



Nez Perce Tribe Recycling Program Newsletter—July 2022

'apaqa'áño' 'ee kaa 'epeqícxnu' wéetesne

- Respect and take care of the earth.



Nez Perce Tribe Water Resources Division - Solid Waste and Recycling Program

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Something to think about

—Solar PV panel recycling



Solar power is a renewable and infinite energy source – as long as the sun continues to shine, energy will be released. And, unlike the burning of fossil fuels, the conversion of sunlight into power creates no harmful greenhouse gas emissions. The carbon footprint of solar panels is small, as they last for about 25 years with no loss in efficiency. As of 2018, 53GW of solar capacity had been deployed in the U.S. That is about 89 billion pounds or 44.5 million tons of panels.

But what happens when solar PV panels wear out?

Currently, solar panel recycling is not a huge issue in the US because the majority of installations have occurred in the past ten years. However, the market need for solar panel recyclers will only increase over time. It is estimated that by 2030, the cumulative value of recoverable raw materials from end-of-life panels globally will be about \$450 million, which is equivalent to the cost of raw materials currently needed to produce about 60 million new panels. Diverting solar panels from landfills to recycling saves space in landfills in addition to capturing the value of the raw materials.

How are solar panels recycled?

Despite the recyclability of the modules, the process in which materials are separated can be tedious and requires advanced machinery. Here are the main steps involved in successfully recycling a silicon module:

- 1) Removing the aluminum frame (100% reusable)
- 2) Separating the glass along a conveyor belt (95% reusable)
- 3) Thermal processing at 500 degrees Celsius
-This allows for the evaporation of small plastic components and allows the cells to be easier separated.
- 4) Etching away silicon wafers and smelting them into reusable slabs (85% reusable)

To see a video on recycling silicon-based PV modules in Europe, follow the link: <https://youtu.be/81-MEpcA-Rc>

For more Information:

<https://www.epa.gov/hw/solar-panel-recycling>

<https://www.cedgreentech.com/article/can-solar-panels-be-recycled>

“Talkin’ Trash”

Every American sends 1,646.15 lbs. of solid waste to landfills annually.

You can make a 25% change by recycling paper and cardboard.



Remember—We can take your paper (office paper, magazines, catalogs, newspaper) and your corrugated cardboard in our office and community recycling programs!



Lapwai Recycling Schedule

Community Recycling

July 14 & 28

Páyniwaas Parking Lot , 11 am—1 pm

Office Collections

July 7 & 21

Have a wonderful summer!!