Glass Packaging Institute (Scott DeFife)

Notes on the Draft Needs Assessment

Glass Packaging Institute

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1) In the Additional Key Terms section on page 15 – we note that while glass is offered as an example of when material CAN be collected separately (like baled cardboard) and CAN go to an "end market" (more on this later) directly without stopping by a material recovery facility, it also CAN go to a material recovery facility.

   We would also suggest that the glass processing facility, which is defined as the "market" for the glass material collected from generators does "process" the material to make it into a recycled commodity ready to be used in lieu of virgin material.

   It is important to understand the true and complete value of secondary glass processing facilities. They are integral to the ultimate success of the commingled collection system, where in a MRF handling commingled bin material, the engineering design of the flow of material purposely breaks the glass into smaller parts and introduces MORE small (and large) contamination into the glass commodity stream in a negative sort. There are thousands of tons of small plastic, metal and fiber, plus almost anything else that does not belong in the commingled bin in the first place, that will be transferred by the primary MRFs to the secondary glass processor along with the glass, at times at a ratio of 50/50 glass and non-glass residue. This is the vast majority of the reason for negative commodity value of the "glass."

   Not all glass processors are the same, just like not all MRFs are the same – and some are more robust and can deal with higher levels of contamination. Washington has access to both glass processors that handle cleaner source separated material , as well as glass processing that can handle larger amounts of non-glass contamination. The glass is not suitable for reintroduction into a furnace without processing, regardless of whether it comes from a separate stream or not.

   One other EPR state adopted a posture that glass processing (aka beneficiation) facilities were not processing facilities, but only "end markets", and the truth is they are , or can be both, and that lack of understanding and effort to draw a tight circle around the definition of a MRF has led to difficulties in implementation.

2) In Section 7.3.2 Material Recovery Facility Section – there is a reference to "increased constraints on glass end market" and while there was a relatively short term, temporary constraint on one glass end market – the Strategic Materials/Sibelco facility – as the facility worked on transportation and rail transload investments and access, the facility started taking material back largely as before the bottleneck. In addition, much of the constraint was related to the space needed to manage the larger sources of glass that brought higher levels of contamination to the facility, as that contamination takes up space and complicated logistics.

3) In Key Findings, 8.1 , We will not dispute that there is less capacity for glass manufacturing in the state after the closure of the Seattle plant in 2025, and the assessment notes that Beneficiation capacity and rail access that helps connect the glass supply chain from Washington to the rest of the region are viable pathways. We also note that the wine industry has also suffered with diminished production , and those two issues go hand in hand along with low-priced Asian market imports of glass that contributed to the problem, but that the market is still there for glass manufactured in the PNW. Any steps to incentivize domestic production, and promote local economic development along with the stong availability of high quality glass recycled content could spur industry interest in the region – just unlikely in the same precise location as the prior plant, which saw the City of Seattle grow around it.
4) Section 8.3.3 Glass and Ceramics… The term "mixed glass" is used several times in this section and is not defined. Mixed glass is not a term commonly used in glass industry enough to have a well known and generally accepted meaning. We often hear other stakeholders confuse terms such as "3-mix" as being the three most common colors of glass : clear (aka "flint") amber and green. That is also not what 3-mix means to most of the glass industry, which uses that term for the material that comes from commingled MRF facilities that commonly deliver three different elements when moving recycled "glass" to the glass processor: identifiable glass, "glass fines" which are smaller than a ¼ inch and can mimic sand or dirt (but are difficult to discern color) and "non-glass residue" or NGR, which is the balance of the load that is anything other than glass.
   The container glass and bottle glass referred to with a commodity market is "soda-lime" glass due to its constitutional make up, as opposed to borosilicate (aka pyrex) or other ceramic glass product.
   We understand that glass does weigh more than plastic, and we understand that it does not come imbued with the intrinsic value of more rare metals to increase

commodity value, but we take some exception to the blunt statement that all glass is heavy and has low value. It is still a core recyclable with a steady market value, especially when devoid of contamination. It also has competitive value with raw materials, and has tremendous value in lieu of raw materials in terms of energy savings and carbon reduction. Recycled glass melts at lower temperature and the more that can be used in a furnace, be that a bottle furnace or fiberglass furnace, the less energy and emissions. The relative weight and lower but steady commodity values are often sought after when other markets are volatile and struggle.

The "value" of the recycled commodities should be viewed within their own material eco-system and not as a competition between one and another as to what is more or less recyclable. That failed model of having the commodity value of the recycled material "pay for" the recycling was never actually truly going to work, and in an EPR system is necessary in part because that concept has failed to pay for high quality, high performing recycling.

We also note here a key issue with use of "end market" in the needs assessment that is inconsistent with the text of the statute:

SB5284 uses the definition of a "**responsible market"** as (36) "Responsible market" means an entity that:

(a) **First produces and sells, transfers, or uses recycled organic product or recycled content feedstock that meets the quality standards necessary to be used in the creation of new or reconstituted products;**

(b) Complies with all applicable federal, state, and local statutes, rules, ordinances, and other laws governing environmental, health, safety, and financial responsibility;

(c) If the market operates in the state, manages waste according to the state's solid waste management hierarchy established in RCW 70A.205.005; and

(d) Meets the minimum operational standards adopted under a producer responsibility organization plan to protect the environment, public health, worker health and safety, and minimize adverse impacts to socially vulnerable populations.

This definition in statute equates to the glass processor, not the downstream end USER of the recycled material. This may not seem a critical distinction in the needs assessment, but in reality , getting loose with this definition in the needs assessment can have repercussion in the assessment. The "Market" for the commodity is the

entity that cleans and prepares the recovered material to specifications such that it becomes suitable to be used in the creation of new products.

Therefore, the Sibelco glass cleaning aka "processing" or beneficiation plant is the market, and it will be the entity, or the glass processing facility in Portland Oregon, or any other glass processing facility, judged on whether it meets the requirements to be responsible. We are certain that it will, as will other glass processors. In the case of the Sibelco facility, it would seem to function as both a secondary MRF as well as the market. It should be recognized for its importance as both, and we believe that this draft definition in the needs assessment does not match the definition in the statute.

The logic follows that the NEXT sentence describing the O-I glass container plant in Kalama as the end market is also inaccurate. The O-I bottle manufacturing plant is the only current container manufacturer in the state, but it is not an end market, it is a downstream user of the material, or perhaps could be referred to as an "end user"

In the "Mismatches of material generation and market access section". We appreciate the recognition of the hub and spoke system that we helped establish with local in-state Washingtonians to address the transportation challenges of moving Eastern Washington glass to processing on the West Coast. We would argue that glass recycling markets are among the most consistently domestic of markets, and while , yes, moving glass across the state can be a challenge , it is far less burdensome or costly or time consuming than moving other materials that are not processed in state across the country, or across the Pacific ocean to be recycled, or turned into material that can be used in lieu of virgin material.

Most importantly, we view the transportation issues as transportation efficiency issues that need transportation creativity and solutions, not as dispositive assessments of the relative recyclability of a material. If that same les was applied to other materials, it would render other materials as challenged when they needed ocean transport or cross country transport for days and weeks to even get processed, let alone sent to the next step of reclamation.