be due to troubleshooting/testing.
 - REGEN DISABLE button is being pressed regularly. More on this below.
- ⚡ District avoided purchasing 898* gallons of fuel at a cost of \$3,816*
- ⚡ Used a total of 8,462 kWh for propulsion.
 - Using your solar cost per kWh of \$0.0275, total cost of propulsion = \$232.7 (That's exciting to see!)

	kWh/mi:	\$/kWh (util. rate)
*based on your local reported avg. utility & fuel rates	1.45	\$0.03
	ICE MPG	fuel \$/gal
	6.5	\$3.81

That works out to a monthly total savings of \$3,583 (\$.61 per mile) traveled vs. a diesel bus!



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Smart Solutions Save Money!!



End cost in most cases

Priority...very little or nothing

Non-Priority...same or less than diesel

Operational Savings

\$6,500 per bus per year

\$65,000 per bus for a 10-year TCO

V2G & Future Revenues



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Questions and Answers

We thank you for your time!



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