Date: February 5, 2026

To: House Climate, Energy and Environment Committee
Oregon State Legislature

Subject: Opposition Testimony for HB 4080

Chair Lively, members of the committee, my name is Nathan Philips and am here today on behalf of the National Electrical Contractors association for Oregon. We have 150 contractor members and perform in excess of 10 million hours of work each year in making safe and reliable electrical installations.

I also have served as past chair of the State electrical safety board, serve on many national code making committees along with being in the electrical industry for over 40 years.

Plug-in solar panels are new and are currently being evaluated by national testing and safety labs. They are not yet approved for consumer use. For this reason and many others, we urge the legislature to avoid confusion and wait until the engineering and testing labs have reviewed this equipment and developed safety standards each state can use.

We know that Utah approved these products pending the adoption of UL certification and NEC installation standards and that other states are looking into a similar type of approval as well. Since I participate in national code development, I am able to talk to experts from all around the country, including teams at UL and the National Fire Protection Association that are investigating these products. We are hearing that in Utah these products are being installed because consumers think they are approved. The Utah law does not actually approve the products and is an incomplete law in my view. The problem with recognizing products in statute that are not yet certified is that it creates confusion for consumers, especially when the proposed legislation is incomplete . From a consumer protection standpoint, we ask that you refrain from placing products in statute before the products have gone thru testing and approval at the national level.

As you may know, UL just this month started the process of reviewing these products in order to develop national safety standards. After UL completes its work and issues product standards, the National Fire Protection Association will modify the National Electrical Code to assure that the products are installed safely. Oregon will then adopt state codes based on national standards.

Again, we ask that you avoid the perception of approval before the product has gone thru the certification, testing and code development process. Although there is a faster path for companies that choose individual certification and testing, it is costly to do one approval of one company at a time as opposed to a UL standard and codes that work for all manufacturers.

In review of the approach in Utah and Oregon so far, as I mentioned previously, the legislation is incomplete in my view. You may ask what's the big deal? It's a plug-in device like any other appliance. It's not like any other appliance because you are now putting power (back feeding) through an existing wiring system that was not designed to be used that way. There are many technical problems with the language adopted in Utah and proposed in Oregon. The legislation is inadequate and does not effectively ensure consumers are protected from Fire and Shock. Without going into all of the technical details, I want to highlight the top three areas of safety the national standards organizations will review for this type of products. Of course, the final set of standards and safety requirements may be different.

Also, one important note for you to consider: Licensed Oregon contractors are prohibited from installing electrical products that have not gone through product certification. Any legislation or other quasi-government recognition adopted before that happens will prevent Oregon licensed business that are bonded and insured from installing these products – it will then only occur through unlicensed persons in an unregulated environment. The approach in Utah has already led to this problem, and the approach in Oregon is incomplete - consumers will have no recourse.

There are three high-level areas to address and review building by building for these systems: touch safety, bidirectional ground fault circuit interrupters and breaker masking.

Touch safety: Think about prongs on the plug end that are electrically energized when unplugged or partially plug-in. This creates a potential shock hazard. Especially since we are now back feeding thru that cord. Although you can't compare Europe to America when it comes to electrical systems and safety, Europe uses a different system to protect against this

type of risk by requiring recessed receptacles. I am sure UL and the NFPA will review this risk and require equipment to mitigate it. Relying solely on a microinverter to disconnect power may be determined to be inadequate though testing.

GFCI devices are designed to protect against a fault such one that occurs when dropping a hair dryer in water. There are currently no GFCI's that are rated or tested to work in two directions. There is some evidence that these systems may not work at all or be damaged when back feeding electrical energy from these solar panels. Disabling GFCI protection is a serious concern.

Breaker masking occurs when the system is overloaded by other equipment using the same the circuit that the solar system is plugged in to. Essentially the system overheats and the breaker fails to trip potentially creating a fire. Because these solar systems plug-in to an existing building's wiring, with many different conditions and types of equipment, a qualified person is needed to oversee this work, especially in older systems and buildings.

In closing, these products will be a reality some day and will be viable once the national testing and certification is completed. We support the work that will lead to wide adoption of these products. We will also continue to work to make sure qualified persons are responsible for the overall installation while also ensuring accountability for consumers, building owners and occupants to make sure these systems are installed safely. That level of accountability can only occur thru licensed and bonded contractors, installing certified equipment and qualified electricians.

We ask you to take time to assure that if and when you adopt legislation it is complete, addresses the fire and shock risk, recognizes the correct safety standards and ensures that qualified people perform this work.

Nathan Philips, Joint Legislative Committee Chair
Oregon Chapters of the National Electrical Contractors Association