

US EPA ARCHIVE DOCUMENT

ISSUE ASSESSMENT: SUSTAINABLE FINANCING FOR RECYCLING OF PACKAGING MATERIALS

**Prepared by Decisions & Agreements and The Keystone Center for the
U.S. Environmental Protection Agency**

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Introduction

The United States Environmental Protection Agency's Office of Resource Conservation and Recovery (ORCR) is convening key stakeholders to discuss strategies for alleviating the significant financial pressures facing municipal recycling systems – and increasing recycling rates – in the United States. Such recycling systems are paid for using public funds. Virtually all are under financial constraints that make striving for higher waste diversion goals an extreme challenge.

In other country countries, notably within the European Union and Canada, manufacturers and others involved in the life of a product are being asked to take some level of responsibility for the costs of end-of-life management for their products. The materials involved range from electronics, to automobiles, to white goods, to consumer products and the packaging in which they are sold.

ORCR is looking at this latter category – consumer product packaging. As stated in the Statement of Work for this project:

Discarded packaging materials represent about a third of municipal solid waste (MSW) in the US and provide a significant opportunity for tackling the challenge of developing a sustainable financing approach for municipal recycling (*2007 MSW Characterization Report*, <http://www.epa.gov/osw/nonhaz/municipal/pubs/msw07-rpt.pdf>). Much of this packaging material is recycled or discarded by consumers, so the end-of-life management ultimately falls to local governments – either directly, when trucks, landfills and material recovery facilities (MRFs) are owned by the local government, or indirectly, when disposal and recycling services are managed through contract. In either case, the financial burden falls to the local government and tax payers. The increasing complexity of packaging products, the proliferation of new materials used in packaging, and recent trends to single-serve packaging have exacerbated the burden on local government of managing packaging materials at end-of-life.

Many state and local governments are looking to producers and others in the product value chain to shift our packaging waste management system from one focused on government-funded and ratepayer-financed waste

diversion, to one that relies on assistance from packaging producers and others to reduce public costs and drive improvements in product design that promote environmental sustainability. Similar schemes focused on packaging have been implemented in other countries (including the European Union, Canada, and Australia), and some local and state governments have drafted and/or enacted producer responsibility legislation.

Because packaging is such a large and ubiquitous part of MSW, recovery of packaging materials presents a significant opportunity for energy conservation and reduction of greenhouse gas emissions. Current rates of recycling packaging materials (48% in 2007, exclusive of wood) avoid emissions of about 100 million metric tons of CO₂e, and conserved about 0.8 quadrillion BTUs. However, the missed opportunity caused by land filling the remaining packaging materials (those that are not recycled) is an additional 100 million metric tons of CO₂e, and almost 1.3 quadrillion BTUs. (USEPA Statement of Work for this project.)

ORCR has hired professional facilitators – Brad Sperber of The Keystone Center (www.keystone.org) and John Lingelbach of Decisions & Agreements, LLC (www.decideagree.com) – to conduct this issue assessment and facilitate a short series of stakeholder meetings.

The facilitators interviewed more than two dozen key stakeholders from industry, government and civil society during the preparation of this initial report. This initial report summarizes what the facilitators heard and what they recommend for a multi-stakeholder process going forward, and presents a starting point – in the form of an issues outline (Appendix B) – for such discussions. Viewpoints are not attributed to specific individuals, and no single opinion should be understood as supported by all interviewees. Instead, the document seeks to illustrate the range – and, where appropriate, the frequency or strength – of opinion about subjects central to understanding and surmounting the challenges of financing the recycling of packaging materials.

Part One synthesizes stakeholder input regarding the challenges with the current system, lessons to be learned from other systems, some initial recommendations for an optimal approach in the U.S., and suggestions for effective multi-stakeholder discussions to develop such an approach. Part Two presents the facilitators' recommendations regarding objectives and expectations for the short series of stakeholder meetings.

Key Stakeholder Perspectives

A) Defining the problem: challenges with the current system for municipal recycling

Many localities are faced with requirements to deal with post-consumer wastes but do not have the economic resources to pay for the optimal disposition of these wastes. Consequently, many states and municipalities are struggling with the economics of their existing recycling programs, and are trying to identify alternative financing schemes for them.

Most interviewees generally agreed with the premise that municipal recycling is facing a financial crisis – or, alternatively, presents as a case of chronic underachievement due to insufficient resources. Components of this financial challenge include decreasing resources, increasing amounts of consumer packaging, increasing complexity of consumer packaging, increasing expectations from citizens, and unstable markets for secondary (recovered) materials.

Lack of sufficient funding frequently is due to in part to competing demands for resources within communities. Several stakeholders observed that public funding intended to support recovery and recycling sometimes is redirected to support general revenue needs due to the pressures of the current economic climate. Recycling programs often are not considered high priorities when localities are obliged to cut costs.

Some individuals perceive a rapid increase in recent years in awareness and interest among an expanding cross-section of stakeholders – e.g., consumers, investors, company employees and new recruits. Packaging has become a focus of many consumers looking to lessen their impact on the environment. One interviewee reported cynicism among consumers who consider much of packaging wasteful and without clear purpose.

A number of interviewees noted the rapid evolution of the content of the municipal waste stream. Recycling infrastructure in many localities was designed to sort and be funded by a paper stream that is declining significantly in volume. Certain materials like plastic and aluminum containers are being thin-walled, and consequently more energy and resources are required to recover the same value. A good deal of packaging is not readily recyclable – e.g., PVC blister packs, clamshells, and composite materials that cannot easily be broken down into components. As the composition of the waste stream changes, commodities going out to the curb are diminishing in overall value, and equipment and other basic infrastructure components may become unsuitable or at least inefficient.

Interviewees expressed contrasting views about the potential profitability of municipal recycling. Some believe that recycling of packaging materials may never pay for itself and so anticipate that some level of public funding will always be needed. Several

stakeholders believe, however, that prospects for profitability could increase significantly through a range of strategies, including:

- Increasing infrastructure for collection and recovery, particularly to tap commercial and institutional sources of materials, thereby improving economies of scale.
- Motivating more consumers to recycle more consistently and habitually (thereby bringing value both to the environment and to the economy).
- Communicating to the public the actual costs of recycling, since recycling is often perceived as a free service.

Some stakeholders expressed the view that recycling rates and programs in the U.S. suffer from lack of both national leadership and a forum for national conversation. The waste management system in the U.S., given its gradual and organic evolution, is very dependent on local decisions and capabilities. Since the federal government has not provided national guidelines, municipalities are left to develop and pursue their own approaches. As a result, extremely variable financial imperatives at the local level are driving debate on the issue. Many interviewees – especially but not only from industry – voiced strong concern about the prospect of an emerging “patchwork” of contrasting state and local solutions creating burdens for producers, and unnecessary costs that would be passed on to consumers.

Additional factors relating to the financial challenges faced by municipal recycling of packaging, as suggested by one or more interviewees, include:

- The general lack of sufficient incentives, both for manufacturers (to focus heavily on recycling and re-use in package design) and for consumers (to sort materials in the waste stream appropriately).
- Industry’s need for a greater – and U.S.-based – supply of recovered materials.
- The tendency of materials manufacturers (e.g., glass, steel, aluminum, polymer) to protect their commercial interests across the entire value chain, making it difficult to reach agreement on significant change in any sector.
- Inefficiencies in management of the waste stream, since government programs are generally not run as (efficient) businesses.
- Concern about the future prospect of inflation in materials cost.

In summary, many stakeholders observed that recycling rates for packaging material are lower in the U.S. than in other developed countries. This is due at least in significant part to intractable public resource constraints, along with the evolving make-up and complexity of the waste stream. The current system of paying for recycling of packaging materials using public monies provides little incentive to producers to design and use more recyclable and less resource-intensive packaging materials. Also, there is a strong concern that the search for solutions to this situation will lead to a patchwork of programs and requirements in various jurisdictions across the U.S.

B) Lessons from existing systems

Interviewees were asked to identify successful or otherwise notable systems that are proposed (e.g., Vermont) or currently in operation in Europe, Canada, and elsewhere, determine characteristics of more successful systems, and assess the degree to which those successes might be replicable across the U.S.

Programs to learn from

In existing schemes in most of Europe and Canada, companies pay fees that are used to support recycling programs. Many stakeholders believe such an approach might make sense in the U.S., at least for certain types of products and/or materials. Other stakeholders are concerned about the cost levels and structures, degree of transparency, success conditions, and scientific basis of such programs.

Multiple interviewees suggested the following approaches as potential models to consider and from which to learn:

- *Belgium's Fost Plus program (www.fostplus.be):*
 - Legal basis is the European Directive on Packaging and Packaging Waste (1994, revised 2004) requiring responsible parties (producers, private label retailers, and importers) to meet mandated targets for recycling and recovery.
 - Focuses only on household packaging waste.
 - Managed by an accredited, non-profit organization which pays the full cost (it is funded by large manufacturers and retailers) and determines how to achieve the targets.
- *British Columbia*
(http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/449_2004 and <http://www.env.gov.bc.ca/epd/recycling/>)
 - "In British Columbia, Industry-led Product Stewardship is a government strategy to place the responsibility for end of life product management on the producer and consumers of a product and not the general taxpayer or local government."
 - British Columbia has a "framework" statute that establishes procedures and parameters for product stewardship programs for designated product categories.
 - When a product category is designated, producers must develop and submit plans for managing these materials to the Ministry of Environment.
 - Currently, packaging is not a designated product category though beverage containers are covered and required to be managed through a deposit-refund system.

- *Germany's Green Dot program* (<http://www.gruener-punkt.de/?L=1>)
 - The scheme is covered under the European Packaging and Packaging Waste Directive 94/62/EC, which is binding for any company whose products use packaging.
 - Manufacturers are required to recover their own packaging.
 - License fees are calculated according to pack weight, material type, and the volumes of product produced per year.
 - Funded by industry and operated in Germany by the Duales System Deutschland GmbH Corporation (DSD), which collects only packaging material from manufacturers that pay a license fee. Worldwide stewardship of the Green Dot logo is managed by PRO (Packaging Recovery Organisation) Europe.
- *Stewardship Ontario* (www.stewardshipontario.ca):
 - Legal basis is the Waste Diversion Act (2002).
 - Intended to address all manufactured projects (not solely packaging).
 - Fee structure is based on weight and package material type.
 - Industry self-managed organization required to pay 50% of net costs of Ontario municipal recycling programs.
- *Vermont Extended Producer Responsibility Act of 2010* (<http://www.leg.state.vt.us/docs/2010/bills/Intro/H-696.pdf>):
 - Outlines a framework of extended producer responsibility (EPR) or product stewardship as the basis for solid waste management, requiring producers of designated wastes to provide for collection and recovery as well as financing of the recovery system.
 - States a goal of 60 percent recycling of the designated materials.
 - Allows flexibility in the design, implementation and management of recovery programs as long as specified components are included.
 - Prohibits land disposal of designated materials.

Current or potential approaches in China, Japan, Minnesota, and Maine, as well as the U.S. product stewardship models for paint and e-waste, were also mentioned by individual interviewees.

Lessons to consider

Most interviewed stakeholders indicated a need for more information about the above approaches. However, based on the knowledge they already possessed, they variously suggested the following characteristics of more successful systems:

- Some kind of framework legislation or other mechanism that provides a consistent “rulebook” and level playing field.
- Clear objectives for implementation – targets that are stable but that can evolve over time as circumstances change.

- Enforcement capability to ensure accountability for those who do not comply.
- Design, selection of materials, appropriate infrastructure, and a conducive economic model are all important variables.

Interviewed stakeholders articulated the following lessons from implementation of these programs:

- Ensure widespread participation. (Don't allow "free riders.")
- Avoid perverse incentives. (For example, introducing deposit legislation while striving for EPR might impair the market that the latter approach is trying to establish.)
- Keep the system simple
- Build in flexibility so the system can adapt to changes in the materials that enter it.
- Strive for transparency (e.g., regarding cost levels and rationales).

Possible challenges of translating these systems into the U.S. context

Many interviewees raised questions, potential barriers or strong concerns regarding the prospects for replicating these key aspects of these approaches in the U.S. Stakeholders variously observed:

- The U.S. lacks the space constraints (for landfills) and other environmental pressures that influence much of Europe and Japan.
- The U.S. lacks national leadership and wide consensus regarding how to meet the challenges of recycling (and waste management generally).
- These schemes have not had a notable impact in driving reductions for packaging of fast-moving consumer groups.
- Costs in the U.S. may need to vary by region, unlike a relatively small country (such as Belgium) in which a uniform financing scheme can work.
- While some of these programs (notably Belgium) rely on active consumer participation (e.g., in transporting and sorting materials), the U.S. has a widespread cultural predisposition that works against mandating a solution that results in inconvenience or direct cost to the consumer.
- The level of across-the-board cooperation by manufacturers under Ontario's approach is not realistic in the U.S. – although it might be feasible for specific commodities.
- Shared government/manufacturer financing (e.g., Ontario to date) would be too difficult to negotiate, coordinate and maintain. Full manufacturer funding would work best in the U.S.

Some interviewees also raised questions or concerns about the scientific principles, fee structures, incentives, and/or degree of transparency of one or more of these approaches.

C) Recommendations for an optimal system in the United States

When asked to characterize an ideal approach for the U.S. and to suggest appropriate roles for stakeholder groups in support of that approach, stakeholders generally focused more on considerations of principle and strategy than on mechanics or quantitative factors. While viewpoints and emphases varied – in some cases considerably – some important themes emerged.

General suggestions

Major issue areas are noted below in italics, with distinct viewpoints presented in bulleted form. As with the rest of this document, these viewpoints illustrate a range of opinion and do not typically represent the views of all responding stakeholders.

Dialogue, collaboration and coordination

- A sense of shared ownership is needed among consumers, government, industry, retailers. A common vision needs to unite the regulatory and regulated communities.
- A great deal of collaboration and many partnerships will be needed for a workable national approach to emerge.
- Government must take a proactive approach in bringing everyone to the table and keeping diverse stakeholders involved.

National framework and leadership

- National guidance and common general principles are needed to ensure consistency across the country. Many stakeholders believe a “national rulebook” is needed to ensure harmonization – e.g., EPA participating in the development of standards and guidelines, and encouraging the states to follow a uniform path.
- Opinions differ on whether a legislative framework is necessary or feasible. Some stakeholders believe national legislation would be ideal but may not be essential. Short of such legislation, a critical mass of influential industry leaders must adopt meaningful voluntary measures.

Need for prioritization

- Many interviewees believe that the system must establish priorities rather than attempt to do all things at once. (At least a few believe, however, that the system needs to treat all parties and products equally.)
- Considerations for prioritization include population density, proximity to industrial capacity (“We need to acknowledge that we can’t reach every household in the U.S... We can’t pattern a waste recovery system after the U.S. postal system”), packaging types, and material types.

Infrastructure

- The overall system could define the value of a particular product or material, prioritize what should be collected, and then develop individual systems for those priority materials.
- Alternatively, a comprehensive system could be developed in which the more valuable materials pay for the accommodation for materials that currently have less value in the marketplace.

Funding structure

- The funding structure should be based on life cycle science rather than on politics.
- The system needs to be transparent in terms of the basis for calculating fees – why the fees are what they are for each material type.
- Appropriate incentives need to be reflected in the funding structure.
- Fees could be based on which packaging or material types have less well developed recovery solutions. Those types would then effectively fund the collection process. The fee for a given packaging or material type should be lowered as the recovery solution improves.
- The financial model could be based on population density, to avoid arranging and paying to ship materials thousands of miles to be reclaimed.
- Setting brand owner fees based on recyclability of packaging can have unexpected consequences – e.g., preventing an innovation from coming to market.

Degree of flexibility

- The system must be flexible enough to evolve over time and respond to performance information.
- The approach should avoid being overly prescriptive, allowing for innovation and efficiency measures in implementation.

Growing from a foundation

Several individuals expressed concern that a truly uniform national system may be too ambitious a goal at the outset. Suggested alternatives include:

- Moving forward with a few states at a time, building momentum incrementally and demonstrating success and learning along the way.
- Building a pilot in one or two states and learning what works.
- Setting tiers for state involvement depending on interest and readiness, providing a wide band of acceptable performance within which states can make their own decisions. Every state could be subject to certain national goals, but with variation allowed (and coordinated) regarding how states met those goals.

Formulating goals

Very few interviewees suggested specific quantitative goals or targets for an optimal system, although some emphasized the importance of setting goals that are science-based, realistic, and adjustable over time.

One stakeholder recommended a national goal of less than 5% of municipal solid waste going to landfills. Another stressed the importance of developing standardized performance metrics to ensure that the system's operating characteristics and relative strengths and weaknesses can be understood over time.

Incentivizing change

Many interviewees stressed the importance of determining the changes that a robust system needs to bring about, and devising incentives accordingly. Those changes include:

- For industry – Designing products and packages in a manner conducive to recovery, recycling and re-use.
- For consumers – Purchasing products and sorting wastes in a manner that favors recycling and re-use.

Funding the needed system

Stakeholders offered a range of views on how the system should be financed, and most recommended at least some increase in the role of industry in light of financial limitations faced by municipalities and states. Viewpoints included:

- Costs (and responsibility) for the collection and disposition of packaging materials should be shifted entirely from local governments to producers.
- At least some degree of government (taxpayer-funded) support should continue.
- Households should pay some amount for the availability of recycling infrastructure.

Managing the system

Few stakeholders offered perspectives on management or control of the needed approach. However, one interviewee suggested that local governments will need to cede to industry at least *some* degree over the financing of managing the waste stream, which means revenue models will need to change for those government entities. Another interviewee offered the (potentially) contrasting perspective that it would be very difficult to alter the assumption of consumers that taking care of their trash is the job of government.

Packaging stewardship / EPR

Interviewees generally used these two terms interchangeably, and expressed a range of views regarding the concept of industry paying some or all of the cost of recycling packaging materials. Viewpoints included:

- Such an approach is essential.
- Such an approach would be extremely valuable, although its development may require a consensus-based, national dialogue since it may be not be feasible for a state to mandate that packaging materials meet certain requirements.
- It is important to consider such an approach to municipal recycling as long as municipalities are given both sufficient time and clarity regarding the vision, and involved in the creation of the approach so that their challenges (e.g., stranded costs, potential impacts at the local level) can be addressed.
- Any such approach needs to be affordable – i.e., avoiding prohibitive costs to obligated companies.

Roles of government, industry, and consumers

Stakeholders suggested a range of roles for government agencies, corporations, and consumers to play in developing and implementing the needed approach.

Government

- Convening and facilitating a national dialogue at the federal level.
- Establishing the frameworks in collaboration with other sectors – i.e., creating the “rulebook.” (Some interviewees believe this must be a federal responsibility in order to ensure nationwide convening influence, reach, transparency, and a level playing field.)
 - Creating the legal framework
 - Setting goals and targets to drive performance
 - Setting implementation timeframes
- Overseeing the system and enforcing the rules. (One interviewee suggested that the federal government needs the power to hold states to specific targets, but that there may be a role for states to play depending on the legislative construct.)
- Ensuring a high degree of transparency of the system’s rationales and its operation.
- Continuing to some degree with financing responsibility at the local level.
- Striving for consistency across jurisdictions.
- Ensuring that any recycling legislation meshes with other state-specific legislative needs.
- Taking supportive action to help determine the economics of disposal – e.g., placing disposal bans on certain materials as indicated by the new system’s priorities.
- Authorizing the recovery organization(s).

- Providing appropriate incentives (including, according to some interviewees, incentivizing participation by consumers via pay-as-you-throw or other strategies).
- Serving as a clearinghouse of information for consumers, and helping to educate the public regarding the real costs to society of waste disposition as well as how (and why) to participate in the system.

Industry

- Assuming a greater degree of ownership of products and materials throughout the life cycle, through –
 - Creating products with the least amount of waste possible while preserving safety and facilitating intended use.
 - Minimizing waste from operations (and disposing of it properly).
 - Designing products to be compatible with existing waste management systems.
 - Reducing the amount of packaging in the market.
 - Designing packages (and specifying materials) for recycling and re-use, ensuring that end-of-life is as economically and environmentally sustainable as possible – to the point, according to some stakeholders, of ensuring that anything manufactured can be re-used or recycled somehow.
- Assuming greater financial responsibility for disposition of packaging wastes. (Scenarios range from partial to full funding.)
- Working with government to define recycling targets.
- Developing the program in partnership with government and NGOs.
- Participating in operation of the system (whether in a lead or supporting role).
- Establishing legal constructs as needed to coordinate industry action – evolving an organization that can represent the interests of all packaging materials and formats.
- Maintaining recovery organizations that –
 - Design and develop methods of collection
 - Ensure packages are collected and reported
 - Conduct extensive education and outreach
- Helping to educate consumers regarding relevant changes to product lines (i.e., packaging and materials), the real costs to society of waste disposition, and how (and why) to participate in the system.

Consumers

- Cultivating stewardship behaviors that support less costly end-of-life solutions. Specifically, participating in the system by separating and sorting waste appropriately.
- Calling for companies to participate in the system.
- Putting pressure on private industry to develop alternative packaging (biodegradable, compostable, etc.).

- Ultimately paying the cost of the system, whether through taxes, product prices, disposal fees, or a combination.

D) Suggestions regarding this multi-stakeholder process

Many interviewees emphasized the need for this discussion, in some cases noting that their organizations were under significant pressure to demonstrate meaningful progress on the issue but that they are trying to defer to the course EPA has set for multi-stakeholder dialogue and collaboration.

Reflections on EPA's role

Several individuals voiced support and appreciation for EPA as the “right convenor” for such a dialogue, as a “credible, impartial body” with national influence but without a predetermined agenda. However, one interviewee stressed the importance of the agency’s appointed leadership (at the level of Office Director and higher) engaging actively in the dialogue as it continues, visibly championing and supporting the initiative.

A few interviewees – generally from industry – raised questions or concerns about EPA’s intended timing and objectives for this effort. Belief that the U.S. EPA generally has not exerted strong leadership on this issue during recent years leads some to wonder whether a certain outcome to the deliberations is anticipated.

Feedback on the scope of discussion

Interviewees commented on the scope of inquiry advanced by EPA: sustainable financing of municipal recycling of packaging material. Most feedback concentrated on the explicit focus on recycling, although some individuals focused on the range of materials to consider and/or the possible role of EPR in the discussions.

Perspectives on the focus on recycling

Several stakeholders – largely from industry – raised concerns about the assumption of recycling as the single waste management solution to be addressed.

Some of those individuals believe that the scope should be more holistic, exploring how best to maximize the recovery of value (in financial and environmental terms) from the municipal solid waste stream. Also, recycling does not make sense in every community since volumes, industrial capacity, and population density vary locally and regionally. The zone of inquiry could therefore be expanded to allow an integrated waste management approach that includes composting and waste-to-energy rather than assuming a single waste management solution. An integrated approach – focusing on finding the right recovery option for each set of circumstances – could examine the

existing waste stream and infrastructure, consider life cycle assessment and economic realities, and determine the appropriate management strategy for each individual case.

A handful of interviewees expressed concern that positioning recycling as the only focus could favor a preference for bottle bill legislation, believed by those interviewees to be too narrow a solution for most stakeholders.

Some other interviewees believe, however, that the conversation should remain focused on recycling as a workable starting point (“don’t let the perfect be the enemy of the good,” “we need to start somewhere,” “the group needs to get started and get something done”).

Materials

Some interviewees offered perspectives on the range of materials that should be addressed during the discussions. Viewpoints expressed included the following:

- The scope should include all forms of packaging, defined broadly (to include, for example, transport packaging such as pallets)
- The scope should focus on priority material types (e.g., aluminum, cardboard, steel).

Extended Producer Responsibility

Some individuals commented on the absence of EPR from the scope of inquiry. A few (from various sectors) commented that EPR should be an explicit part of the statement of purpose for this multilateral discussion, generally believing that some degree of producer responsibility is the intended subject and/or the most obvious remedy to the current financial challenges in municipal recycling. A handful of stakeholders stated, however, that EPR is too broad a subject given the need for meaningful and near-term action, and that a somewhat narrower but still reasonably holistic focus on sustainable waste management – i.e., end-of-life management of key materials – would be more productive.

Information for the process to take into account

In most cases, interviewees stressed the importance of informing deliberation and decision-making through careful consideration of notable programs and relevant trends. In particular, stakeholders suggested the aggregation or development of case studies of certain existing non-U.S. systems, information regarding activity among state and local governments, and data regarding industry efforts.

Existing systems from which to learn

Interviewees most often suggested the development of case studies or detailed overviews of the five approaches highlighted above in Section B: Belgium’s Fost Plus program,

British Columbia's product stewardship effort, Germany's Green Dot program, Stewardship Ontario, and Vermont's producer responsibility legislation. Specific data points suggested include:

- Basic principles of system operation (e.g., whether legislation establishes a level playing field, how material collection was authorized and is managed)
- What the specific targets are and how they were developed
- Details of financial structures (e.g., whether and how fees vary according to material type or other factors, how size of producer affects participation, how fees are collected)
- How participation is ensured (i.e., how to avoid free riders)
- Differences in how materials vary by region
- Identification and analysis of success factors (e.g., cultural factors, national leadership, pre-existing infrastructure, public sentiment, economic drivers)

More broadly, a few individuals also suggested undertaking a comparison between EPR and non-EPR indicators in different regions, to gauge the impacts of different approaches.

Information regarding state and local government activity

At least some interviewees perceive great value in collecting and assessing certain kinds of information about government efforts, responsibilities and challenges at the state and local level. Individuals variously expressed interest in learning about the level of financial inputs currently provided by communities (i.e., the investment already being made by government agencies), recovery rates currently being achieved in different states (and in the U.S. as a whole) for key material types, the current landscape of relevant state legislation, and existing recycling infrastructure.

Information regarding industry efforts

Some interviewees emphasized the importance of understanding packaging changes over the past 20-30 years, including changes in cost, package size and shape, and materials innovation and other technological improvements. Such information could provide insight into how the waste stream has evolved and might evolve.

Additionally, some stakeholders expressed interest in learning about any relevant priorities or efforts of major retailers.

Composition of the dialogue group

There is generally strong agreement that representatives of government (federal, state and local), industry (manufacturers and retailers) and advocacy organizations (NGOs, coalitions, etc.) should be closely involved in whatever dialogue proceeds. (Several interviewees also stressed the importance of keeping the core discussion group as small as possible.)

Many individuals suggested the involvement (whether as full-on participants or expert presenters) of parties not presently included in this EPA-convened effort. Suggestions included (in rough order of frequency of mention):

- Representatives of the waste management industry, including waste and recycling haulers (e.g., Allied, Browning Ferris, Waste Management)
- Academicians with cutting-edge packaging design expertise, as well as non-biased, nonpartisan perspectives (Michigan State University and Clemson University were frequently cited as likely sources)
- Specialty consultants (e.g., Packaging Consulting International, DSM Environmental)
- Packaging converters and material suppliers (e.g., Dow, DuPont, Weyerhaeuser)
- Communities engaged in exemplary recycling efforts (with representation from rural, urban, and suburban areas)
- A more diverse array of manufacturers (e.g., clothing, electronics, toys, maybe automobiles)
- Think tanks that can offer compelling cost models
- Purchasers or procurement officers from a range of organizations

Other considerations

Some individuals suggested that trade associations could serve as helpful resources to a dialogue. A few cautioned against involving them as “consenting parties” in the discussion since such associations often do not enjoy the flexibility to advocate for or agree to progressive action to the same degree as leadership companies.

One (non-industry, non-governmental) individual expressed caution about involving NGOs as “consenting parties” since they may not be positioned to consider alternatives to already-articulated agendas.

A few interviewees stressed the importance of involving companies that use a wide palette of materials, to allow a breadth of informed focus on a variety of needs and possible solutions.

Several interviewees noted that commodity groups (e.g., glass packaging, PET manufacturing, steel recycling, paper manufacturing) have a stake in this process, but opinions differed on whether those groups should be at the table at this point.

Possible outcomes and outputs

Stakeholders expressed a wide range of hopes and expectations for what a dialogue – whether limited to two meetings or extended over a longer period – might achieve, but many stressed the need for identification of clear, implementable actions. Several individuals referenced previous forums on the topic that produced only problem

statements or very general (or overly ambitious) solutions. A sense of urgency to make tough decisions and begin to take action exists across sectors.

Interviewees suggested an array of potential work products that might result from a successful dialogue, including:

- An inventory of leading approaches around the world – e.g., characteristics, success factors and challenges, performance data, details of financial structures
- Principles and guidelines to inform future development of national targets, model framework legislation, and/or an implementable program
- A robust and realistic set of targets for recycling of packaging materials
- A draft of model framework legislation
- A fully developed program to pilot in one state or a few states

Other considerations for the dialogue

Duration of discussions

Many stakeholders believe that a commitment to ongoing dialogue – over the course of several meetings – will be necessary to achieve meaningful, “actionable” results.

Industry members were most likely to believe that a sustained, patient dialogue over time is needed to develop sustainable solutions to the current challenges. Some interviewees noted that the issue is sufficiently important to consumer products companies, retailer and consumers that a critical mass of industry executives will be willing to participate actively in a longer term dialogue.

Others suggested that the timing is ripe – and resources sufficiently restrained – so any dialogue ought to be very focused and as expeditious as practical, perhaps not longer than four or five meetings.

Definition of terms

Several interviewees stressed the importance of defining key terms at the outset. Terms or concepts requiring clarification include:

- “Packaging” (for example, whether cardboard boxes generated by on-line shopping should be included)
- “Recycling”
- “Municipal”
- “Producer”
- “Extended producer responsibility”

Challenging issues to anticipate

A handful of discrete topics emerged from discussions with stakeholders as likely points of significant deliberation and debate, either because individuals highlighted them as such or because numerous contrasting perspectives were offered. Those issues include pay-as-you-throw approaches to financing, deposit legislation, and EPR.

Some favor considering a pay-as-you-throw approach (in which consumers pay a fee based on the volume of waste discarded, and reduced or no fees for the volume of materials recycled), believing it to be equitable, transparent, and helpful in maximizing recovery since it can incentivize consumers to sort and divert waste appropriately. They generally believe that such approaches show a positive impact on municipal solid waste streams. Other individuals consider pay-as-you-throw an extremely difficult concept to sell politically, especially at the local level, and also note that it does not begin to address the present financial challenge since it relies on public funding.

Many interviewees mentioned deposit legislation (“bottle bills”), either as a strategy to consider implementing broadly, an approach that should be continued in states where it has already proven effective, or as a topic that should be avoided if possible because of its perceived divisiveness. Most stakeholders that referenced deposit legislation believe, variously, that deposit-driven strategies are costly, inefficient, and overly bureaucratic. Many raised a concern that allowing the discussion to focus substantially on bottle bills would constitute undue attention to a narrow part of the municipal waste stream. A few pointed out, however, that the approach has achieved high diversion rates in several states.

Opinions differ among stakeholders regarding whether EPR should serve as the framework for a uniform national approach. Some believe that EPR is gaining momentum throughout Europe and (more gradually) in the U.S., along with increased expectation that companies should pay for disposition of packaging they create. Since results seem to vary by country, an EPR approach should be tailored to the U.S. context. Some stakeholders (largely from the private sector) raise concerns about the potential costs of an EPR system, perceived lack of transparency regarding how fees contributed by industry are calculated and used in existing programs, and the feasibility of motivating behavior change among consumers by embedding more cost in the purchase price of packaged products.

Part Two: Process Considerations and Design

Analysis of the Opportunity for Dialogue

Sperber and Lingelbach undertook preliminary discussions with key stakeholders in part to inform their initial evaluation of how to proceed with the short series of stakeholder meetings. Following the first one or two meetings, the facilitators will provide formal recommendations as appropriate regarding the process and objectives of the remainder of the anticipated meetings. In part, these recommendations will address the following questions:

- Given the interests of key stakeholders, what could a multi-stakeholder dialogue fruitfully address at this time?
- If there is potential for a fruitful dialogue, how should it be structured to maximize productivity and the likelihood of success?

At this time, it is clear that a critical mass of key stakeholders (as identified by EPA staff) demonstrates strong interest in engaging in collaborative discussion of these challenges. Lingelbach and Sperber therefore recommend convening those stakeholders for the first couple of meetings for the purpose of articulating areas of initial convergence and testing areas of apparent divergence.

Stakeholders across sectors appear to agree that an important problem exists and requires a solution, although they may define and experience that problem in different ways. The facilitators heard a broad range of current “problems” that various interviewees stated would be worth discussing and trying to address. Some of these garnered strong interest from a number of stakeholders. Based on that input, the following problem statement could serve as an appropriate starting point for dialogue:

The current system(s) for recycling of packaging materials in the U.S. is not working as effectively as those in some other countries and, without collaborative intervention by key stakeholders from both public and private sectors, is not going to improve. Problems include:

- a) Low recycling rates (relative to other developed countries)*
- b) Lack of funds to improve recycling rates*
- c) Packaging that is not designed for end-of-life management/resource recovery*
- d) Potential for inconsistent extended producer responsibility (EPR) laws in various jurisdictions across the country as States and local governments attempt to address (a) – (c) above*
- e) Potential for EPR laws that call for brand owner funding of programs without providing brand owners with the means of managing, and/or controlling the costs of, the program*

The facilitators generally encountered a greater sense of urgency from state and local government officials, and less from industry representatives. This difference is likely due at least in large part to the fact that the government agencies are faced with real and immediate financing challenges, and in some cases with legislative schedules to meet or opportunities on which to capitalize. The difference could also indicate that private sector stakeholders typically are placing greater value on a high degree of national uniformity, to the point of preferring to help build a truly national system rather than an array of state-by-state or locality-by-locality approaches that are simply more aligned than they would be otherwise. Therefore, a significant consideration in ultimately determining how to proceed will be whether stakeholders are willing and able to agree on a specific timeline and outcome for such a dialogue. Objectives of such an effort also could be shaped significantly by the time (and resources) available for the pursuit of them.