



RECYCLING  
REINVENTED

Proposal for  
Extended  
Producer  
Responsibility (EPR)  
for Packaging &  
Printed Paper

Recycling Reinvented, 890 Dawn Avenue, Shoreview, MN 55126

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(612) 227-4582 [paul@recycling-reinvented.org](mailto:paul@recycling-reinvented.org)

Recycling Reinvented (RR) seeks to implement extended producer responsibility (EPR) for packaging and printed paper (PPP) in the United States to accomplish several important objectives.

Capture market control of today's decentralized industry now dominated by small businesses.

1. Dramatically increase the amounts of post-consumer recyclable material available for domestic manufacturing of new packaging and paper, thereby making higher levels of recycled material in new products economically attractive compared to virgin materials.
2. Rationalize the current decentralized, undercapitalized, and municipally administered household recycling system with efficiency that increases recycling tonnage while reducing overall costs per household.
3. Maximize environmental benefits from recycling compared to disposal.

Of the methods available to achieve these objectives, EPR for PPP that is fully funded by brand owners is the most desirable and achievable.

## How EPR Works

Extended Producer Responsibility (EPR) for PPP requires brand owners to assume the cost of collecting and sorting household recyclables. Currently, consumers pay for this cost through taxes, fees, or utility bills. Under EPR, brand owners create one or more nonprofit organizations—a producer responsibility organization (PRO)—to calculate how to allocate the overall cost of recycling to each brand owner according to market share, recyclability of their products, and other factors. Brand owners then internalize these costs by incorporating them into the price of new products. The PRO then contracts with waste haulers, recycling facilities, and municipalities to cover their cost for collection at negotiated rates. Over time, the PRO is both well positioned and strongly incented to identify opportunities for efficiency in the recycling system to reduce costs and increase recycling rates.

## EPR Would Be Cheaper

EPR for packaging and paper would lower the overall costs to society for recycling. By managing costs using more accurate data, a PRO representing brand owners can improve collection efficiency, increase the quality and value of collected materials, and create economies of scale to reduce expenses.

## EPR Would Be More Efficient

Many recycling programs in the U.S. rely on outdated collection methods that discourage consumer participation, pose risks to collection workers, and cost too much. Since the brand owners will be paying for collection services, the PRO can push recycling programs to adopt more efficient collection, transportation and processing methods.

## EPR Would Create Economies of Scale

Through a PRO, brand owners would have the ability to see cost structures on a statewide basis—instead of on a smaller municipal basis—so it can recommend changes that will increase collection and processing efficiency. In some existing EPR programs, a PRO makes investments to improve recycling infrastructure and support market development for recycled materials.

## We Seek a Uniquely American Solution

Recognizing the unique political, economic, and social character of the United States, it is important to develop a policy approach that fits within this context. Simply adopting an existing program from outside the U.S. is not operationally or politically feasible. For example, many other EPR systems for packaging were created through government action where landfill abatement was a top priority. **Western Europe and Canada also have a higher tolerance for government intervention in the marketplace.** The United States operates as a federal system in which states have taken the lead in recycling, followed by counties and municipalities. The U.S. EPA, unlike the European Union with its EU Packaging Directive, does not have the authority to set up EPR for packaging, and Congress is unlikely to take any action nationally in the near term.

It is important to stress that not all existing or proposed EPR systems are equal. Some are very efficient, and others are not. Managers and observers of Canadian and European programs have suggested that we learn from their mistakes as well as their successes. As the following table illustrates, different countries have come up with different results. *(Updated versions of this table will show more detail about the differences in EPR programs among these countries, including use of waste-to-energy, fee structures, existence of container deposits, etc.)*

**Table 1: Comparison of Recycling Rates and Cost of Recycling in Several European Counties with EPR**

	Cost per capita*	Cost per household*	Packaging recycling rate
Belgium	\$6.59	\$15.89	91.5% (2011)
France	\$10.48	\$25.73	64.3% (2011)
Germany	\$16.23	\$34.15	88.1% (2007)
Netherlands	\$9.02	\$20.51	74.9% (2009)
United States	?	Recycling fees tend to fall in the \$30-40 range	36%** (2010)

\* Fee formulas in these countries are not calculated in the same way, and not all packaging has fees associated with it in each country. This table is meant to show costs and rates in general terms and does not provide exact "apples-to-apples" comparison. Original data from [www.pro-e.org](http://www.pro-e.org) and calculated by Recycling Reinvented.  
 \*\* The U.S. EPA calculates that 36 percent of all non-durable goods were recycled in 2010. [http://www.epa.gov/wastes/nonhaz/municipal/pubs/msw\\_2010\\_rev\\_factsheet.pdf](http://www.epa.gov/wastes/nonhaz/municipal/pubs/msw_2010_rev_factsheet.pdf)  
 Recycling rates from [www.pro-e.org](http://www.pro-e.org) and Eurostat at <http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=ten00063&plugin=0>.

During the last decade, half the states have passed electronic waste legislation to increase and collection and recycling of waste of electronics. Few of these state laws are the same, creating compliance headaches for brand owners. It is likely that some state legislators will pursue EPR legislation for packaging without industry input, which can lead to a patchwork of different laws. As has been demonstrated by the paint industry, to avoid this problem, the private sector must take the initiative to craft a uniquely American solution to PPP recycling to meet market demand and create a consistent model for adoption at the state level.

Surely taking control of the current free market is market intervention.

Industrial standards organizations exist for this kind of purpose.

## Components of EPR

*Legislation is required.* State-level legislation will be necessary to create the foundation for EPR for PPP. Legislation would provide a level playing field for all brands by ensuring that all contribute to the system according to their market share. This avoids a free-rider problem in which some brands would pay into the system but all brands receive the benefits. Legislation is also necessary to set up state oversight and to ensure fairness among brand owners in the governance of the system, which promotes the public interest.

*Materials covered:* The Recycling Reinvented proposal focuses on packaging that ends up in households. That includes PPP sent directly to households as well as PPP that originates at commercial establishments such as consumer goods stores, carry-out food outlets, and coffee shops but ends up in households. In many cases, a business may sell products in packaging where only a fraction of it reaches households. Under Recycling Reinvented's model EPR legislation, brand owners are only responsible for the cost of that fraction. Recycling of PPP by consumers in public space is also covered. Public spaces include parks, public buildings, stadiums, arenas, streetscapes, etc. However, transport packaging and large commercial waste generators are not covered, since these high volume waste generators are usually served well already by the private sector.

*Responsible parties:* Brand owners of consumer packaging and printed paper are responsible for covering the cost of collection and processing. Of course, the sales of some brands are so small that the administrative burden would be greater than the revenue derived from their EPR fees. In that case, there is a *de minimis* exemption applied for which smaller brands pay a modest flat fee.

*Role of retailers:* In the case of private label brands for retailers, the retailer is the responsible party. Under EPR there is no point-of purchase fee on new products to be sent into state coffers and no requirement for in store collection.

*Organization of brand owners:* In the U.S. the number of brands selling into a state may be approximately 5,000. In order to simplify the administration, brand owners are likely to set up one or more producer responsibility organizations (PRO). A PRO is to be a nonprofit entity and would have access to sales data submitted by the brands with standard data privacy protections. Germany has recently moved to having multiple PROs in order to foster competition, and that possibility should be considered for the U.S. There would be no prohibition on individual brand owners or groups of brand owners from creating their own collection programs. This scenario might apply for brands whose products don't usually end up in curbside recycling, such as cosmetics.

*Calculation of brand owner fees:* Based on experiences in other countries, fee calculation is likely to proceed in the following way. The PRO, with oversight and data from a state agency, would calculate the total expenditure for collection of household recyclables in the state. The PRO would then construct a formula for how to allocate the costs among brand owners. Formulas vary among countries (see Figure 1), but they usually take into account several variables such as the weight of the PPP sold into the state, whether that packaging is recyclable, and the recycling rate of the packaging. Fees would apply for non-recyclable PPP in order to encourage greater use of recyclable materials and have a level playing field with recyclable PPP. Government would not set or collect fees and formulas for fees would not be in legislation.

*How the money flows:* Recycling Reinvented's proposal does not envision new infrastructure owned and run by brand owners. The system would rely on and enhance existing curbside infrastructure as well as drop-off locations in rural areas. Municipalities that have efficient recycling collections and

private haulers and processors would likely maintain their operations, and brand owners would then reimburse them at a negotiated rate based on a fee per ton by commodity. Communities would no longer charge their residents for household recycling of PPP, and haulers that have charged their customers directly will no longer charge for household recycling. Municipalities with their own fleets or material recovery facilities (MRF) may work with a PRO to find efficiency in their system if their costs exceed the negotiated rate. Over time, the PRO and the state can recalculate the total cost of household recycling and the fee formula in order to adapt to changing conditions.

**Visibility of fees:** One of our basic principles for EPR is that brand owner fees are internalized into the cost of a new product. There would be no point-of-purchase fee on new products that would be sent into state coffers. However, there would be no prohibition on showing customers how much of their purchase price goes toward recycling costs through the EPR system. Indeed, some brand owners have expressed an interest in showing this cost to their customers to demonstrate that customers and brand owners are taking responsibility for the product's disposition.

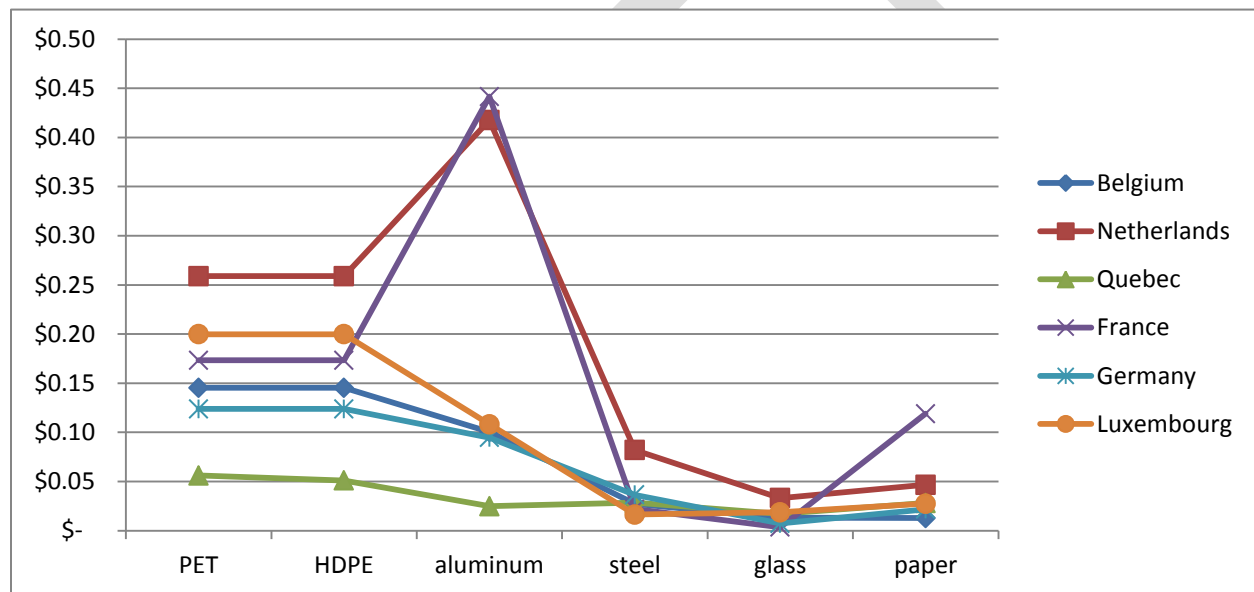


Figure 1: EPR Fees Converted to Cents per Pound by Commodity (Note: Industry pays for 50 percent of recycling in Quebec.)

**Compliance:** Canadian provinces and other industrialized countries require brand owners or a *first importer* of a product to be responsible for EPR fees. Since government agencies cannot easily enforce their laws against a company without nexus in their jurisdiction, they require the importer (usually a retailer) to be responsible for collecting fees on brands outside the jurisdiction. As a result, retailers end up administering and collecting fees from brands in those countries and provinces in addition to their private label business. In the United States, we propose the *option* of having a first importer administer and collect fees from the brand owner. However, using the effective precedent from American e-waste legislation, we propose a “no sale” provision. Under this provision, a retailer would not be able to sell a brand on its shelves that has not paid into the EPR system.

**Ownership of Collected Material:** Those who collect and process recyclables own the recycled material, even though brand owners pay for the collection and processing. It would be possible for brand owners to negotiate with processors for a share of the revenue, or for sale of the material to use in their new products. Brand owners would not be required to “take back” their own packaging, since bales of recycled materials contain packaging and paper from many different brands, and it would be

inefficient, if not impossible, to sort by brand. Our EPR model would not require any retail collection of waste materials.

*Recovery/recycling Goals:* State legislation establishes a goal for the recovery and/or recycling of PPP in the state. Unlike recycling goals that measure total recycling as a percentage of municipal solid waste (MSW), a legislative goal would set goals for recovery and/or recycling as a percentage of PPP sold into the state by weight each year. A PRO would measure what percentage of that PPP gets recovered and/or recycled. Recovery means that waste materials are diverted away from landfilling. Recycling means that materials are remanufactured into new products. It is acknowledged that some packaging materials cannot currently be recycled, either technically or economically, and therefore it would be acceptable for these materials to be composted or converted into energy, oil, or some other beneficial use. At the same time, it is also acknowledged that a state recycling system recycle as much recyclable material as possible since that material has value.

Were small businesses and recycling operators included?

After much debate among interested stakeholders, Recycling Reinvented proposes that state legislation set a recovery goal for all packaging. There would then be a minimum recycling goal for all packaging in statute as well as a maximum non-recycling and non-landfill goal. A minimum recycling goal and a maximum non-recycling and non-landfill goal would ensure that there is no incentive to encourage incineration or other disposal alternatives for recyclable materials. At the same time, there would be an allowance for alternatives to recycling and landfilling for non-recyclable materials.

While legislation would specify one recovery goal with a minimum recycling goal and maximum non-recycling goal, the PRO would be required to report on the recycling rates for each grade of recycled material (e.g., PET, HDPE, steel, newsprint, cardboard, etc.).

*State agency requirements:* State legislation delegates some authority to a state agency to oversee the EPR system. The agency would do the following.

- notify brand owners of the creation of an EPR system
- request, review, and approve detailed program plans from brand owners (probably through a PRO) on how they will meet recovery and/or recycling goals
- require that brand owners consult all interested stakeholders on the design of the program
- set a “convenience standard” to maximize access to household recycling
- have the right to audit brand owners for compliance
- request an administrative assessment from brand owners to cover administrative costs
- report to the state legislature on compliance
- report to the state legislature on total agency costs and total revenue to the agency from administrative assessments

*Continuous improvement:* An EPR system helps increase recycling by scaling up best practices that are used on a patchwork basis now. These best practices focus on public spaces such as parks, plazas, and streetscapes; multi-family housing; and institutions such as schools and public buildings. We know they work; local governments have chosen not to use them or do not have the resources to make them happen. A PRO would have the incentive to put them in place in order to meet recycling goals and to reduce fees as volume rises.



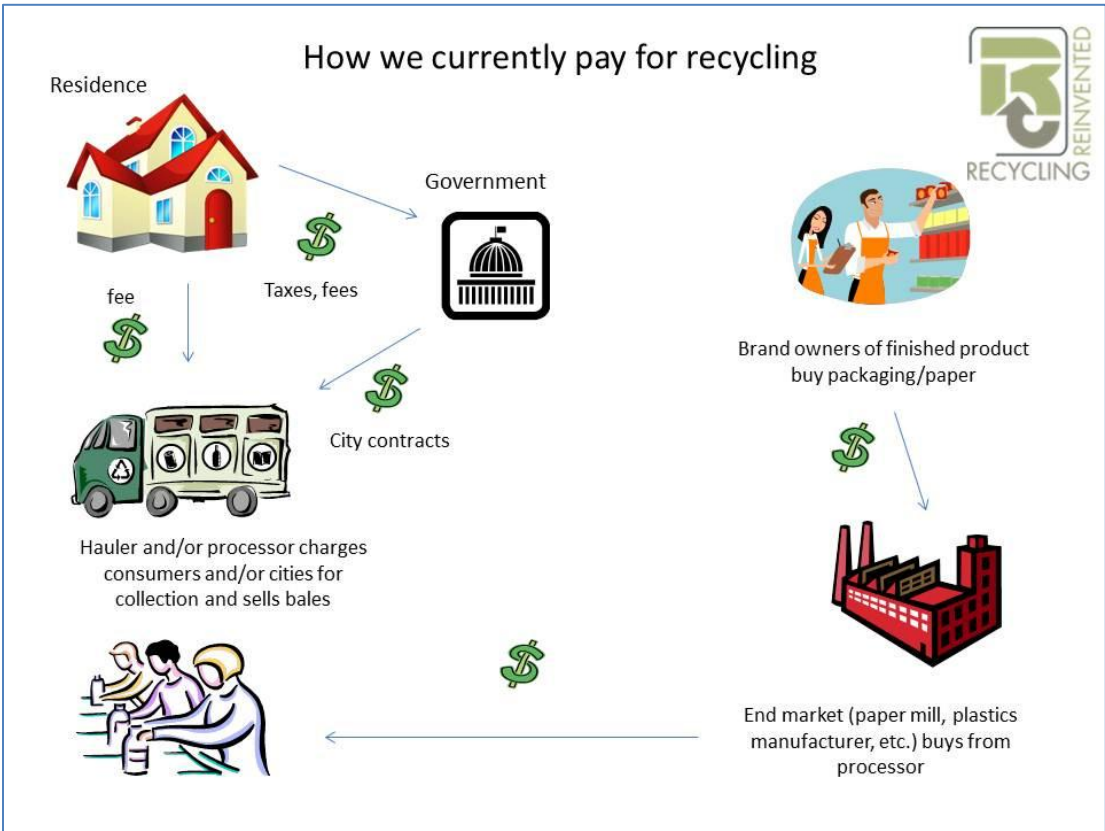


Figure 2: How We Currently Pay for Recycling

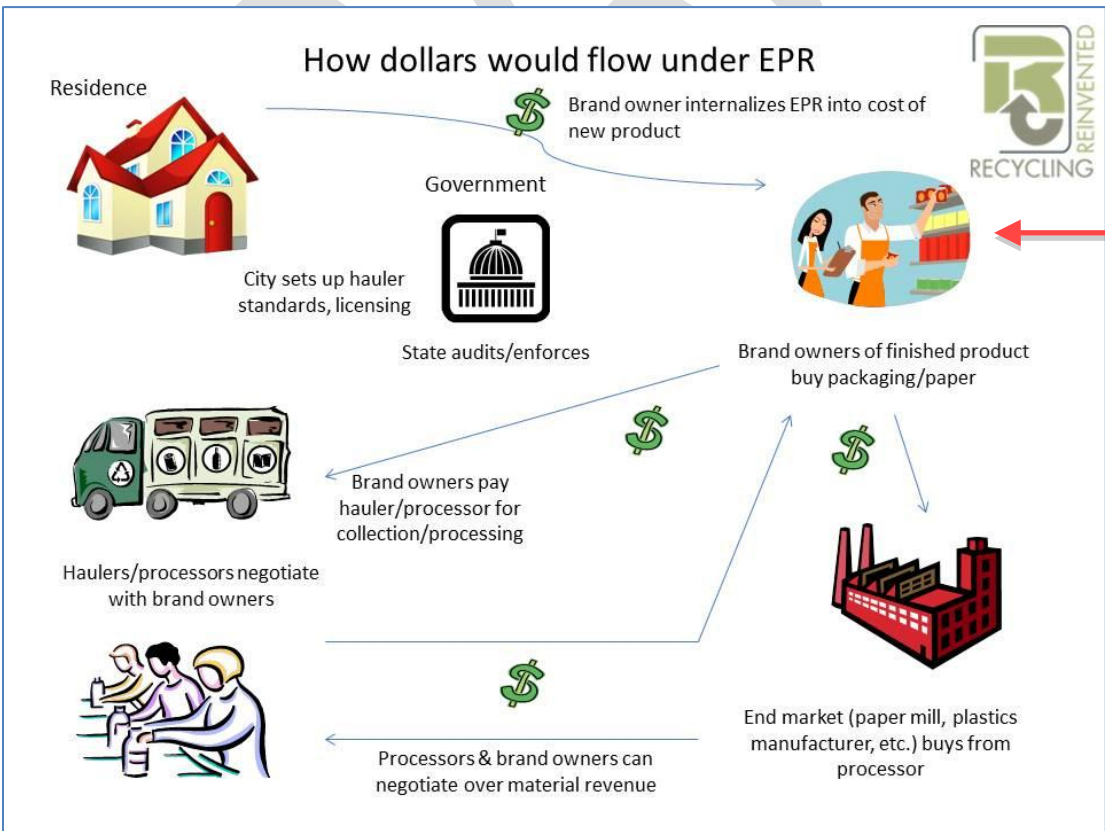


Figure 3: How Dollars Would Flow Under EPR

*Promotion, outreach, and education*: Education is critical to the success of recycling. Local governments know their communities best, but they also provide information that varies wildly from place to place. Since an EPR system would create more harmonization on what kind of materials are collected and how they are collected, a PRO would be able to publish educational material that is more uniform and can be marketed on a statewide or regional basis. Consultation with local governments on best practices will be important.

*Other solid waste and recycling policy*: EPR for PPP will be more successful if some basic mandates are in place. These provisions need to be included in EPR legislation or carried in a separate bill depending on the local situation. These can include, but are not limited to, the following.

- Recycling collection from households required in all counties
- Curbside collection from households required in all cities over a certain size, with drop-off collection available everywhere else
- Pay-as-you-throw (PAYT) pricing for garbage
- Ban on disposal of recyclable packaging and printed paper within a year or two after the beginning of an EPR program

## Pitfalls and how we address them

*“Double-dipping”*: If brand owners pay for the cost of collection, it is possible that local governments could still charge a fee to taxpayers or ratepayers as a new revenue source. State legislation would need to prohibit local governments from charging fees for services that they no longer provide or for which they are being reimbursed by brand owners. State auditors would be able to verify compliance.

*Anti-trust immunity*: In other industry-run EPR programs in the United States, like e-waste and paint collection programs, states often grant brand owners immunity from state anti-trust regulation. The purpose of the exemption is to allow brand owners to agree on the cost and price of collection to increase efficiency. An analysis from Nestlé Waters North America shows that such an exemption is legal under the State Action Doctrine, when there is “active state supervision” of the EPR program that is “clearly articulated and affirmatively expressed as state policy.” The question is not whether anti-trust exemption *can* be granted, but whether it *should* be granted. Concerns have been raised by private waste haulers that they would no longer be able to negotiate a price directly with municipalities to provide collection and processing services. Instead, they would negotiate a price with a PRO that is a monopsony—a single buyer of services. Advocates for using a PRO would argue that cities often pay more than they need to with our current decentralized system. In addition, a PRO can help rationalize inefficient public assets, including outdated truck fleets and material recovery facilities (MRF), which reduces cost. It is not clear whether this issue can be resolved to the satisfaction of all parties. Multiple PROs may be in place and existing contracts will need to be honored.

*Governance*: A PRO will likely have a board comprised of brand owners. There is concern that large brand owners may end up marginalizing the concerns of smaller brand owners as well as retailers, packaging and paper manufacturers, and haulers. Legislation can help address this by specifying the types of private sector members who serve on the board.

*A patchwork system*: A state-by-state approach with EPR for PPP could result in a compliance headache for brand owners. As an example, twenty-five states have adopted e-waste EPR laws, and they vary to some extent. There are two ways around this problem. First, brand owners need to be more proactive in supporting a consensus bill in state legislatures rather than just fighting EPR. Second, the



first state or states adopting EPR should have a bill that can be “scaled up” to other states. That means state legislators must be encouraged to avoid tacking on provisions that can’t be altered later should states need to harmonize their statutes.

*Cost controls:* Using some Canadian systems as an example, some brand owners suggest that there should be greater cost controls in EPR systems to avoid having municipalities use brand owners as a “cash cow.” There are several different tools that an American EPR system can apply to accomplish this objective.

- A PRO can recommend the rationalization of recycling infrastructure, such as changing collection methods (e.g., switching to single-stream collection) or combining and upgrading MRFs. The PRO would have the ability to use its fee-paying leverage to get public and private entities to make those changes.
- A PRO can develop a standardized procurement system for recycling services to avoid a city-by-city approach to private contracting. This standardized system would harmonize collection methods, financing, and materials collected.
- Brand owners have the unique ability to build markets for some waste packaging. By demanding more post-consumer content or promoting research, they can make it attractive to bring new technology to scale because EPR would guarantee the collection of certain volumes of waste. Since non-recyclable packaging would have higher fees, building markets would reduce long-term costs.

*Conflict with existing contracts:* Hypothetically, a state-level EPR system for PPP could go in place in three years but cities might have contracts with their labor force or with a private vendor that last five years. State EPR legislation should not be able to void the longer term contract but when the contract expires, that community would be folded into the EPR system.

*Export of collected material:* Most stakeholders want new recycled tonnage to stay in the United States for domestic manufacturing. The General Agreement on Tariffs and Trade (GATT) has a provision that prohibits a ban on exports except under very specific conditions. However, it is possible to prioritize the introduction of EPR legislation for PPP in states where existing end markets tend to be in the U.S. Determining likely end markets will be an important research element prior to introduction of state legislation.

What about loss of local control  
and financial opportunity to a  
centralized, corporate-controlled  
resource monopoly?  
Is that a problem?