

Senator Brenner, Representative Tucker, Members of the Committee on Environment and Natural Resources:

My name is Roberta Manter, and my husband and I have lived off grid in Fayette for 40 years. (He's been here for 50.) My written testimony gives me the opportunity to expand on what I said in my oral testimony.

We supported LD 820, before the Agriculture and Forestry Committee, to assure that major solar installations don't usurp prime farmland. (Roof installations are a far better use of space, and reduce transmission costs.) We supported LD 802, before your committee, to assure cleanup of decommissioned commercial solar installations. We **cannot** support **LD 1595**.

I assume this bill is intended to apply to photovoltaic panels; however, the definition referred to in Title 10 section 1492 describes equipment used for the transfer of solar **heat**, not electricity. Solar heating panels rely on "tanks, pumps, heat exchangers, and collectors," and do not contain hazardous heavy metals. I'm surprised that this bill relies on this definition and uses the term "solar panel" throughout, when what it clearly intends is not solar heat but solar electricity generation by means of photovoltaic panels, terms which do not appear in section 1492. The term photovoltaic is not used anywhere in this bill. The word "electricity" only appears twice (if you count once in the summary), and not at all in the newly introduced wording.

But since LD 1595 clearly intends to refer to photovoltaic panels, this bill will kill the photovoltaic industry. Title 33 §1422 says, "It is the policy of the State to promote the use of solar energy and to avoid unnecessary obstacles to the use of solar energy devices." This bill is a HUGE obstacle.

We bought our first photovoltaic panel almost 40 years ago. That was before photovoltaics really became viable for general use, but in our location, getting a pole line installed would have been even more expensive. One **6 square foot** panel was all we could afford. It's still working fine. A year or two later, we got a chance to buy several more. They'd been in a warehouse for 20 years in case the manufacturer needed to replace any under warranty. But they panels hadn't failed, so they were selling off their backups cheap. We've been using them since then, and they're still in fine shape and working. We've been able to acquire more as the price has gone down. This bill would increase the purchase cost "per panel" by at least \$125, not including the cost of insurance. With those added fees, we would not have been able to afford solar, and we'd still be running all our power off a generator with fossil fuel.

We keep hearing, "Follow the science."

According to solarmetric.com, it costs an average of \$15 to \$20 to recycle one **18 square foot** panel. This bill makes no distinction between an 18 square foot panel and a 6 square foot panel. According to Sam Vanderhoof, CEO of recyclePVsolar.com and 40-year veteran of the solar industry, PV Cycle suggested an upfront surcharge of **70 cents** per solar panel to support recycling. They reclaim 90% of the materials.

WeRecycleSolar.com **will pay us** so they can reclaim the materials in our solar panels. Their

website says, “Our processes fully harvest all parts, remarketable components, and scrap commodities without threat to your company or the environment. This ensures that products related to your brand will never end up on the unregulated gray market and that your company will not be associated with the harmful effects related to the improper disposal of: Lead Cadmium Silicon Copper Arsenic.”

It’s predicted that recycling will get more efficient and economical as the technology develops.

How will you enforce these mandates on out-of-state manufacturers? How will you track the purchase of re-used panels, which may come with no serial numbers? Will Maine inspect and approve out of state recycling plans such as the WeRecycleSolar.com plant in Arizona?

People in Maine who live off grid often do so for one of two reasons:

1) Their remote location makes connecting to the grid prohibitively expensive. On demand wind power is not efficient or practical in Maine for off grid use. Without solar power they will have little choice but to constantly run a generator on fossil fuel.

Or 2) They want to get away from society and government regulation. If they know they’ll be forced to pay extra fees, buy insurance, and submit to regular inspections, they will likely avoid photovoltaic power entirely, and again, rely on fossil fuel.

Access to off grid homes is often not maintained by the public. Will you provide maintenance to make that access passable for the inspector? If he drives in to inspect during mud season, are you going to repair the road afterwards? If a road is gated to prevent damage, will there be a fine for “not allowing” inspection? Many can’t even get homeowner’s insurance due to lack of public maintained access. Who will insure their panels?

We need to find some way to reduce our dependence on fossil fuels. Electric cars are not the answer - they have to be plugged in to charge, and that electricity has to be produced somewhere and then transmitted. Nuclear power produces extremely dangerous residues that cannot be rendered harmless. Wind farms also present disposal challenges, among other objections. Hydropower causes disruption in fish migrations, and it’s been found that salmon are a “keystone species” that supports an extensive network of inland flora and fauna. Both wind and hydro power alter the landscape. Compared to these, photovoltaic power shows great promise - especially if installed in spaces that are otherwise unproductive and unobtrusive, such as roof tops.

The cost of photovoltaic energy is just beginning to reach the point where it can compete with generation by means of fossil fuels. This bill would wipe out decades of progress. With better methods of recycling being developed, it’s likely that before long, some Maine entrepreneur will follow the lead of WeRecycleSolar.com and seize the opportunity to cash in on the reclaimed materials. Surely there must be some way to encourage that without regulating the photovoltaic industry out of business or pricing them out of the market. In short, while this bill has a valid intent to assure responsible disposal of photovoltaic panels, this is not the way to go about it. It has way too many flaws, impracticalities, unknowns, and unintended consequences. Please vote LD 1595 “Ought Not to Pass.”