

ASES NATIONAL SOLAR TOUR

Showcase Weekend: October 2-4, 2026
nationalsolartour.org



A Letter from the ASES Executive Director

The Year the Roof Stopped Being a Requirement

Dear National Solar Tour Community,

For thirty years, the National Solar Tour has opened doors (literally) to homes and communities that chose to go solar. But every year, we hear from just as many people who want to make that choice and can't. They rent. They live in a condo with an HOA that says no. Their roof faces the wrong way, or isn't theirs to touch at all. For a huge share of American households, solar has simply not been something they could opt into, no matter how much they wanted it. That's starting to change, and 2026 is the year it changed fastest.

Balcony solar, small, plug-in panels that connect straight into a wall outlet, no roof or permit required, has moved from a European curiosity to a genuine American breakthrough this year. Utah opened the door in 2025 with the first dedicated state law. Since then, we've watched state after state follow: Maine, Virginia, Maryland, Colorado, and Connecticut have all signed their own versions into law, with several more states waiting on a governor's signature as I write this. A new safety standard, UL 3700, gave manufacturers and regulators a shared framework to work from. And suddenly, an apartment dweller with a south-facing balcony has a real, affordable way to start generating their own power — no landlord's permission, no utility interconnection agreement, no five-figure investment.

I think this matters for the same reason the National Solar Tour has always mattered: it's not just about the technology, it's about who gets to participate. We've spent years talking about community solar as the answer for renters and shaded roofs, and it still is. But balcony solar adds something community solar can't: something you can hold in your hands, mount yourself, and watch make a difference on your own porch or patio the same afternoon you set it up. It's solar you don't have to wait for anyone else's approval to try.

That's why this year's Tour spotlights balcony solar alongside the big utility-scale and community projects we've always featured. We want you to see the full range — from a single 400-watt panel zip-tied to a railing, to multi-hundred-megawatt solar-and-storage farms now being built to power entire data centers. It's the same sun, serving very different needs, and both ends of that spectrum deserve a place on this Tour. If your state hasn't legalized balcony solar yet, don't assume that means it's illegal. Check with your utility, and consider reaching out to your state legislator. Dozens of states have bills moving right now, and momentum like this doesn't happen without people asking for it.

Thank you for joining us for the National Solar Tour! By participating, you helped increase solar adoption and implement sustainable technologies. Join us again next year for our 32nd Annual National Solar Tour, the showcase weekend will be on Saturday, October 2, 2027!



Sunny Regards,

Carly Rixham
ASES Executive Director

Balcony Solar, By the Numbers

- 6 states with signed balcony solar laws as of mid-2026 (Utah, Maine, Virginia, Maryland, Colorado, Connecticut)
- 30+ states have introduced legislation since Utah's 2025 breakthrough
- UL 3700, the first dedicated safety standard for plug-in solar, launched January 2026
- 1,200 watts: the typical wattage cap under most new state laws

Download the National Solar Tour App!

- Discover Local Tours and Tour Sites with just a tap.
- Virtually tour solar-powered homes and read stories from owners and installers.
- Plan your solar tour trip, integrating with Google Maps and Apple Maps
- Access content, videos, and tips on going solar.
- RSVP to an in-person tour and connect with others in the solar community, and share your solar journey.





2026 Tour Highlights

See all tours at nationalsolartour.org

Alabama

Sun Plan Virtual Tour
UAB Solar House and Sustainable Community

Arizona

Kenna's Urban Homestead
2025 Sustainable Building Tour- Future Foundations of Building Innovation

California

POWER ANYWHERE
Solar Cookers International

Colorado

Denver Metro Green Homes Tour
Passive Solar Dome Home
Solar Reuse Test Lab
Innovative Ground Mount - Ballasted
Low-Profile Ground Mount on Farm
Pagosa Springs Ambient House
Vista del Oro

Delaware

MSSIA: Delaware Tour
Energy Efficient Hockessin Home

District of Columbia (DC)

U.S. Department of Energy's Zero Energy Ready Homes
Virtual Tour

Florida

Solar and Energy Storage in Hobe Sound
Tree House
FREA - Historic Florida Solar Home - WRY
United Church of Gainesville

Georgia

North Decatur Presbyterian Church

Illinois

Summer of Solar Tours
Church of the Good Shepherd UCC

Kentucky

Wilmore Solar Tour

Maine

Passive Solar Cottage
Downeast Solar Center
Wells EV Show

Maryland

100% Sun Powered home

Massachusetts

Allard Engineering Passive Solar Dome Home
NESEA Pro Tour Series

Michigan

North End Woodward Community Coalition Power
Moves Solar Tour
Islamic Center of East Lansing
Pine Island Solar House

Minnesota

Minnesota Sustainability Tour
Balsam Moon Preserve Solar Tour 2025
South Central Minnesota Clean Energy Council -
Mankato
All Electric, Solar Shingle, Amish Built, Forever Home
White Bear UU Church
NE Plymouth Solar, Heat Pump & EV charging

Montana

St. Paul's United Methodist Church
Holy Spirit Episcopal Church

Nebraska

Greater Omaha Virtual Solar Tour

New Jersey

Sussex County Solar Tour
MSSIA : New Jersey Tour
UU Congregation of Monmouth County
Colgate-Palmolive Distributed Generation Solar and
Rainwater Collection System

New Mexico

Hillside Ballasted Ground Mount
Steve McWilliams Residence
Davis Home and Studio
Sandia National Laboratories Virtual Tours

New York

University United Methodist Church





2026 Tour Highlights (cont'd)

See all tours at nationalsolartour.org

North Carolina

Eno River UU Fellowship Solar Tour Participation

Ohio

Ohio "Wish You Were Here" Local Tour
Sustainable Home Fair
Beaverbrook Solar
Kent State University Virtual Solar Tour

Oregon

2025 Go Zero! Energy Home Tour

Pennsylvania

Exact Solar Tour
MSSIA: Pennsylvania Tour
McGowan House
Philadelphia Region
Sanford Leuba
Kinsley ShopRite - Innovative Ground Mount (Ballasted)
First Unitarian Universalist Church of Berks County
Belmont Solar Tour (Ben Zook's Home)

South Dakota

Red Cloud Renewable Energy Center – Virtual Tour

Tennessee

Kalmer Solar Earth Sheltered Passive Solar Home

Texas

Westbrook House
Northcutt All-Electric Home with PVC

Vermont

Taftsville Chapel Mennonite Fellowship

Virginia

Hampton Roads Green Buildings and Solar Tour
Center for the Advancement of Sustainable Energy (CASE) at JMU
Walnut Farm
Sklar Two Self-Powered Buildings
Kelly Residence
DIY Solar Home
Earl Zimmerman's Home

Washington

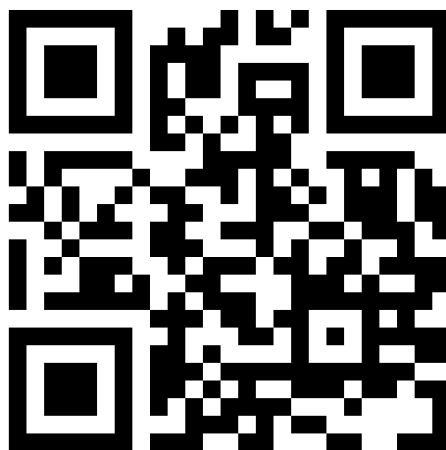
Northwest Green Homes Tour
Northwest Seattle Solar Site
Chern/Kemble Home
Congregational Church on Mercer Island

West Virginia

Fernatt Residence

Wisconsin

Kromm Home
Appleton Solar - Home Office
Appleton Solar - Shop
Midwest Renewable Energy Association



Attend a tour in your community
at map.nationalsolartour.org



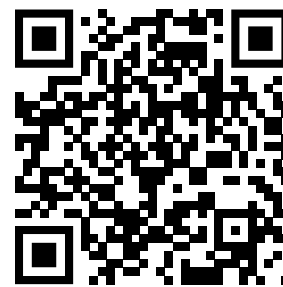
Recap: Women's Hands-On PV Workshop

June 19-22, Boulder, CO

What happens when you create a space where women can learn solar in a supportive, hands-on environment? This past summer, ASES hosted our Women's Photovoltaic (PV) Workshop, bringing together women from a wide range of backgrounds to learn the fundamentals of solar energy through hands-on experience. No prior experience was required, just curiosity and a willingness to learn.

Over four days, participants learned how to:

- Size and design PV systems
- Improve energy efficiency
- Install both off-grid and grid-tied solar systems
- Safely use power tools and installation equipment
- Build confidence through collaborative, hands-on learning



Watch our recap video made by
Aspen Hill Films!

We intentionally designed this as a women-only workshop to foster an encouraging, collaborative environment where participants could ask questions, develop practical skills, and gain confidence without the pressures that can sometimes exist in traditional technical training settings. The result was an inspiring week of learning, teamwork, and empowerment. A huge thank you to our incredible instructor (and ASES Life Member!), Marlene Brown, our volunteers, and every participant who made this workshop such a success. Keep an eye out for more solar trainings: ases.org/resources/solar-trainings



Battery Storage & BESS:

Powering the Grid After Sunset

WHAT IS IT

Battery Energy Storage Systems (BESS) pair with solar to bank daytime power and release it during evening peak demand, after the sun goes down.

WHY IT MATTERS

Storage reduces reliance on fossil "peaker" plants, keeps power flowing during outages, and shifts solar's midday abundance into the hours people need it most.

QUICK STATS

- The U.S. is projected to add **24.3 GW** of new battery storage in 2026, up from a then-record 15 GW in 2025.
- Roughly **48%** of storage capacity nationwide is now co-located with solar arrays.
- Residential solar-plus-storage attachment reached **45%** in Q1 2026, up from 38% a year earlier.
- Solar and storage combined are projected to account for nearly **80%** of new U.S. utility-scale capacity added in 2026.

WORTH NOTING

New foreign-sourcing restrictions on battery components and the wind-down of some residential tax credits are reshaping which projects pencil out, particularly for homeowners.



The Reid Gardner Battery Energy Storage project near Moapa, Nevada | Source: Wikimedia Commons

Solar Panel Recycling & End-of-Life

WHAT IS IT

Panels typically run 25-30+ years, and the first wave installed in the 2000s and early 2010s is now aging out. What happens to a retired panel- landfill or recovery of its glass, aluminum, silicon, and silver- is becoming a real industry, not a hypothetical.

WHY IT MATTERS

A standard panel is roughly 70–76% glass and ~10% aluminum, all recoverable. Recycled aluminum takes about 95% less energy to produce than newly smelted aluminum — and several recovered materials sit on the U.S. critical-minerals list.

CHALLENGES

There's no federal take-back requirement yet in the U.S. An EPA rule to classify panels as "universal waste" has been pushed to a 2026 proposal and 2027 final rule. Until then, panels can legally be landfilled in most states, though Washington, California, and New Jersey have stepped in with their own programs.

MARKET TRENDS & CASE STUDY

Cumulative U.S. PV waste is projected to reach up to **1 million tons by 2030**. The global solar recycling market, valued at ~**\$545 million in 2026**, is projected to more than triple by 2035, including a new Georgia facility that recovers roughly **96%** of a panel's material value at up to 5 GW/year.

Find out how solar panels are recycled and where to take your end-of-life solar panels for recycling at [epa.gov/hw/solar-panel-recycling](https://www.epa.gov/hw/solar-panel-recycling).



Solar panels on the Georgia Tech Aquatic Center in Georgia | Source: Wikimedia Commons



BALCONY SOLAR: PLUG-IN POWER FOR RENTERS



WHAT IS IT

Balcony solar (plug-in or “plug-and-play” solar) is one or two small panels. Typically 200–1,200 watts, they connect through a microinverter directly to a standard wall outlet. No roof, no contractor, no permit required in states that have legalized it.

WHY IT MATTERS

For roughly 70% of U.S. households without a suitable roof, such as renters, condo owners, and apartment dwellers, balcony solar is the first real low-cost, no-permission entry point into solar. Germany already has over a million systems installed.

WHERE THINGS STAND

Utah passed the first dedicated U.S. law in March 2025. By mid-2026, six states (Utah, Maine, Virginia, Maryland, Colorado, Connecticut) had signed balcony solar legislation, with several more awaiting a governor’s signature. A new safety standard, UL 3700, was introduced in January 2026.

GOOD TO KNOW

Legality varies by statet. There’s no federal framework yet. Savings are modest, but for renters previously locked out of solar entirely, it’s a meaningful first step.



Photo of a solar panel rooftop garden with city views | Source: Magnific



DATA CENTERS & THE AI POWER DEMAND SURGE

WHAT IS IT

AI's computing boom is reshaping electricity demand faster than almost anything else on the grid today — and a growing share of that new demand is being met with solar.

WHY IT MATTERS

U.S. data center power demand is projected to climb from about 31 GW in 2025 to 41 GW in 2026 and 66 GW in 2027. Global data center power demand is expected to grow 27% in 2026 alone. Renewables remain the fastest-growing source of new supply for data centers, expanding about 22% a year and meeting nearly half of demand growth through 2030.

THE TENSION

Renewables can't fully keep pace with AI's growth curve alone. Natural gas still supplies the largest share of U.S. data center electricity today, and in regions like Virginia's data center alley, concentrated new demand is straining local grids.

GOOD TO KNOW

This is Big Solar's newest customer: hyperscale solar-plus-storage projects sited to serve data center campuses are one of the fastest-growing categories of utility-scale solar in the country.



Photo of a data center | Source: Canva



National Solar Tour 30th Anniversary Recap

From the Ohio "Wish You Were Here" Tour

2025 Recap from Tom Rapini, longtime ASES member and National Solar Tour Host

For the 30th ASES National Solar Tour, we take you on a journey to one of the cloudier areas of the country, the southern shore of Lake Erie. In spite of lake-effect clouds and a well-known "snow belt," sunshine has been converted to electricity to power homes in the greater Cleveland area since even before ASES began hosting tours. Beginning with open houses through the 1990's and early 2000's, the East-of-Cleveland solar tour began adding guided tour buses in the mid 2000's. Eventually, volunteer solar tour coordinators Valerie Garrett and Tom Rapini realized that the bus tours were becoming more successful than the open houses. At one point, the fall national tour ran with two full buses with waiting lists.

In the early 2010s, the tour was occasionally getting front-page newspaper coverage and was mentioned in regional publications and Public Service Announcements. By the 2020s, as solar became more mainstream, and as local media lost its ability to reach large audiences, the interest in attending open houses declined even more. So the focus shifted even more towards guided bus tours, plus making the tour more of a social event, with free lunches, brief stops, open discussions with site owners and EV Rally organizers.

For the 30th Anniversary, Valerie and Tom organized two bus tours: one on Friday the 3rd and one on Saturday the 4th. Each bus covered different sites in different parts of the eastern greater Cleveland area and included a free organic, vegan lunch. YellowLite, a reputable turnkey solar design and installation company, sponsored the entire National Solar Tour Showcase weekend on October 3-5, 2025.

The Friday bus covered 7 sites in western Lake County and eastern Cuyahoga County, just to the east of Cleveland. Stops included residential sites, a public park, a wastewater treatment plant, and a police station. One notable Friday bus stop was the Kenston Schools system, which uses solar, wind, and solar-thermal systems as part of its educational curriculum. Another Friday bus stop was the giant 2.5 Megawatt urban wind turbine owned by Lincoln Electric.

There was slightly more interest in the Saturday bus, so let us talk you through that guided bus tour, stop by stop! The bus departed from the Mentor Senior Center at 9:00 am with a tight schedule to visit 7 sites, attend an EV Rally, and be back by 2:00 pm. Coordinator Valerie (who is also a solar consultant) was the tour bus guide and bus 'conductor', confirming attendee registration and herding folks on and off the bus at each stop. A's and O's farm, the first stop for the Saturday bus, had been a regular tour site since the early 1990's. Tom and Valerie, the farm operators (yep, also the tour coordinators!), showed the many alternative energy and alternative lifestyle features that come with striving for energy independence for four decades.



ASES National Solar Tour, Ohio "Wish You Were Here" Tour (continued)

The 8000-watt ground-mount array screams at 400 volts to efficiently push power 200 feet to the house. The distance is necessary to retain the large shade trees surrounding the house, which mostly negate the need for air conditioning. An adjacent single 75-watt panel remotely powers a greenhouse fan for the farm's 44-foot polyhouse. Another small array remotely pumps water for the garden area. The solar generates about 95% of their energy needs, which includes charging their electric car and running an organic food cooperative with refrigerators in an improved area in the back of the farm's garage.

Tom and Valerie give workshops and school tours where they help middle school students expand their understanding of "energy" to include food. All the way from growing organically (to avoid petroleum-based fertilizers and pesticides) to buying locally (to reduce fuels needed for transportation) to eating vegetarian and vegan most of their lives (to break the 6-to-1 inefficiency of feeding animals the grain that could nourish people), the kids leave with a multi-faceted view of energy and solar power!

Tom insisted that the bus tour get a small dose of politics, pointing out that while Ohio still allows him to get retail credit for solar generated electricity via net-metering (something that many other states have started walking back) the state has otherwise become actively hostile to renewables in the last 20 years. The large multi-state utility First Energy pleaded guilty in a bribery scandal, 'persuading' state lawmakers to add nuclear and coal subsidies while removing requirements for transitioning to renewable energy.

At the next tour stop, Bob DiCola, a former electric utility company employee, used his skills and knowledge to install a 9600-watt rooftop array that provides most of his electric needs and also charges his Tesla. He showed off a \$4 electric bill and claimed the permitting went fairly easily. Next, the British couple Denise Brown and Jonnie Bezmira, who brought their environmental stewardship and gardening skills across the pond, showed off the black-on-black panels that blended well on their small south-facing roof. Ten minutes later, the tour bus was at the county's Transit Center for an Electric Vehicle Rally that featured one of the bus system's 10 ALL ELECTRIC buses! A bus pulled in and a robotic arm dropped down to provide a quick charge at a 450 kWatt rate. As Julia Schick, Laketrans Communications Director, explained the "quiet office" advantage for electric bus drivers, an older diesel bus pulled into the station and really drove the point home! The EV Rally also displayed over 15 different models of electric cars brought in by their owners, some of whom belonged to the Drive Electric NEO group and others who discovered the Rally on the National Drive Electric Month site.





ASES National Solar Tour, Ohio "Wish You Were Here" Tour (continued)

Next, a drive-by at Prince of Peace Church that normally would have been a stop, but had a wedding at the site on tour day. This progressive, energy-conscious congregation not only solarized the church but also installed panels on the adjacent home of its pastor, Ken Sowers Jr. The bus pulled into a City of Mentor park for the all-vegan, all-organic, free lunch that included a quinoa wrap, beverage, banana, and cereal bar. Thirty minutes of good lunch conversation yielded to Valerie's command to 'load up' !

Next stop was Cheapskate Brewery... not a 'real' brewery, but a solar-energized 'home' brewery. Homeowner Ann Ingram had a 4.5 kW array installed to complement (and help power) her passion for growing, brewing, and fermenting much of her own food and beverage needs. The last stop was at Cres Cor, a global manufacturer of restaurant equipment. This large manufacturing operation installed a massive 400,000-watt ground-mount array (1325 panels !) that offsets nearly 43% of their electric needs, representing savings of nearly \$1 million a year. The project was driven by Steve Mayher, the company's Chief Financial Officer... which sent a clear final message to anyone on the bus wondering if solar made "financial" sense. With an estimated seven-year payback period, Steve and Cliff Baggott (Cres Cor's owner) can look forward to following up that seven years with probably 15 or more years of FREE electricity from the sun!

As the bus headed back to the Mentor Senior Center, Valerie finished off the tour by discussing the nearby community of Painesville and its recently received grant to put a commercial-scale municipal solar installation on a 'brownfield'. This abandoned brine dumping site, which otherwise had little development or use potential, will eventually hold a multi-megawatt-sized array. The project is still in its early development stages.

We look forward to next year's tour, and as our tour name says, from Ohio, we "Wish You Were Here"!



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