

ENERGY STAR® SHEMS NEWS

Smart Home Energy Management Systems

September 2020 | Volume 2



- [ENERGY STAR SHEMS Updates](#)
- [News You Can Use](#)
- [ENERGY STAR SHEMS on the \(Virtual\) Road](#)
- [ENERGY STAR SHEMS in the News](#)
- [Relevant Standards](#)

ENERGY STAR SHEMS Updates

Throughout the summer, the Smart Home Energy Management Systems (SHEMS) team has worked closely with potential partners to help guide them towards certification. While some potential partners have been delayed by COVID-19, we anticipate that the program will have certified several systems by the end of the year, bringing ENERGY STAR SHEMS to homes across the country.

Interested service provider partners can find out about certifying their SHEMS packages by viewing the resources on the SHEMS for Partners [page](#).

SHEMS Resources

- [Past Webinars](#)
- [Frequently Asked Questions](#)
- [Key Product Criteria](#)
- [Version 1.0 specification](#)

Certification Bodies

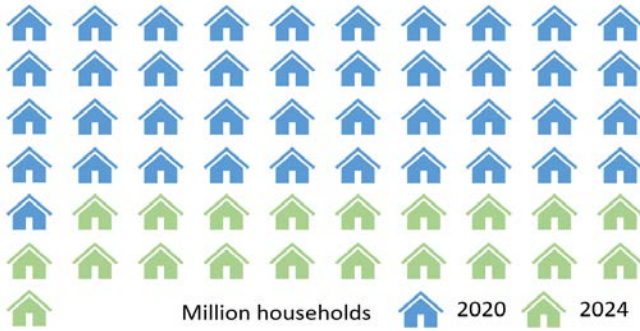
- UL Verification Services Inc.

News You Can Use

Smarter Households

Over 41.3 million American households currently have at least one smart home

U.S. households with at least one smart home device



device. By 2024, this number is expected to grow rapidly, reaching over 61 million households. Of those, 45 million are expected to include devices for energy management. [Read More](#)

SEMS in California Law

California's Statewide Utility Codes and Standards Team is recommending that key requirements of the ENERGY STAR SEMS program be used as the basis for a HEMS credit under the state's Energy Code starting in 2023, or sooner. [Read more](#)



Study Reveals Smart Lighting Savings

A recent study from National Grid and TRC Companies found that adding room level occupancy controls on top of basic whole-home occupancy doubles the additional lighting energy savings from a HEMS – smart lamp integration. Together, geofencing and room-level controls provide an additional 34% energy savings relative to an LED retrofit for an estimated total savings per bulb of 45.8 kWh per year. Please contact Brad Piper, BPiper@trccompanies.com, for more information.

ENERGY STAR SEMS On The (Virtual) Road

Past

In case you missed it, an ENERGY STAR SHEMS paper and presentation recording were featured in the American Council for an Energy Efficient Economy (ACEEE) [Summer Study](#) in August 2020. This paper discusses bundling consumer interest with energy savings and provides an in-depth understanding of the drivers and market actors for the ENERGY STAR SHEMS program. The full paper is titled "Bundling energy savings with consumer interest in smart homes," and can be found [here](#) along with a short 20-minute presentation recording.

ENERGY STAR SHEMS is one of the "Top Five Residential Technical Market Opportunities" examined during a presentation at the 2020 American Lighting Association (ALA) [Residential Lighting Symposium](#) which replaces the ALA Annual Conference this year. The session features Terry McGowan, ALA's Director of Engineering & Technology, and is scheduled for online presentation from 2:30 – 3:45 P.M. CST on Wednesday, September 16. The recording will be viewable to registrants (including non-ALA members) after the session concludes.

Upcoming

Save the date! The [2020 ENERGY STAR Products Partner Meeting](#) will be held virtually from October 27-29 and will feature dedicated SHEMS content in two sessions:

- **SHEMS Pilots Update:** Get the latest updates from utilities and supporting service providers that are conducting pilots and programs that intersect with the ENERGY STAR smart home energy management systems specification. Speakers will discuss key insights on automated energy savings and consumer engagement and education from pilots across the country. Insights will touch on consumer segmentation such as low income and multi-family and cover successful leveraging of partnerships and utility marketplaces.
- **SHEMS Pitch Party:** Looking for innovative new ideas in the smart home energy management space? Join us for a series of short pitches covering topics from integration with distributed energy resources to messaging strategies for security and consumer privacy. Speakers include service providers working toward ENERGY STAR certification, device manufacturers, and researchers.

[Register for free](#) and review this [3-minute overview](#) of the virtual meeting platform!

ENERGY STAR SHEMS in the News

How Smart Homes Could Benefit from Energy Management Systems

"A program like this [ENERGY STAR SHEMS] could be vital for saving consumers money through smart energy management, particularly as residents become more educated about ongoing home maintenance costs, the total cost of homeownership, and have the desire to keep utility bills low."

[-National Association of Home Builders. June 1, 2020.](#)



Relevant Standards

New Standards for Submetering Devices

Electrical energy monitoring and management starts with measuring it. Submeters provide details of energy and associated quantities for monitoring or revenue submetering for a variety of applications including SHEMS. In order for the measured energy to be useful in energy management, it should meet certain levels of accuracy. The National Electrical Manufacturer's Association (NEMA) is a trade association of electrical equipment manufacturers and maintains relevant standards. The NEMA Submetering Product Section has published two standards, NEMA ESM1-1 and ESM1-2, to begin addressing these needs. These standards are part of an emerging series of electrical submetering standards.

- ESM1-1 2019 Electrical Submeter - General Requirements document covers the common definition and requirements for all ESM1 documents.
- ESM1-2 2019 Electrical Submeter - Active Energy Accuracy standard covers metrological requirements for regular AC submeters.

They are available for free download here: [ESM1-1](#) and [ESM1-2](#).

Looking forward to helping our future get energy smart together! Have SHEMS insights to share from a pilot or research? Please contact [**SmartHomeSystems@energystar.gov**](mailto:SmartHomeSystems@energystar.gov) or Taylor Jantz-Sell at [**jantz-sell.taylor@epa.gov**](mailto:jantz-sell.taylor@epa.gov).

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