2023 Glass Summit

Policy Panel

Kara Steward

EPR & DRS discussion

Overall baseline information

EPR can cover any packaging

What is packaging

Who is responsible

DRS only container focused

Scott DeFife -

Deeper dive on how these systems effect glass

It's a unique packaging material

It is made locally in WA & OR (recycled in BC) - endlessly recyclable

* Glass is a REGIONAL market very different than PET, etc

Glass is always a primary package

Recycled glass is a key component of making new glass packages

Beyond ERP & DRS there's things we can do with existing structures

\*10 deposit states - the OR & BC systems are the best in the country

PNW lacks infrastructure E of the Cascades - few MRFs and landfills willing to take glass

Ariana Jones -

Asks what can we do since WRAP act did not pass?

KS - it will be re-introed next year. Can reach out to HT as she was a sponsor. Reiterates it usually takes several years to pass these things. What can we do? We can make connections with people in the room.

We do have 5 EPR programs in the state currently.

SD - critical to visit with local reps in the meantime. Single, stream curbside can work but the value is diminished the moment it is picked up and mixed with other materials.

Suzanne Noble -

How do we know the rate of recycling vs how much is going in the garbage?

SD - we have nat'l data broken out by how much product is sold state by state by packaging/product level

* We know how much product is made with how much glass goes into food jars vs beverages
* We know how much glass is in the economy
* In bottle bill states very easy to know how much is coming back. In non it's waste characterization studies, if it's broken or ground up it may so up as "residuals".

Dan Weston - Historical Overview

Rebecca - hauler BDI (Pasco)

How much of the recycling rate has to do with the change in packaging? Doesn't have the option for glass anymore.

DW - agrees some of the drop could be do to 'light weighting' but doesn't think that would effect recycling but rather glass generation overall.

SD - Dan's correct in that there is generally less glass. Less ppl are drinking beer so the beer piece of the market is going down. Food, wine, and spirits glass is up, but not enough to offset loss of beer.

Suzanne?

A comment on economic decision people have to make when it comes to recycling.

Shane Prudente - City of Walla Walla

Glass was stockpiled and used for roadfill, not actually being recycled

Ended program in 2012

Walla Walla has large tourist industry and wine

Residents want glass recycling

Did a study in 2022 on options and envr impact

Established 3 options

They run the county landfill as the city. Recycling is restricted to city residents ONLY

Decided a true recycling program best option - dual stream (all residents required to pay the fee)

To Ardagh in Seattle

Larry Oates -

Is the assumption about ppl driving that they are only driving just to take glass?

- yes, that is the assumption and estimation in the report

There's a report from the state saying there's no more capacity at Ardagh, etc.

* Based on Walla Walla numbers they are willing to take it.

Jon Hatt (DTG Recycling) -

What sort of uses of pulverized glass were considered

* Road building, city projects
* Chris someone chimes in - to partner with Parks and Rec, Pub Works need huge volumes that operations like Chelan, etc do not have. That's how he started.

Would there be more benefits to using the glass locally?

* Sure, there was quite an approval process to use the crushed glass locally. That's why the city didn't buy in initially.

Mya -

Do they need a new truck?

- yes, new trucks with separate lifts and new bins for households. Still automated.

Carolyn Bowie

Walla Walla's consideration of reuse wine bottles

* It's detailed in their report. Tricky because of washing and sanitizing. And because of wineries pickiness. Need to move to standardized shape and size.

JJ from Kiona Vineyards- On Red Mountain

Speaking to reuse - the tolerances on the filling line are very sensitive to where if one is a little different they can break and shatter.

John from Zewa

Community Panel

911 Glass Rescue - Tom Tochterman

Came out of a high school student project

Rotary club funded, took over, and developed a business plan

1 paid staff, otherwise all volunteer

1 wine bottle = about 1 lb.

Cost = $.04/lb. for commercial and $.02/lb. for resident donation

Ellensburg - Suzanne Noble

Looked at an Andela

Decided to start with a crusher - Expleco

- had connected with a hs student crushing glass in Manson

Created a Glass Cooperative

* Got funding stream through Rotary

Leavenworth - Ariahna Jones

Sleeping Lady donated a glass crusher in 2019

Connected with Methow Recycles who ran an 8 community recycling program. Never found an end use market.

Encouraged them to go to transport rather than a larger glass crusher.

July 2020 - collect and haul once/month. Open 6 hrs. xxx primarily residential.

Partner with someone already going over to Seattle.

2021 - 11 trips

Total 246k lbs. transported

Are become more efficient. Crush a bit in the trailer.

Desire to add commercial. 38 tons per/year potentially diverted commercially.

They are maxed out capacity. Looking for next steps collaboratively.

(left questions and discussion to happen over lunch in the room)

Haifang Wen - Use of Crushed Glass in Asphalt

(hard to hear…)

Do you have concrete recyclers in Tumwater?

They also collect glass and use it in roadways.

Does he think about the pH of the glass?

- couldn't get the answer

Typically can't recycle pyrex, etc.

- doesn't have that restriction when using it for asphalt

Kent Kovalenko (Okanagon county)

East/West roads, light glare - is that an issue with glass in the asphalt?

* It will be interesting to figure out ??

Someone commenting that a golf course had glare in their bunkers

Kim Schofield

have you evaluated the additional cost of utilizing the glass and antistrip additive

- Have talked to contractors, they will do the economics.

Rob Duff (Commerce)

Is it two years of research to get on WDOT's specs list

* For the big size, yes. But nothing stopping them from using the sand size.

Ariahna Jones (Waste Loop)

Concerned about microplastics - does the heating process remove this?

* Glass from 911 Rescue is fairly clean but yes hopefully

Hub and Spoke discussion

Chris Lueck & Scott DeFife

Keeps glass at a positive market value

Start-up is one hub and two spokes - 1000 tons

Hub announcement going forward, next 30-45 days will be formalized

* Red Mountain/Basin City
* Airport

Trucking will add pollution for now. Starting here, want to figure out a better solution like rail.

Marci Venable (Yakima Co SW)

Winery in Prosser has a rebottling program. What is the comparison sustainability wise?

Is glass typically made back into glass or is it downcycled?

- Scott DeFife - cleaner streams, uncontaminated - bottle bills/source separated - 99% can be made back into bottles and fiber glass (secondary)

- contaminated can be made back into bottles but it has to go through more. There's a lot of clean glass on the West coast.

Typically 30% recycled glass in the avg bottle. Want to raise that to 50%.

* Chris Lueck - refilling - Walla Walla reluctant to move to reuse for their high dollar wine
  + Many of WA wine bottles go out of state. We'd never get them back.

Heather Trim (Zero Waste Washington)

Can you explain why Glass Institute wants to do this in WA? What is the financial motivation?

(OWL was cutting in and out as Chris Lueck was responding)

* Scott DeFife - the glass had value, some benefit coming back to the coop to handle transportation costs. Also trying to figure out to figure out different concepts. The members have an interest trying to prove this out.

Mick Nelson Janke (Yakima Recycles Glass)

Only wineries this phase?

* Wineries, restaurants, bars

They currently take all of their glass up to Ellensburg, 1000 lbs per month

Ariahna Jones (Waste Loop)

Is it clean if the label is made out of plastic?

* Chris Lueck - personally feels people should take off labels and rinse bottles. Those no difference in the labels in the furnace. Except for emissions. Scott DeFife - from their perspective the labels are no issue with glass recycling.

Rob Duff (Commerce)

How do you make the bottle clean? Focus on education and outreach

* Chris Lueck - you should rinse it out. Rob is saying this will kill the idea because water is precious. Have answers and ideas.

Deb Geiger (Spokane Co)

If they paid would they take their glass?

* Chris Lueck - how can they get it along the I90 corridor?

End Market Panel

Laura Hennemann - Strategic Materials (SMI)

None of their plants are at capacity

Recycle select plastics in CA only

46 locations

Typically located around bottle bills

Robert Hippert - O-I Glass

Goal - recycled content is 50% avg by 2030

They purchase material from Portland and Seattle. They want more, cleaner material. Really maintain value when source sperate.

Alex Winters - Ardagh Glass

Glass and aluminum cans

West coast plants primarily produces for the wine industry

Jon Hatt (DTG Recycling)

What is the smallest size glass accepted?

- Alex Winters - 4mm. LH - 5/8 inches, size of gravel. Pulverized, gravel is not good for bottle to bottle. Nearly

Where do they source virgin materials?

* Alex Winters - not many soda ash suppliers global. Try to keep a small radius.

Is it WA state? No. Things like sand yes. But not soda ash.

* RH - Kalama is rec limestone and sand from WA. Soda ash comes from CA or WY. Only 2 natural soda ash mines in the US.

Rebecca Francik (Basin Deposal)

What to focus on with campaigns getting started

* Laura Hennemann - The thing to focus on are pyrex and ceramics, light bulbs

Alan Rodgers with Aero Aggregates

* Is there a reason why flint food containers are being segregated out
* Laura Hennemann - for her no
* Scott DeFife - I think related to current drop-off programs

Chris (online)

Any consideration giving to starting xxx in E. WA?

* Laura Hennemann - need a certain volume, proximity to end market.

Heather Trim

Who is doing light bulb glass recycling?

* Laura Hennemann - they aren't doing any. She's aware of an option through Home Depot.
* Robert Hippert - challenge of light bulb - there is leaded glass that connects a portion of floreant - it's an issue if it makes it into the furnace.

Does SMI rec glass by rail?

- Laura Hennemann - they can but she doesn't know specifically for Seattle

* Alex Winters - they do have the capability.

Ariahna Jones

Is there a push to separate glass at drop offs

Laura Hennemann - downside of removing glass from curbside = lower volumes

For Ardagh - how do local producers purchase bottles through you?

Alex Winters - Alex is happy to make intros to sales team. Their dedicated specifically to wine.

End Markets

Alan Rogers - Aero

Rick McMonagle (online)

Any uses for managing or closing landfills?

- Alan Rogers - for capping? - something to look at

* Rob Duff-

Do they have they same limitations as SMI?

* No pyrex, no ceramic but can be other glasses. Light bulb, window - in certain applications

Is it correct the stream needs to be super clean?

* Doesn't need to be super clean but is set up for moderately dirty

Ariahna Jones

What are next steps? What's needed to site in WA?

* They're still a start up. They're talking with Commerce, looking at sites that would make sense. Possibly build on the E side have loads coming back from Seattle. They do not use rail currently. They use quite a bit of energy, their kilns. Trying to improve by using electric kilns.

What temp operating at?

1600 degree F