

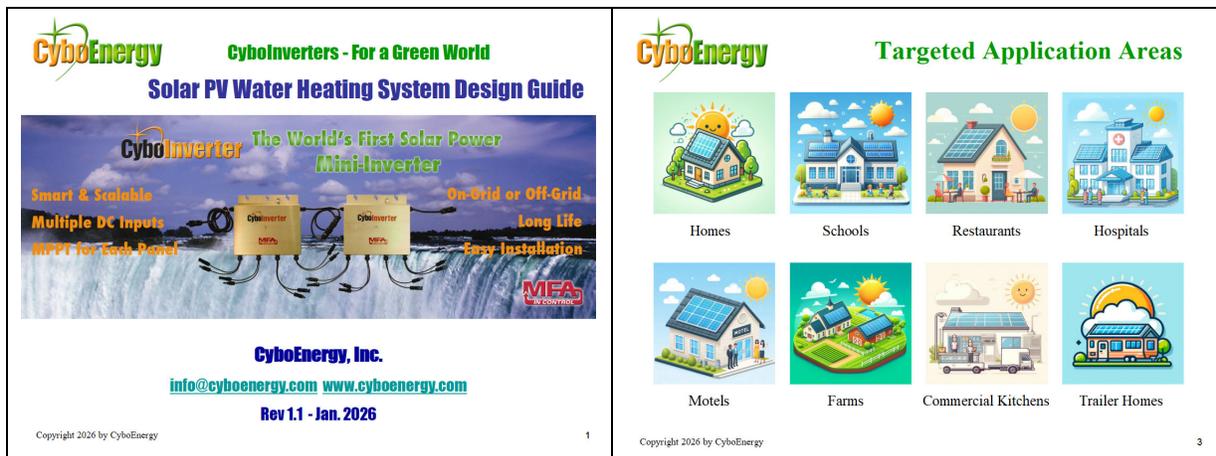


News Release

CyboEnergy Releases Solar PV Water Heating System Design Guide

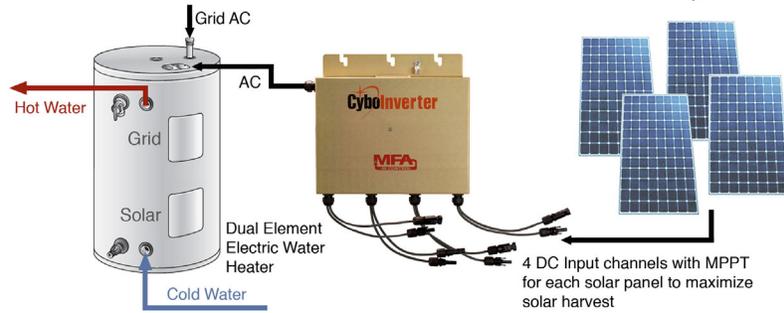
February 2, 2026 — CyboEnergy, Inc. (Rancho Cordova, California) announced today the release of its Solar PV Water Heating System Design Guide, a practical guide developed to help homeowners, installers, builders, and commercial users design and deploy battery-less, off-grid solar PV water heating systems using standard electric water heaters.

Dr. George Cheng, CEO of CyboEnergy, said, “AI is ultimately constrained by electricity. As grid stress increases and electricity costs rise, homeowners and businesses need simple and reliable ways to reduce their dependence on grid power. Water heating is one of the largest and most predictable electrical loads. It is also one of the most practical places to apply solar. This design guide is intended to help people do exactly that, without batteries, without complexity, and without unnecessary cost. As electricity demand continues to rise nationwide, CyboEnergy believes it is increasingly important to rethink how solar energy is applied to everyday loads.”



The design guide focuses on off-grid solar PV water heating, where solar energy is delivered directly to the lower heating element of a standard electric water heater through a dedicated off-grid solar inverter. By intentionally setting the lower thermostat higher than the upper thermostat, solar energy is used as the primary heat source, while grid electricity is only consumed during short periods of unusually high hot water demand. In effect, the water heater becomes a solar energy storage system, storing energy in the form of hot water.

Unlike battery-based solar systems, battery-less PV water heating systems avoid battery cost, degradation, safety concerns, and replacement risk. Compared with thermal solar systems, PV water heating eliminates plumbing complexity, corrosion, and maintenance issues. The result is a system that is simple to install, reliable to operate, and cost-effective across a wide range of climates.



The Solar PV Water Heating System Design Guide provides step-by-step guidance on system configuration, solar panel selection, electrical design considerations, installation practices, and expected performance. It also includes practical ROI examples for residential and commercial applications in high electricity-cost markets, highlighting how battery-less PV water heating can deliver meaningful savings with short payback periods.

<p><b>Residential ROI - High Electricity Cost Markets</b></p> <p><b>Typical System Outputs</b></p> <ul style="list-style-type: none"> <li>◆ Solar operation: 8–10 hours per day.</li> <li>◆ Average energy harvest: 8 kWh per day.</li> <li>◆ Annual energy offset: 2,900 kWh.</li> </ul> <p><b>Annual Electricity Cost Savings per System</b></p> <ul style="list-style-type: none"> <li>◆ Energy offset: \$700–\$1,000.</li> <li>◆ Time-of-Use savings: \$200–\$400.</li> <li>◆ Total savings: \$900 to \$1,400, depending on rates and load profile.</li> </ul> <p>Simple Payback: 1.5 to 4 years, assuming the installed system cost is \$2,000 to \$4,000. (No federal credit or state solar rebate is assumed)</p> <p><small>Copyright 2026 by CyboEnergy</small></p>	<p><b>ROI - Commercial Sites</b></p> <p><b>Why Savings Can Be Significant</b></p> <ul style="list-style-type: none"> <li>◆ Commercial sites face high Time-of-Use rates and demand charges.</li> <li>◆ A short peak event can set the demand charge for an entire month.</li> <li>◆ Electric water heating often contributes directly to peak events.</li> <li>◆ Summer months amplify both TOU rates and demand charges.</li> </ul> <p><b>Typical Annual Savings per System</b></p> <ul style="list-style-type: none"> <li>◆ Energy offset: \$500 – \$900, TOU uplift: \$100 – \$400.</li> <li>◆ Demand charge reduction: \$200 – \$1,200+.</li> <li>◆ Total savings: \$800 to \$2,500, depending on rates and load profile.</li> </ul> <p>Simple Payback: 1.5 to 3 years. (No federal or state tax credit is assumed)</p> <p><small>Copyright 2026 by CyboEnergy</small></p>
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Dr. Cheng added, “Our goal of this design guide is to show that a battery-less off-grid solar system is affordable, easy to install, and delivers strong ROI. For many people, solar water heating is the simplest first step toward energy independence.” The Solar PV Water Heating System Design Guide is downloadable from CyboEnergy’s website [www.cyboenergy.com](http://www.cyboenergy.com). Customers and installers may contact CyboEnergy to request a copy or discuss their solar system design needs.

## About CyboEnergy

Founded in 2011 and based in California, CyboEnergy, Inc. is an affiliate of CyboSoft and focuses on the development, marketing, and support of clean energy products. CyboEnergy received multiple industry recognitions, including the Frost & Sullivan Global Product Differentiation Excellence Award and the Frost & Sullivan Global Solar Inverter Technology Innovation Award. For more information, please contact: CyboEnergy, Tel: (916) 631-6313, e-mail: Jenny Jordan, [jjordan@cyboenergy.com](mailto:jjordan@cyboenergy.com), Web site: [www.cyboenergy.com](http://www.cyboenergy.com).