

Growing Energy Issues for Synagogues and Organizations

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Synagogues / Jewish Organizations Should Be Concerned About Energy. Why?

High Cost!

- ◆ Currently, average cost for SC-1: Westchester: 31¢ / kWh
Nationwide: 19¢ / kWh
 - ◆ **Important!** Check your Con Ed bill. Are you classified EL-1 or SC-1?
- ◆ And rates – in Westchester - are likely to rise even more
 - ◆ Con Ed received permission to raise electric rates 9%, gas rates 6%
- ◆ **Bottom line:** Energy is now a significant cost in running a synagogue or other building. To control your costs, reduce the amount of energy you are using.

Reduce both your electricity and fuel usage.



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Critical Reasons to Go Out There And Smartly Reduce Your Energy Usage

1. **\$\$\$\$:** Actions that reduce your electricity/fuel usage will reduce your costs. Who likes paying Con Ed?
 - ◆ Special financial value for energy upgrades. One-time upgrades provide cost savings continually for many years. **Cost savings actually rise in the future as rates rise!**
2. Your congregants want this for fiscal and “green” reasons. Re-branding your synagogue as “green” and/or efficient is sure to raise pride, interest, spirituality, and all that entails.
3. Oh yeh, it’s halachic. It’s in the Tanach. Tikkun Olam.
“Of David. A psalm. The Earth is the LORD’s and all that it holds, ...”
Tehillim (Psalms) 24:1



You Can Reduce Your Energy Waste and Reduce Your Costs

Stick to the program and it will work!

- ◆ Determine your baseline. How much energy (electricity, natural gas, oil) do you use now?
 - ◆ Gather at least two year's worth of recent Con Ed bills.
 - ◆ Chart out your monthly usage & costs of electricity and natural gas.
 - ◆ Your average annual usage and cost is your baseline.
 - ◆ How big is your shul? Is your building utilized a lot (nursery school, after-school program, evening/Sunday programs)?
 - ◆ Understand your building's infrastructure. OK, OK, a little boring. Catalog your HVAC (boilers, air conditioners) and other energy-using equipment (elevators, IT Center, refrigerators/freezers, etc.)



Have An Energy Audit Done

Like a checkup with the doctor

- ◆ Like a physician who checks your blood pressure, pulse, EKG, breathing, and blood results at a checkup, have an assessment of your synagogue's operations/energy usage.
 - ◆ How old is your equipment? Working well? How efficient are they?
 - ◆ What are their operational schedules? Are they working properly with congregants, children, staff present? Everyone comfortable?
 - ◆ Do they have controls that can turn off equipment when unneeded or control space heating and space cooling to exact needs of building?
- ◆ This may not give you exact answers but can indicate where there's a problem (like a checkup!)



Which Areas Can Stand Improvement?

💧 **Lighting.**

- 💧 Are certain areas of your shul overlit or underlit (including outside)?
- 💧 Are there controls to turn them on and off based on space utilization?
- 💧 Are your lights energy efficient?

💧 **HVAC.**

- 💧 Are your units properly sized for the space they must heat or cool?
- 💧 Functioning properly? Functioning efficiently (not wasting energy)?
- 💧 Are controls (setpoints) appropriate for the needs and accurate?
- 💧 Are they serviced regularly and properly?

💧 **Plug Load (PCs, printers, TVs, IT, refrigerators).** Is your equipment efficient and operating properly?

💧 **Insulation.** Areas of obvious heat loss?



Don't Give In! It's Not a Losing Battle!

- ◆ Now, bring in the specialists to address any issues. There have been remarkable gains in technology in recent years! Equipment now performs just as well, using less energy!
- ◆ **Quick tip**: See ENERGY STAR's energy-efficient plug load.
- ◆ And, if that were not enough, how would you like somebody **ELSE** to pay some of the cost of your projects? NY State & Con Ed will pay you to reduce your energy use! It's in their interest. They'll pay part of the cost of certain upgrades.
 - ◆ <https://www.nyserda.ny.gov/ny/PutEnergyToWork/Energy-Program-and-Incentives>
 - ◆ <https://www.coned.com/en/save-money/rebates-incentives-tax-credits>



Case Study: The “Other” WJC

Westchester Jewish Center, Mamaroneck, NY

500-family Conservative shul w. nursery and Hebrew school, w. many religious/cultural/educational programs 7 days/week.

A thorough review of energy costs had never been performed.

There were concerns as energy costs had become very high.

- ◆ **Con Ed Bill Review.** Review of historic bills showed that WJCenter was mis-classified and was paying a higher electric rate than it should have. Error was corrected and WJCenter received a high 5-figure refund from Con Ed!



WJCenter Steps To Cut Energy Costs

L'at, L'at – Little by Little

- ◆ **Select Supplier.** WJCenter had never selected an ESCO to supply electricity. A broker was brought in. WJCenter locked-in a great supply electric rate well below the norm.
- ◆ **Upgrade Lighting.** The building's fluorescent lights were replaced with LEDs, cutting lighting electric use by >50%.
- ◆ **Upgrade HVAC.** Various equipment replaced with modern, energy-efficient units.



WJCenter Steps To Cut Energy Costs

- 💧 **And the Big One: Solar Panels.** WJCenter had solar panels installed in 2024.
- 💧 **499 400-watt panels**
- 💧 **Covers >90% of current electricity usage**



1st Year Results

Westchester Jewish Center

Full System

[Click here to initiate Self Service Warranty Claim](#)

View Graph Reports Devices Events Services

Generate Reports

Multiple Year Energy

This report provides up to five years energy production ending with the year specified.

Specify Year:

2025

Submit

Multiple Year Energy Report

Generated for Kim Curran
on 11/20/2025

Westchester Jewish Center
Mamaroneck, NY



This report provides up to five years energy production ending with the year 2025.

Month	2024	2025
January		10.81 MWh
February		14.56 MWh
March		23.72 MWh
April		24.80 MWh
May		23.91 MWh
June		25.87 MWh
July		31.95 MWh
August		30.68 MWh
September		24.47 MWh
October		19.38 MWh
November		1.30 MWh
December	3.45 MWh	
Total	3.45 MWh	231.45 MWh

2024 = 3.45 MWh
2025 = 231.45 MWh
Total = 234.90 MWh

498 Microinverters
1 Gateway Ethernet
Mamaroneck, NY
45°F
Microinverters Not Reporting
Data upload in progress

Full System

Energy Status

Today
0.00 Wh
Latest: 0.00 W

Past 7 Days
0.00 Wh

Month To Date
1.30 MWh

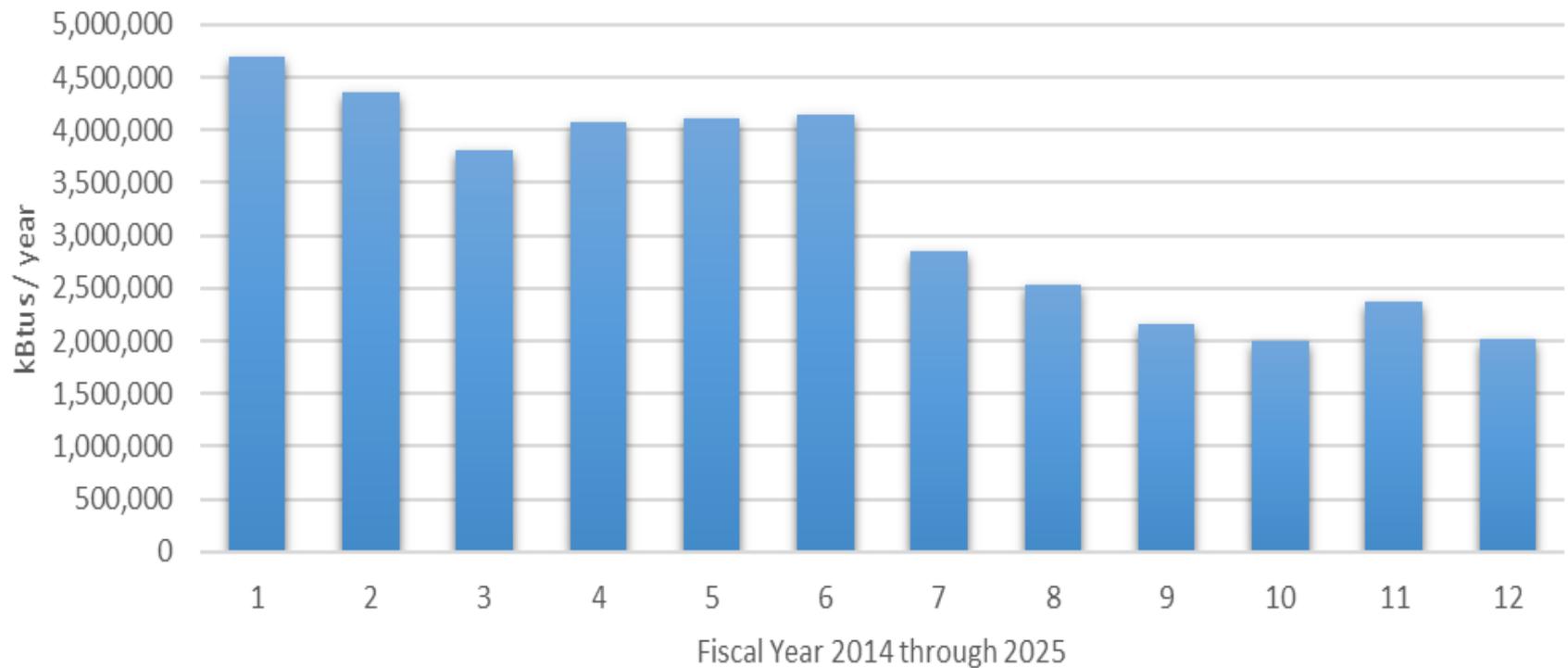
Lifetime
234.90 MWh

Microinverter AC Voltage
205.7 V

Feedback

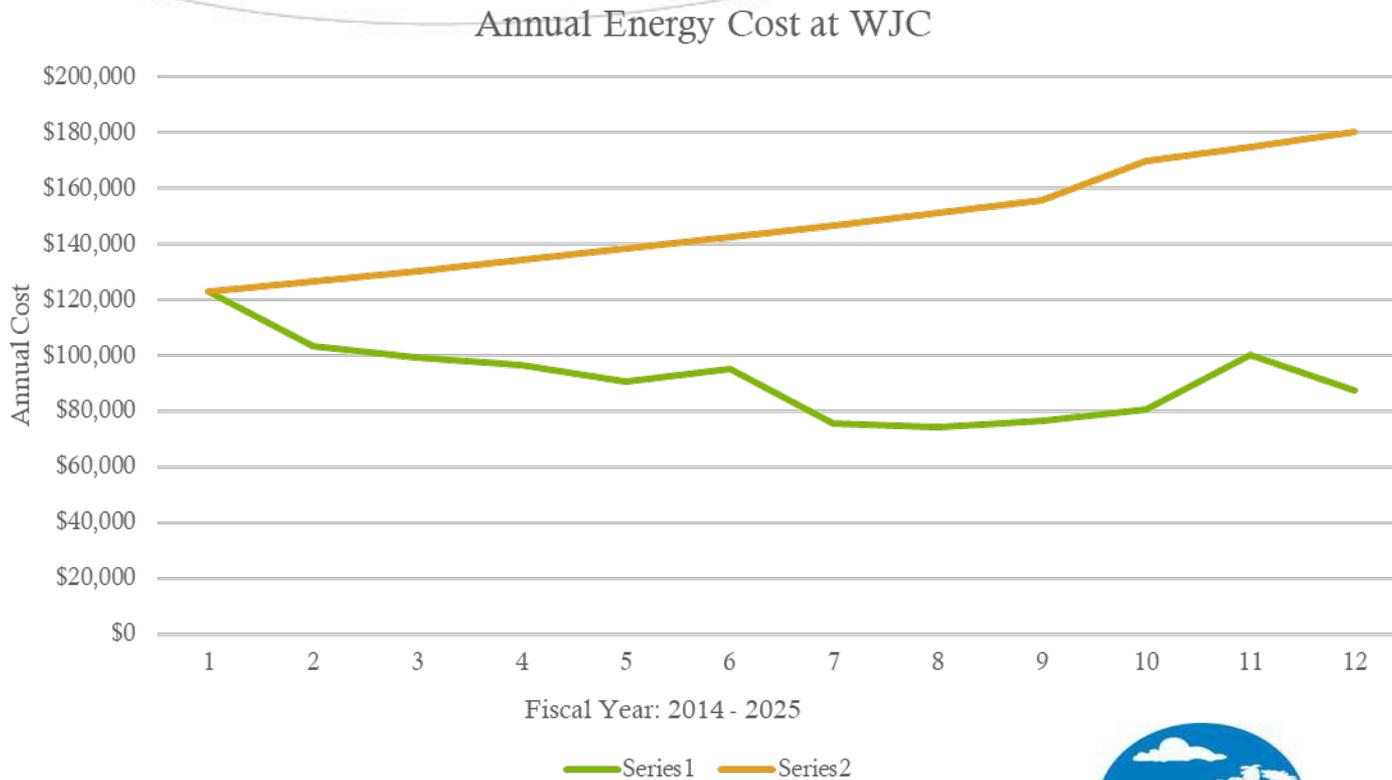
57% Energy Savings at WJC in 12 Years

Total Annual Energy Usage at WJC



Energy Cost Savings

*Upgrades Done Years Ago Are Saving WJCenter
>\$95,000/year Now!*



Others Are Doing Smart Projects, Too!

Congregation Sons of Israel

Implemented multiple smart projects!

Renewable Energy

Solar Panels being installed this spring (199 kW) that will generate all of the power Cong. Sons of Israel uses for lighting, HVAC, computers, refrigerators.

Possible next step: batteries

Efficient Heating and Cooling

HVAC recently switched to a 6-zone ductless system.

Possible next steps: more energy efficient windows



Others Are Doing The Same! Congregation Sons of Israel

Supplies - Acquisition and Disposal

As of 2026, all the cups, "plastic style" utensils, and plates used at all of our Kiddushim are compostable. 2-3 bags are picked up weekly and taken to a compost facility.

Food

This is the 8th year of an organic farm managed by volunteers, with produce for sale. It is also a space where religious and nursery school students connect with nature.

How much was grown? Totaled 3,262 lbs last year!

Congregation Kol Ami, White Plains



THE PROJECT

Building Details:

- Synagogue built in 1957
- Family and Adult Education, Religious Preschool and Hebrew School

Challenges:

- Aging HVAC equipment that was unreliable and needed to be replaced
- High energy costs
- Outdated fluorescent & incandescent lighting technology

Energy Efficiency Measures:

- Replaced 3 HVAC roof top units with new hi-efficiency units
- Installed high efficiency HVAC systems in chapel, improved duct insulation, controls
- Improved coils to increase heat transfer capabilities
- Upgraded to energy efficient LED lighting and lighting controls
- Remote monitoring of 7 RTUs and installed Variable Frequency Drives through new Building Management System



"It's rare that you can have a project that is good for us, good for the environment and saves you money. Bright Energy Services and Atlantic Westchester made it exciting and were incredibly easy to work with. They stayed on time, on budget and handled the job beautifully."

Jessica Lorden, Kol Ami Exec. Dir.

ESTIMATED SAVINGS:

Utility Incentive: \$100K+

Con Edison Post M&V Results:

- Peak Demand Reduction: 54 kW
- kWh/yr Reduction: 251,543
- Energy Reduction: 58%



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You Can Do It, Too!

- ✔ Yes! Your synagogue or organization can also do smart, green projects that will save you \$!
- ✔ You need to be committed, willing to invest in the future, and bring on and work with experienced energy professionals.
- ✔ Then you can save costs, weather our current energy cost problems, and do Tikkun Olam!
- ✔ And the WJC Greening Roundtable is here to help



Questions?

Thank you, again, WJCouncil!

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