



January 27, 2024

Senator Tepler, Chair
Representative Doudera, Chairs
Joint Standing Committee on Environment & Natural Resources
100 State House Station
Augusta, Maine 04333

Senator Tepler, Representative Doudera, and Members of the Joint Standing Committee on Environment & Natural Resources:

ReVision Energy (“ReVision”) submits these comments as a Maine-founded, employee owned, certified B Corporation clean energy construction company with over 470 employees across our five branches in New England, including more than 250 co-owners in Maine between our Montville and South Portland locations. As a longstanding member of Maine’s growing clean energy industry, we work to achieve our mission of building the just and equitable electric future our state needs to meet our climate goals and ensure all Mainers have access to clean, affordable, local energy.

Environmental sustainability and stewardship are at the core of ReVision’s mission and values, so we believe it is critically important to be thoughtful about the environmental implications of the entire lifecycle of our energy choices, and responsible treatment of equipment at the end of its useful life is an important part of that consideration. We are generally in favor of legislative and regulatory efforts which support such those efforts, but we believe that LD 92, as proposed, attempts to solve a problem that does not currently exist, and therefore the issue is unripe for statutory change.

In the consideration of this legislation, we believe it is important for the Committee to understand the current challenges in the deployment of clean energy in our state. The solar industry today faces an uphill battle to bring such necessary energy to fruition. Rising borrowing costs, interconnection delays, municipal permitting, and a constantly changing regulatory landscape has created considerable uncertainties for our work. The political polarization of climate change has put up roadblocks that often single out clean energy over other forms of development.

While ReVision Energy is supportive of and works within existing law regarding solar decommissioning, enacted in 2021, and solar panel recycling, enacted in 2023, it is critically important to note that such requirements apply to no other form of development. Each regulatory change then, should be considered as yet another barrier for the necessary clean energy development that our state’s codified climate goals seek to achieve.

Regarding the bill at hand, we respectfully urge the Committee to consider whether there is an actual problem here that warrants solving with legislative action. We understand the bill



was filed as emergency legislation but given the proliferation of solar installations in the state occurring with programmatic changes enacted in 2019 and anticipated panel lifetime of 30 years, we suspect recycling and end of life issues would be a much more ripe and appropriate topic down the road. The reality is there are not many installations going through decommissioning and recycling now, as such panels would have been installed prior to year 2000. Such legislation should instead be considered much closer to the timeline of recycling need—which would enable lawmakers to evaluate the current recycling market, opportunities and barriers in New England and enshrine law that is ready to address current market conditions. To be clear, it is immensely challenging to comment today on what this might look like in 2049, when 2019 systems will be entering the decommissioning (or redevelopment) phase.

As you may know, it's possible this legislation was suggested given the amount of misinformation there is about the materials within solar panels. For that reason, we provide the Committee with a quick background. Crystalline solar panels, which are utilized in New England today and what ReVision installs, are non-toxic. They consist of aluminum, glass, silicon, and plastic (EVA/PET). There is a small fraction of utility scale solar elsewhere in the US that utilizes thin film solar panels that are not silicon based. Unlike crystalline panels, these panels do contain some heavy metals which can be harmful waste. For that reason, the manufacturer of those products has developed and implemented a full cradle-to-grave recycling program,¹ and the panels are therefore already recycled at 100% rates. For crystalline panels, 95% of the material is typically recycled and utilized to construct new panels. Currently, however, the majority of older solar panels that are still working are not recycled but simply re-used—for example the national recycler SolarCycle reports that they currently recertify and sell 60% of the modules they receive. That is certainly our experience at ReVision.

There is a growing solar panel recycling industry with vendors,² and as with so many nascent technologies, we certainly anticipate exponential growth in this sector. At ReVision, if a panel is broken and cannot be repaired, we work directly with local electronics recycler Aurum Recovery Group, based in Goffstown, NH. There are currently no solar panel recycling facilities in Maine, which is reflective of the fact that there is a vanishingly small number of solar panels reaching the end of their lives today. To speak more illustratively, according to BloombergNEF, in 2019, total global PV panel waste was 18 thousand metric tons. In the same year, global electronic waste was 53,600 thousand metric tons. In other words, solar made up just 0.03% of e-waste in 2019.

While we again believe this legislation attempts to solve a problem that doesn't exist—should you consider advancing LD 92, we'd respectfully ask for the 90-day time period to apply at the end of the decommissioning process, as that should ultimately happen last. As you know, decommissioning requires the removal of all equipment, and per our

¹ <https://www.firstsolar.com/en/Solutions/Recycling>

² [Solar Recycling | SolarRecycle.org](https://www.solarrecycling.com/)



operations team, we'd want to essentially separate and organize materials into metal, e-waste, solar panels, concrete, etc. to then be properly disposed of by waste or recycling companies as appropriate. At that point, solar panel recycling is fully possible today and not a barrier for the industry.

To be clear, ReVision Energy is a staunch supporter of end-of-life solar system planning and recycling. Responsible design, procurement, construction and decommissioning activities is something we support and champion. However, this bill is an attempted solution a problem that does not exist in our state. Not only do solar panels face no technical barriers for recycling, but it is a tiny percentage of overall waste, and of the e-waste filling our landfills every day.

Even more, in a time when our state is prioritizing the development of further clean energy resources, let's ensure a level playing field and not add barriers to the solar industry when other non-renewable energy sources do not have decommissioning or recycling requirements.

We appreciate your consideration, and we are more than happy to answer any further questions now or at future work sessions.

Sincerely,

A handwritten signature in black ink, appearing to read "Lindsay Bourgoine", written in a cursive style.

Lindsay Bourgoine
Director, Policy & Government Affairs
ReVision Energy