KenCapron1

From: "KenCapron1" <kcapron1@maine.rr.com>
Date: Tuesday, May 11, 2021 11:53 AM
To: <Stanley.Zeigler@Legislature.Maine.gov>
Cc: <ENR@legislature.maine.gov>
Subject: Recycling Fee

Dear Rep. Ziegler,

You asked at the public hearing about the costs of $25 and $100 for the upfront fee for solar panel recycling.

You referenced a cost of about $12 per panel for recycling. So let me explain where your analysis goes wrong.

The simple cost of shipping bulk panels – new or used – is high. There are several odd sizes and weights, but shipping is not cheap and there is no nearby destination to recycle them. And since the panels contain hazardous chemicals, they require specializes shipping practices.

Solar panels consist of glass, aluminum, copper wiring, and silicon. These make up about 95% of each panel. They are easy to recycle and they represent the $12 cost you used for the cost of recycling. And when recycled, the other 5% is disposed of through burning. That puts even worse chemicals in our air and is very energy intensive. So, since it is expensive, nobody pays attention to the 5%.

However, the issue of CHC's, especially Lead and Cadmium Telluride among others, that make up the other 5% of each panel is a critical reason for recovering these chemicals to keep them out of the waste stream. The legislature \ could choose to also ignore these CHCs, but it is not recommended because they are similar to PFAS and the problems you are having with that issue. They are also similar to the hexavalent Chromium of Brockovich fame.

Now – if we remove the cost of shipping long distance and keep the 95% bulk recycling here in Maine, those costs are no longer borne by the supply chain and as such they are shifted to the retail end. The mfg. can remove these costs from their pricing and then the retail price should be lower. Remember, the shipping is at hazardous materials rates.

In short, the consumer shouldn't be paying extra since the cost is merely being shifted from one end of the supply chain to the other.
But the net to buyer price shouldn't change.

$25 for tracking is reasonable compared to the many other items DEP tracks – like underground fuel tanks for gas stations.
$100 could be lower depending on whether the state chooses to recover the CHCs or not. No one knows the actual costs to
recover the hazardous chemicals from solar panels. It has never been done. No one anywhere in the World has successfully
accomplished this safely and so the chemicals are burned or dumped into our waste stream. Forever chemicals they are.

I would not expect consumers to experience extra costs. But it could be a tremendous promotional idea to "offer rebates".

A critical point here is that we do not want to end up with leaking panel on rooftops that go uninspected for decades. We don't
want homeowners to sell or "dump" their homes without disclosing the health of solar installations, leaving the problem to the

next owner. So through these fees, we collect the money that would normally go to the supplier for taking back damaged panels.
The problem occurs sooner when homeowners see the efficiency of solar increase two fold. How many current owners wouldn't
benefit from upgrades to existing systems. How many installers wouldn't benefit from checking in on their customers every so
often to see if they can sell new panels or replace old panels.

Net effect:
Consumer pays the same or less.
Mfg. absorbs the costs of recycling.
Retailers get to upsell their customers panels and make money.
Consumers sty current with solar efficiency.
Maine creates jobs for recycling and maybe for reusing waste to make our own panels.

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