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CECIL COLLEY III
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March 11, 2026

RE: Opposition to HB 257 – Portable Solar Generation Devices

Dear Members of the House Energy Committee:

I am the Business Manager of IBEW Local 1547 and am respectfully writing again in opposition to HB 257 (Portable Solar Generation Devices). I previously submitted a letter dated February 23, 2026, outlining some of the safety concerns with plug-in solar devices. I am writing again to respond to some of the questions and discussion at the House Energy hearing on February 26.

Safety Incidents

During the February 26 hearing, there was a question regarding any known safety incidents involving these devices.

On January 13, 2026, a representative of Puget Sound Energy testified to the Washington Senate Environment, Energy & Technology Committee in opposition to SB 6050, which also addresses plug-in solar devices. The representative stated: “Because this bypasses the interconnection process, utilities may be then unaware of the installed systems. This is particularly dangerous when workers work on a line and the line is then still energized from those unknown solar systems. Which did happen in our service territory. Fortunately, the worker caught it before anything moved forward.”¹

On February 24, 2026, there was a news story about a house fire in Tennessee that was attributed to solar lights that were not listed with UL. While not involving a plug-in solar device, the story highlights the fire dangers involved in installing unlisted electrical devices.²

Finally, a 2025 article noted that “[o]ur UL interviewee recently conducted a series of informal backfeed tests. While most of the GFCIs functioned properly, a few samples were reportedly damaged due to backfeed. . . [T]he potential for GFCI damage presents a significant technical

¹ Washington Senate Environment, Energy & Technology Committee, January 13, 2026.

<https://tvw.org/video/senate-environment-energy-technology-2026011165/?eventID=2026011165> at 1:04:00.

² “Within 20 minutes, the whole house was consumed.” TN couple shares story so others learn from their loss,” WSMV4, Feb 24, 2026. <https://www.wsmv.com/2026/02/24/within-20-minutes-whole-house-was-consumed-tn-couple-shares-story-so-others-learn-their-loss/>

barrier to adoption in the U.S., as damaged GFCIs would fail to protect occupant's plug-in DER and could post a shock hazard to future occupants.”³

Differences between Europe and the United States

During the hearing, there was also discussion of the experience with plug-in solar in Germany. While looking to experience in other locations is understandable, there are significant differences between the electrical grids in Germany and the United States.

“[Germany] operates on a different system that precludes simply copying and pasting Germany's rules. The US grid, for example, operates at 120 volts, while [Germany's] grid operates at 230 volts.”⁴

In addition, “there are no certified GFCI outlets in the U.S. designed for use with devices that consume power, like a blender, and those that generate it, like a balcony solar setup. Germany's equivalent of a GFCI, called a residual current device, can detect bidirectional power flows. . .”⁵ “None of today's GFCIs are officially rated for bidirectional power flow, nor is there an official UL testing procedure for bidirectional GFCIs.”⁶

Regarding touch safety, “[t]he U.S. standard NEMA 5-15 plugs and receptacles . . . are not fully touch safe, even for loads . . . In contrast, European Schuko receptacles . . . are recessed, preventing contact with the prongs while energized.”⁷

And, finally, Germany was also concerned about breaker masking when it adopted regulations for portable solar. The original European study recommended a limit of 600 watts for balcony solar units, but Germany ultimately set a limit of 800 watts per household.⁸ Given the higher voltage of Germany's grid, that would be equivalent to a limit of approximately “420 W of plug-in [solar] per household” in the United States.⁹

³ “Barriers to Balcony Solar and Plug-In Distributed Energy Resources in the United States,” *Energies* 2025, March 21, 2025; <https://www.mdpi.com/1996-1073/18/8/2132>.

⁴ “Why Balcony Solar Panels Haven't Taken Off in the US: In countries like Germany, balcony-mounted solar panels are all the rage. But from breaker-masking to voltage mismatches, America's grid isn't ready for it – yet,” *Wired*, May 3, 2025; <https://www.wired.com/story/why-balcony-solar-hasnt-taken-off-in-the-us/>; <https://grist.org/energy/balcony-solar-took-off-in-germany-why-not-the-us/>.

⁵ “Why Balcony Solar Panels Haven't Taken Off in the US,” *Wired*, May 3, 2025; <https://www.wired.com/story/why-balcony-solar-hasnt-taken-off-in-the-us/>;

⁶ “Barriers to Balcony Solar and Plug-In Distributed Energy Resources in the United States,” *Energies* 2025, March 21, 2025; <https://www.mdpi.com/1996-1073/18/8/2132>.

⁷ *Id.*

⁸ “Why Balcony Solar Panels Haven't Taken Off in the US,” *Wired*, May 3, 2025; <https://www.wired.com/story/why-balcony-solar-hasnt-taken-off-in-the-us/>; “Barriers to Balcony Solar and Plug-In Distributed Energy Resources in the United States,” *Energies* 2025, March 21, 2025; <https://www.mdpi.com/1996-1073/18/8/2132>.

⁹ “Barriers to Balcony Solar and Plug-In Distributed Energy Resources in the United States,” *Energies* 2025, March 21, 2025; <https://www.mdpi.com/1996-1073/18/8/2132>.

Customer Confusion

At the hearing, it was also mentioned that the legislation would only apply to devices that meet certification standards. The implication was that this would be a trigger bill that would only go into effect once safety standards are finalized.

Including products in statute before they are certified creates confusion for consumers and may imply approval where none exists. Utah is a good example of this. The Utah bill had similar language to HB 257. It required that the device “meets the standards of the most recent version of the National Electric Code and is certified by Underwriters Laboratories or an equivalent nationally recognized testing laboratory.”¹⁰ As noted in my previous letter, there are currently no devices in the United States that meet these requirements.

However, that does not seem to be the understanding of the press and public. A recent article in the *Washington Post* stated, “Only Utah explicitly allows [plug-in solar].”¹¹ According to another story:

Only deep-red Utah has a law, passed in March 2025, that explicitly allows residents to plug in these devices. A few thousand households there have installed systems so far, Bright Saver said. But other states, including New York could soon follow Utah’s lead and unleash much broader adoption of solar panels that plug into a standard 120-volt wall outlet. As of Wednesday, Democratic and Republican lawmakers in 28 states and Washington, D.C., have announced their own legislation to make these systems permissible. . .¹²

“China-based EcoFlow plans to begin selling plug-in solar systems in Utah and expand to other states if supportive legislation is passed.”¹³ A company spokesperson for EcoFlow said, “We saw [the Utah bill] as an invite to bring our product to the Utah market, and we’re hoping to see some of these same kinds of moves in other states.”¹⁴ Even Ray Ward, the Utah legislator who sponsored the Utah bill, has purchased a plug-in solar system. “The system that he purchased is sitting on his porch; he said he just needs to find time to plug it in.”¹⁵

There is also confusion about the status of UL and NEC certification. A recent white paper on Permit Power’s website says, “A safety standard developed by UL Standards and Engagement

¹⁰ <https://le.utah.gov/~2025/bills/static/HB0340.html>

¹¹ “Can’t Put Solar Panels on your roof?” *Washington Post*, August 12, 2025.

<https://www.washingtonpost.com/climate-environment/2025/08/12/balcony-solar-plug-in-rooftop/>

¹² “Balcony Solar is taking state legislatures by storm,” *Canary Media*, February 26, 2026.

<https://www.canarymedia.com/articles/solar/balcony-solar-taking-state-legislatures-by-storm>

¹³ “Solar panels that fit on your balcony or deck are gaining traction in the U.S.,” *Associated Press*, August 15, 2025. <https://apnews.com/article/balcony-plug-solar-climate-energy-renewable-trump-c162abf520da0fa155dc971270b8684a>

¹⁴ “The U.S. May be Coming Around to Balcony Solar,” *New York Times*, August 12, 2025.

<https://www.nytimes.com/2025/08/12/climate/balcony-solar-united-states.html>

¹⁵ “States Weigh Bills to Allow You to Make Your Own Electricity,” *New York Times*, February 11, 2026.

<https://www.nytimes.com/2026/02/11/climate/plug-in-solar-power-bills.html>

(ULSE) is now available for plug-in solar devices.”¹⁶ And there was testimony from Bright Saver to the Washington Senate that “UL 3700 . . . absolutely is the first U.S. plug-in solar safety standard . . . we will see UL-listed products on the market later this year. . . [A] UL 3700 listed device installed by a professional according to UL guidelines would be NEC compliant and absolutely safe.”¹⁷

“While a spokesperson for UL Solutions has stated the company can currently certify a plug-in solar system to the UL 3700 outline of investigation, this is distinct from a formal safety standard. UL Standards & Engagement has not yet developed a final UL standard for plug-in solar, as that requires a consensus-based process with various stakeholders. Consequently, an ultimate UL standard may eventually differ from the current specifications found in the UL 3700 outline.”¹⁸

Even more concerning, the National Electrical Code explicitly rejected these devices for inclusion in the 2026 Code due to safety concerns. “Achim Ginsberg-Klemmt [vice president of engineering at plug-in solar startup GismoPower] and his working group submitted recommendations for amending the [National Electrical Code] to allow plug-in solar – and every one of them was rejected in October [2024]. Jeff Sargent, the National Fire Protection Association’s staff liaison to the National Electrical Code committee, told *Grist* that this is the first time the organization had received public comments about plug-in solar systems. For now, it cannot consider amendments to allow their use until a compatible ground fault circuit interrupter exists, he said. Once that’s available, he said, the association can ensure that outdoor outlets can be safely used for balcony solar.”¹⁹

We do not believe it is safe to simply plug one of these devices into an outlet. There may be options that are safer than others, such as utilizing a listed stand-alone system that does not interact with building wiring.²⁰ But we urge the legislature not to pass legislation that confuses consumers into thinking that these devices are safe to plug into an outlet.

¹⁶ “Safety of Plug-In Solar,” Permit Power, Brooks Engineering, Bright Saver, January 2026.

<https://permitpower.org/wp-content/uploads/sites/35/2026/01/Safety-of-Plug-in-Solar-fact-sheet.pdf>

¹⁷ Washington Senate Environment, Energy & Technology Committee, January 13, 2026.

<https://tvw.org/video/senate-environment-energy-technology-2026011165/?eventID=2026011165> at 1:30:00.

¹⁸ Driscoll, W. (2026, January 13). A guidebook on plug-in balcony solar for state-level policymakers. *pV magazine USA*. <https://pv-magazine-usa.com/2026/01/13/a-guidebook-on-plug-in-balcony-solar-for-state-level-policymakers/>. See also “States Weigh Bills to Allow You to Make Your Own Electricity,” *New York Times*, February 11, 2026. <https://www.nytimes.com/2026/02/11/climate/plug-in-solar-power-bills.html>.

¹⁹ “Why Balcony Solar Panels Haven’t Taken Off in the US, *Wired*, May 3, 2025;

<https://www.wired.com/story/why-balcony-solar-hasnt-taken-off-in-the-us/>

²⁰ “Can I Just Plug a Solar Panel Into an Outlet?” *LinkSolar*, January 6, 2026. <https://linksolar.net/blogs/solar-basics-tutorials/plug-in-solar-panels-us-nec-guide>

Utility Verification

An additional concern is how a utility can verify that a plug-in solar device meets the requirements in the statute. For example, if a firefighter or power lineman sees a plug-in solar system on a balcony, it is unclear how they will know that it meets UL and NEC standards, is 1200 watts or less, and has a built-in inverter that will automatically shut off during an outage. The Washington Department of Labor and Industries testified to a similar concern. “Imagine getting a complaint. It is a unit that is not consistent [with the statute]. We could send an inspector out, but all the person would have to do is unplug it. And then the minute we leave, what happens?”²¹

Growing National Opposition

Plug-in solar bills have been introduced in many states, and the opposition from industry experts is continuing to grow. Groups that have submitted written testimony opposing plug-in solar bills in the past few months include the following:

- Hawaii State Fire Marshall (Feb 24, 2026)
- Honolulu Fire Department (Feb 23, 2026)
- Hawaii State Fire Council (Feb 23, 2026)²²
- National Electrical Contractors Association for Oregon (Feb 5, 2026)
- Oregon State Association of Electrical Workers and the Oregon State Fire Fighters Council
- Oregon Fire Chiefs Association (Feb 5, 2026)
- Oregon State Fire Fighters Council (Feb 4, 2026)
- Oregon Fire Marshall’s Association (Feb 3, 2026)²³
- Versant Power (January 9, 2026)²⁴

The following organizations testified to safety concerns with SB 6050, a plug-in solar bill in Washington:

- Puget Sound Energy
- Certified Electrical Workers of Washington
- Avista Utilities
- Association of Washington Business

²¹ Washington Senate Environment, Energy & Technology Committee, January 13, 2026.

<https://www.org/video/senate-environment-energy-technology-2026011165/?eventID=2026011165> 1:05:00-1:08:00.

²² Public Testimony to Hawaii House Bill 2486.

https://www.capitol.hawaii.gov/sessions/session2026/Testimony/HB2486_HD1_TESTIMONY_CPC_02-24-26_.PDF

²³ Public Testimony to Oregon House Bill 4080.

<https://apps.oregonlegislature.gov/liz/2026R1/Measures/Testimony/HB4080>

²⁴ Public Testimony to Maine Legislative Document 1730.

<https://legislature.maine.gov/legis/bills/getTestimonyDoc.asp?id=10057540>

March 11, 2026

Page 6

- Washington Department of Labor & Industries
- Washington Public Utility District Association²⁵

And there has been similar opposition from the Georgia Power Company, the Georgia Electric Membership Corporation, and utilities in Arizona.²⁶

I hope this helps to further explain our concerns with this bill. If anyone has questions, please let me know.

Sincerely,



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²⁵ Washington Senate Environment, Energy & Technology Committee, January 13, 2026.

<https://tvw.org/video/senate-environment-energy-technology-2026011165/?eventID=2026011165> 1:03:00-1:20:00 and 1:25:45-1:30:00.

²⁶ "Georgia balcony solar bill sidelined," *The Current*, February 27, 2026.

<https://thecurrentga.org/2026/02/27/georgia-balcony-solar-bill-sidelined/>; "Utility concerns kill bill to allow plug-in solar panels on balconies and in backyards," *AZ Mirror*, February 18, 2026.

<https://azmirror.com/briefs/utility-concerns-kill-bill-to-allow-plug-in-solar-panels-on-balconies-and-in-backyards/>