



Nevada Legislative Committee to Study the Deposits and Refunds of Recycled Products

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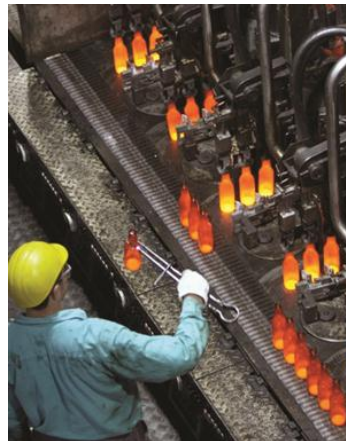
V.P. Environmental and Regulatory Affairs

June 26, 2012

EXHIBIT D – RECYCLED PRODUCTS
Document consists of 19 slides.
Entire Exhibit provided.
Meeting Date: 06-26-12

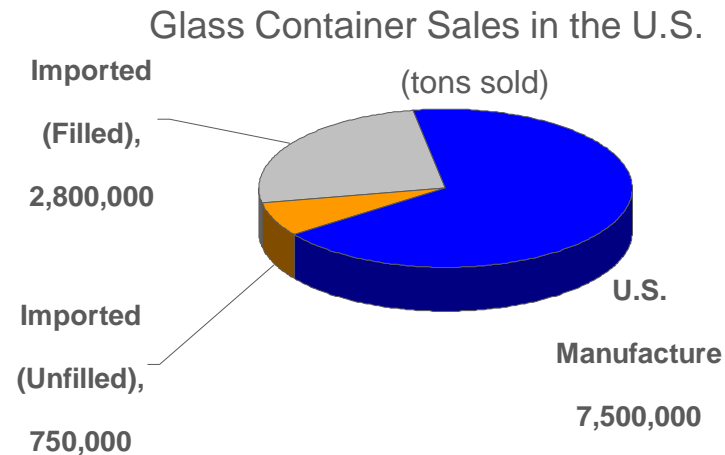
Glass Manufacturing

- ➔ 48 glass container plants in 22 states comprise a **\$5.5 billion dollar industry**.
- ➔ 102 glass container furnaces produce approximately **30 billion glass food, beverage, cosmetic, spirits, wine, and beer containers annually**.
- ➔ The industry employs approximately **18,000 salaried and represented hourly employees** in our glass container plants, warehouses, sales forces ... along with thousands more in our supplier companies across the **U.S.**



Source: GPI

Annual Beverage Container Sales in the U.S.



- ➔ Glass container sales in the U.S. annually: approximately 43,000,000,000 units.
- ➔ Plastic beverage containers sales: approximately 65,000,000,000 units.
- ➔ Aluminum beverage containers sales: approximately 95,000,000,000 units.
- ➔ Totaling over 200,000,000,000 beverage containers sold annually in the US.

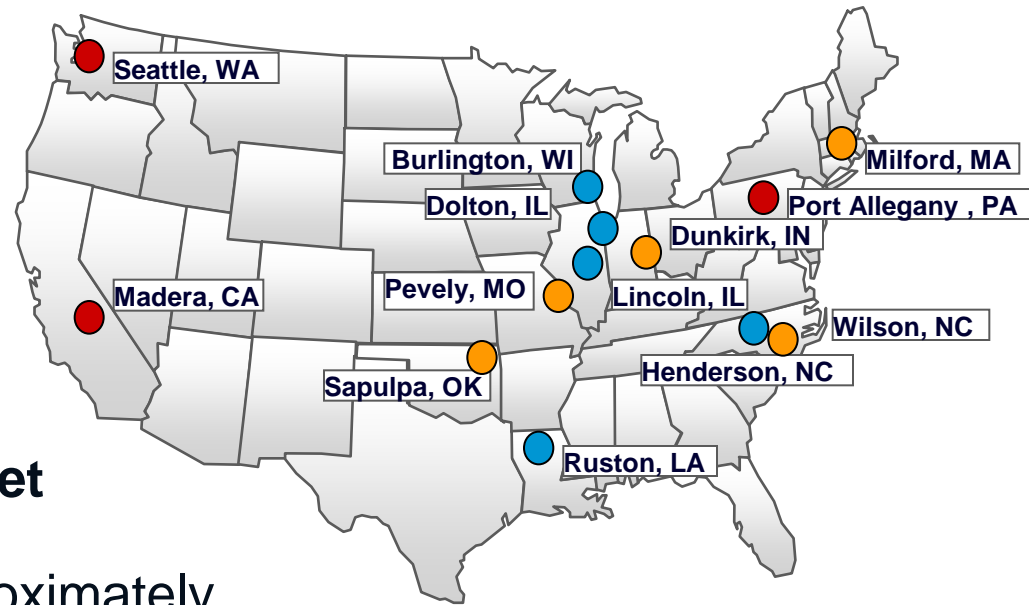
About Verallia

Effective April 2010 a new brand unites all twelve Saint-Gobain glass packaging businesses around the globe ... divestiture process continues

Serves the North American market from 13 plants / 29 furnaces

4,000 employees produce approximately 9.1 billion glass containers annually for

- Beer,
- Food, Beverage & Spirits
- Wine customers



Manufacturing Plants

- BEER Plants (Orange circle)
- FBS Plants (Blue circle)
- WINE Plants (Red circle)

About Verallia (continued)

- ➔ **EPA ENERGY STAR Partner of the Year for 2009 & 2010.**
(First glass container manufacturer to earn the award and then repeat – recognizes energy conservation improvements)
- ➔ **EPA Climate Leader**
(Partnered with EPA in 2009 to achieve 16% GHG reduction by 2012)
- ➔ **Energy Star Award for Sustained Excellence in 2011**



PARTNER OF THE YEAR



PARTNER OF THE YEAR



SUSTAINED EXCELLENCE

Environmental Benefits of Glass Recycling

- Glass is 100% recyclable; it has an unlimited life and can be recycled endlessly ... typically called cullet.
- Over a ton of natural resources saved for every ton of glass recycled.
- Energy usage drops 2-3% for every 10% recycled glass used in the manufacturing process.
- Reduces NOx, SOx & PM emissions.
- Six tons of recycled container glass used equals one ton of carbon dioxide reduced.



Verallia's Commitment

Verallia is very active in attaining more 'uncontaminated' cullet.

→ Cullet Supply Chain – suppliers.

- Buy every ton we can find... Nevada cullet would be welcomed in the west coast plants.

→ Challenges with Single Stream.

- Contamination is a serious problem.
- Created joint ventures for cleaning & sorting on & off site in WA, MN, NC.

→ Working with select entrepreneurs to increase tonnage in NC, IL, PA.

→ Bar & restaurant programs - NC, IN, IL.

→ Active in supporting legislative efforts... necessary for a step change.



Every Year in Nevada

- More than 1,200,000,000 aluminum, glass and plastic beverage containers are landfilled at significant expense to municipalities and taxpayers.
- These landfilled commodities are worth more than \$25,000,000 .
- A move to Single Stream typically improves collection of recyclables ... but recovery rates lag because of comingling and contamination.



Finding a Solution

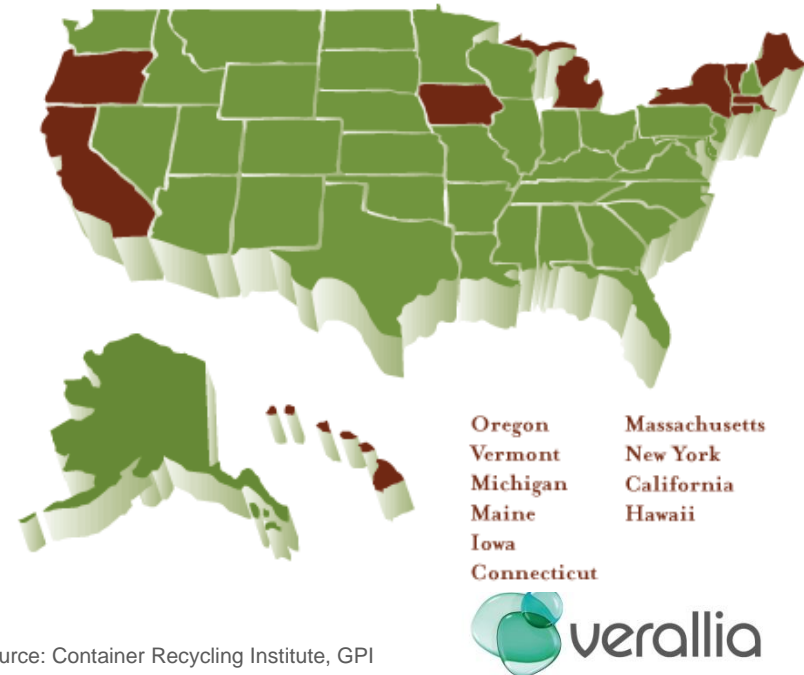


- ➔ **The squandering of valuable feedstock commodities continues while we debate competing recycling models!**
- ➔ **Because many recycling systems have been in place for 25⁺ years, we know today what works!**

Recycling and Recovery of Beverage Containers Today

What stands out as the most efficient beverage container collection/recovery system today?

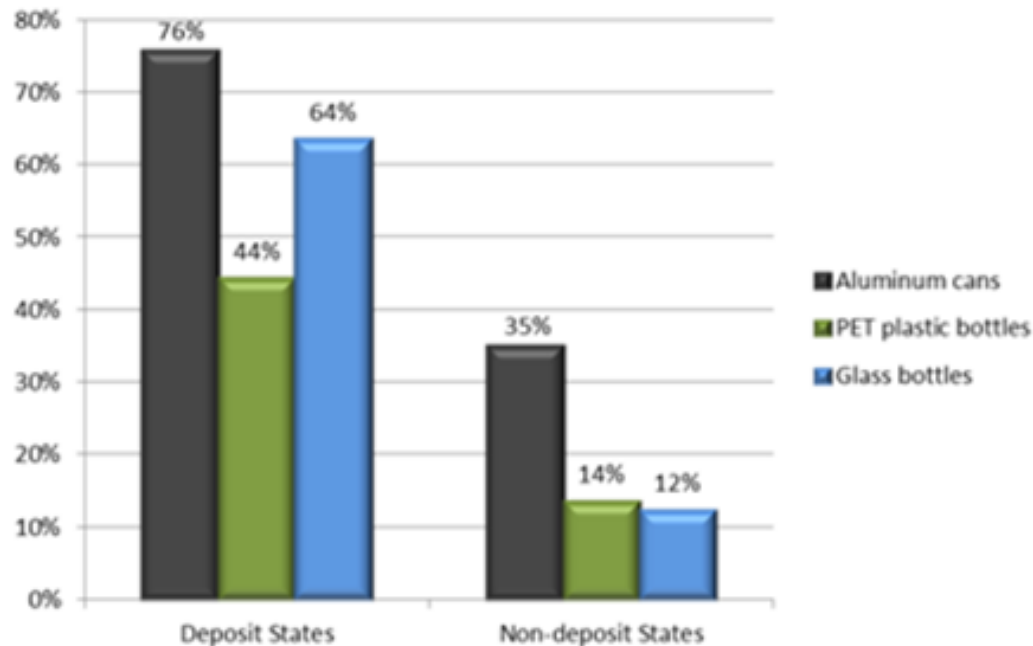
- The demand for recycled glass is high / recycled content is low.
- Recovery rates and the quality of recovered beverage container material is, without question, highest in “bottle bill” states.
- **65%** of all US glass cullet comes from just **10** ‘bottle bill’ states.
- Today, only about 33% of all glass containers are recovered.



Source: Container Recycling Institute, GPI

Recycling and Recovery of Beverage Containers Today (continued)

- Recovery rates for plastic and aluminum also high in the 10 bottle bill states!
- Recovery rates are much lower in non-bottle bill states.



Recycling/Recovery Rates

Next Step – A ‘low hanging fruit’ opportunity

No change over the next decade will mean that Nevada will experience:

- Over 12,500,000,000 beverage containers will end up in landfills needlessly and at great expense.
- More than \$250,000,000 of valuable commodity feedstock will be wasted.



Recycling/Recovery Rates

Next Step – A ‘low hanging fruit’ opportunity

In the continuing stalemate...what are the real issues?

- Is a bottle bill really a tax? **No**
- Does a bottle bill deposit reduce sales? **No**
- Is fraud a significant problem in bottle bill states? **No**
- Is there a vermin /cleanliness issue at redemption centers in bottle bill states? **No**
- Are bottle bills compatible with EPR systems? **Yes**
- Is single stream collection the solution to improved recyclables recovery rates...at what cost? **No**
- Is EPR more or less costly? **More**
- Is EPR more or less complex? **More**
- Comparing bottle bills, single stream and EPR models:
 - Will high quality feedstock be recovered? **Bottle bill is the right choice**
 - At what cost? **Bottle bill is the right choice**
 - In what quantities? **Bottle bill is the right choice**

Recycling/Recovery Rates

Next Step – A ‘low hanging fruit’ opportunity (continued)

- ➔ Why not build on the experience of the 10 bottle bill states ... avoid billions of beverage containers being landfilled over the next decade?
- ➔ Why not define bottle bills as a form of EPR...
 - There are several models that work today.
- ➔ If all Stakeholders work together, what legislative result is more probable in the near term?
 - A new bottle bill?
 - An EPR bill?
 - Or some combination thereof?
- ➔ Verallia stands ready to move forward **now** to improve recycling / recovery rates.

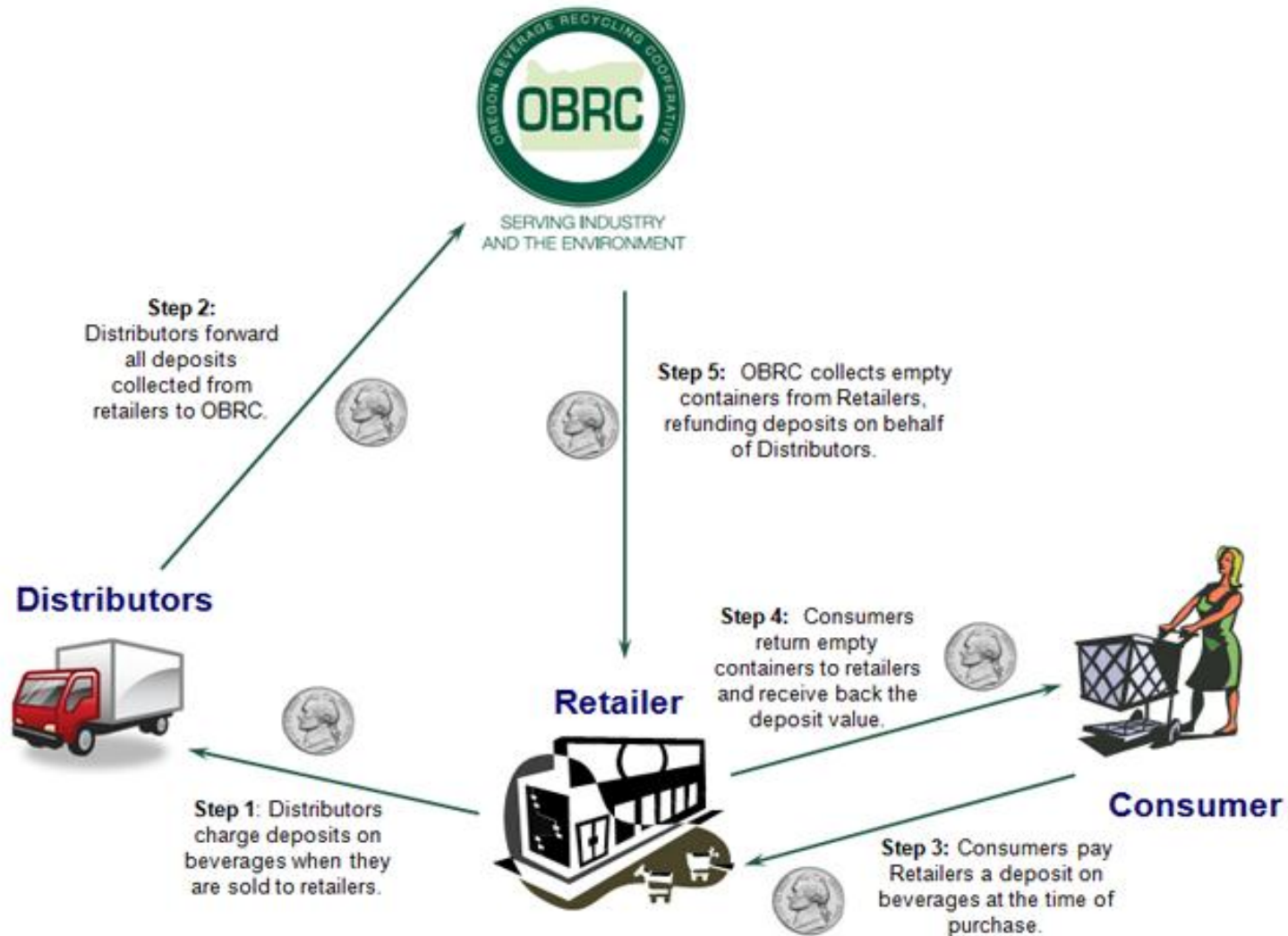
Verallia's Position



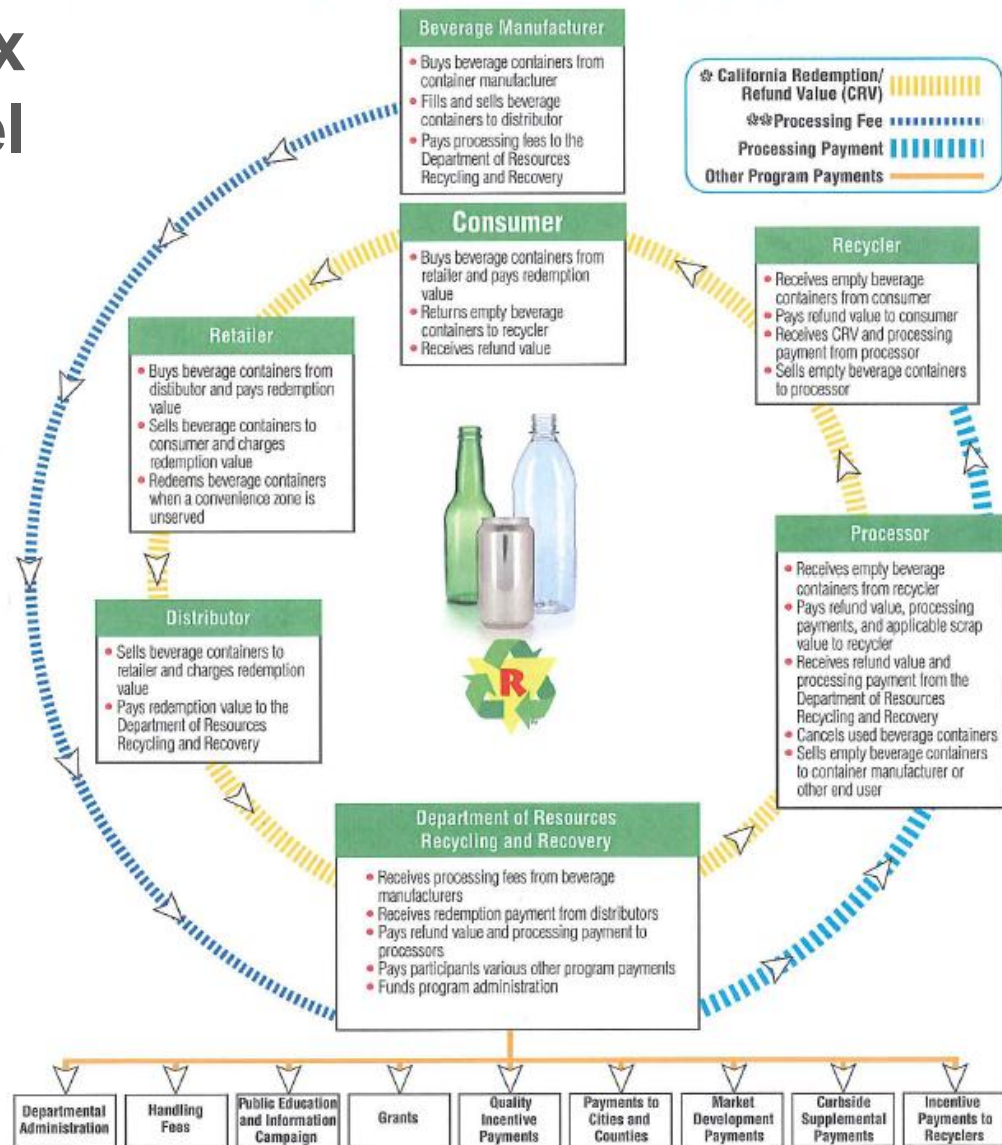
→ Verallia supports:

- Any system that improves the quantity and quality of recycled glass containers
- Container bottle legislation, (the best recovery system operating in the US today)

A Simple Model - Oregon

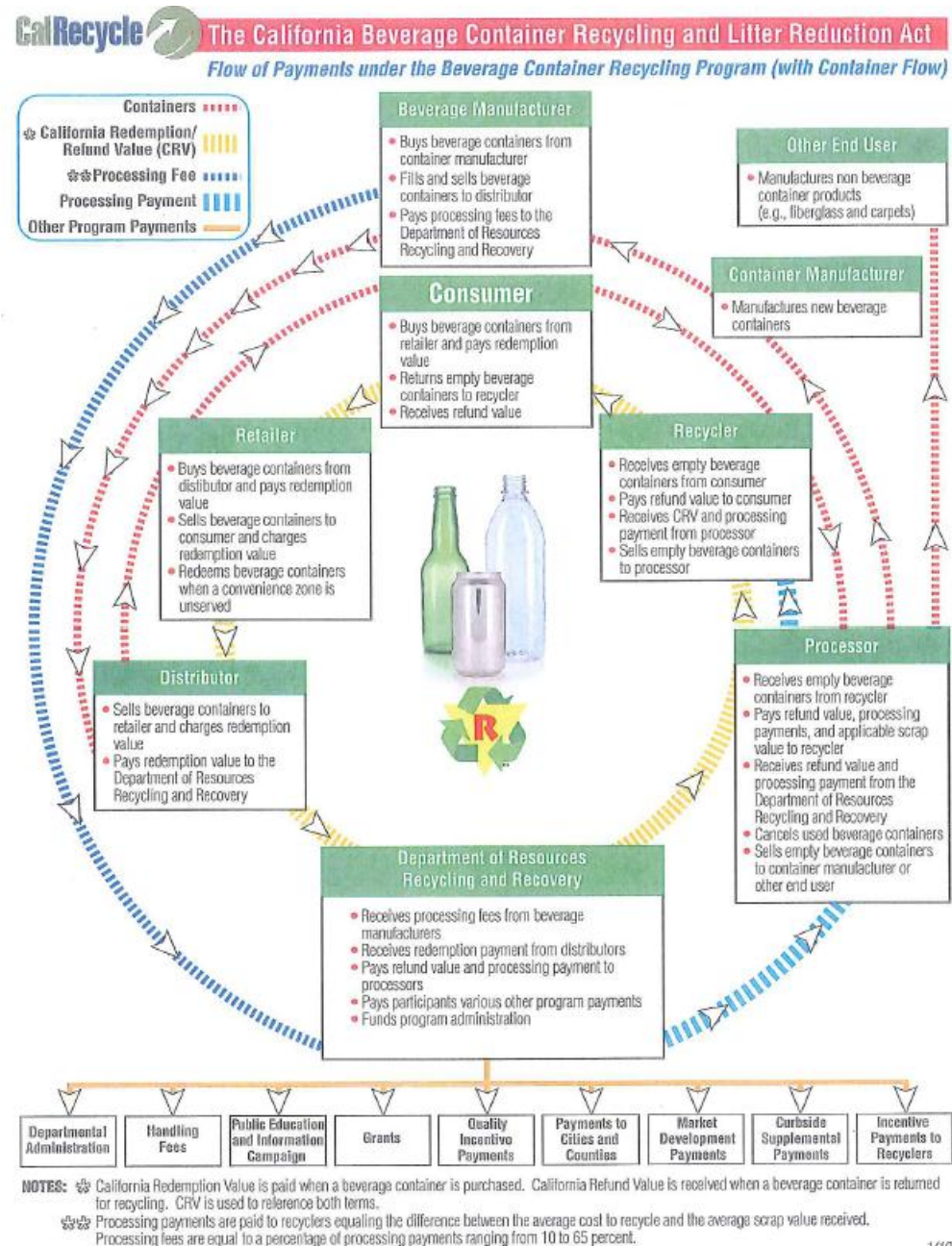


More Complex An EPR model p. 1

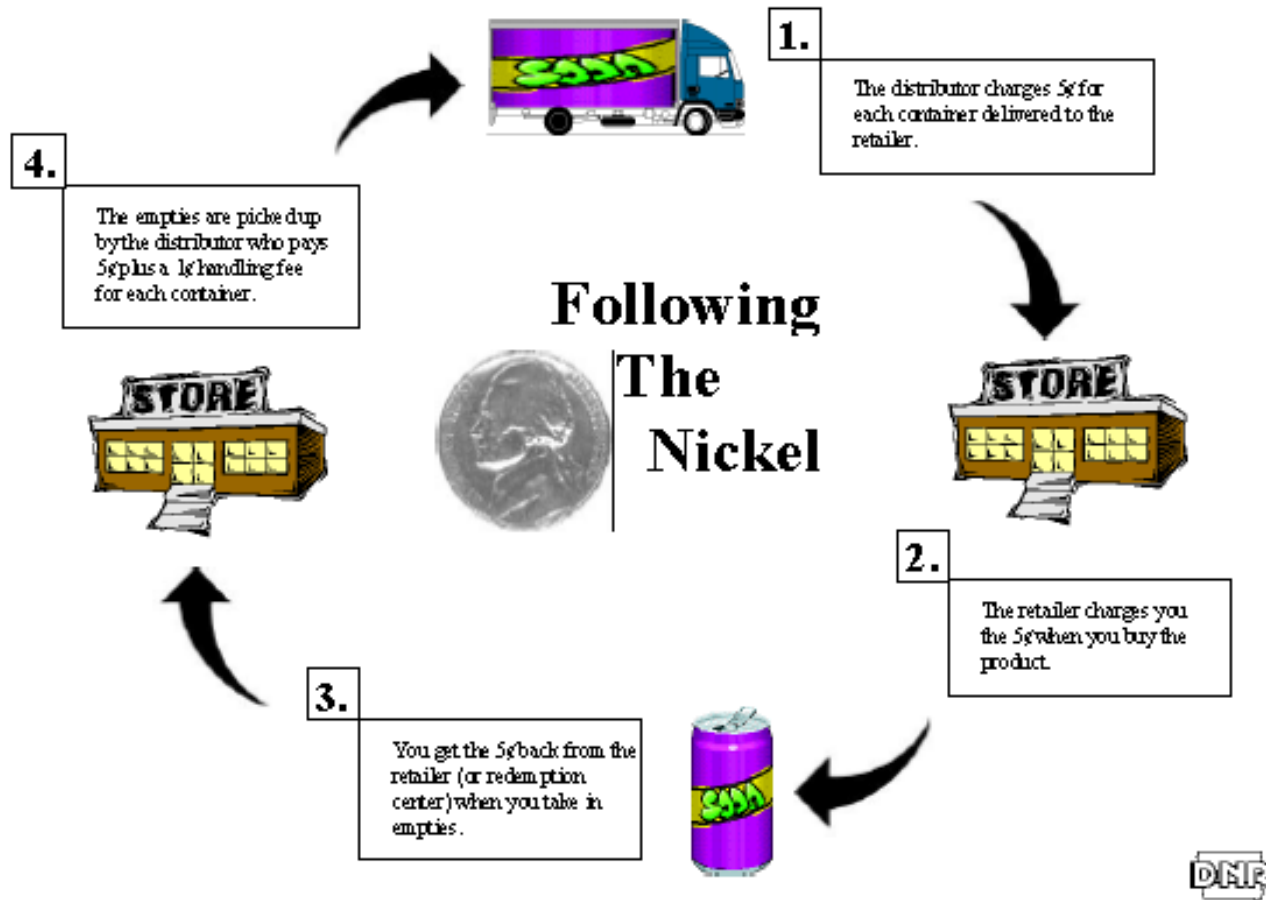


NOTES: ★ California Redemption Value is paid when a beverage container is purchased. California Refund Value is received when a beverage container is returned for recycling. CRV is used to reference both terms.
 ★★ Processing payments are paid to recyclers equaling the difference between the average cost to recycle and the average scrap value received. Processing fees are equal to a percentage of processing payments ranging from 10 to 65 percent.

More Complex An EPR model p. 2



Another Simple Model - Iowa



Summary of Iowa's Beverage Container Deposit Law - Prepared by Iowa Department of Natural Resources - September 22, 1998