



Will Harrisburg's glass recycling program really be 'green' and 'progressive?' Probably not | Opinion

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Just in time for Earth Day this Sunday (April 22), officials in Harrisburg announced a new glass recycling program for city residents.

"This is just another way we're trying to implement environmentally friendly programs that will make us a green and progressive city," Mayor Eric Papenfuse said.

The problem is, glass recycling usually isn't environmentally friendly, green or progressive.

Rather it often increases fossil fuel use and carbon emissions, even as it extracts money from financially strapped local governments and citizens.

At first glance, recycling would seem to be an unquestionably good thing: transforming household waste into useful products rather than landfilling it.

For some materials, such as old carpets and aluminum and other metals, this works well. That waste is easy to collect, reduce to raw material, and use in new ways.

But some waste is not so easy--or environmentally sound--to recycle. Glass--especially the green glass used in wine and beer bottles--is an example.

Glass is made from sand, which is neither rare nor hard to extract. The sand is heated, which is costly and energy-intensive, and mixed with different chemicals to give it various properties, including color.

If glass is subsequently tossed into a landfill, pressure slowly turns it into a powder called "cullet" that is much like the original sand. So there's not much environmental threat from landfilling glass.

(And no, there's no shortage of space for landfills.)

Yet, to recycle glass, a person must separate his bottles from other household waste, wash them out to prevent mold and the attraction of pests, and put them in curbside recycling bins. Or, as is the case with Harrisburg's new glass recycling program, take them to collection centers.

Specialized trucks then haul the weighty bottles (carefully, they're glass after all) to recycling plants where workers must separate them into different colors. Finally, heavy machinery grinds the bottles into cullet to be heated and turned back into glass.

Fortunately, less energy is needed to heat recycled cullet than to heat sand, hence the environmental promise of glass recycling. However, that promise can be offset by all of the special handling of the recycled bottles.

The biggest problem with glass recycling is that when different shades of green glass are processed, the resulting cullet isn't green, but black.

And black glass has very little use.

As a result, a lot of the cullet ends up in landfills, even after all of the sorting, cleaning, transporting and processing. In many cases, fewer resources would have been used, with less environmental damage, if the glass had been tossed in the trash to begin with.

Fortunately, glass recycling does work well in some places. In California wine country, for instance, bottles can be reused, much like the returnable soda bottles of a generation ago.

But that "green" outcome is the result of special circumstances: a lot of empty bottles in close proximity to a lot of large wineries.

Perhaps Harrisburg has found a similar set of circumstances for its glass recycling--but that seems unlikely.

Rather, the city risks paying some of its all-too-scarce tax revenue to a waste management company to process the bottles in a manner that will ultimately be more environmentally harmful than landfilling the old glass and making new glass from sand--and the city's recycled glass may still end up in a landfill anyway.

Papenfuse and the city's other leaders should be commended for trying to reduce the city's waste stream and environmental harm.

However, recycling policy is hard. And what seems like a good idea often proves to be an environmentally bad -- and fiscally costly -- one.

If city leaders want to achieve their "green" ambitions, they will have to monitor this program carefully and continuously ask tough questions of their recycling contractor to make sure the program is meeting its environmental purpose.

Moreover, they must be willing to cancel the program if it does not prove to be an environmental benefit.

Such serious oversight of recycling programs is all-too-rare among American political leaders, who often see such programs as little more than an opportunity for good publicity.

If Harrisburg's leaders make such a serious commitment, it would be most welcome on this Earth Day.

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