Guidance for Producer Funded Recycling Collection Legislation
1. Introduction

Recycling is the workhorse of the coming circular economy – the engine that will drive it forward. Recycling has the potential to capture the full value of packaging and materials, enhance the U.S. economy, create jobs, and help reduce emissions and environmental impact.

The aging and under-invested U.S. recycling system is at a critical juncture. Companies are setting ambitious packaging sustainability targets and more than 83% of Americans strongly support recycling, but the system as currently designed and funded is failing to meet these demands and provide robust streams of recycled materials for domestic supply chains.

Producer responsibility is a policy tool that directs manufacturers and brand owners to manage products and packaging from design to end-of-life. There are various producer responsibility laws for packaging and printed paper worldwide – the primary concept requires packaging producers to fund the operational, infrastructural, and educational costs of recycling. Producers could play a prominent role in bringing critically needed capital to level up a struggling U.S. residential recycling system and support a robust supply chain.

Depending on what producer responsibility model is chosen, fees collected by producer responsibility programs can provide differing levels of sustainable funding for residential recycling infrastructure, education, and operations while concurrently driving packaging innovations to improve the effectiveness and efficiency of the system.

This guidance memo is intended to inform and support policymakers by providing leading practices and defining key elements that are applicable to any model of producer responsibility program for packaging and printed paper.

2. Governance

While the allocation of financial responsibility established by producer-funded recycling programs dominates much of the policy dialogue associated with these measures, the structure and responsibilities of the entities that govern the program are essential to a well-functioning and effective system.

The governance of producer-funded recycling programs is typically split between two entities: the producer responsibility organization (PRO) and the state regulatory authority. The tasks assigned to each vary widely depending on the proposals for a particular state and the details of the program. The following are considered leading practices in producer-funded program governance.
An obligated producer is an entity (including for profit or not-for-profit) that places packaging or printed paper into the regulated market in greater quantities than the de minimis amounts. The obligation typically extends to all designated packaging and printed paper that may enter the municipal waste management system regardless of whether it is recycled, composted, or disposed of. Examples of obligated producers include:

**Brand owners** – Including retail brands and take out restaurants are obligated for their packaging and printed paper that will ultimately be disposed of by the consumer (not including packaging that may stay at the retailer).

**Retailers** – for all packaging and printed paper related to their private label products, service packaging and printed fliers, and products they import that do not have an obligated producer. Service Packaging, or point-of-sale packaging is packaging added by a retailer and can include bags provided at checkout, packaging added at the deli, and bakery or prescription containers when the pills are removed from the original container.

**E-commerce sellers** – for all packaging and printed paper from their private-label products, packaging or printed paper they add to branded products (e.g., shipping or transport packaging), and products they import that do not have an obligated producer.

**The Role of the State Agency**

The state regulatory authority typically has two key roles in program governance, as defined in the enabling legislation:

1. Ensure a level playing field among the obligated producers; and

2. Monitor the overall compliance and progress toward the goals of the program.

To ensure a level playing field, the statute should require producers to register with the PRO, which subsequently should report all registered producers to the state agency. If the PRO chooses to collaborate with the state agency to work to identify producers who are not registered, the state can initiate compliance actions and, if necessary, enforcement activity. The specific penalties for non-compliance may be stipulated in the implementing statute or may stem from the state agency’s broader enforcement authority. The state agency and PRO should consider adjustments or clarifications to the legislation are more efficacious than additional compliance actions and enforcement activity. The PRO may take additional efforts to publicize the program among producers to minimize non-compliance, including reaching out to affected industries’ trade associations.
To ensure program effectiveness, the state agency typically will review and comment on the plan and ultimately approve the PRO plan prior to program initiation, pursuant to the timeline established in the legislation. The state agency will work with the PRO to establish goals and milestones throughout the plan review and approval process. The state agency also will review annual program reports to monitor progress, and where necessary, stipulate corrective actions that must be taken by the producers or PRO to bring the program into compliance with the goals of the plan or the statutory requirements. The state agency ultimately should have sole regulatory authority over the PRO.

In addition to these two primary activities, the state agency can, in some cases, serve as a central communications role with the various program participants to ensure they understand their obligations and responsibilities. The state agency also must interpret any provisions in the implementing statute that may be unclear and define how the program responsibilities align with other regulatory responsibilities that program participants may be subject to in a clear and user-friendly manner.

**The Challenges of Multiple Producer Organizations**

Some of the existing statutes that underpin producer funded recycling programs in the U.S. allow for individual company compliance or permit more than one organization to act on behalf of the producers. While competition among PROs is intended to create more flexibility for producers, reduce costs, and foster innovation, the implementation and oversight challenges often outweigh any potential advantages. For example, systems that allow for multiple organizations require a neutral entity to coordinate activities and allocate responsibilities equitably among the organizations to reduce duplicative services and ensure that the overall objectives of the program (e.g., recycling collection or access rates) are met. Furthermore, a competitive model allows for obligated producers to move between organizations which makes planning and cost modeling challenging for each organization. For those reasons, a single PRO model is recommended, particularly given the complexities of managing packaging and printed paper. However, if legislation allows for more than one producer organization, it should include provisions to ensure mandatory consistent coordination to overcome known implementation and oversight challenges.
Producer Responsibility Organization Structure

At a high level, the PRO, sometimes referred to as a stewardship organization or PRO, is primarily responsible for the planning, financing, and implementation of the producer-funded recycling programs.

In the U.S., the vast majority of PROs are legally organized as 501(c)(3) charitable non-profits. This organizational designation is favored because it requires a greater degree of transparency of finances and auditing than other corporate structures and, due to the organizational designation for a public benefit, helps to minimize concerns regarding monopolistic or anti-competitive conduct behavior.

The PRO’s board of directors should be composed of those with fiduciary responsibility to the organization and to the objectives outlined in the enabling legislation and plan. Given that most producer-funded recycling programs place those responsibilities on producers, a composition that reflects a broad representation of producers, in terms of size of annual revenue as well as use of material types, formats, and product types, is ideal. This approach to board composition also diminishes the potential for conflicts of interest that may arise in multi-stakeholder board arrangements where a board member may have a direct financial relationship with the organization. In addition, material trade associations could hold non-voting board seats to provide technical expertise. As with structures for other governing boards, committees composed of board members that focus on particular topics (e.g., finances, programs) are suggested. Board members should be elected by the stewards and serve defined terms (with a maximum number of terms stipulated) to ensure accountability.

A key question is whether it is preferable to have one organization capable of functioning in multiple states simultaneously, or separate legal entities in each state. Experience in the U.S. has demonstrated that a single organization that functions in multiple states is an effective model. For example, PaintCare operates programs in ten states and the District of Columbia, the Mattress Recycling Council runs the Bye Bye Mattress program in three states, and Call2Recycle has programs in seven states with mandatory battery recycling programs while offering collection in other states on a voluntary basis. A single, multi-state organization offers the following benefits:

• Supports consistency among state programs, where possible given potential statutory constraints
• Reduces PRO administrative and operational costs
• Reduces enforcement costs for the regulatory agency
• Eases compliance for producers by allowing for consistent fee categories and reporting requirements, including managing regional sales across state borders

The single-organization model can work in tandem with state-specific advisory councils (see below) that can provide feedback and engage with the PRO on program dynamics and state-specific challenges.

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Duties and Responsibilities of the Producer Responsibility Organization

While the specific responsibilities of the PRO vary by program and often by jurisdiction, they can be grouped into several broad categories.

<table>
<thead>
<tr>
<th>PRO Responsibilities</th>
<th>Financial</th>
<th>Planning</th>
<th>Engagement</th>
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</thead>
<tbody>
<tr>
<td>- Define annual program needs, based on needs assessment</td>
<td>- Execute needs assessment</td>
<td>- Inform responsible entities of obligations</td>
<td></td>
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<tr>
<td>- Set fees based on principles</td>
<td>- Develop program plan to achieve statutory goals (every 5 years)</td>
<td>- Involve the public and stakeholders in review of needs assessment and program plan</td>
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<tr>
<td>- Collect fees from obligated entities</td>
<td>- Submit annual reports</td>
<td>- Maintain communications through webinars, social media, public meetings and direct outreach</td>
<td></td>
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<tr>
<td>- Disburse funds to eligible entities to achieve plan objectives</td>
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**Financial Management**

A core function of the PRO is to determine the necessary annual program expenses based on the needs assessment and reasonable costs of delivering services, allocate those expenses through the setting of fees (eco-modulated to reflect program priorities), and disburse the funds to achieve the program objectives. To facilitate the collection of fees, the organization must develop a procedure for producers to submit required sales and related data, fee setting formula, and fee remittance procedures. The organization must also develop the operating agreements with service providers, determine granting and financial transfer mechanisms to fund the activities and investments required to implement and operate the program, and implement auditing procedures to ensure that state-specific reporting, particularly on financial transactions, is accurate.

**Plan Development**

A critical function of the PRO is the development of a program plan that outlines specific goals tied to overall statutory requirements and collection targets, identifies objectives and timelines, defines the activities that will be undertaken, and specifies the actors who will be engaged to achieve those goals and objectives. The program plan is typically prepared and financed by the PRO and outlines how it will comply with legislative requirements. While the PRO develops the plan, the plan should undergo some level of public and stakeholder review prior to being formally submitted to the state regulatory authority.

**Needs Assessment**

Prior to the production of the program plan, a needs assessment should be completed to define the investments and activities necessary to achieve the legislative goals, taking into account current levels of investment to ensure fair compensation. The scope and methodology of the needs assessment should be agreed upon and approved by the state regulatory authority and PRO prior to its implementation and reviewed by a stakeholder advisory council, where appropriate. The reasonable costs of completing a needs assessment will be funded by the PRO, either as a direct expense or reimbursement to the state regulatory authority.

**Engagement**

An effective PRO governance model provides robust opportunities for engagement of stakeholders and the public in the design, functions, and operations of the producer-funded program. A myriad of strategies exist to engage stakeholders, but an identified and structured approach specified in the legislation that authorizes the program is recommended.
The PRO plays a critical role in the engagement of responsible entities and program service providers (municipalities, haulers, and Materials Recovery Facilities (MRFs)) as well as providing public education to encourage participation by residents to recycle and improve the quality of what is recycled. This is of particular importance for packaging and printed paper programs that have a broad range of responsibilities and large number of direct participants. These activities typically include maintaining a website and social media presence, investing in paid and in-kind advertising, and providing education and outreach materials to community programs.

Either the PRO or the state regulatory authority may be responsible for reaching out to obligated producers and informing them of their obligation as well as the opportunity or requirement (depending on the structure of the state law) to participate in the PRO. The organization should then inform both the state and the other producers of the obligated entities that have joined the PRO. The organization should also inform all program service providers about program expectations and operations.

The preparation of the plan offers an important opportunity for program service providers, material trade associations, other stakeholders, and the general public to provide feedback on elements of the program. Leading practices for engaging those parties in review include webinars, public meetings, and direct outreach to important constituencies.

A statutorily required advisory board or committee is an increasingly common feature of the producer-funded program landscape in the U.S. These types of boards are typically advisory and consultative and provide feedback and technical expertise to both the organization and the regulatory authority. A formal means of communicating advisory board feedback to the PRO board should be established. The responsibilities of an advisory board could include:

- Reviewing the program plan and advise the regulatory authority; the regulatory authority would ultimately have to approve or reject the plan
- Reviewing annual reports and provide comments to the PRO and the regulatory agency
- Providing ongoing program evaluation to identify issues that are inhibiting program success and help to identify necessary course corrections

The advisory committee members typically represent a range of stakeholder interests who can bring expertise to bear on relevant issues before the state agency. The group may include local governments, recyclers, collectors, manufacturers of different printed paper and packaging materials that use post-consumer recycled content, and environmental advocacy and environmental justice organizations, among others, who are appointed by the environmental regulatory authority. While the advisory committee may have significant communication with the PRO and may be administered by the agency, it should function as an independent body. The role of the advisory committee should be to advise and review, providing recommendations to the relevant regulatory agency or the PRO.

### Material Flows in EPR for PPP Programs

Most EPR for Printed Paper and Packaging (PPP) programs involve brands and retailers, through their PROs, reimbursing municipalities for some or all of the costs of recycling collection and processing, or contracting with private companies to provide recycling services. In either instance for curbside recycling collection, the material flows rarely differ from what they are today. Collectors gather materials from households and deliver to a MRF; MRF operators sort the materials into commodities that are sold to end markets. With the ambitious collection goals required of most EPR systems, MRF operators and collectors are often able to expand business to accommodate the new requirements.

It is becoming increasingly common for recycling processing contracts in both EPR and non-EPR jurisdictions to require reporting of end market destinations or to specify that materials must be marketed to “responsible” end markets (e.g., OECD countries, or those that operate under similar standards). It is not common, to date, for brands or PROs to take ownership of the materials processed through the EPR for PPP programs, or to dictate which end markets they are ultimately sold to. As EPR for PPP develops in the U.S., policymakers are considering including provisions that allow PROs the “right of first refusal” on commodities produced by the producer-funded system. In 2021, proposed legislation in New York and Washington have included such provisions, as a reflection of a goal to have EPR help drive a circular economy for packaging.
3. System Cost Determination

**Principles**

When establishing fees for producer funded packaging and printed paper programs, the PRO must estimate and account for the level of investment needed for all in-scope activities of the packaging and printed paper materials management. The level of investment needed should be defined through a needs assessment that sets the framework for a five-year investment plan. Ultimately, the needs assessment must define the system costs, including reimbursement needs, or investment of both operating and capital funds to achieve the program goals. The goals may include:

- Meeting quantitative and/or qualitative recycling targets
- Achieving recycling access that is as convenient as waste disposal
- Driving participation and reducing contamination through education and outreach
- Improvements to materials recovery facilities (MRFs), material processing, or other infrastructure through capital investments
- Ensuring proper oversight through required reimbursement of state costs

**Needs Assessment**

Producer-funded programs must fund activities and investments that contribute directly to achieving the targets and outcomes required in the authorizing statute. A needs assessment is critical for establishing a baseline level of investment needed to comply with statutory requirements, no matter the scope of the law – shared or full producer responsibility. The needs assessment should consider local circumstances so that a solution is customized to the unique needs of the state or region. At a minimum, the needs assessment should address:

- The infrastructure necessary to maximize collection, sortation, and recycling of the materials covered (or potentially covered) by the program
- The public education, outreach and engagement programs, and activities necessary to maximize participation and minimize contamination
- Cost estimates for addressing each of the identified needs and achieving the goals and performance targets
- Reasonable and regionally appropriate costs for providing recycling services, including costs such as staffing, existing equipment and facility maintenance, potential infrastructure upgrades and MRF tipping fees

The needs assessment should define the support and investment required to get from the initial level of performance to the statutorily required goal, but not necessarily identify the specific entities that will receive the producer funding to achieve that goal. To ensure that funds are disbursed in a fair and equitable manner, the PRO should establish a competitive process for fund disbursement and/or investments. The process should be designed to:

- Articulate the need(s) to be filled (education, infrastructure or otherwise) and the types of projects or investments that will be considered to fill the need(s)
- Clearly define the application process, including format, deadlines, funding limits, etc., or the standards/requirements for reimbursement if required in the authorizing legislation
- Promote the availability of funds to a broad base of sectors, organizations and entities that are eligible for funding and appropriate to meet the identified need (for more on entities, see below)
**Performance Standards**

Clearly defined performance standards are critical to the success of producer-funded recycling programs around the globe. However, performance standards in producer-funded systems are many and varied. Typically, standards are either specified in the authorizing legislation, or established by the PRO in its program plan.

Performance standards vary based on the particular program design and are often determined by which activities fall within the purview and authority of the obligated program participants. While numerical performance standards should vary in accordance with the existing needs and characteristics of the recycling system where a producer responsibility program is implemented, it is critically important to achieve consistency and alignment amongst such standards. The definitions and methodologies for measuring and reporting performance standards should be harmonized to the extent that is feasible in order to reduce unnecessary administrative burden and reporting costs. Typically, such standards are enforceable in that the PRO or individual companies can face penalties or other enforcement actions for failure to achieve them. Common performance standards associated with producer-funded recycling programs include:

- **Collection rates or targets:** quantitative collection targets expressed as an overall goal or defined by material category or type, using the reported generation of covered materials as the denominator and the amount of material collected at the point of collection as the numerator

- **Recycling rates or targets:** quantitative recycling targets expressed as an overall system goal or defined by material category or type, using the reported generation of covered materials as the denominator and the amount of material sent to end markets as the numerator; material-specific targets can be helpful in defining benchmarks and driving continual improvement. Additional preferences on “circularity” of materials can be important where environmentally preferable and feasible

- **Collection convenience / access standards:** define the expectations related to the availability of recycling service to residents (e.g., as convenient as waste collection/parallel access)

- **Inbound contamination rates:** measures the amount of contamination, or non-commodity material, in loads being delivered to the MRF from curbside collection routes and drop-off locations; it is recommended that the PRO’s plan define baseline and target inbound contamination rates, on a path of continual improvement

- **Commodity quality targets:** define the specifications of MRF outgoing materials; given the challenges in defining pre-program MRF quality it is recommended that the PRO’s plan define baseline and target commodity quality standards, including outbound MRF contamination rates, on a path of continual improvement
### 4. Fee Determination

Once the system cost is determined, the total amount of funds needed annually must be generated. Typically, this is done by creating a fee setting formula that sets rates for the different material categories and formats that make up the covered material mix. The formula should be guided by principles designed to ensure fair application of fees across categories of materials and differentiate material categories and types based on their impacts on the cost of the recycling system as well as environmental attributes that may be considered in addition to costs (i.e., eco-modulation factors). Those principles should include:

- Physical characteristics of the material categories and types and the cost to collect and process each
- Value of the material category or type (e.g., commodity revenue from the sale of recycled materials)
- Quantifiable environmental attributes of the material category or type, including recyclability, incorporation of recycled content, and/or conformance with industry design for recyclability standards (see eco-modulation section below)
- Simplified compliance for smaller producers through a flat-fee option (see below) and de minimis exemptions

While the fee-setting formula can be developed with a long-term view, the details that determine it should be re-evaluated annually to ensure they account for current market conditions (e.g., cost and revenue), technical progress, and other emerging trends.

### Base Fees

Once the investment levels, operating costs and other basic principles are established and calculated, the next step is categorizing the in-scope materials into the annually updated fee schedule. Key to the fee schedule is the definition of material categories. Defining the categories must balance the need to properly differentiate material categories and formats based on system cost and revenue with the drive to make reporting and compliance manageable. It is important to note that all packaging materials as defined in the legislation – regardless of whether they are recyclable – and are subject to a fee. The experience of existing companies reporting globally has shown that relatively simple fee categories can effectively meet both objectives by being specific enough to reflect differentiation in the recycling system costs and revenues, while not being overly complex for reporting. An example of such classification of packaging categories is presented in the table below.

#### Example Categories*

<table>
<thead>
<tr>
<th>Printed Paper</th>
<th>PET Thermoforms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrugated Cardboard</td>
<td>Mono-material flexible PE</td>
</tr>
<tr>
<td>Paper Packaging</td>
<td>Other Rigid Plastic (PVC, PS, etc.)</td>
</tr>
<tr>
<td>Aseptics, Cartons &amp; Polycoat</td>
<td>Other Film Plastic (PP, Multi-laminate)</td>
</tr>
<tr>
<td>Paper Laminates (less than 85% fiber)</td>
<td>Steel</td>
</tr>
<tr>
<td>PET Bottles and Containers</td>
<td>Aluminum</td>
</tr>
<tr>
<td>HDPE Bottles and Containers</td>
<td>Glass</td>
</tr>
<tr>
<td>PP Bottles and Containers</td>
<td>Other</td>
</tr>
</tbody>
</table>

*For discussion purposes only

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Special Assessments

The sortability and recyclability of packaging materials evolve over time with technology development, investment, and infrastructure improvements. Certain material types may benefit from a special assessment to generate funds for investments that support that specific material type. For example, certain materials or formats may need specialized collection systems, or sorting and processing equipment in order to be collected and processed in the producer-funded program. In these instances, the fee-setting formula would be adjusted to add the assessment to the target material types, so that the cost is fairly distributed among all producers of the covered material type. Special assessment projects could follow the model of the Can Manufacturers Institute and The Recycling Partnership’s can capture grant program, or the Polypropylene Recycling Coalition. These programs target investment to improve sortation and/or collection capacity to allow those materials to be brought into recycling programs. However, instead of pooling funds through a trade organization, those funds would be collected and managed by a PRO (to ensure a level playing field) with results reported as a part of the organization’s activities to achieve legislated targets.

Base Fee and Eco-modulation factors

It is important to combine a focus on simplicity, with a sufficiently differentiated fee structure to ensure that producer-funded recycling programs achieve broader environmental objectives. The factors considered can be classified in two main categories:

a. Base fee determination: the fee differentiation by material and packaging element type and characteristics including:

   i. Material use (efficiency of packaging): fees are based on weight, as that is how flow of materials through the recycling system is measured
   ii. System cost: based on the costs to collect and process the material type, as documented through an agreed upon methodology
   iii. Commodity revenue: based on the end-market value to the MRF of the material type (after processing)

b. Eco-modulation based on a bonus/penalty system: in addition to the factors characterized in the base fee, the following should be considered:

   i. To incentivize desired behavior, the fee structure should offer bonuses for:
      1. Conformance with industry standards for recyclability
      2. The use of certified recycled content that is appropriately differentiated by material category or type
   ii. Consider penalties for design choices that negatively impact the recycling system, such as:
      1. Disruptors to existing recycling streams (e.g., use of PVC or oxo-degradable-plastics, or non-separable plastic elements on paper packaging)
      iii. Package elements that violate design for recyclability standards, such as the use of dark-color plastics that result in improper sortation, high percentages of additives in certain resins, addition of non-fiber components (e.g., certain adhesives or foils) that impact fiber re-pulpability, non-ferrous closures to glass containers, etc.

The specific eco-modulation factors used, and the level of bonus or penalty, would be decided by the PRO in consultation with industry experts as a part of the planning process in the context of the fee setting formula. It is critical to ensure that any eco-modulation factors, whether positive (bonus) or negative (penalty) should be documentable based on agreed upon guidance, such as verification of postconsumer recycled content, or
industry approved design for recyclability guidance. The balancing of bonus and penalty factors is important and must be placed in context of the overall system financing needs. Given that the PRO has a defined amount of funding that must be raised through the fees, providing numerous incentives and disincentives will raise the base fees across the board and add significant administrative complexity.

Incorporating eco-modulation factors can have a positive impact on the system as a whole by reducing costs and/or increasing revenues. For example, increasing the use of recycled content and system circularity, could likely lead to an increase in material commodity revenues. Improving conformance with design for recyclability standards could also improve material revenue and reduce system costs by improving the sortability of materials and therefore their value. Reducing the presence of disruptors also can decrease system costs by making sorting more efficient and minimizing residue.

**Small producer flat fees**

It is important to establish boundaries for fee calculation and collection methodologies. In each market analyzed, there will be a number of small packaging producers for whom the complexity of reporting outweighs the benefits of differentiated fees. For these entities, a flat fee contribution is the most efficient and effective and the prevailing approach. Depending on the program, there could be multiple levels of flat fees.

Imposing a flat fee on small producers reduces the administrative costs of data collection and reporting for these obligated producers, while still ensuring that they contribute to the program. Perhaps more importantly, the flat fees reduce administrative costs for the producer organization by avoiding excessive compliance requirements (e.g., audit, monitoring) in cases where the contribution would not be sufficient to cover these costs.

The size of a small producer will likely vary from state to state based on the size of the market and will either be specified in the legislation or defined in the PRO’s plan. Small producer flat fee levels could be established as follows:

- Determine levels of flat fees for small producers as an option for simple reporting and fee payment
- Provide small producers with the option to pay actual fees, if they have the capacity and the desire to do so
- Define small producers according to factors such as size of the state and the state’s economy
- Consider administrative costs of managing the small generator accounts to determine the most efficient values for the producer organization

**De Minimis Exemptions**

Certain levels of packaging generation and fee contributions do not justify the administrative costs of compliance obligations or significantly affect the ability to meet statutory metrics or goals and should therefore be exempt from the obligations of the legislation. For such levels, reporting and fee payment thresholds should be established and defined either as amounts placed on the market (e.g., no reporting and fee payment obligation for producers that place under x lbs. on the market annually), or as annual sales (e.g., no obligation for producers with annual sales in the covered jurisdiction under USD x). The amounts established for the exemptions would most likely differ based on the state and size of the market. For producers under the established threshold, another option would be a simplified reporting requirement that does not require a fee payment obligation. Recent proposals for producer-funded programs have also exempted local governments and other entities.

**Producer Payments**

In most producer-funded recycling programs, producers remit payment to the PRO annually, based on the amount of each material type they sell into the marketplace and the fee schedule established by the organization, as per the principles, factors, and formulas discussed above.
5. Fund Disbursement

The specific activities and assets to be funded through the program will vary, depending on the situation in a given state, and the outcomes of the needs assessment. The following table provides activities that would likely be targeted by producer-funded programs:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Type of Investment</th>
<th>Potential Funded Entities</th>
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</table>
| Access to Recycling               | • Collection infrastructure (e.g., carts or bins, trucks)                           | • Municipal governments  
|                                   | • Targeted outreach to launch new recycling programs, expand collection to new types of generators (e.g., multi-family buildings), or add additional materials to existing programs | • Community-based organizations  
|                                   |                                                                                     | • Recycling service providers                                                           |
| Hub and spoke collection and processing systems | • Feasibility analyses  
|                                   | • Infrastructure to enable material to be consolidated from remote locations (spokes) for efficient, centralized processing (hub) | • Municipal or regional governments  
|                                   |                                                                                     | • Recycling service providers                                                           |
| Outreach and education            | • General promotion to increase participation  
|                                   | • Anti-contamination programming designed specifically to improve the quality of the recycling stream | • Municipal governments  
|                                   |                                                                                     | • Community-based organizations  
|                                   |                                                                                     | • Recycling service providers                                                           |
|                                   |                                                                                     | • Direct spending by the PRO  
|                                   |                                                                                     | • Trade associations                                                                   |
| Sorting infrastructure            | • Equipment and technology to improve sorting and recycled commodity quality at MRFs | • Public and private sector MRF operators                                                |
| Special assessments               | • Collection, sorting, processing or redemption infrastructure and related operational costs that specifically targets a particular material category or type (e.g., drop off centers for glass or flexible films) | • Trade associations  
|                                   |                                                                                     | • Municipal governments  
|                                   |                                                                                     | • Recycling service providers                                                           |
|                                   |                                                                                     | • Innovation fund/MRF operators                                                          |
| Cost of Delivering Services       | • Costs associated with operating recycling programs, including staff, vehicle maintenance, and MRF tipping fees | • Municipal governments                                                                |

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6. Reporting

New recycling financing policies offer the opportunity to dramatically improve data collection and program evaluation. Depending on the structure of the program, the history of reporting in the state, and the details laid out in the legislation, program service providers may be required to report information directly to the state or may be required to report to the PRO who consolidates data from all program service providers and reports to the state. Any new legislation should reconcile the reporting required for evaluation of the PRO and its funded programs with that required to evaluate recycling and materials management in the state more broadly. A leading practice would be to establish an on-line reporting system that could be accessed by the state and the PRO, so that data could be compiled as needed for their different purposes.

State agencies are typically responsible for gathering and publishing program performance data and information provided by the PRO and other program service providers (local governments, haulers, and recycling facilities). The implementation of producer-funded programs enables the collection of a broad base of recycling program data, particularly if the reporting requirements and data collected are consistent from state-to-state. Better, more consistent data will contribute to better decision-making about improvements in the broader recycling system. Generally, reporting requirements are focused on quantitative measures (e.g., tons of materials collected or recycled) and reporting is required as a condition of participating in the program so that program service providers are not compensated for their services unless they are reporting appropriately on activities and progress.

In addition to providing a valuable base of information, a comprehensive reporting protocol allows both the state and the PRO to verify the material managed as it moves from collection to end markets and allows for greater accuracy and increased transparency to identify system challenges and where further investments in the system are necessary.

**Reporting to PRO by Producers**

Obligated producers would report their annual sales of covered materials as a part of the fee remittance process described above.

**Reporting to PRO by Service Providers**

The PRO should require program service providers to report key data on their activities. The data collected and reported by the PRO can then be aggregated and submitted in annual reports to the state authority and made available for public and stakeholder review to facilitate evaluation of the program and recycling system trends.

**Reporting to the Regulatory Authority**

Leading practices for reporting would require the PRO and each of the program service providers to electronically report key quantitative measures to the state annually (See table below). The agency would then aggregate the data from all reports to provide a comprehensive picture of recycling in the state. Where necessary, the state may treat data as confidential and remove any individual company identifying information (e.g., industry sales data). Electronic reporting can facilitate the compilation and analysis of data for statewide reports. Depending upon the breadth of activities that are assigned to the PRO, some of the reporting could be consolidated by the PRO and then submitted to the state.
<table>
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<tr>
<th>Reporting Equity</th>
<th>Metrics</th>
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| **Municipality** | • Total households in the municipality and households served (access rates)  
| | • Education and outreach activities and materials  
| | • Program structure and parameters (e.g., municipal service, contracted service, bins, carts and/or drop-off sites, materials collected, etc.) |
| **Recycling Collector** | • Materials collected  
| | • Education and outreach activities  
| | • Households served  
| | • Tons of recyclables collected  
| | • Pounds collected per household served |
| **MRF** | • Incoming materials (tons), including covered materials and other materials  
| | • Outgoing commodities (tons, by commodity)  
| | • Residue (tons)  
| | • Inbound contamination rate and periodic outbound material quality audits  
| | • End markets |
| **PRO / Brands** | • Material generated / covered material sold into the market  
| | • List of producers and brands that are part of the program  
| | • Covered material recycled through producer-funded program  
| | • Education and outreach activities  
| | • Financial performance (funds collected, funds disbursed) |

**Reporting to the Legislature**

In U.S. producer-funded recycling programs, it is commonplace for the state agency to be required to submit a report to the legislature that outlines the performance of the program, provides an overall assessment of its functioning, and identifies potential statutory changes that may be necessary to facilitate implementation.
Conclusion

Companies, communities, and policymakers across the country agree that the time is now to build a better, bolder, and broader sustainable system of recycling and, as a result, a stronger, more resilient, and circular economy – one that creates jobs, protects natural resources, and one that reimagines how we design and deliver goods to the public. Well-designed policy can help deliver on that promise.

This guidance memo is intended to provide leading practices and define key elements that are applicable to any producer responsibility programs for packaging and printed paper. Through implementation of the best practices and key elements of an effective producer-funded program, packaging can be optimized for circularity – ensuring the recyclability of packaging and its ability to be collected, sorted, and remanufactured into a new product.