

# **FOR WATT IT'S WORTH**

## **Strategic Power Moves**

Oconomowoc Area School  
District

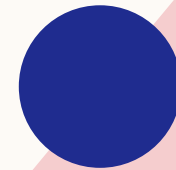
# UTILITY COSTS

Understand Utilization and Trends

Control / Reduce Costs

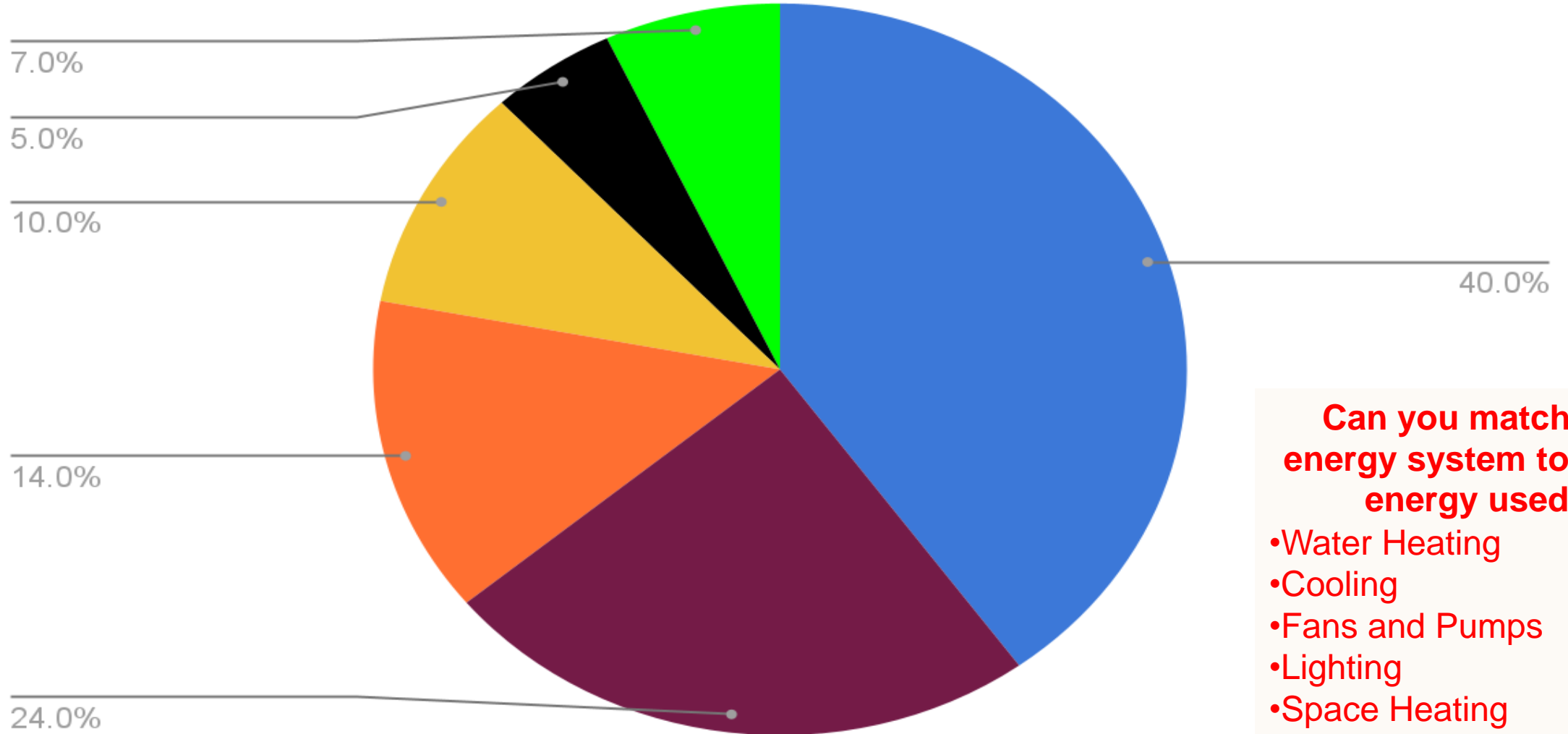
Engage Staff and Students

Allocate Costs



# WHICH PIE PIECE IS IT?

## Overall energy Use in Wisconsin Schools



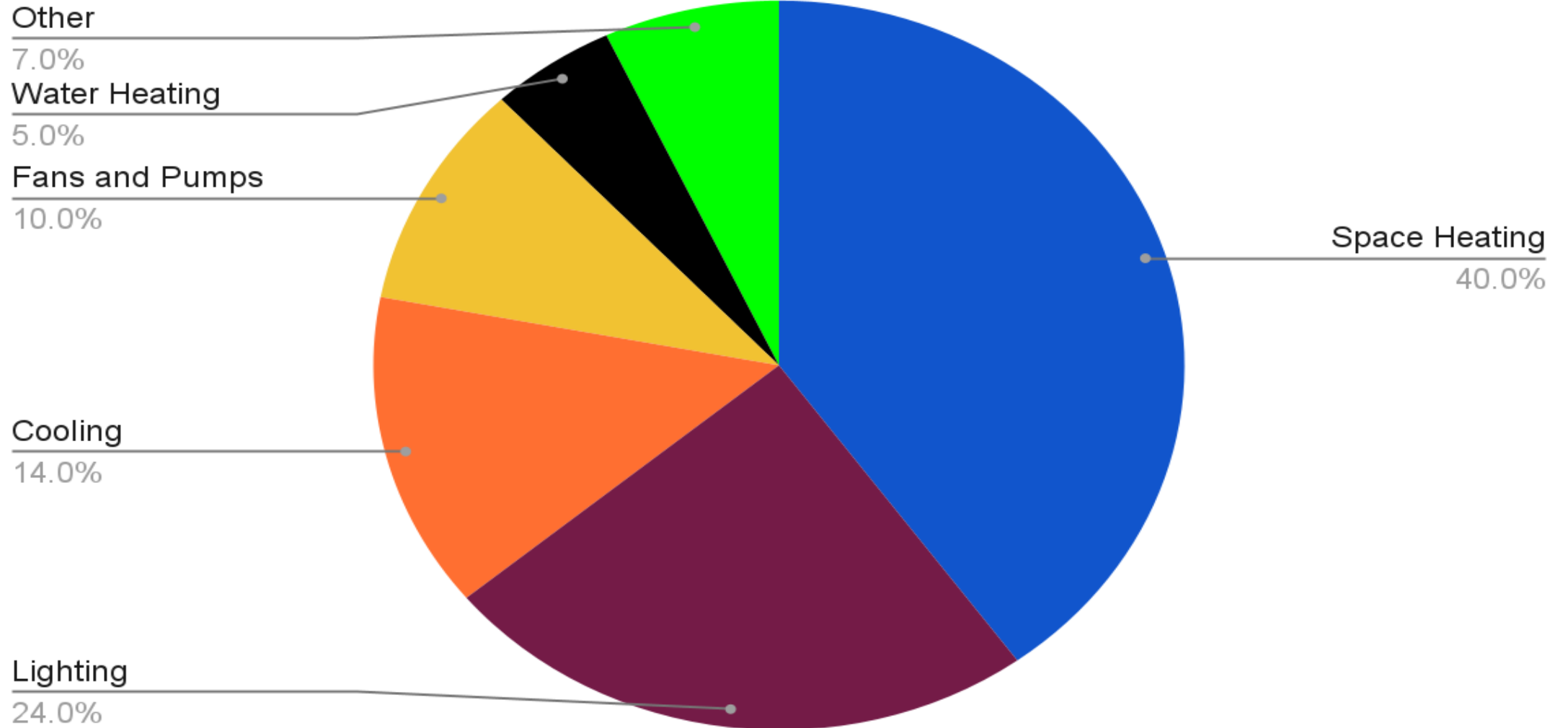
**Can you match the energy system to the % energy used?**

- Water Heating
- Cooling
- Fans and Pumps
- Lighting
- Space Heating
- Other

# UNDERSTANDING SCHOOL ENERGY USE

## Overall Energy Use in Wisconsin Schools

How many did you get correct?





# **GATHERING AND USING DATA**

Energy Cap Program  
Frontline Comparative Analytics  
District Financials  
CLOCworks-dataWrangler

# GATHERING DATA

## STATEMENT ACTIVITY

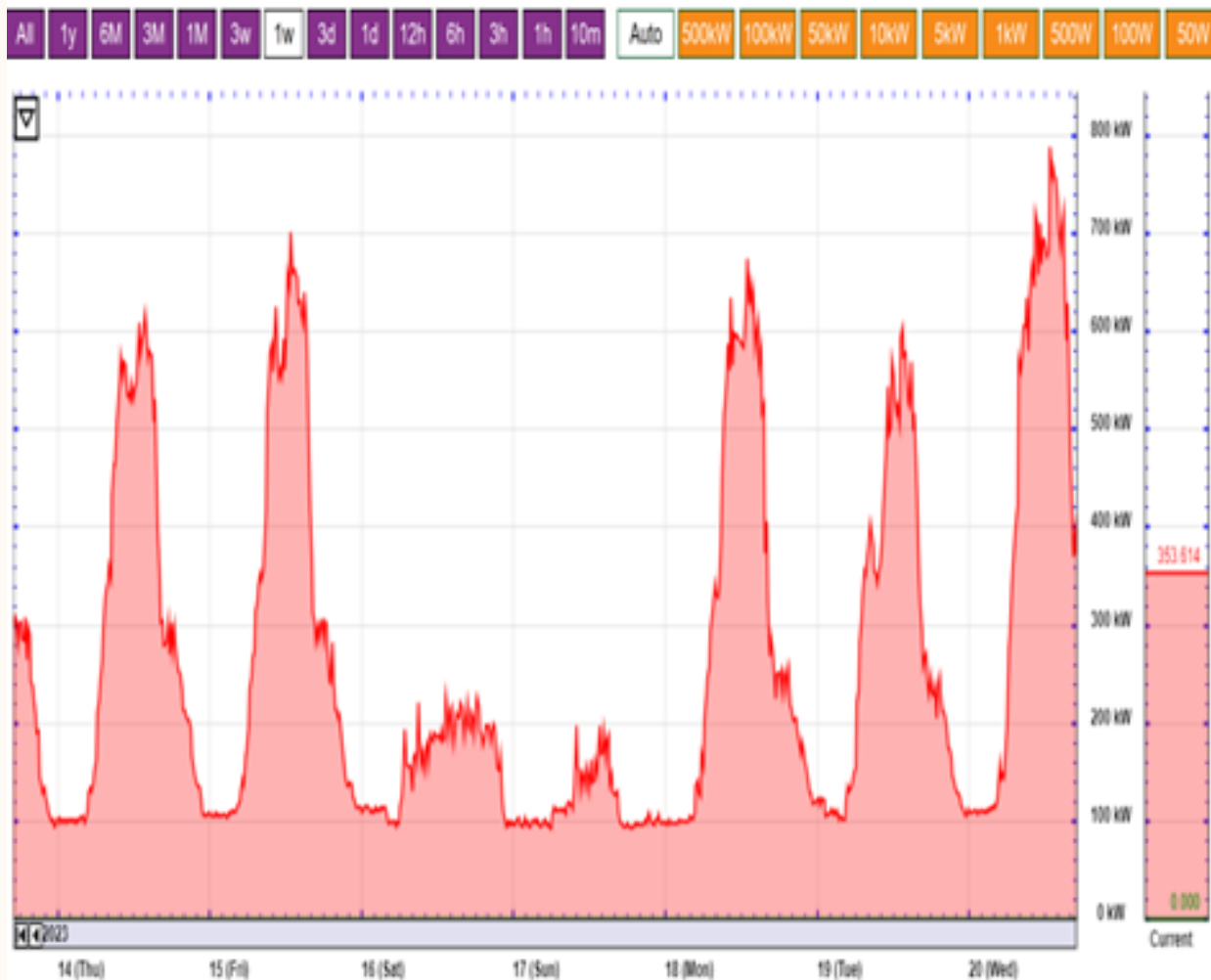
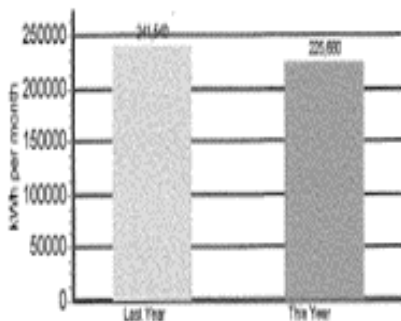
	RATE	USAGE	CHARGES
PREVIOUS BALANCE			\$34,411.14
PAYMENT 09/19/2022			\$-34,411.14
BALANCE FORWARD			\$0.00
<b>ELECTRIC SERVICE:</b>			
Customer Charge CP2			\$250.00
On Peak Energy Charge	0.0865	131,574.00	\$11,381.15
Off Peak Energy Charge	0.0475	94,306.00	\$4,479.54
On Peak Demand Charge	10.5000	900.00	\$9,450.00
Distribution Demand Charge	1.7500	1,020.00	\$1,785.00
Power Cost Adjustment Charge	0.0201	225,880.00	\$4,540.19
Commitment to Community			\$30.00
<b>Total Electric Charges</b>			<b>\$31,915.88</b>
<b>CURRENT CHARGES</b>			<b>\$31,915.88</b>
<b>TOTAL AMOUNT DUE</b>			<b>\$31,915.88</b>

### \*\* City Hall Payment Drop Box CLOSED \*\*

To comply with current Wisconsin election laws, the payment drop box on the side of city hall must be temporarily closed while absentee ballots are in circulation. The box will reopen after the November 8th general election.

Please see the other available payment methods listed on the back side of this invoice.

### Electric Usage Comparison

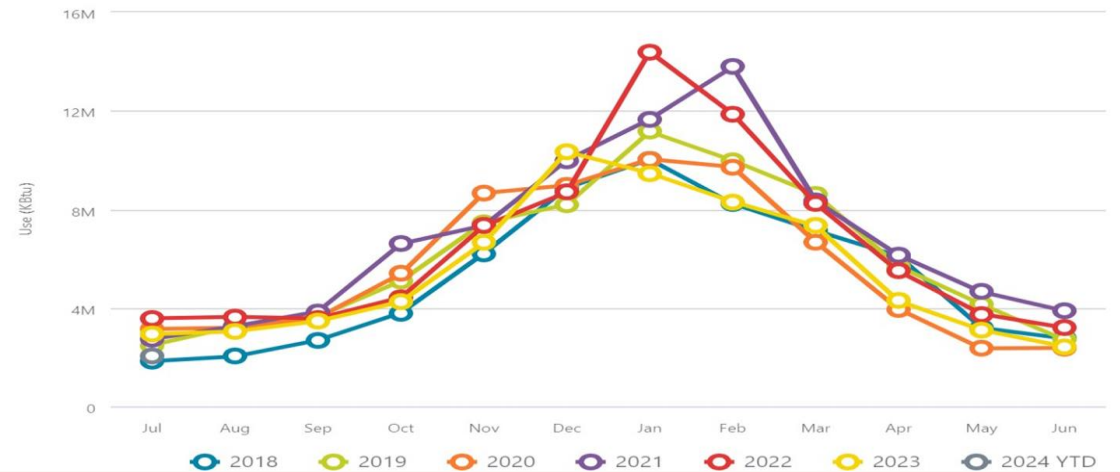


# USING DATA

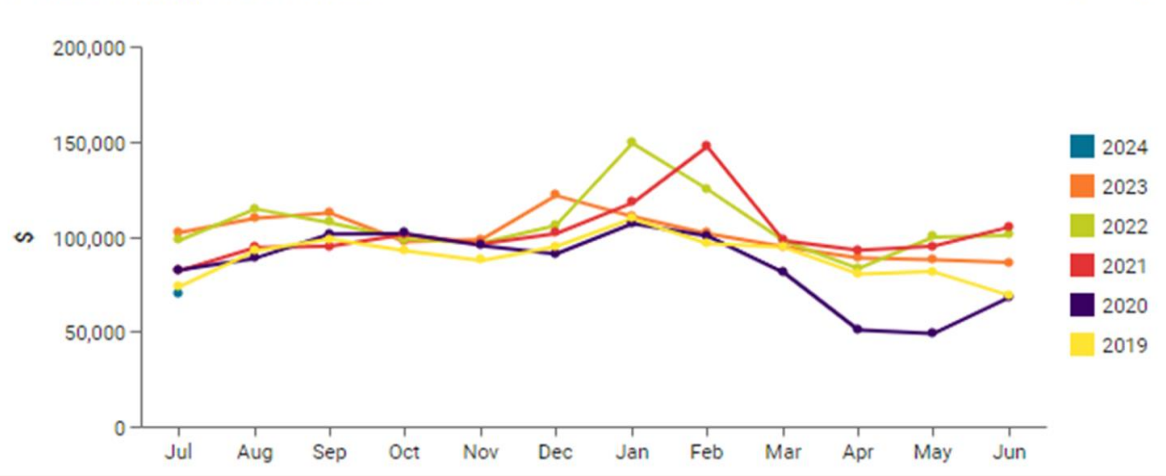
Commodity Spending Trend



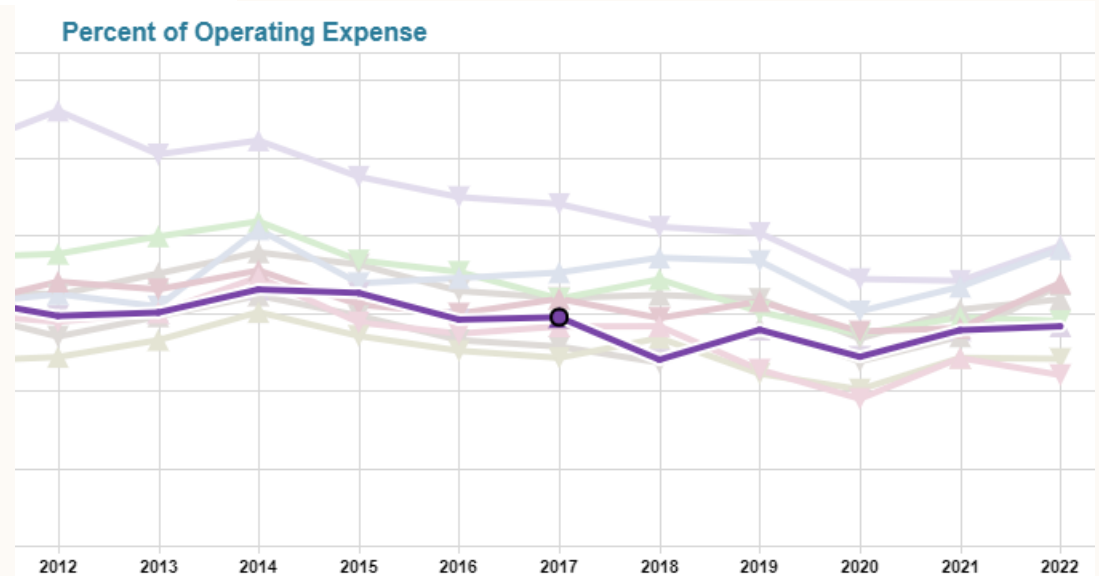
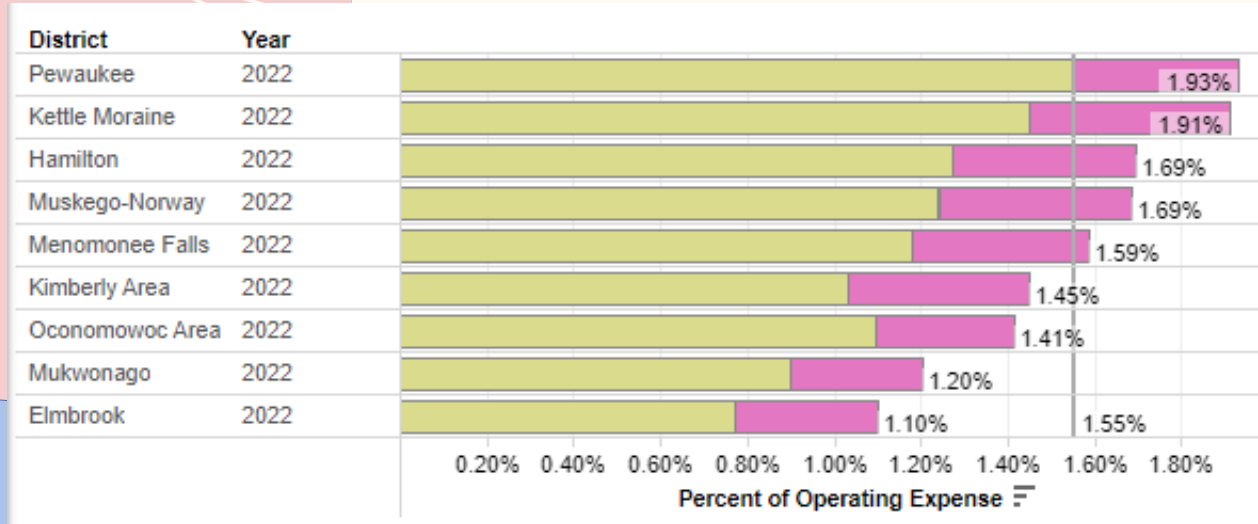
5 Year Monthly Use Trend



5 Year Monthly Cost Trend

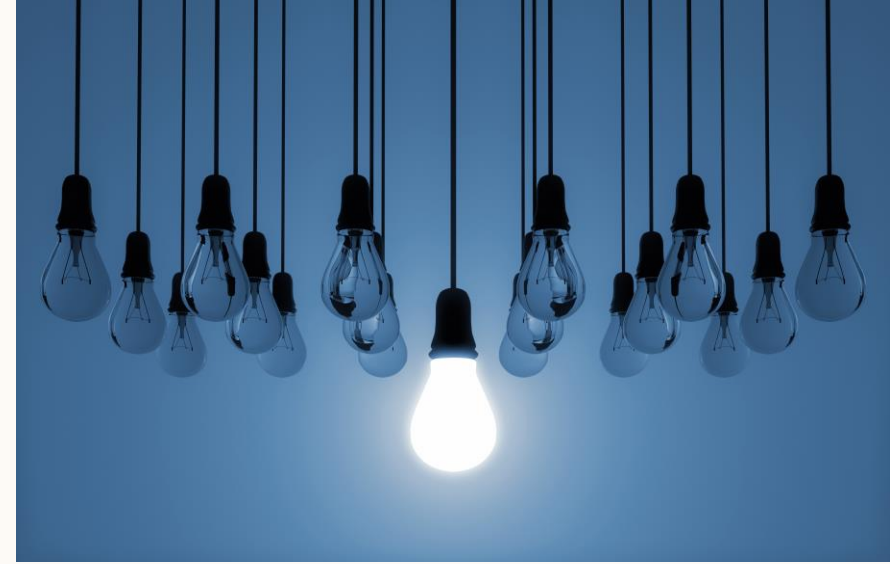


# KNOW HOW YOU COMPARE...AND WHY OR WHY NOT





# LED LIGHTING UPDATES - REBATE UTILIZATION



2022-2023

2021-2022

2020-2021

2019-2020

2018-2019

\$2,166

\$12,372

\$7,962

\$105,446

\$54,235

- Incorporate in referendum and/or other facility renovation projects
- Use rebates to fund additional projects
- Look at greatest impact for savings; fund additional projects with utility cost savings

# AUDIENCE POLL

Have any audience districts implemented renewable-energy programs, such as solar or wind?

How did you determine these programs were right for your district/community?

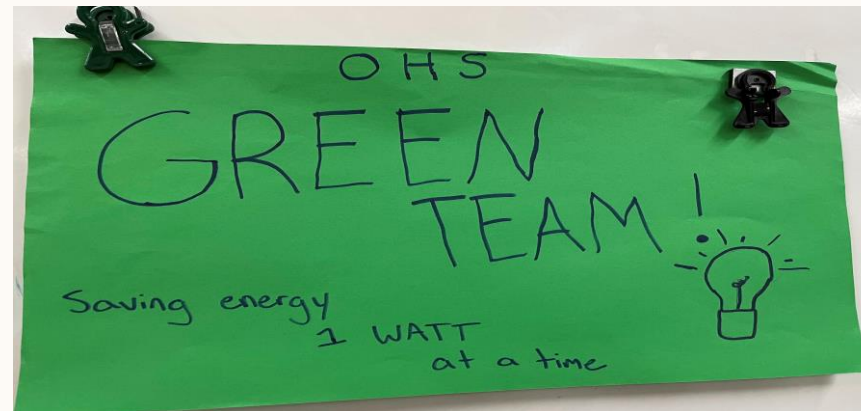
Have they generated electric cost savings?

# COLLABORATE WITH STAFF AND STUDENTS



- Thanks a watt! Homeroom contest
- RCC (Showing awareness of energy use)
- One minute school wide blackout
- Classroom Audits
- Visit to the intermediate school
- Tour of Oconomowoc Utilities
- Learned about the Boiler Room
- Kill-A-Watt
- [Energy Policy](#)

THANKS A WATT FOR SAVING ENERGY!!



# STUDENT ENGAGEMENT RCC ONE MINUTE BLACKOUT

For 1 minute every classroom is going to turn off all of their lights. During this time, you will notice on the egauge a difference in energy use.



[RCC Link to 1 minute  
blackout from  
Monday, November 2](#)

[eGauge](#)

# ENGAGING STAFF

MARCH March 2023 | ISSUE 7



**THE SOURCE:**  
OASD STAFF NEWS

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BUILDING & GROUNDS UPDATE



## Spring Break is Coming Soon!

This is one of the most important opportunities of the year to earn energy savings. As you prepare for the break, please remember to also prepare for the Energy Program Set Back.

### Check List

- Turn off and unplug all energy-using items
- Clean out and unplug refrigerators (leave the door open)
- Clean out and unplug all small appliances
- Custodial Staff - Set the temperature back to the unoccupied set point
- Last Out → Lights Off!



NOVEMBER November 2021 | ISSUE 3



**THE SOURCE:**  
OASD STAFF NEWS

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BUILDING & GROUNDS UPDATE

HAPPY Thanksgiving

OASD

**ENERGY PROGRAM SET BACK**

Thanksgiving Break is almost here! As you get ready for the holiday, please take a few minutes to prepare your area for the Set Back.

**SET BACK CHECK LIST**

- Turn off and unplug energy-using devices.
- Clean out and unplug small refrigerators (leave the door open).
- Set thermostats at the unoccupied set point.
- Close the blinds in your area.
- Make sure all computers are shut down
- Last one out → Lights off!

HAPPY THANKSGIVING

The Building & Grounds Department

THANK YOU FOR DOING YOUR PART TO SUPPORT THE ENERGY PROGRAM!

DECEMBER December 2021 | ISSUE 3



**THE SOURCE:**  
OASD STAFF NEWS

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BUILDING & GROUNDS UPDATE

## Holiday Setback Reminder

Winter Break is almost upon us, please remember these tips before leaving for break!

happy HOLIDAYS

**HOLIDAY SET BACK ENERGY PROGRAM REMINDER**

Thank you for doing your part to help the Energy Program!

Wishing you a very happy Holiday Season! The Buildings & Grounds Department

Winter Break is almost upon us and as a reminder, this setback period is one of the most important savings opportunities for the Energy Program! As you get ready for the break, please take a few minutes to prepare your area for the shutdown.

**BEFORE THE BREAK:**

- ☐ Turn off, unplug, or set back energy-using items.
- ☐ Clean out & unplug all refrigerators (leave the door open). Clean out & unplug microwaves, coffee makers, & other small appliances that have a light or (non-vital) clock.
- ☐ Turn heating temperatures back to the unoccupied set point.
- ☐ Close the blinds.

OASD

**OOPS!**

I stopped by & noticed you accidentally left on:

<input type="checkbox"/> Computer	<input type="checkbox"/> Lights
<input type="checkbox"/> Monitor	<input type="checkbox"/> Printer
<input type="checkbox"/> Speakers	<input type="checkbox"/> TV
<input type="checkbox"/> Radio/Stereo	<input type="checkbox"/> Fan

**NO WORRIES!**  
I turned it off for you!

Please help me out & remember to turn everything off when not in use.

Energy Specialist

*Thanks for your help & for supporting the Energy Program!*

**Thanks!**

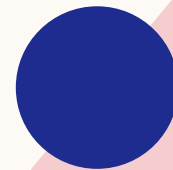
Everything was properly shut down when I stopped by!

Energy Specialist

**THANK YOU FOR SUPPORTING THE ENERGY PROGRAM!**

# AUDIENCE POLL

Have any audience districts engaged students, staff or the community in energy-saving measures? If so, how?





# CONSERVATION TIP CHECKLIST

**Good for the environment & Cost Savings**

- ✓ Conduct Energy Audits
- ✓ Upgrade Lighting
- ✓ Optimize HVAC Systems
- ✓ Use Energy-Efficient Appliances and Equipment
- ✓ Insulate and Seal
- ✓ Implement Smart Energy Practices
- ✓ Foster a Culture of Conservation
- ✓ Consider Renewal Energy
- ✓ Monitor and Benchmark
- ✓ Seek Energy Efficiency Grants and Incentives

The background features a vertical line on the left side. To the left of this line, there are concentric white circles on a light green background. To the right of the line, there are four colored triangular shapes: a blue one at the top, a light green one in the middle, a light pink one at the bottom left, and a reddish-pink one at the bottom right.

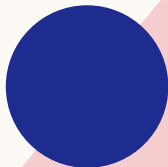
# USING NATURAL GAS CONTRACTS

- Help moderate utility prices impacting your budget
- Get and stay engaged



# LOOK AT USAGE AND LAYER CONTRACTS

OCONOMOWOC SCHOOL DISTRICT	
<b>Through Mar 2022, 5 different deals in place:</b>	
1	Basis at \$0.712/dth
2	NYMEX at \$3.0686/dth
3	Basis at \$0.720/dth
4	NYMEX at \$2.8947/dth
5	Full Fixed Price at \$3.054/dth
<b>For Apr 2022 – Mar 2025, 3 different deals in place:</b>	
1	Basis at \$0.720/dth
2	NYMEX at \$2.8423/dth
3	Full Fixed Price at \$3.054/dth
<b>Future Nymex Pricing:</b>	
1 Year	Apr '25 - Mar '26: \$3.290/dth
2 Year	Apr '25 - Mar '27: \$3.305/dth
3 Year	Apr '25 - Mar '28: \$3.335/dth



# MONITOR USE WITH CONTRACT

## MONITOR USE VS CONTRACT DTH

Actual Usage in Dekatherms							2023				
	2023	2022	2021	2 Yr Ave	2 Yr Ave @ 92%	3 Yr Ave		Basis	+ extra - short	NYMEX	+ extra - short
Jan	7,450	11,639	9,230	10,435	9,600	9,440	Jan				
Feb	6,261	9,286	10,949	10,118	9,308	8,832	Feb				
Mar		6,118	6,097	6,108	5,619		Mar	5,714	95	5,264	(355)
Apr		3,704	4,004	3,854	3,546		Apr	5,453	1,907	4,403	857
May		1,685	2,388	2,037	1,874		May	1,330	(544)	1,150	(724)
Jun		1,161	1,398	1,280	1,177		Jun	965	(212)	965	(212)
Jul		1,001	1,320	1,161	1,068		Jul	519	(549)	519	(549)
Aug		1,097	1,211	1,154	1,062		Aug	844	(218)	594	(468)
Sep		1,334	1,335	1,335	1,228		Sep	1,040	(188)	790	(438)
Oct		2,528	2,429	2,479	2,280		Oct	2,800	520	2,000	(280)
Nov		4,839	5,395	5,117	4,708		Nov	5,801	1,093	4,541	(167)
Dec		8,243	6,584	7,414	6,820		Dec	7,073	253	7,073	253
	13,711	52,635	52,340	52,488	48,289						

## EVALUATE FUTURE PRICING

FUTURE PRICING:		Current Locks:
<b>NYMEX, April 2025 Start:</b>		\$2.8423
12 Months (Apr25 – Mar26):	\$4.510/dth	\$3.0540
24 Months (Apr25 – Mar27):	\$4.515/dth	
<b>Primary Firm Basis, April 2025 Start:</b>		\$0.7200
12 Months (Apr25 – Mar26):	\$1.400/dth	
24 Months (Apr25 – Mar26):	\$1.410/dth	

# SAVINGS ANALYSIS



## Savings Analysis Report

### Oconomowoc Area School District / WEGO / Tf-4

Calendar Month	Usage (Dths)	Utility Cost (Burnertip)	Constellation Supply			Difference		
			Gas Supply Costs	Utility Distribution	Total (Burnertip)	Savings (\$)	Savings (%)	\$/Dth
January 2018	7,709	\$ 40,561.76	\$ 27,624.31	\$ 4,550.33	\$ 32,174.64	\$ 8,387.12	20.7%	\$ 1.09
February 2018	6,289	\$ 35,036.96	\$ 22,625.21	\$ 3,747.59	\$ 26,372.80	\$ 8,664.16	24.7%	\$ 1.38
March 2018	5,264	\$ 25,806.15	\$ 18,805.90	\$ 3,235.19	\$ 22,041.09	\$ 3,765.06	14.6%	\$ 0.72
April 2018	4,403	\$ 20,002.16	\$ 14,996.09	\$ 2,758.76	\$ 17,754.85	\$ 2,247.31	11.2%	\$ 0.51

Saved \$307,000 over the past 5.5 years!

Year	Usage (Dths)	Utility Cost (Burnertip)	Constellation Cost (Burnertip)	Savings (\$)	Savings (%)	Savings per Dth
2018	43,320	\$223,104	\$180,897	\$42,207	18.9%	\$0.97
2019	47,076	\$224,666	\$193,784	\$30,883	13.7%	\$0.66
2020	43,658	\$177,120	\$195,486	(\$18,366)	-10.4%	(\$0.42)
2021	52,340	\$330,479	\$257,821	\$72,658	22.0%	\$1.39
2022	52,636	\$369,740	\$252,190	\$117,551	31.8%	\$2.23
2023	24,302	\$172,287	\$110,134	\$62,153	36%	\$2.56

# REGULAR UPDATES – EMAILS AND REPORTS

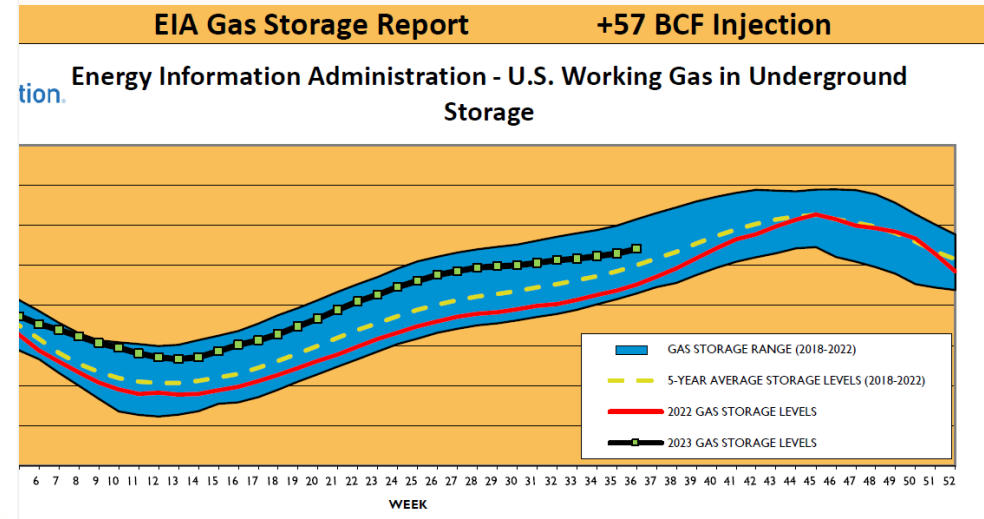


September 14, 2023

### A glimpse into this week's storage report:

Prompt-month NYMEX natural gas was trading at \$2.730/MMBtu in morning trading, up \$0.05/MMBtu as of 11:00 a.m. ET.

- The EIA reported an injection of 57 Bcf into underground storage for the week ending September 8, 2023, vs. an estimated injection of 49 Bcf.
- Inventories are 3,205 Bcf, 445 Bcf or 16.1% more than the same period last year and 203 Bcf or 6.8% more than the 5-year average.
- As we head into the middle of September meaningful heat is relegated to the South and interior West with 70s and 80s dominating much of the pattern. The cold front has cleared the East Coast, and this will help to steer hurricane Lee on a northerly path off the New England coast Friday night and Saturday. There will still be some impacts on the coastal regions, but no direct hit. We are dealing with some heat over portions of the interior West with above and much above normal temperatures for the next few days.
- Natural gas futures fell for the first time in five sessions amid export uncertainty, cooling weather and the specter of hurricane conditions dropping temperatures further on the East Coast.
- In its September Short-Term Energy Outlook, the EIA forecast that gas use in the power sector would average 40.1 Bcf/d for the month, up 7% from the prior record set in September 2022. The agency expects gas consumption for the power sector will average 35.3 Bcf/d for all of 2023, up 6% from the record levels of 2022.



UNDERGROUND GAS STORAGE DATA as published by the Energy Information Administration (EIA)

GAS STORAGE DATA - CURRENT WEEK					COMPARISON OF DATA TO PREVIOUS PERIODS				
EIA REGION	WEEKLY CHANGE	CURRENT STORAGE	TOTAL CAPACITY	PERCENT FULL	COMPARISON	WEEKLY $\Delta$	TOTAL	COMPARED TO PRIOR	PERCENT
					Year-ago	74	2,760	445 above last year	16.1%
<b>TOTAL</b>	<b>+57</b>	<b>3,205</b>	<b>4,373</b>	<b>73.3%</b>	5-year Average	76	3,002	203 above five-year	6.8%
<b>GAS INJECTION/WITHDRAWAL EXPECTATION FOR THE WEEK HAD BEEN:</b>						40 to 60 Bcf		Injection	
<b>GAS WITHDRAWAL SEASON = NOV to MAR; GAS INJECTION SEASON = APR to OCT; SEASONS ARE DEPENDENT ON WEATHER</b>									

# REGULAR UPDATES –

## WEBINARS



**Constellation's 2023 Energy Market Intel Webinar**

Wednesday, September 13, 2023 | 2 PM Eastern / 1 PM Central

**This month's webinar will include:**

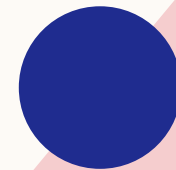
- The most up-to-date forecast from Constellation's meteorology team
- Notable developments and insights on the economy
- A check in on the status of natural gas storage, and current supply and demand fundamentals
- An assessment of important changes in the regional power markets and their impact on prices

[Register Now](#)

# **AUDIENCE POLL**

How many districts in the audience charge utilities to the Food Service (Fund 50)?

How many districts in the audience charge utilities to the Community Service (Fund 80)?





# **CLOCWORKS-DATA WRANGLER**

Analyze where and when utilities are used – Allocate  
to Food Service and Community Service Funds

# ANALYZE AND ALLOCATE COSTS



## FOOD SERVICE

- Put \$ back into Fund 10 by paying Food Service electricity expenses from Fund 50
- Typically, Food Service expenses are 25% of electric bill
- DPI approved method of allocation
- Use DPI equipment grant cycles to fund energy-efficient kitchen equipment



## ARTS CENTER

- Measure the utility impact of arts center operations
- Allocate costs to school, community, and productions
- Appropriate charge 3<sup>rd</sup> party renters / users of facility



## COMMUNITY SERVICE

- Measure and understand what 3<sup>rd</sup> party facility use costs the district in additional utilities
- Rationale for allocation
- Documentation to support



# FOOD SERVICE (FUND 50) ALLOCATION



Energy Data-as-a-Service from CLOCworks, Inc.  
"Our Knowledge Will Save You Power!"

## August 2023 - Oconomowoc High School

CLOC Meter	School Days	Total Days
DentMeter	0	31

Net kWh Cost	Total Cost
\$0.18	\$5,605.36

Equipment	Daily kWh	Cost
Walk-In Cooler	156	\$860.73
Walk in Freezer (x2)	312	\$1,721.47
Dishwasher	18	\$0.00
Blodgett Oven (x4)	150	\$0.00
Blodgett Oven (x2)	225	\$0.00
Coffee Water Heater	24	\$132.42
Vulcan Steamer	144	\$0.00
Warming Station	31.2	\$0.00
Altosham	247.5	\$0.00
Vulcan Fryer (x2)	2	\$0.00
Blender	2.64	\$0.00
Froyo	103.2	\$0.00
Dishwasher #2	252	\$0.00
Ice Machine	18	\$99.32
Electric Water Heater	216	\$1,191.78
Milk Cooler (x2)	36	\$198.63
Warming Station	2.55	\$0.00
Warming Stations (x2)	5.2	\$0.00
Vending Machines	33.6	\$185.39
Vending Machines	133.92	\$738.91
Fridge	28.8	\$158.90
Warming Table	3.44	\$0.00
Vulcan Oven	25	\$0.00
Warming Serving Tray	13.2	\$0.00
Serving Table	2.6	\$0.00

# MANUAL ALLOCATION – FUND 80

Row Labels	Sum of # of Hrs
Greenland Elementary School	1,653.22
Ixonia Elementary School	858.98
Meadow View Elementary School	1,924.73
Nature Hill Intermediate School	1,142.00
Oconomowoc Arts Center	1,242.25
Oconomowoc High School	1,377.01
OHS East	27.50
Park Lawn Elementary School	1,207.09
Silver Lake Intermediate School	1,315.84
Summit Elementary	1,743.82
Vehicles	511.29
<b>Grand Total</b>	<b>13,003.73</b>

Before implementing any allocations, get your auditors' approval of assumptions used!

Site	Gas and On Peak	Active hours per Year	active hours weekend	Active Summer Hours	Hours in Year	Active Hourly Rate				
High School	\$ 282,877.27	3200	800	840	8760	46%	\$ 58.45			
Silver Lake Intermediate	\$ 117,676.28	3200	264	660	8760	40%	\$ 28.53			
Nature Hill Intermediate	\$ 129,597.62	3200	264	660	8760	40%	\$ 31.43			
PKL	\$ 37,401.41	2800	0	0	8760	32%	\$ 13.36	Subtracted summer utility bills since building is closed.		
SMT	\$ 52,310.29	2800	0	0	8760	32%	\$ 18.68	Subtracted summer utility bills since building is closed.		
GRN	\$ 36,197.61	2800	0	0	8760	32%	\$ 12.93	Subtracted summer utility bills since building is closed.		
MDV	\$ 120,877.04	2800	0	120	8760	32%	\$ 41.40			
IXN	\$ 36,791.65	2800	0	0	8760	32%	\$ 13.14	Subtracted summer utility bills since building is closed.		
		6	Number of weeks	Summer School						
		12	Number of weeks	Summer						
		40	Number of weeks	School Year						
	2022-23 usage	Hours x Active hourly rate		Electric \$ Amount	Available to allocate	Gas %	Gas \$ Amount	Available to allocate		
Greenland Elementary School	1,653.22	\$ 21,372.36	80 E 805 336 253000 713	\$ 15,704.00	\$ 6,856.00	27%	\$ 5,668.00	\$ 2,474.00	80 E 805 331 253000 713	
Ixonia Elementary School	858.98	\$ 11,286.89	80 E 805 336 253000 714	\$ 8,294.00	\$ 3,621.00	27%	\$ 2,993.00	\$ 1,307.00	80 E 805 331 253000 714	
Meadow View Elementary School	1,924.73	\$ 79,676.60	80 E 805 336 253000 712	\$ 58,548.00	\$ 25,560.00	27%	\$ 21,129.00	\$ 9,224.00	80 E 805 331 253000 712	
Nature Hill Intermediate School	1,142.00	\$ 35,887.60	80 E 805 336 253000 722	\$ 26,371.00	\$ 11,513.00	27%	\$ 9,517.00	\$ 4,155.00	80 E 805 331 253000 722	
Oconomowoc Arts Center	1,242.25	\$ 72,604.19	80 E 910 336 253000 000	\$ 53,351.00	\$ 30,794.47	27%	\$ 19,253.00	\$ 11,112.88	80 E 910 331 253000 000	
Oconomowoc High School	1,915.80	\$ 111,970.30	80 E 805 336 253000 725	\$ 82,278.00	\$ 35,920.16	27%	\$ 29,692.00	\$ 12,963.00	80 E 805 331 253000 725	
Park Lawn Elementary School	1,207.09	\$ 16,123.88	80 E 805 336 253000 716	\$ 11,848.00	\$ 5,172.00	27%	\$ 4,276.00	\$ 1,867.00	80 E 805 331 253000 716	
Silver Lake Intermediate School	1,315.84	\$ 37,546.84	80 E 805 336 253000 721	\$ 27,590.00	\$ 12,045.00	27%	\$ 9,957.00	\$ 4,347.00	80 E 805 331 253000 721	
Summit Elementary	1,743.82	\$ 32,578.47	80 E 805 336 253000 719	\$ 23,939.00	\$ 10,451.00	27%	\$ 8,639.00	\$ 3,772.00	80 E 805 331 253000 719	
	13,003.73	\$ 419,047.14		\$307,923.00	\$ 141,932.63		\$ 111,124.00	\$ 51,221.88		

# THANK YOU!

Greg Maroo – Director of Buildings & Grounds ([maroog@oasd.org](mailto:maroog@oasd.org))

Chelsea Indra – Accounting Manager ([indrac@oasd.org](mailto:indrac@oasd.org))

Beth Sheridan – Assistant Superintendent of Finance and Operations ([sheridab@oasd.org](mailto:sheridab@oasd.org))