



EXTENDED PRODUCER RESPONSIBILITY:

Designing the Regulatory
Framework

Environmental Law Centre
Authored by Allison Boufillier

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Environmental Law Centre

#410, 10115 – 100A Street Edmonton, AB T5J 2W2

Telephone: (780) 424-5099

Fax: (780) 424-5133

Toll-free: 1-800-661-4238

Email: elc@elc.ab.ca

Website: www.elc.ab.ca

Blog: www.elc.ab.ca/blog/

Facebook: <http://www.facebook.com/environmentallawcentre>

Twitter: https://twitter.com/ELC_Alberta

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I. INTRODUCTION

Extended producer responsibility [“EPR”] is a waste management model that extends responsibility for waste products to the producers who made them. EPR is increasingly common in waste management systems in Canada and around the world, and this report will take an in depth look at the legal framework behind a producer take-back EPR system, with a view toward introducing the EPR model into Alberta.

This report is divided into four sections. The first, introductory section examines the concept of EPR, including its history, its objectives, the regulatory mechanisms that drive it, and the roles of the stakeholders in an EPR system.

The second section provides a discussion of the policy considerations that inform the design of an EPR system, including general policy considerations and the benefits of harmonizing Canadian EPR systems. It also deals with some of the most significant problems in designing an EPR system; namely, incentivizing design for environment, dealing with free-riders, and ensuring fair market competition.

The third section provides a detailed description of the regulatory framework for a producer take-back EPR system. This section outlines each of the essential legal elements of a take-back system, along with the policy considerations that inform their design and a survey of the design choices that have been made in other Canadian jurisdictions.

Finally, the fourth section provides recommendations for whether an EPR model should be introduced to Alberta’s existing provincial recycling programs or used to implement any new recycling programs. It also includes a discussion of whether Alberta should replace its municipally-run printed paper and packaging recycling programs with an EPR system.

II. INTRODUCTION TO EXTENDED PRODUCER RESPONSIBILITY

Extended producer responsibility is a waste management model in which a producer's responsibility for a product is extended to the post-consumer stage of the product's life cycle.¹ This means that producers are given responsibility for managing the waste created by the goods they produce. So, for example, under an EPR model, the producer of a computer is responsible for the disposal of the computer once it has reached the end of its useful life. This is markedly different from the traditional waste model, under which municipalities and other levels of government have complete responsibility for dealing with waste, usually by operating landfills and running various recycling programs. Instead, under EPR, some of this responsibility is transferred from governments to producers.

The responsibility that EPR extends to producers varies depending on how the waste management system is structured.² This responsibility can be financial, meaning that producers are responsible for paying for the waste systems that deal with their products, such as landfills and recycling programs. This responsibility can also be physical, meaning that producers are responsible for setting up and running new waste management programs to deal with the waste created by their products. Additionally, an EPR system may assign producers information-based responsibilities. This means that producers are responsible for providing information to the public about their products and the waste management programs available to deal with them. Information programs can include public reports, product labelling requirements, and educational programs to build awareness amongst consumers and other participants in waste management systems.³ In Canada, EPR systems usually extend all three types of responsibility to producers.

¹ OECD, *Extended Producer Responsibility: A Guidance Manual for Governments* (Paris, France: OECD Publishing, 2001), online: https://www.oecd-ilibrary.org/environment/extended-producer-responsibility_9789264189867-en at 18 [OECD, *Guidance*].

² Thomas Lindhqvist, *Extended Producer Responsibility in Cleaner Production: Policy Principle to Promote Environmental Improvements of Product Systems* (Lund, Sweden: International Institute for Industrial Environmental Economics, 2000), online <https://portal.research.lu.se/portal/files/4433708/1002025.pdf> at iii.

³ OECD, *Extended Producer Responsibility: Updated Guidance for Efficient Waste Management* (Paris, France: OECD Publishing, 2016) at [OECD, *Updated Guidance*], online https://www.oecd-ilibrary.org/environment/extended-producer-responsibility_9789264256385-en at 22.

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In addition to different types of responsibility, different forms of EPR can extend different degrees of responsibility to producers. So, in some cases, producers carry full responsibility for the waste generated by their products, whereas in other cases producers share responsibility with other stakeholders, such as governments, retailers, and consumers. This report will consider the different options, with a view towards assessing whether it would be appropriate to introduce an EPR model into Alberta's waste management systems.

i. History

The idea of EPR originated in Europe in the late 1980s in response to problems municipalities were facing managing increasing volumes and complexities of waste, as well as increasing public opposition to new landfills.⁴ The concept was first formalized in 1990 in a report for the Swedish Ministry of the Environment written by a man named Thomas Lindqvist.⁵

Throughout the 90s, interest in EPR increased, and European countries began widespread implementation of waste systems using the EPR model. Notably, in 1991, Germany introduced its Packaging Ordinance, which is considered the flagship EPR system.⁶

In 1994, the European Union recognized the efforts of its member countries to better manage waste and issued a directive targeted at packaging waste.⁷ This directive required member states to pass measures to reduce packaging waste, with the option of using an EPR system to do so. In subsequent years, the EU passed further directives with respect to waste from electronic equipment,⁸ batteries,⁹ and end of life vehicles¹⁰. These directives made EPR systems mandatory for each of the products covered.

⁴ *Ibid* at 20.

⁵ Lindqvist, *supra* note 2 at ii.

⁶ OECD, *Guidance*, *supra* note 1 at 11.

⁷ European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.

⁸ Directive 2002/96/EC of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE) – Joint declaration of the European Parliament, the Council and the Commission relating to Article 9.

⁹ Directive 2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC.

¹⁰ Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of-life vehicles.

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In Canada, interest in EPR began to appear towards the end of the 1990s. This interest crystallized in 2009, when the Canadian Council of Ministers of the Environment approved a Canada-Wide Action Plan for Extended Producer Responsibility.¹¹ This plan outlines a harmonized approach for introducing EPR into Canadian waste management systems, which largely fall under provincial jurisdiction. Since then, EPR systems have been implemented with varying degrees of rigour in every province except Alberta. There has also been some interest in EPR systems in the territories; however, because of geographical difficulties and population distribution that make waste management more difficult in the north, implementation has been more limited.

Currently, there are around 400 EPR programs in operation in the world, most of which have been established since 2001.¹² The increase in the number of EPR programs has meant significant interest in EPR as a tool for improving waste management systems. It has also produced a lot of new information about the design and outcomes of EPR systems, which will be used to inform the recommendations made in this report.

ii. Objectives

Extended producer responsibility was originally intended as a way of addressing the problems facing modern waste management systems. To that end, EPR has five primary objectives.

- *To increase the amount of waste diverted from landfills.*¹³ EPR systems are usually designed to either prevent waste or to increase the amount of waste that is recycled. Both of these measures reduce the amount of waste sent to landfills and, in turn, the need for more landfills.
- *To reduce waste management costs for municipalities and taxpayers.*¹⁴ By reducing the amount of waste sent to municipally-run landfills, EPR systems reduce municipal collection and landfilling costs. Additionally, if an EPR system replaces an existing

¹¹ *Canada-Wide Action Plan for Extended Producer Responsibility* (Winnipeg: Canadian Council of Ministers of the Environment, 2009), online: CCME https://www.ccme.ca/files/current_priorities/waste/pn_1499_epr_cap_e.pdf [*Canada-Wide Action Plan*].

¹² OECD, *Updated Guidance*, *supra* note 3 at 23.

¹³ Lindqvist, *supra* note 2 at 9.

¹⁴ OECD, *Updated Guidance*, *supra* note 3 at 33.

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municipal recycling program, the municipality is no longer responsible for the costs of that program.

- *To create alternative waste streams for hazardous materials.*¹⁵ EPR systems often target products with hazardous components, such as lead and mercury. By removing these products from normal waste streams and putting them into specialized waste systems, EPR systems increase the likelihood they will be managed safely and, as a result, reduce the risks they pose to the environment and to human health.
- *To incentivize producers to redesign their products.*¹⁶ By making producers responsible for the waste management of their products, EPR systems create an economic incentive for producers to redesign their products to reduce waste management costs. This may be done by making the product easier to recycle, by reducing the amount of material used in the product, by removing toxic components, or by making the product more durable so it lasts longer.¹⁷
- *To create a circular economy.*¹⁸ Since EPR systems typically improve recycling rates and reduce the amount of waste sent to landfills, they help advance the goal of a circular economy, in which materials are used for as long as possible before being sent for final disposal. This reduces the need for virgin materials to make new products, while also maximizing the benefit of products relative to the waste they produce.

Beyond the main objectives of EPR, studies have also shown that EPR can be effective at job-creation, with the Ontario government estimating that EPR programs create up to 10 times more jobs than landfilling for the same amount of waste processed.¹⁹ Moreover, studies suggest that the jobs created by

¹⁵ Stephen Smith, *Analytical Framework for Evaluating the Costs and Benefits of Extended Producer Responsibility Programmes* (Paris, France: OECD Publishing, 2005), online: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=env/epoc/wgwpr\(2005\)6/final](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?doclanguage=en&cote=env/epoc/wgwpr(2005)6/final) at 9.

¹⁶ Lindqvist, *supra* note 2 at 10.

¹⁷ OECD, *Updated Guidance*, *supra* note 3 at 31-32.

¹⁸ See OECD, *Guidance*, *supra* note 1 at 18-19.

¹⁹ *Strategy for a Waste-Free Ontario: Building the Circular Economy* (Ontario: Queen's Printer for Ontario, 2017), online: <https://www.ontario.ca/page/strategy-waste-free-ontario-building-circular-economy> at 6 [*Ontario Strategy*].

EPR programs are good jobs, insofar as they tend to add more value to the economy and pay better than jobs related to landfilling and traditional waste management.²⁰

In addition to the potential for job creation, there is also some evidence to suggest that EPR systems can reduce greenhouse gas [“GHG”] emissions, because recycling and using recycled materials produces fewer GHG emissions than landfilling waste and extracting virgin materials to manufacture new products.²¹ Recognizing this fact, several provinces have factored the potential for EPR systems to reduce GHG emissions into their broader climate change strategies.²²

iii. Mechanisms

There are four different regulatory mechanisms that can be used to implement the EPR model: producer take-back systems, market-based systems, regulatory requirements, and informational instruments.²³ In practice, most EPR systems use a combination of these four options, each of which will be discussed below.

A. Take-back systems

A producer take-back system requires a producer to physically take back its products at the end of their useful life and to organize and pay for a waste management system to dispose of them. In a typical producer take-back system, the producer enters into contracts with service providers who collect,

²⁰ Duncan Bury, *Overview of Stewardship and Extended Producer Responsibility Job and Economic Impact Studies* (Ottawa: Duncan Bury Consulting, 2012), online: Government of British Columbia <https://www2.gov.bc.ca/gov/content/environment/waste-management/recycling/product-stewardship/related-resources> at 2.

²¹ Veronica Bartlett, Christina Seidel & Glenda Gies, *Assessment of Economic and Environmental Impacts of Extended Producer Responsibility Programs Operating in BC in 2014*, (Burnaby, BC: Morrison Hershfield, 2016), online: https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/res/2014_assessment_of_economic_environmental_impacts_of_extd_producer_responsibility_programs_bc.pdf at 2; ICF Consulting, *Determination of the Impact of Waste Management Activities on Greenhouse Gas Emissions: 2005 Update* (Toronto: ICF Consulting, 2005), online: Recycling Council of British Columbia <https://www.rcbc.ca/files/u3/ICF-final-report.pdf>.

²² See *Ontario Strategy*, *supra* note 19 at 28; *Charting Our Course: Climate Change Action Plan 2011* (St. John’s, NL: The Office of Climate Change, Energy Efficiency and Emissions Trading, 2011), online: https://www.exec.gov.nl.ca/exec/occ/2011_climate_change_action_plan.html at 52-54.

²³ OECD, *Updated Guidance*, *supra* note 3 at 21-22.

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transport, and process the waste products. These systems typically include recycling targets, which require a certain percentage of the waste products collected to be recycled.

Many producer take-back systems allow producers to form collective organizations called Producer Responsibility Organizations [“PROs”]. These PROs run a single, collective take-back program on behalf of all the producers who join the organization. In return, producers pay annual fees that cover the costs of running the PRO, as well as the costs of the take-back program. Many producers prefer joining PROs over running their own take-back program, because the economies of scale created by running a single program reduce the overall costs, as well as the financial risk for each producer.

B. Market-based systems

Market-based systems extend waste management responsibilities to producers by applying economic incentives and disincentives. There are four common market-based mechanisms.²⁴

- *Advanced disposal fees.* An advanced disposal fee is a charge consumers pay when they purchase a product. That fee is used to pay either public or private actors to run a waste management program to deal with the product at the end of its useful life. The fee is usually calculated to reflect the actual costs of waste management of the product. For example, Alberta currently charges advanced disposal fees to fund its recycling programs for electronics, paint, used oil, and tires.
- *Deposit/refund systems.* In a deposit/refund system, the consumer pays a deposit when purchasing a product and receives a full or partial refund for returning the product to a collection site. Deposit/refund systems typically have very high return rates, because the refund provides a direct incentive for consumers to return waste products. That said, deposit/refund systems tend to be expensive to run due to high transportation and sorting costs, so they are rarely used for products other than beverage containers.²⁵ Deposit/refund systems are also inappropriate for hazardous products, because there

²⁴ *Ibid* at 21; Margaret Walls, *EPR Policies and Product Design: Economic Theory and Selected Case Studies* (Paris, France: OECD Publishing, 2006), online: [http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/EPOC/WGWPR\(2005\)9/FINAL&docLanguage=en](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=ENV/EPOC/WGWPR(2005)9/FINAL&docLanguage=en) at 8.

²⁵ Karen Palmer & Margaret Walls, *Extended Producer Responsibility: An Economic Assessment of Alternative Policies* (Washington, DC: Resources for the Future, 1999), online: <https://media.rff.org/documents/RFF-DP-99-12.pdf> at 3.

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would be significant human health issues if consumers were responsible for collecting and handling hazardous products.

- *Tax/subsidy systems.* In a tax/subsidy system, producers pay a tax on the products they manufacture. The government then uses the tax to pay a subsidy to recycling facilities to increase recycling rates. Economic modelling suggests tax-subsidy systems are the most economically efficient form of EPR, meaning they can achieve the system's objectives at a lower cost than the other mechanisms.²⁶ However, in practice, tax/subsidy systems are rarely used.
- *Credit trading systems.* A credit trading system requires producers to recycle a certain percentage of their product each year, and, for every unit of product recycled, producers are issued a recycling credit. These credits can be used to meet the producers' targets or they can be traded, allowing producers to either meet their targets by running a recycling program or by trading for credits from other producers who have recycled more than they need to. So far, the United Kingdom is the only jurisdiction that has implemented a credit-trading system.²⁷

C. Regulatory requirements

Regulatory requirements are legislated standards that require producers to take responsibility for the waste management of their products. Common regulatory requirements include recycling targets for take-back programs, which require producers to recycle a specified percentage of the product they collect, as well recycled-content targets, which require producers to use a certain amount of recycled material in their products. In addition, some jurisdictions, such as the European Union, have banned using toxic components in electronic and electrical products.²⁸ From a waste management perspective, this reduces the risk these components pose for both the environment and human health.

D. Information-based instruments

Information-based instruments provide information about EPR programs to consumers to increase their awareness of the environmental effects of waste and the programs available for disposing of waste

²⁶ Walls, *supra* note 24 at 13-14.

²⁷ *Ibid* at 22.

²⁸ See Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

products. Typically, the more consumers are aware about recycling programs, the higher the consumer participation and the more waste that can be recycled. Examples of informational instruments include public reports, product labelling requirements, and education programs.²⁹

Sometimes, informational instruments are also targeted at other participants in the waste system to improve their performance. For example, education may be necessary to teach waste facility workers to correctly sort collected products for recycling. Likewise, labelling requirements may help inform recycling facilities about the materials used in a product, so they can select the correct recycling techniques for those materials.

iv. Stakeholder Roles and Responsibilities

There are four main stakeholders in an EPR system: governments, producers, consumers, and service providers. The roles and responsibilities of each will be discussed below.

A. Governments

The primary responsibility of governments is to set the legislative framework for EPR systems. This means governments are responsible for setting the parameters of the system, including the products that will fall under the system, the types of mechanisms that will be used, and the specific roles assigned to each of the other actors in the system. In addition, governments are typically responsible for monitoring and enforcement efforts. This means governments are responsible for ensuring producers are following the rules of the EPR system and for sanctioning those producers who are not. Depending on how the system is set up, governments may also be responsible for some of the costs of an EPR system.

B. Producers

The role producers play in an EPR system varies with the regulatory mechanism used and the type of responsibilities assigned to producers under it. Most commonly, producers are responsible for paying for all or part of the costs of managing their waste products and for meeting any regulatory requirements set by government. In addition, producers are frequently responsible for creating and paying for education and awareness programs to inform the public about the products they buy and the waste management

²⁹ OECD, *Updated Guidance*, *supra* note 3 at 22.

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systems available to deal with them. Where producers are required to run a waste management program for their products, they are also responsible for designing and managing that program.

C. Service providers

Service providers are the third-party contractors who actually operate waste management programs. This includes collectors who run collection services and facilities for consumers to return waste products, as well as transporters who move waste products from collection facilities to processing facilities. Additionally, it includes processors, who run sorting, recycling and other disposal facilities, such as waste incinerators and landfills. Service providers are often private companies, but they may also be municipal governments or not for profit organizations who provide waste management services.

D. Consumers

Consumers are primarily responsible for returning products to EPR programs so they can be disposed of. Depending on how the EPR system is designed, they may also pay the costs of waste management when they purchase new products. This occurs whenever the cost of managing a waste product is added to the price paid by a consumer, whether as a visible fee or directly integrated into the price of the product.

III. Policy Considerations

Program design is very important to the success of an EPR system. One study, commissioned by the European Union, suggests the effectiveness of an EPR system depends largely on how well it is designed for its particular circumstances.³⁰ This is supported by OECD data, which shows that different EPR systems have widely varied levels of success in both increasing recycling rates and managing program costs.³¹

To encourage the thoughtful design of EPR systems, this section will discuss the most important policy considerations for program design, starting with general considerations and then focusing on four particular problems: using EPR systems to incentivize product redesign, dealing with free-riders in EPR systems, encouraging competition within EPR systems, and harmonizing an EPR system with other jurisdictions.

i. General Considerations

To create a well-designed EPR system, there are four basic principles that should be taken into account.

1. *Focus on the objectives.* To design a well-functioning EPR system, it is important to identify the system's primary objectives and then tailor the system to those objectives. As discussed, the main objectives of an EPR system are to reduce the amount of waste sent to landfills, to reduce waste management costs for municipalities and taxpayers, to create alternative waste streams for hazardous materials, to incentivize producers to redesign their products, and to create a circular economy. In addition, EPR systems may create jobs and reduce greenhouse gas emissions. Not every system will be able to achieve all of these goals with an equal amount of success, so it is important to start by deciding which are the most important objectives.³² Any time a secondary goal is added, it is important to consider how it will interact with the rest of the system and whether and to what extent it will

³⁰ Véronique Monier et al, *Development of Guidance on Extended Producer Responsibility (EPR)* (Neuilly-sur-Seine, France: BIO Intelligence Service, 2014) online: European Commission https://ec.europa.eu/environment/waste/pdf/target_review/Guidance%20on%20EPR%20-%20Final%20Report.pdf at 20.

³¹ OECD, *Updated Guidance*, *supra* note 3 at 30, 33-34.

³² See Walls, *supra* note 24 at 10.

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compromise the system's ability to achieve its primary objectives. This will avoid the problem of trying to achieve too many things at once and, as a result, losing sight of the EPR system's intended goals.³³

2. *Reflect the circumstances.* In addition to designing an EPR system to achieve its objectives, it is also important to design the system to reflect its specific circumstances, including the products the system will cover, the population that will be served, geographical considerations, and any existing waste management infrastructure. All of these factors will shape the opportunities and the limitations of the EPR system, and, generally speaking, a system design that takes them into account will perform better than one that does not.³⁴
3. *Work with stakeholders.* For an EPR system to function properly, all stakeholders need to be willing to support and participate in the system. To achieve this, stakeholders should be given the opportunity to give input on the system, whether through consultations or in response to meaningful disclosure and transparent processes. As well, to ensure continued stakeholder participation, it is important to clearly define the role of each actor in the system and to set clear expectations for how the system will function. This will encourage stakeholder engagement with the EPR system, which will in turn help to ensure that all participants are meeting their obligations.
4. *Review the program.* It is practically impossible to design a perfect system on the first try.³⁵ Instead, EPR systems usually require adjustments as they mature, as well as corrections to address any problems that were not evident from the outset. To that end, it is recommended that any new EPR systems be treated with ongoing attention, so as to make adjustments to the systems as issues arise and, also, to improve operations over time.

³³ See Alice Castell, Roland Clift & Chris France, "Extended Producer Responsibility Policy in the European Union: A Horse or a Camel?" (2008) 8 *Journal of Industrial Ecology* 4.

³⁴ Monier et al, *supra* note 30 at 20.

³⁵ See Chris Busuttil, Glenda Gies & Usman A. Valiante, *Competition in Select Extended Producer Responsibility Programs: Phase 1 – Jurisdictional Scan* (Corporate Policy Group LLP, 2016), online: Government of British Columbia https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/rel-res/competition_under_epr_in_bc_2018.pdf at 6.

ii. Design for Environment

When EPR was proposed as a model for waste management, one of its central objectives was to create incentives for producers to redesign their products to be more environmentally friendly and easier to recycle. The idea is that if producers have financial responsibility for the waste management of their products, they will have a direct incentive to redesign those products to reduce the costs of waste management.³⁶ This could be done by making the products easier to recycle, by reducing the amount of material used in the products, by removing toxic components, or by making the products more durable, so they last longer.³⁷

In practice, however, EPR has only provided a limited incentive for product redesign: studies show that while EPR systems encourage producers to redesign their products, they have rarely been sufficient to move the meter on their own.³⁸

The main reason EPR systems have not resulted in widespread product redesign is that the economic signals created by these systems are not strong enough to incentivize product redesign on their own. This may occur for three reasons.³⁹ First, the costs of waste management of a product may not be big enough to outweigh other product design considerations such as manufacturing costs and the product's appeal to consumers. Second, for products with long life cycles, the benefit from any investment in product redesign may be too delayed to incentivize producers to redesign their products. Third, the Canadian population may not be large enough for the incentives created by EPR systems to exert a significant influence on international producers.

In addition, in producer take-back systems, the economic signals that are created by the EPR system may be muted by producers joining collective organizations called Producer Responsibility Organizations ["PROs"]. When this happens, PROs take over producers' obligations to create and run a waste management program for their products, and, in return, the producers pay fees to the PROs to cover the costs of the program.

³⁶ Walls, *supra* note 24 at 7.

³⁷ OECD, *Updated Guidance*, *supra* note 3 at 31-32.

³⁸ *Ibid* at 163; Walls, *supra* note 24 at 5-6.

³⁹ *Canada-Wide Action Plan*, *supra* note 11 at 19.

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The problem with economic signaling arises because, typically, PROs allocate the costs of the waste management program to producers based on their market share.⁴⁰ This means that the amount a producer pays is based on the total waste management costs of all member producers' products, divided by the individual producer's market share. When fees are determined this way, there is almost no relationship between how much a producer pays and how easy it is to recycle the producer's products, because the producer pays based on the total waste management costs rather than the costs for its own products. This waters down the incentive for a producer to redesign its products, because the producer would bear the cost of redesign, but any benefit would be split among the members of the PRO, according to their market share.

In response to this problem, some EPR systems have modified the structure of PRO fees to reintroduce incentives for producers to redesign their products. In particular, two types of fee modifications have been implemented, each of which will be discussed in turn.

A. Fees based on after the fact costs

Some jurisdictions have tried to incentivize product redesign in producer take-back systems by charging a PRO fee based on the actual costs of recycling a producer's products. For example, in the Netherlands, an EPR program for computer equipment was financed by billing producers after the fact for what it cost to recycle their products.⁴¹ This type of billing reintroduces the connection between the amount a producer pays and the recyclability of its products and, accordingly, reintroduces a financial incentive for product redesign.

In practice, however, this type of fee is rarely used, because it is extremely expensive to implement. Billing producers based on the actual costs of recycling their products requires sorting collected products by brand.⁴² Then, the products must be segregated and tracked through the entire recycling system in order to figure out what it actually costs to recycle them. This is a labour-intensive and, therefore, expensive system. To illustrate this point, within a few years of starting their after the fact billing system, the Dutch had to abandon it, largely because of the cost.⁴³

⁴⁰ Smith, *supra* note 15 at 41.

⁴¹ Walls, *supra* note 24 at 29.

⁴² *Ibid.*

⁴³ *Ibid.*

Going forward, some EPR systems are looking at the use of barcodes and radio tracking to sort electronics and track their actual recycling costs.⁴⁴ This use of this type of technology would allow the system to be automated, which would reduce overall costs. However, this technology is not yet feasible on a broad scale, which means that differentiating fees based on actual recycling costs is probably still too expensive for widespread implementation.

B. Fees based on product characteristics

Another way to incentivize product redesign in producer take-back systems is to modulate PRO fees based on characteristics of a product that make it easier or harder to recycle. This differs from after the fact billing, because the amount of the fees is based on a formula rather than the actual cost differences of recycling different products. This may be accomplished in three different ways.

The most common way to modulate fees is to vary them with the weight of a product.⁴⁵ In other words, the heavier the product, the higher the PRO fee. This is typically done where it is possible to make environmental gains simply by reducing the weight of a product, such as with certain types of packaging and some electronics. Reducing the weight of these products typically reduces the amount of material used, which reduces the need for virgin resources. It also reduces the amount of material that must be disposed of at the end of the useful life of these products, which reduces the need for additional recycling or landfilling processes.

The second way to modulate PRO fees is to charge different fees depending on the material the product is made of.⁴⁶ This may be done where products are made of a material that is difficult to recycle and could easily be substituted for a different, easier to recycle material. For example, packaging made from multi-material plastic is much harder to recycle than packaging made from a single type of plastic. So, under a modulated PRO fee, a producer whose product is made of multi-material plastic would be charged a higher fee than a producer whose product is made of a single type of plastic. This incentivizes producers to use materials that are easier to recycle.

⁴⁴ See e.g. “Promoting product recycling efforts in Japan”, online Fujitsu <https://www.fujitsu.com/ca/en/about/environment/society/recycle/casestudy/>.

⁴⁵ OECD, *Updated Guidance*, *supra* note 3 at 167.

⁴⁶ *Ibid.*

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The third and final way to modulate PRO fees is to increase fees based on specific features of a product—other than weight or material—that make it easier or harder to recycle.⁴⁷ For example, when LCD screens are recycled, it takes 70% less time to disassemble a screen if it uses a specific type of fastener.⁴⁸ Accordingly, a modulated PRO fee could be used to incentivize producers to use the fastener that allows for easier disassembly and, by doing so, to reduce the overall costs of recycling.

Generally speaking, modulated fees are far cheaper to administer than fees based on actual recycling costs. Most importantly, modulated fees can be charged up front instead of after the fact, which reduces the administrative complexity of charging producers. It also means there is no need to sort collected waste products by brand and track them through the system, which significantly reduces the costs of waste management.

That said, even though modulated fees are less expensive than after the fact billing, they still add administrative costs to EPR systems.⁴⁹ With modulated fees, more attention needs to be paid to product design in order to assess fees, which requires time and, therefore, money. Further, any formula for calculating modulated fees would need to be adjusted regularly to reflect design changes that do occur. This requires an ongoing commitment to monitoring product design, which may also add to the administrative costs of the system.⁵⁰

Most importantly, the biggest problem that may arise with modulated fees is that it can be difficult to come up with a dollar amount that fairly represents the value of design differences between products.⁵¹ By definition, fee modulation benefits some producers over others, so producers are unlikely to agree on a formula to reflect the design differences between their products. This problem is only exacerbated when the products in question contain multiple component parts that must be valued separately, as with electronics.⁵² This is why it is less common for EPR systems to use modulated fees for electronics programs.

At this stage, modulated fees offer a better solution to incentivizing product redesign in a producer take-back system than after the fact billing. However, they should still only be used where an increased

⁴⁷ *Ibid* at 168.

⁴⁸ *Ibid* at 170.

⁴⁹ *Ibid*.

⁵⁰ See Smith, *supra* note 15 at 41.

⁵¹ *Ibid*; OECD, *Updated Guidance*, *supra* note 3 at 170.

⁵² OECD, *Updated Guidance*, *supra* note 3 at 168-9.

fee is likely to cause producers to change their products and where the benefits from the change outweigh the additional costs of administration.⁵³ In other circumstances, it may be preferable to rely on direct regulatory mechanisms, such as bans on hazardous materials, to require producers to redesign their products to be more environmentally friendly and easier to recycle.

iii. Free-riders

One of the big problems facing EPR systems is the existence of free-riders, meaning producers who avoid meeting their obligations under an EPR scheme.⁵⁴ There are four different ways producers can free-ride in an EPR system.

1. *Total failure to participate.* The most obvious way for a producer to free-ride is to avoid any involvement with the EPR system. In this scenario, the producer does not participate in the system at all and, therefore, fails to meet all possible obligations under the EPR system.
2. *Intentional underreporting.*⁵⁵ One of the more insidious ways for a producer to free-ride is for the producer to participate in an EPR system but underreport the amount of product sold in a year. Often, producers have to pay fees based on their market share, so this behavior artificially reduces the market share of the producer and, consequently, the fees the producer is required to pay. This allows the producer to avoid some of its financial obligations under the EPR system.
3. *Permitted free-riders.*⁵⁶ Sometimes EPR systems will exempt small producers from paying fees, because the fees would represent too significant a financial burden on their businesses. Where this happens, the system allows small producers to act as free-riders, because the rules permit them to avoid making financial contributions to the system.

⁵³ *Ibid* at 170.

⁵⁴ *Analysis of the Free-Rider Issue in Extended Producer Responsibility Programs* (Ottawa: Marbek Resource Consultants Ltd, 2007) [*Free-Rider Analysis*], online: CCME https://www.ccme.ca/files/Resources/waste/extended/free_riders_1.0_1380_e.pdf at 4-5.

⁵⁵ *Ibid* at 14.

⁵⁶ *Ibid* at 12-13.

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4. *Federal immunity.*⁵⁷ Interestingly, because most EPR systems fall under provincial jurisdiction, they do not apply to operations of the federal government. This means that the federal government can free-ride in any provincial EPR system with impunity because the province does not have the legislative power to compel the federal government to participate.

Free-riders can cause significant problems for the operations of EPR systems. In particular, there are three main problems posed by free-riders, each of which will be discussed below.

The first problem caused by free-riders is that they can undermine the financial viability of an EPR system by adding to the costs of the system without contributing to its funding. This occurs because the products produced by free-riders are collected and recycled under the EPR system, but free-riders do not make any financial contributions to cover the costs of recycling those products.

If enough producers are free-riding in an EPR system, the financial shortfalls caused by the free-riders can be significant. For example, in British Columbia, the newspapers initially refused to participate in the EPR program for printed paper and packaging, which meant they did not make any financial contributions to cover the costs of recycling newspapers.⁵⁸ As a result, it is estimated the EPR program was underfunded by approximately 3-5 million dollars per year.⁵⁹

The second problem free-riders can cause for EPR systems is the creation of an uneven playing field for producers. This occurs, because the producers who do not participate in the EPR system receive the benefits of the system without paying. As a result, their overall costs are lower than if they did participate in the EPR system, giving them a competitive advantage over the producers who do meet their obligations under the EPR system. This is bad for competition and, also, it can reduce the good will of those producers who do participate in the system.

Finally, the third problem that free-riders can cause for an EPR system is that they can distort the performance metrics of the system. One of the most common performance measures for an EPR program is the recycling rate, which is the number of products the program recycles divided by the total number of

⁵⁷ *Ibid* at 11.

⁵⁸ Carol Bellringer et al, *Product Stewardship: An Overview of Recycling in B.C.* (Victoria, BC: Office of the Auditor General of British Columbia, 2016), online:

https://www.bcauditor.com/sites/default/files/publications/reports/FINAL_Product_Stewardship.pdf at 14.

⁵⁹ *Ibid*.

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products sold. Usually, the number of products sold is determined from annual reports submitted by producers. However, if producers are not participating in the EPR system or are underreporting the amounts they have sold, this number will appear smaller than it actually is. This distorts the recycling rate by making it seem like a higher proportion of the total products sold were recycled than actually were.

The failure to account for free-riders' products can have significant effects on an EPR program's reported recycling rate. For example, in 2017, British Columbia's printed paper and packaging program reported a recycling rate of 78%. However, if free-riders are taken into account, one expert has estimated the actual recycling rate could be as low as 57%.⁶⁰

The extent to which free-riders pose a problem for an EPR system will depend at least in part on the number of producers involved in the system. Typically, there will be more free-riders when there are more producers, because it is harder to track down and monitor a larger number producers.⁶¹ Conversely, for products like electronics where 90% of the market share is held by large, well-known producers, it can be relatively easy to identify and monitor producers to ensure they are meeting their obligations under the EPR system.⁶²

In addition, there will usually be more free-riders in EPR systems dealing with products that are frequently bought and sold over the internet.⁶³ This is because internet sellers are usually located outside of the jurisdiction where the products are purchased, meaning the government has no authority to require them to participate in an EPR system. As well, because internet sellers usually ship their products directly to customers, there is no importer or distributor located in the jurisdiction who could be held responsible as the producer in place of the internet seller.

To deal with internet sellers, provincial governments cannot use standard enforcement mechanisms, because they do not have authority over producers outside of their jurisdiction. However, governments can still make efforts to encourage voluntary compliance by informing internet sellers about the existence

⁶⁰ Chaz Miller, *Recycle British Columbia's Extended Producer Responsibility for Packaging and Paper: An Assessment of Its Impact* (March 2019), online: http://www.crrcnorth.org/uploads/pdf/Recycle_BC_White_Paper_2-19.pdf at 13.

⁶¹ *Free-Rider Analysis*, *supra* note 54 at 14.

⁶² See *Free-Rider Analysis*, *ibid* at 11.

⁶³ *Ibid*.

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of the EPR system and how they can participate in it.⁶⁴ As well, if internet sellers are located in a jurisdiction with its own EPR system, it may be possible to work with that jurisdiction to coordinate enforcement measures.⁶⁵

Generally speaking, to limit the number of free-riders in an EPR system, there are four aspects of program design that should be considered.

1. *Product responsibility.* To limit the free-riders in an EPR system, it is important to try to ensure that for every product there is a producer who can be held responsible. This means the rules of the system must clearly define which participant in the product supply chain is the producer. As well, on a practical level, it must be possible to gather data about the product supply chain to identify the responsible producer.⁶⁶ Otherwise, it will be possible for some producers to slip through the cracks and avoid their obligations under the EPR system.
2. *Producer fees.* To limit the free-riders in an EPR system, it is possible to structure producer fees to encourage participation in the EPR system. As an example, instead of allowing small producers to free-ride by creating blanket exemptions for their participation in an EPR system, it is possible to charge small producers a lower flat fee.⁶⁷ This creates some financial accountability to the EPR system, while still limiting how onerous the financial requirements will be for small producers.
3. *Reporting systems.* To prevent free-riders, an EPR system needs a reporting system with checks and balances to ensure producers are correctly reporting information about their products and their participation in the EPR system. Most importantly, producers may try to free-ride by underreporting the amount of product they have sold, so it is important to ensure that the system includes auditing processes to monitor these reports.
4. *Enforcement mechanisms.* To prevent free-riders, it is important that an EPR system has the tools to seek out and identify free-riders, as well as the enforcement mechanisms necessary to bring them into compliance. If an EPR system does not include these tools,

⁶⁴ OECD, *Extended Producer Responsibility and the Impact of Online Sales* (October 2018), online: <https://www.oecd.org/environment/waste/policy-highlights-extended-producer-responsibility-and-the-impact-of-online-sales.pdf> at 10 [OECD, *Online Sales*].

⁶⁵ *Ibid* at 9-10.

⁶⁶ *Free-Rider Analysis*, *supra* note 54 at 12.

⁶⁷ See *Free-Rider Analysis*, *ibid* at 19.

as well as the resources and the political will to use them, it will be difficult to prevent producers from free-riding.⁶⁸ Typically, governments are in charge of enforcement mechanisms for EPR systems. However, when it comes to dealing with free-riders, producers may take a role as well: peer pressure can be an effective way to prevent free-riding, and participating producers may be able to help identify and report non-participating producers.⁶⁹

iv. Competition

One of the big problems facing existing EPR systems and, specifically, producer take-back systems, is that they tend to encourage monopolies, which can create competition-related problems for the EPR system.

More often than not, where an EPR system allows producers to form PROs, only a single PRO will form even if legislation allows for more than one to exist.⁷⁰ This typically occurs, because at the beginning of an EPR program there is significant financial risk for producers, which can be mitigated by joining together into a single organization.⁷¹ In particular, EPR programs can require high initial investment costs and new programs can face variable markets for recycled products.⁷² Both of these financial risks can be borne more easily by a larger rather than a smaller group of producers, making a PRO-monopoly a common occurrence.

Although common, this single-PRO set-up can create problems for an EPR system. First and foremost, if there is only one PRO, then most producers have no choice but to join it. As a result, there is little incentive for a PRO to run its program efficiently: the PRO can pass all of the costs of the program on to producers, who must pay for those costs through their fees.

In addition, having a single PRO with little incentive to run an efficient program means the PRO may engage in non-competitive contracting with service providers, such as collectors and processors.⁷³ When

⁶⁸ *Ibid* at 22.

⁶⁹ OECD, *Updated Guidance*, *supra* note 3 at 44.

⁷⁰ Busuttill, Gies & Valiante, *supra* note 35 at 5.

⁷¹ See Walls, *supra* note 24 at 11.

⁷² OECD, *Updated Guidance*, *supra* note 3 at 165.

⁷³ See Walls, *supra* note 24 at 11.

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this occurs, a PRO may award contracts to preferred contractors instead of the contractors offering the best deal, increasing the overall costs of the system.

Finally, having a single PRO with little incentive to run an efficient EPR program can be problematic because high PRO fees can distort product markets.⁷⁴ Specifically, artificially high PRO fees can push smaller producers out of the market, because it is harder for smaller producers to bear the costs. As well, high PRO fees can cause market distortions by reducing competition between products. This occurs because high fees reduce the relative importance of other cost differences between products.

Although PRO-monopolies can create problems for EPR systems, there are several regulatory mechanisms that can be used to address those problems. For starters, governments can impose governance requirements on PROs to create transparency and accountability to producers. For example, in Saskatchewan, some EPR regulations require PROs to create an advisory committee to hear feedback from other stakeholders.⁷⁵ Likewise, an increasing number of jurisdictions are requiring more detailed financial accounting from PROs to allow producers to hold those organizations accountable. Finally, although it has not yet been tried in Canada, it would be possible to require PROs to use an open tendering process to select contracts with service providers.⁷⁶

Additionally, to deal with the issue of PRO monopolies, some jurisdictions outside of Canada have started modifying their EPR systems to require or encourage the existence of multiple PROs. For example, in Germany, the government mandated a break-up of the single PRO that was running the country's printed paper and packaging program.⁷⁷ Taking a different approach, in Austria, the government introduced requirements for existing PROs to share their collection infrastructure with new PROs in exchange for a financial contribution to those collection systems.⁷⁸ This resulted in the formation of additional PROs, because it reduced the infrastructure costs for new PROs, thereby making it easier for them to enter the market.

⁷⁴ OECD, *Updated Guidance*, *supra* note 3 at 50.

⁷⁵ See e.g. *The Agricultural Packaging Product Waste Stewardship Regulations*, RRS c E-10.22 Reg 4, s 5(2)(b) [*Saskatchewan Regulation*].

⁷⁶ OECD, *Updated Guidance*, *supra* note 3 at 47.

⁷⁷ Kelleher Environmental & Love Environment Inc, *EPR Case Study Report: Lessons from EPR Programs For Printed Paper and Packaging That Could Be Applied to Ontario Municipalities* (May 2014), online: Continuous Improvement Fund https://thecif.ca/projects/documents/725-EPR_Report.pdf at 7 [*Case Study Report*].

⁷⁸ Busuttill, Gies & Valiante, *supra* note 35 at 5-6.

The literature is divided on whether it is better to maintain a single PRO with regulatory adjustments or to require competition between PROs.⁷⁹ However, generally, it can be said that systems with multiple PROs often work best after an EPR system has matured and the initial financial risks of establishing the system have been overcome.⁸⁰ Further, the successful implementation of a system with multiple PROs requires careful attention to coordinating and monitoring the operations of the different PROs: the more PROs there are, the more information there is about their operations and the more difficult it becomes to ensure they are following the rules of the EPR system.

v. Harmonization

The operation of EPR systems can be improved if programs in different jurisdictions operate in a similar manner. In particular, there are five advantages to harmonizing EPR systems.

1. *Reduced Leakage*.⁸¹ To avoid having to participate in an EPR system, some producers may try to operate out of a jurisdiction that does not have an EPR system or that has the EPR system with the lowest requirements. Harmonizing EPR systems prevents this behavior, because if the requirements of different systems are roughly the same, then producers can no longer avoid participation by switching jurisdictions.
2. *Economies of Scale*.⁸² If multiple jurisdictions have EPR programs for the same products, there will be economies of scale, resulting in a more viable recycling industry and an increased market for recycled materials. Additionally, the more EPR systems are aligned across the country, the easier it is for the organizations that run the programs to share administration and infrastructure, thereby reducing the overall costs of the system.

⁷⁹ See Monier et al, *supra* note 30 at 25.

⁸⁰ PHA Consulting Associates, *Electronic Waste Recovery Study* (Canning, NS: PHA Consulting Associations, 2006), online: Divert NS https://divertns.ca/assets/files/Electronic_Waste_Recovery_Study-2006_web.pdf at 4-8; See OECD, *Updated Guidance*, *supra* note 3 at 48.

⁸¹ See OECD, *Updated Guidance*, *supra* note 3 at 88.

⁸² Laurie Giroux, *State of Waste Management in Canada* (Kanata, ON: Giroux Environmental Consulting, 2014), online: CCME https://www.ccme.ca/files/Resources/waste/wst_mgmt/State_Waste_Mgmt_in_Canada%20April%202015%20revised.pdf at E-3.

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3. *Efficiencies for Producers.*⁸³ It is easier for producers to operate EPR programs in multiple jurisdictions if each jurisdiction's EPR system has similar requirements. When this happens, producers can use the same—or at the very least, a similar—program design for each EPR program, which significantly reduces administrative costs.
4. *Convenience for Consumers.* If EPR systems apply to the same products and use similar collection systems across jurisdictions, it is far easier for consumers to participate in EPR programs when they move or travel. Simply put, consumers may have trouble figuring out new recycling programs, so harmonizing EPR systems makes it easier for them to participate in programs across jurisdictions.
5. *Better Data.*⁸⁴ If EPR systems have different reporting requirements, it is difficult to compare data and determine relative program performance. This makes it difficult to determine best practices for EPR programs and to develop improvements for existing programs. Harmonizing reporting requirements would make it easier to compare programs to see what is working and what is not and to make improvements based on this data.

In Canada, waste management largely falls under provincial jurisdiction, which means that each province is responsible for creating its own EPR system. To encourage the harmonization of Canadian EPR systems, this report will include details on how these systems have been designed across the country.

⁸³ *Canada-Wide Action Plan*, *supra* note 11 at 6.

⁸⁴ OECD, *Updated Guidance*, *supra* note 3 at 87.

IV. PROGRAM DESIGN

This section will describe in detail the design considerations of a producer take-back EPR system. This is the form of EPR that requires producers to take physical responsibility for their products and to establish and pay for a waste management system to deal with them at the end of their useful lives. Producer take-back systems are the most common EPR systems worldwide⁸⁵ and are used in all of the provinces in Canada that employ an EPR model.

Each part of this section will outline one of the basic legal elements of a producer take-back system. For each element, it will lay out the different options that have been used in Canada and abroad and discuss the circumstances in which each one might be chosen, including the policy considerations implicated in that decision.

i. Government Involvement

The first major decision in structuring a producer take-back system is the role government will play. That means deciding the specific functions government will perform, as well as deciding whether government will perform those functions itself or assign them to another body.

In Canada, waste management largely falls under provincial jurisdiction, so EPR systems are normally created at the provincial level. By contrast, municipalities do not have the legislative authority to require producers to implement a take-back program. Similarly, the federal government's ability to regulate toxic waste is unlikely to extend to the creation of an EPR system. Accordingly, any references in this report to the role of government in creating a take-back system means the provincial government.

In Canadian producer take-back systems, there is relatively little variation in the role that government plays. In fact, in nearly every provincially legislated EPR system, the government is responsible for five key functions.

1. *Program design.* The government is responsible for creating the legislative framework that requires and empowers the EPR system. This means that government sets the rules

⁸⁵ OECD, *Updated Guidance*, *supra* note 3 at 24.

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for the system and makes all of the policy decisions to determine what the goals are and how the system functions.

2. *Registration.* Typically, in a take-back EPR system, the government will run a registry and require producers to sign-up.⁸⁶ This allows the government to track who is participating in the EPR system and who is not, which allows for monitoring and enforcement, especially against free-riders.
3. *Accreditation.* In most take-back systems, the government requires producers to submit program plans to outline how they will meet their obligations under the system.⁸⁷ The government then evaluates and approves or rejects these plans. This allows government oversight of the design of producer take-back programs to ensure they follow the rules and meet the system's overall objectives.
4. *Monitoring.* The government is responsible for monitoring the ongoing activities of producers to ensure they follow the rules of the EPR system, as well as their own program plans. Often governments will require producers to submit annual reports, so they can more easily track producer activities.⁸⁸
5. *Enforcement.* The government is responsible for enforcing the rules against any producer who does not meet their obligations under the EPR system. Enforcement measures may include administrative penalties, prosecutions and fines, and even suspended operations.

To carry out its functions, a government may manage its EPR system directly or it may create a not for profit or crown corporation to take care of ongoing duties, including registration, accreditation, monitoring, and enforcement. The European Union has recognized that the use of an independent organization may be appropriate, at least in part, because it can be funded by fees from producers instead of tax-dollars.⁸⁹ This makes producers financially responsible for the role government plays in an EPR system, thereby extending the financial aspect of producer responsibility.

In Canada, the provinces are split on whether or not the government hands off its duties to a not for profit or crown corporation. Ontario, Quebec, New Brunswick, and Newfoundland all use a separate

⁸⁶ See e.g. *Solid Waste-Resource Management Regulations*, NS Reg 25/96, s 18D(1)(a) [*Nova Scotia Regulation*].

⁸⁷ See e.g. *Nova Scotia Regulation*, *ibid*, s 18E.

⁸⁸ See e.g. *Nova Scotia Regulation*, *ibid*, s 18F.

⁸⁹ OECD, *Updated Guidance*, *supra* note 3 at 42, citing Monier et al, *supra* note 30 at 117.

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organization funded by fees charged to producers.⁹⁰ Nova Scotia also runs its EPR system through a separate organization, although its funding is structured differently.⁹¹

On the other hand, British Columbia, Saskatchewan, Manitoba and Prince Edward Island run their EPR systems directly through the responsible government department. Most of these provinces fund their government functions from the general tax base, although PEI is unique in that they run their EPR system through government, but still charge producers an annual fee to fund operations.⁹²

It is interesting to note that where government assigns its ongoing functions to a not for profit or a crown corporation, that organization usually takes on other complementary functions as well. For example, in Quebec, the EPR system is administered by a government-created society called Récyc-Québec. In addition to performing the government's functions with respect to registration and monitoring and some enforcement functions, Récyc-Québec also administers financial support programs for research and development relating to waste management, provides educational programs, and publishes a price index for recycled materials based on a monthly survey of sorting centres.⁹³ The Minister of Environment also has the power to assign further tasks to the organization in aid of the province's EPR system, such as conducting specific consultations or research.⁹⁴

ii. Defining the Producer

In a producer take-back system, producers are responsible for physically collecting their products and recycling or otherwise disposing of them. To implement this type of system, it is necessary to clearly define who the producer is.

⁹⁰ *Resource Recovery and Circular Economy Act, 2016*, SO 2016, c 12, Sch 1, s 41 [Ontario Act]; see *Act respecting the Société québécoise de récupération et de recyclage*, CQLR, c S-22.01, art 20 [Quebec Society Act]; see e.g. *Designated Materials Regulation*, NB Reg 2008-54, s 48 [New Brunswick Regulation]; see e.g. *Waste Management Regulations, 2003*, NL R 59/03, s 31.15 [Newfoundland Regulation].

⁹¹ See *Nova Scotia Regulation*, *supra* note 86, Division I, Part I.

⁹² See e.g. *Materials Stewardship and Recycling Regulations*, PEI Reg EC349/14, s 24(8) [PEI Regulation].

⁹³ See *Quebec Society Act*, *supra* note 90, art 18.

⁹⁴ See *Environment Quality Act*, CQLR, c Q-2, art 53.5.1.

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When defining the producer in a take-back EPR system, there are three policy goals that should be taken into account.

1. *Start at the top.* Ideally, an EPR system should be operated by the person or organization that is at the highest point on the production chain.⁹⁵ This is the entity that will have the greatest ability to fund the program. It will also be the entity with the most control over product design, which means the greatest opportunity for the system to incentivize redesign.
2. *Respect jurisdictional limits.* EPR systems are typically run at the provincial level. This means that they do not have the legislative authority to bind any person or organization that is not located in the province. Accordingly, a Canadian EPR system must define the producer in a way that respects the jurisdictional limits of its authority.
3. *Limit free-riders.* It is important to try to make sure at least one producer is identified for every product on the market, so there is someone responsible for the waste management of each product.

To meet these policy goals, most producer definitions in Canadian EPR systems include more than one option for who the producer could be. This allows for some flexibility to account for the fact that not everyone involved in the production chain will be located in the province, while still making efforts to ensure that for every product there is a producer who can be held responsible.

The Canadian Council of Ministers of the Environment [“CCME”] recommends that the responsible producer in an EPR system should be either the manufacturer of the product or, where the manufacturer is not present in the province, the first importer.⁹⁶ Where appropriate, the producer may also be the brand owner, the retailer, the franchisee, or the wholesaler, depending on the supply chain.

Most provinces with existing EPR systems use some variation on the definition recommended by the CCME. For example, in British Columbia, the following definition applies:

“producer” means

...

⁹⁵ *Canada-Wide Action Plan, supra* note 11 at 26.

⁹⁶ *Canada-Wide Action Plan, supra* note 30 at 26.

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- (i) a person who manufactures the product and uses in a commercial enterprise, sells, offers for sale or distributes the product in British Columbia under the manufacturer's own brand,
- (ii) if subparagraph (i) does not apply, a person who is not the manufacturer of the product but is the owner or licensee of a trademark under which a product is used in a commercial enterprise, sold, offered for sale or distributed in British Columbia, whether or not the trademark is registered, or
- (iii) if subparagraphs (i) and (ii) do not apply, a person who imports the product into British Columbia for use in a commercial enterprise, sale, offer for sale or distribution in British Columbia.⁹⁷

Similar definitions are used in Nova Scotia, New Brunswick, and Newfoundland.⁹⁸ The other provinces also use similar definitions but include further options for who could be the producer.

- In Prince Edward Island, the definition of producer also includes a distributor in or into the province.⁹⁹
- In Saskatchewan, the definition of producer also includes a vendor who operates outside of the province but regularly sells to consumers in Saskatchewan, as well as anyone who purchases a product outside of Saskatchewan for use in Saskatchewan.¹⁰⁰
- In Ontario, the definition of producer also includes the first person who markets the product.¹⁰¹

The notable exception is Manitoba, where the producer is either the first person to sell a product or the first person to use it in the course of business, if the product was obtained outside of the province.¹⁰²

⁹⁷ *Recycling Regulation*, BC Reg 449/2004, s 1(b) [*BC Regulation*].

⁹⁸ See e.g. *Nova Scotia Regulation*, *supra* note 86, s 18(1)(b); *New Brunswick Regulation*, *supra* note 90, s 2; see e.g. *Newfoundland Regulation*, *supra* note 90, s 31.1(b).

⁹⁹ See e.g. *PEI Regulation*, *supra* note 92, s 20.

¹⁰⁰ See e.g. *Saskatchewan Regulation*, *supra* note 75, s 2.

¹⁰¹ See e.g. *Tires*, O Reg 225/18, s 3.

¹⁰² See e.g. *Electrical and Electronic Equipment Stewardship Regulation*, Man Reg 17/2010, s 1(1) [*Manitoba Regulation*].

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In some provinces, the definition of producer is different for different product categories to account for supply chain variations. For example, in Saskatchewan, for the printed paper and packaging take-back system, the producer is exclusively defined as the trademark owner or licensee.¹⁰³ For the other products, the definition of producer is similar to what is used in the other provinces.

To try to reach the highest point on the production chain, some provinces allow out of jurisdiction producers to opt into the EPR system to act as the responsible producer.¹⁰⁴ This allows national or international companies to take responsibility for their products, thereby putting the burden of running a take-back program on the companies with more financial capacity and a greater influence on product design.

One specific issue that comes up when identifying the producer for an EPR system is whether the system will include exemptions for small producers. These exemptions allow any producer who produces less than a certain amount of product to avoid the obligation of running an EPR program. The idea is that small producers may not be able to handle the financial burden of running a take-back program, so they should be exempted from participating in the EPR system. Usually, even if they do not make financial contributions, small producers are still required to register and provide information about their market share in annual reports. Small producer exemptions are most common in EPR systems for printed paper and packaging.

In Canada, there are several examples of small producer exemptions. In British Columbia, for example, small producers are exempted from the province's EPR system for printed paper and packaging. Under the province's EPR regulations, a small producer is defined as follows:

- (a) the producer is a charitable organization registered under the *Income Tax Act* (Canada);
- (b) the producer meets one or both of the following criteria:
 - (i) ... the producer had a gross revenue in the most recent calendar year of less than \$1 000 000 in British Columbia;
 - (ii) ... the producer produced in the most recent calendar year less than one tonne of products within the packaging and paper product category that

¹⁰³ See e.g. *The Household Packaging and Paper Stewardship Program Regulations*, RRS c E-10.21 Reg 5, s 2(1)(b) [*Saskatchewan Packaging Regulation*].

¹⁰⁴ See e.g. *Batteries*, O Reg 30/20, s 6.

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have been or will be used in a commercial enterprise, sold, offered for sale or distributed in British Columbia;

- (c) the producer, other than a producer of newspaper, does not have more than one point of retail sale in British Columbia.¹⁰⁵

Saskatchewan uses a similar small producer exemption for its printed paper and packaging system.¹⁰⁶ As well, Ontario has small producer exemptions for its tires and batteries systems.¹⁰⁷

Although this type of exemption protects small producers from potentially onerous financial obligations, it also gives small producers permission to free-ride in the EPR system. This means that small producers are allowed to benefit from an EPR system, because their products are recycled or otherwise disposed of through the EPR system. However, they are not required to pay for the waste management of their products, which means that the financial burden falls on other producers. This artificially skews the market in favour of small producers at the expense of larger producers.

There are a few ways to limit the impact of allowing small producers to free-ride in an EPR system. The first can be found in the Netherlands, where the packaging EPR system uses a two-tiered model for producer fees.¹⁰⁸ Under this model, all producers pay a smaller, set fee. In addition, larger producers pay a second, larger fee based on their market share. That way, smaller producers are required to make a financial contribution, so they are still paying for the EPR system, but not at a level that would put them out of business.

The other way to limit the impact of allowing small producers to free-ride is to be cautious in setting the size of the exemption. Consider that the small producer exemption in Saskatchewan's printed paper and packaging system applies to producers who generate less than \$2 million in gross annual revenue,¹⁰⁹ whereas in British Columbia, the limit is only \$1 million in gross annual revenue. This represents a potentially significant difference in the number of producers allowed to free-ride, which could in turn have a significant effect on the financing of the EPR system. Exemptions are usually set in consultation with industry, so it is important to ensure that they are set in a way that exempts only the small producers who need it.

¹⁰⁵ *BC Regulation*, *supra* note 97, s 1.

¹⁰⁶ *Saskatchewan Packaging Regulation*, *supra* note 103, s 5(5).

¹⁰⁷ *Tires*, *supra* note 101, s 4(7); *Batteries*, *supra* note 104, s 7.

¹⁰⁸ *Free-Rider Analysis*, *supra* note 54 at 19.

¹⁰⁹ *Saskatchewan Packaging Regulation*, *supra* note 103, s 5(5).

iii. Defining the Product

When designing a producer take-back system, one of the most important choices is which products will be included in the system. Most often, EPR systems are used for two types of products: toxic substances, to ensure they are properly disposed of, and high volume materials, to reduce the need for landfills.¹¹⁰ Most Canadian systems only include residential waste products.

In 2015, the Government of Québec put together a report on how to choose products for an EPR system.¹¹¹ According to that report, products should be prioritized based on a number of factors, including the hazardous nature of the product and the volume of waste material the product generates. In addition, the report considers the rarity of the natural resources used in the product, the GHG emissions generated, the product's life cycle, the recycling potential, the existence of a market for recycled materials, popular interest in recycling the product, the potential for cost optimization of the waste management system, and the potential for local economic and social development.¹¹²

Beyond these factors, when choosing products for an EPR system, it is also important to consider harmonizing the products covered by the EPR system with the systems in other Canadian jurisdictions, in order to create economies of scale and to make the programs consistent for consumers and producers. To that end, the CCME's Canada-Wide Action Plan recommends focusing on the following products:

- Packaging;
- Printed materials;
- Mercury containing lamps;
- Other mercury-containing products;
- Electronics and electrical products;

¹¹⁰ See e.g. *Ontario Strategy*, *supra* note 19 at 28.

¹¹¹ Ministère du Développement durable, de l'Environnement et de la Lutte contre les changements climatiques, *Liste des produits prioritaires à désigner sous la responsabilité élargie des producteurs* (August 2015), online: Gouvernement du Québec http://www.environnement.gouv.qc.ca/matieres/valorisation/Rapport_final_synthese.pdf.

¹¹² *Ibid* at 6.

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- Household hazardous and special wastes; and
- Automotive products.¹¹³

The plan also envisions future EPR programs for construction materials, demolition materials, furniture, textiles, and carpeting, and appliances containing ozone-depleting substances.

It is interesting to note that the CCME's recommendations for priority products are in line with the products typically covered by EPR systems world-wide. According to the OECD, the most common products for EPR programs are small consumer electronics, batteries, packaging, beverage containers, tires, and end of life vehicles, followed by used oil, paint, chemicals, large appliances, and fluorescent light bulbs.¹¹⁴

In addition to choosing the products that will be included in an EPR system, it is important to carefully define what will be included as one of those products and what will not. For example, in British Columbia, the EPR system for paint and paint containers includes:

- (a) latex, oil and solvent-based architectural coatings, including paints and stains for commercial and household use, whether tinted or untinted, and including empty containers for any of these, and
- (b) paints and stains, whether coloured or clear, sold in aerosol containers, and including empty aerosol containers for any of these, but not including unpressurized coatings formulated for industrial, automotive, or marine anti-fouling applications.¹¹⁵

This definition clearly delineates the types of paint and paint containers that are included in the EPR system, as well as some types of coatings that are not. To make sure all participants are on the same page, it is important for an EPR system to clearly draw the line between the products that will be included in take-back programs and the products that will not.

Generally speaking, when delineating the specific products that will be included in an EPR system, there are four guiding considerations that should be taken into account.

¹¹³ *Canada-Wide Action Plan*, *supra* note 11 at 12.

¹¹⁴ OECD, *Updated Guidance*, *supra* note 3 at 24.

¹¹⁵ *BC Regulation*, *supra* note 97, Schedule 2, s 9.

1. *Clarity for the Consumer.* It is important to define product categories in a way that makes sense to consumers, so they are able to correctly distinguish which products they can return to an EPR program and which products need to be disposed of in a different way. For example, studies have shown that consumers cannot successfully distinguish between different types of consumer batteries, so ideally EPR systems for batteries should not make distinctions between different types of consumer batteries.¹¹⁶
2. *Clarity for the Producer.* It is helpful to producers to define product categories using the same terms that are commonly used in the industry. This makes it easier for producers to understand how their products fit into the EPR system and whether or not they are included.
3. *Consistency with Other Jurisdictions.* It is helpful for both consumers and producers if product categories are consistent across jurisdictions. Doing so allows producers to take advantage of the efficiencies in running similar programs in each jurisdiction. Equally, it makes it easier for consumers to participate in EPR programs across jurisdictions, because it reduces the likelihood consumers will be confused about what they can return to an EPR program and what they cannot.
4. *Clarity with Other Products.* Some product categories may overlap, in which case it is important to be clear about which EPR system will take the products subject to the overlap. As an example, this is a common issue for batteries that are sold in consumer electronics, which could fall under both a battery EPR system and an electronics system. Studies show it does not matter which system takes the products as long as one is chosen over the other, because shared responsibility is administratively complex and expensive to run.¹¹⁷

iv. Program Responsibility

In most producer take-back systems, producers have the choice of running their own take-back program or joining a collective organization known as a Producer Responsibility Organization [“PRO”]. The PRO takes over the producers’ responsibilities under the EPR system and runs a take-back program on

¹¹⁶ Andrée Gendron et al, *Extended Producer Responsibility (EPR): Current status, challenges and perspectives* (March 2008), online: Gouvernement du Québec http://www.environnement.gouv.qc.ca/matieres/valorisation/0803-REP_en.pdf, Part VII at 20.

¹¹⁷ Kelleher Environmental, *Embedded Battery Research Summary* (2018), online: <http://kelleherenvironmental.com/wp-content/uploads/2018/10/EmbeddedBatteryResearchSummary.pdf>.

their behalf. In return, the producers pay the PRO fees to cover the costs of running the PRO, as well as the take-back program.

In the majority of cases, producers join PROs to meet their EPR obligations.¹¹⁸ Individual take-back programs can be very expensive to run, which makes them economically unfeasible for most producers.¹¹⁹ The exceptions are typically large producers with their own retail locations, who can run collection sites through these locations. Quebec leads the country in individual programs, and it only has six, including programs run by Québecor (electronics), Bell (modems and television receivers), and Canadian Tire (used oil).¹²⁰

In addition to lowering overall program costs, PROs create two further benefits for EPR systems. The first is that PROs simplify monitoring and enforcement measures.¹²¹ Quite simply, the fewer take-back programs there are in an EPR system, the easier it is to make sure they are following the rules. PROs also make it easier for producers to put peer pressure on free-riders to participate in an EPR system, because producers have a better sense of who is participating and who is not when they join a collective program.¹²²

Additionally, PROs are beneficial for EPR systems because they make it easier to deal with orphan and historical products.¹²³ Orphan products are products that were made by producers who are no longer active, while historical products are products that were sold before an EPR program started, so they have not been accounted for in the EPR program's funding scheme.¹²⁴

Orphan and historical products normally pose a problem for EPR systems, because they are collected and recycled along with other products, but there is no funding scheme in place to pay for their waste management costs. PROs make it easier to handle this problem, because the costs of recycling orphan and historical products can be spread out among the member producers. This means that, even though

¹¹⁸ OECD, *Updated Guidance*, *supra* note 3 at 28.

¹¹⁹ Walls, *supra* note 24 at 11.

¹²⁰ "Responsabilité élargie des producteurs (REP)" (2019), online: Recyc-Québec <https://www.recyc-quebec.gouv.qc.ca/entreprises-organismes/mieux-gerer/responsabilite-elargie-producteurs>.

¹²¹ Walls, *supra* note 24 at 11.

¹²² See OECD, *Updated Guidance*, *supra* note 3 at 44.

¹²³ OECD, *Updated Guidance*, *supra* note 3 at 166.

¹²⁴ Gendron et al, *supra* note 116, Part II at 20.

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there is no allocated funding, historical and orphan products are less of a burden to a PRO than they would be to a single producer collecting them through an individual system.¹²⁵

Of course, in addition to the benefits of PROs, there are also two disadvantages. First, PROs reduce the incentives an EPR system creates for producers to redesign their products to be more environmentally friendly and easier to recycle.¹²⁶ In particular, a PRO breaks the connection between the design of a producer's product and the amount the producer pays for the waste management of that product. This reduces the financial incentive to redesign the product to be easier to recycle, since, under a PRO, the cost of redesign would be borne by the individual producer, but the benefit of reduced management costs would be shared by all of the producers collectively. This makes it unlikely that any individual producer would invest in product redesign to reduce waste management costs.

The other disadvantage of PROs is that they tend to reduce free market competition. If producers join a single organization to meet their responsibilities under an EPR system, that PRO has a monopoly on contracts with service providers.¹²⁷ Likewise, where there is only one PRO, producers are effectively forced to join that PRO to avoid the expense of running an individual program. This can create unequal bargaining power between the PRO and the producers, which can affect the fees producers pay to the PRO and the overall financial efficiency of the PRO. Strategies for dealing with these competition issues, as well as the problem of incentivizing product redesign, are addressed in detail in the policy considerations section of this report.

With some minor variations to account for government-run take-back programs,¹²⁸ all Canadian provinces allow producers to choose between running an individual program and joining a PRO. Most often, provinces allow producers to operate their own programs or appoint an agent to run the program for them, which effectively means appointing a PRO to run the program for them.¹²⁹

In most cases, when a producer designates a PRO to operate a program on its behalf, the PRO takes over all responsibility under the governing legislation or regulations. One exception is in Saskatchewan, where producers must ensure PROs are following regulatory requirements, as well as approved program

¹²⁵ See OECD, *Updated Guidance*, *supra* note 3 at 166.

¹²⁶ Smith, *supra* note 15 at 41.

¹²⁷ Walls, *supra* note 24 at 11.

¹²⁸ See e.g. *Nova Scotia Regulation*, *supra* note 86, s 18D.

¹²⁹ See e.g. *BC Regulation*, *supra* note 97, ss 1-2.

plans.¹³⁰ Likewise, in Ontario, producers are allowed to retain PROs to run their collection and management programs and to prepare and submit reports, but the producers retain responsibility for ensuring PROs meet all regulatory requirements.¹³¹

For the most part, governments have little involvement in how PROs are run. Exceptionally, in Saskatchewan, there is a requirement for PROs to create an advisory committee with local representation to ensure there is a voice from Saskatchewan at the table.¹³² Since PROs are often subsidiaries of national not-for-profits,¹³³ this counteracts any concern that they may not be responsive to local conditions.

v. Program Design

In a typical EPR system, the producers are responsible for designing their take-back programs in accordance with minimum requirements set out by government. Most often, producers must submit a program plan, which the government can approve or reject depending on whether it meets these basic requirements.¹³⁴

The CCME has made recommendations for the minimum requirements for producers' program plans. According to the CCME's Canada-Wide Action Plan, a program plan should include the following.¹³⁵

1. *A collection plan.* Producers should plan how they will collect and transport waste products, including the geographic area they will serve, the proposed location of any collection depots, any specific provisions for remote or rural areas, and the amount of waste product they expect to collect.
2. *A processing plan.* Producers should plan how they will process the waste products they collect and which facilities they will use to do so. This plan should also include a description of the processing methods that will be used. Most provinces require producers to follow the processing hierarchy, favouring the methods at the top over

¹³⁰ See e.g. *Saskatchewan Regulation*, *supra* note 75, s 4(4).

¹³¹ See *Tires*, *supra* note 101.

¹³² See e.g. *Saskatchewan Regulation*, *supra* note 75, s 5(2)(b).

¹³³ See e.g. *Product Care Recycling*, online: <https://www.productcare.org/about/epr/>; *Electronic Products Recycling Association*, online: <https://epra.ca/>.

¹³⁴ See e.g. *BC Regulation*, *supra* note 97, Part 2.

¹³⁵ *Canada-Wide Action Plan*, *supra* note 11 at 28.

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those at the bottom: reduce, reuse, recycle, recover, disposal.¹³⁶ Note that in this instance recovery means incinerating waste products for energy, and disposal means landfilling.

3. *Product information.* Producers should provide information about their products, including the amount they sell in a year and any toxic materials their products contain.
4. *Performance targets.* Producers should identify the performance targets their take-back program will meet and how they intend to meet them. Often performance targets are set by the government. However, producers may also be required to identify and set their own performance targets. Common performance targets include collection rates, as well as recycling rates.
5. *Reporting protocols.* Producers should plan how they will monitor the performance of their program, including both qualitative and quantitative measures and auditing requirements.
6. *An education plan.* Producers should explain their plan for creating education programs to inform consumers and other stakeholders about the existence of their take-back program and how it works. A plan for informing consumers about collection sites and any specific collection requirements is especially important.
7. *Environmental policies.* Producers should identify any environmental design initiatives they are planning. They should also confirm that they will adhere to all relevant statutes, regulations, and by-laws and ensure that their contractors and employees will do the same.
8. *A plan for implementation.* Producers should explain how they will implement their take-back program, including clear timelines for program development and implementation. Producers should also include a plan for when and how they will review and update their program plans.

Most Canadian EPR systems follow, more or less, the requirements recommended by the CCME. In addition, there are a few other requirements that are commonly found in Canadian producer take-back systems.

¹³⁶ *Ibid* at 9.

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1. *A plan for consultations.* Some provinces require producers to conduct consultations with other stakeholders when developing their program plans.¹³⁷ The success of an EPR program requires many participants, so consultations can be a good idea to ensure everyone is on board with the proposed plan. Manitoba even requires producers to carry out ongoing consultations with stakeholders after their programs are up and running.¹³⁸
2. *A dispute resolution procedure.* Because EPR systems involve so many stakeholders, it is common for disputes to arise among them. Several EPR systems require producers to create an independent dispute resolution procedure so that problems can be dealt with fairly and expediently.¹³⁹
3. *Social and economic policies.* Some provinces use their EPR systems to drive other social and economic objectives beyond the normal goals of extended producer responsibility. For example, in Saskatchewan's printed paper and packaging system, the government requires producers to prefer working with organizations that employ people with disabilities and, also, to prefer local service providers and manufacturers.¹⁴⁰

Some governments create back-stop measures that go into effect if a producer fails to submit a program plan for approval. In Newfoundland, for example, the government has the option of imposing a plan on a producer if the producer fails to submit a plan.¹⁴¹ Likewise, in Saskatchewan, the government has the option of operating an interim program on behalf of any producer who does not have an approved program plan, so long as it is in the public interest.¹⁴² When this happens, the government may charge producers fees to cover the cost of the program, sort of as if it were the producer responsibility organization.

Taking a somewhat different approach, in British Columbia, producers have the option of submitting a plan for approval or operating a program according to a general plan set out in Part 3 of the *BC Regulation*.¹⁴³ The general plan sets out fairly bare bones requirements for posting information for consumers at retail sites, advertising the program in newspapers, and operating collection sites, as well as

¹³⁷ See e.g. *BC Regulation*, *supra* note 97, s 5(1)(b).

¹³⁸ See e.g. *Manitoba Regulation*, *supra* note 102, s 4(2)(i).

¹³⁹ See e.g. *BC Regulation*, *supra* note 97, s 5(1)(c)(vi).

¹⁴⁰ *Saskatchewan Packaging Regulation*, *supra* note 103, ss 7(4)(e)-(f).

¹⁴¹ See e.g. *Newfoundland Regulation*, *supra* note 90, s 31.24(7).

¹⁴² *The Environmental Management and Protection Act, 2010*, SS 2010, c E-10.22, s 45.1 [*Saskatchewan Act*].

¹⁴³ *Supra* note 97.

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basic processing and reporting requirements.¹⁴⁴ Producers must give written notice if they choose to follow the general plan.¹⁴⁵

Although the specifics of program design are typically left to producers, in some cases, government will take a heavier hand in directing how take-back programs should run. This commonly occurs for elements of the programs that enable government activities, such as reporting requirements, which help government to carry out its monitoring and enforcement functions. As well, a greater degree of government intervention is common for consumer-facing aspects of EPR programs, because government may take greater responsibility for ensuring minimum standards where they directly affect consumers.

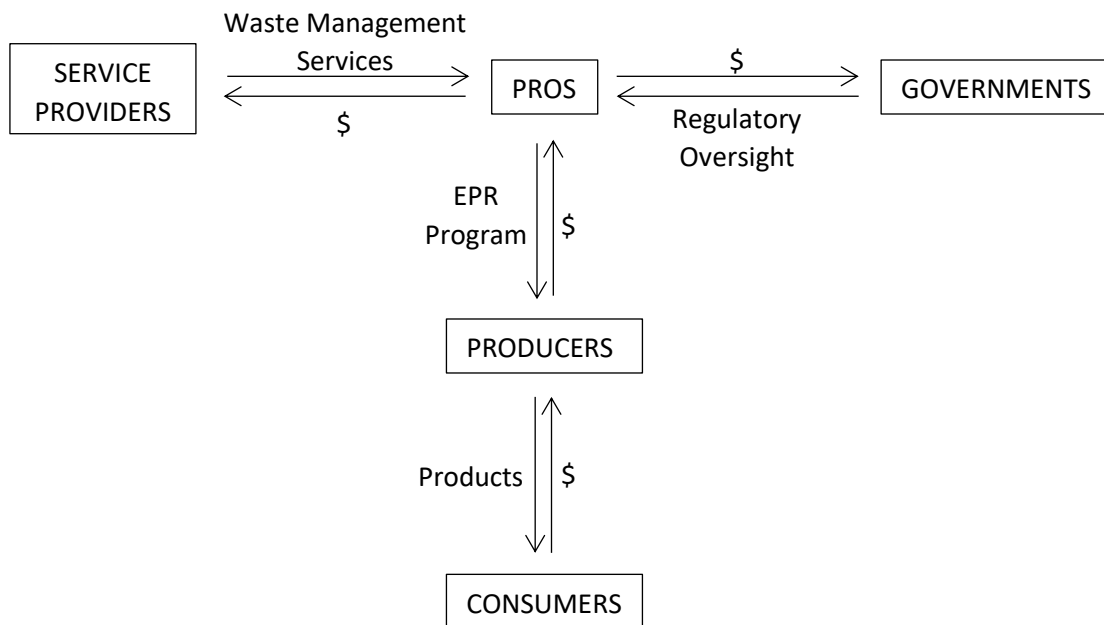
The following sections will deal with the specific requirements that governments may impose in five areas of program design: program fees, collection systems, education and awareness programs, performance measures, and reporting requirements.

¹⁴⁴ *Ibid*, ss 10-14.

¹⁴⁵ *Ibid*, s 9(4).

vi. Program Fees

In a typical producer take-back program, the costs of running the program are passed from service providers to PROs, from PROs to producers, and from producers to consumers. In addition, governments frequently pass their costs on to PROs or producers, who also pass those costs on to consumers.



These cost transfers frequently take place through fees charged by one party to the other. Typically, governments charge PROs or producers annual fees. Similarly, PROs charge annual or periodic fees to their member producers. In turn, producers may charge consumers fees for each product they purchase or each time they use the EPR program. Alternatively, producers may pass their costs on to consumers by integrating them into the price of their products. Finally, PROs frequently pay collectors fees based on the amounts they collect or the number of households they collect from.

Typically, each actor in the system sets its own fees based on its costs or based on negotiations with the other parties. However, there are four aspects of fee structure design where governments may directly intervene. The first, and most common, is for governments to prohibit producers from charging consumers fees at the point of collection. This means that if producers charge fees to consumers, they must do so when consumers purchase a product and not when they return the product to an EPR program. This is done, because studies show that charging collection fees discourages consumers from

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returning their waste products to EPR programs.¹⁴⁶ This reduces the program's collection rate, which in turn affects the overall functioning of the EPR program. For this reason, in Canada, every province except Saskatchewan and Prince Edward Island has an explicit ban on charging collection fees.¹⁴⁷

The second area of fee structure design where governments may intervene is to require PROs to modify the fees they charge producers to reflect how easy or difficult it is to recycle the producers' products. Normally, PROs charge producers fees based on the overall costs of running the EPR program and the producers' respective market share.¹⁴⁸ However, these fees can also be modified to reflect characteristics of the producers' products that make them easier or harder to recycle, such as the weight or the material used.¹⁴⁹ When this happens, the PRO charges a higher fee for products that are harder to recycle and a lower fee for products that are easier to recycle. The idea is that this will create a financial incentive for producers to modify their products to make them easier to recycle. In Canada, Quebec is the only province that requires modified fees to reflect environmental considerations.¹⁵⁰ Generally, more information about modifying fee structures can be found in the section of this report on design for environment.

The third way governments may intervene in fee structure design is to prohibit producers from charging visible fees to consumers. Some commentators believe that if producers are allowed to charge visible fees, they will be less likely to redesign their products to be more environmentally friendly or easier to recycle.¹⁵¹ The idea is that if producers can charge visible fees, they will simply pass their costs on to consumers through these fees and will not consider them in their design processes. Unfortunately, however, there is no clear evidence to show what effect, if any, visible fees have on product redesign.¹⁵² Accordingly, in Canada, most governments leave the choice of whether to charge visible fees to the producers. Only New Brunswick, Prince Edward Island, and Newfoundland have banned visible fees on products, with the exception of fees for electronics and electrical products.¹⁵³

¹⁴⁶ Smith, *supra* note 15 at 16.

¹⁴⁷ See e.g. *BC Regulation*, *supra* note 97, s 5(1)(c)(iii).

¹⁴⁸ See Smith, *supra* note 15 at 41.

¹⁴⁹ OECD, *Updated Guidance*, *supra* note 3 at 167.

¹⁵⁰ *Regulation respecting the recovery and reclamation of products by enterprises*, CQLR, c Q-2, r 40.1, art 5(10) [*Quebec Regulation*].

¹⁵¹ See PHA Consulting Associates, *supra* note 80 at 4-3.

¹⁵² OECD, *Updated Guidelines*, *supra* note 3 at 167.

¹⁵³ See e.g. *New Brunswick Regulation*, *supra* note 90, ss 47, 50.44; *PEI Regulation*, *supra* note 92, s 41; *Newfoundland Regulation*, *supra* note 90, s 31.14.

Finally, the fourth way governments may intervene in fee structure design is to take a heavier hand in regulating the fees PROs pay to municipalities when municipalities act as collectors in printed paper and packaging [“PPP”] programs. Often, when producers take over PPP recycling, they allow municipalities to continue to run curbside collection services in exchange for a per household fee. In some cases, there have been disputes over the fair amount PROs should pay municipalities for their services. In particular, in British Columbia, some municipalities have complained that the rate paid by the PRO, Recycle BC, does not cover their actual costs of collection. To deal with this dispute, Recycle BC will conduct a fee review in 2020, which will be overseen by an advisory committee including local government representation.¹⁵⁴

A different way to deal with this problem is for governments to step in and set up a system for resolving fee disputes. For example, in Ontario’s existing blue box program, the amount paid by producers is settled by Stewardship Ontario and Waste Diversion Ontario, now known as the Resource Productivity and Recovery Authority.¹⁵⁵ Both of these are not for profit organizations created by the Ontario government to administer its recycling programs. Taking a different approach, in Belgium, fee disputes between municipalities and producers are settled by a council of municipalities.¹⁵⁶ Reports suggest this system works very well, because municipalities have a high level of trust in the decisions the council makes.

vii. Collection Systems

Collection is one of the most significant consumer-facing aspects of an EPR program, and collection rates are one of the most important performance measures. Accordingly, it is quite common for governments to set minimum requirements for collection systems in producer take-back programs.

There are three common government interventions in the design of collection systems. The first, and most common, is for the government to require producers to collect all products of the same type regardless of who produced them. For example, in Ontario, an EPR program for tires must collect all tires within a given size category regardless of the producer.¹⁵⁷ This makes collection simpler for consumers,

¹⁵⁴ “Revised Recycle BC Program Plan Submitted to BC Ministry of Environment and Climate Change Strategy” (9 October 2018), online: Recycle BC <https://recyclebc.ca/revised-recycle-bc-program-plan-submitted/> [“Revised Program Plan”].

¹⁵⁵ See *Stewardship Ontario*, O Reg 388/16; *Ontario Act*, *supra* note 90, Part III.

¹⁵⁶ *Case Study Report*, *supra* note 77 at 5.

¹⁵⁷ See e.g. *Tires*, *supra* note 101, s 10.

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who do not have to worry about which products they are allowed to return to which EPR program.¹⁵⁸ Likewise, if there is more than one EPR program in place for the same type of product, this eliminates the administrative costs of dealing with products that have been returned to the wrong program.

Requiring EPR programs to collect all products of the same type is also a good way to deal with orphan and historical products. Orphan products are products that were made by producers who no longer exist, so there is no longer any producer who is responsible for their waste management.¹⁵⁹ Historical products are products that were sold before the EPR program was created, so they were not accounted for in the design of the program. In both cases, requiring producers to collect all products of the same type means they must also collect and manage orphan and historical products.

According to the CCME, this is the best way for an EPR system to deal with orphan and historical products, because from a policy perspective, it is more important to include these products in an EPR system than it is to protect producers from the costs of dealing with them.¹⁶⁰ Moreover, not all orphan and historical products will hit an EPR program at the same time, so the cost of dealing with them will be spread out.¹⁶¹

The second common government intervention in collection systems is for governments to set minimum service requirements for collection depots. Waste management is traditionally a public service and, accordingly, the general population expects governments to ensure a certain level of service.

To give an example, in Ontario, the government has laid out very specific collection requirements for its used tire system, including requirements for the minimum number of collection depots a producer must establish. Under those requirements, a producer who is required to collect at least 10,000 kg of tires under the EPR system must establish the following collection sites.

- In municipalities with one or more retail locations that supply the producer's tires, at least 75% as many collection depots as retail locations.
- In municipalities of at least 1,000 people but fewer than 3,000 people, at least one collection depot.

¹⁵⁸ OECD, *Updated Guidance*, *supra* note 3 at 165.

¹⁵⁹ Gendron et al, *supra* note 116, Part II at 20.

¹⁶⁰ See *Canada-Wide Action Plan*, *supra* note 11 at 31.

¹⁶¹ Gendron et al, *supra* note 116, Part II at 20.

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- In municipalities of at least 3,000 people, at least one collection site for every 3,000 people or portion thereof.
- In territorial districts, one collection site within 30 km of each retail location that supplies the producer's tires.
- In territorial districts of at least 1,000 people but no retail location, at least one collection depot or one public tire collection event per year.¹⁶²

Additionally, in Ontario's used tire regulation, the government also sets out minimum operating requirements for each collection depot.

- The site must be operated and accept tires during normal business hours.
- The site must accept tires that are still attached to rims.
- The site must accept tires of a similar rim size and weight to those sold at the site.
- The site must accept up to 10 tires of a given size and weight per day per person.
- If the site accepts more than 10 tires from a person in a day, the site must take the person's contact information.¹⁶³

Finally, the third common government intervention in collection systems is to require EPR programs for printed paper and packaging to provide curbside pick-up. Most frequently, this occurs where an EPR system replaces a municipally-funded program that provided curbside pick-up, in order to maintain existing service levels.¹⁶⁴

viii. Education Programs

The education and awareness programs run by producers as part of their take-back programs have a significant consumer-facing aspect, so the design of these programs may attract a higher level of government intervention.

Common requirements for educational and awareness programs include the following.

¹⁶² *Tires*, *supra* note 101, ss 6(1)(a), (b).

¹⁶³ *Tires*, *supra* note 101, s 10.

¹⁶⁴ See e.g. *BC Regulation*, *supra* note 97, s 5(1)(d).

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- Posting information about EPR programs at retail sites where the products are sold.
- Providing information about the location and operation of collection sites.
- Providing information about how the EPR program works.
- Providing information about the environmental benefits of the EPR program.

In addition, some provinces require producers to submit their educational materials to the government for approval before they may be used. For example, New Brunswick sets the following requirements for its paint programs.

(1) A brand owner shall provide to each retailer of its paint, educational and consumer material, including printed handouts, that informs consumers about

(a) the brand owner's paint stewardship plan,

(b) access to return depots, and

(c) the environmental and economic benefits of participating in the paint stewardship program.

(2) A brand owner shall not release any educational and consumer material referred to in subsection (1) unless the material has been submitted to [the government] at least one month before its intended release.

(3) A retailer shall post or distribute the educational and consumer material it receives from brand owners at the area inside the retailer's premises where paint is displayed, and

(a) at the main entrance of the retailer's premises, or

(b) at the area inside a retailer's premises where the transaction to purchase paint takes place.

(4) Subsection (2) applies with the necessary modifications to any changes proposed to be made to the information supplied in the material referred to in subsection (1).¹⁶⁵

¹⁶⁵ *New Brunswick Regulation, supra* note 90, s 46.

Where producers charge consumers a visible fee to cover the costs of their EPR programs, some provinces require producers to provide consumers with information about what the fee is for and how it is used. For example, in Ontario, the EPR regulation for used tires provides as follows.

Every producer and every person who markets new tires to consumers in Ontario, whether separately from or on a new vehicle, and who identifies, in an advertisement, invoice, receipt or similar record in connection with the supply of tires, a separate charge that relates to resource recovery or waste reduction of tires, shall implement a promotion and education program by providing the following information at the time the charge is identified in the same manner in which the charge is communicated:

1. The person responsible for imposing the charge.
2. How the charge will be used to collect, reduce, reuse, recycle and recover tires.¹⁶⁶

Finally, in limited circumstances, governments may require producers to provide consumers with information about how to safely handle the toxic components in their products. For example, in Quebec, the government requires EPR programs for mercury-containing lamps to provide information about what to do if a lamp breaks. The regulation reads:

The information, awareness and education activities ... provided for in the recovery and reclamation program of an enterprise ... that markets mercury lamps must include specific activities adapted to various uses and clienteles, such as tanning salons, and showing them, in particular, the manner to clean up and manage mercury debris and releases in case of lamp breakage.¹⁶⁷

ix. Program Targets

In a producer take-back system, program targets are necessary to ensure the system is meeting its objectives. In Canada, most producer take-back systems allow producers to set their own performance targets. However, the CCME recommends that governments set performance targets in consultation with industry.¹⁶⁸ The idea is that governments will be able to ensure targets are stringent enough to achieve

¹⁶⁶ *Tires*, O Reg 225/18, s 14.

¹⁶⁷ *Quebec Regulation*, *supra* note 150, art 38.

¹⁶⁸ *Canada-Wide Action Plan*, *supra* note 11 at 10.

real environmental and economic benefits, while relying on consultations with producers to ensure targets remain feasible. According to the OECD, the failure to set adequate program targets is one of the reasons EPR systems vary significantly in their performance.¹⁶⁹ To that end, government involvement can help ensure targets are stringent enough for EPR systems to achieve their objectives.

For any EPR program, the basic performance targets are the program's recovery rate and recycling rate.¹⁷⁰ The recovery rate is the proportion of products collected out of the total products sold, and the recycling rate is the proportion of products recycled out of the total products sold. Alternatively, the recycling rate is sometimes measured as the proportion of recycled material produced out of the total products sold.¹⁷¹ At the very least, every EPR program should include these two performance targets.

In addition, an EPR program may adopt other targets to reflect the specific mechanics of the program, including the unique lifecycle, risks, and uses of the products it covers. The CCME makes a number of recommendations for developing performance targets for EPR programs.¹⁷²

1. *Make measurable targets.* Targets should be quantifiable and measurable, or, quite simply, it will not be possible to assess whether a program has met its targets. Having measurable targets also has important implications for enforcement, because it is difficult to enforce targets if it is not possible to determine whether or not they have been met.
2. *Phase targets in.* For an EPR program to perform successfully, it should have targets that continue to increase over time. To do this, it is important to review targets regularly and to set new targets as appropriate. It may also be necessary to set a baseline for program performance, so that targets adequately respond to existing conditions.
3. *Include environmental initiatives.* Targets should reflect the environmental goals of the EPR program. So, if the program has been designed to encourage product redesign, that should be included in the program targets. Likewise, if there are goals that specifically relate to hazardous components of products, then those should be included in the program targets as well.

¹⁶⁹ OECD, *Updated Guidelines*, *supra* note 3 at 42.

¹⁷⁰ Smith, *supra* note 15 at 45.

¹⁷¹ See e.g. *Batteries*, *supra* note 104, s 16.

¹⁷² *Canada-Wide Action Plan*, *supra* note 11 at 29-30.

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Generally speaking, when setting program targets, it is a good approach to try to identify the factors that drive program performance and to set targets for those factors.¹⁷³ For example, improving consumer awareness of an EPR program often improves the recovery rates for that EPR program.¹⁷⁴ So, to improve recovery rates, it may be useful to set targets for consumer awareness levels. It is important to note that the drivers for each program may be different, so each program would need to be assessed individually to ensure targets are meaningful.

Another important factor to consider in setting program targets is how the targets will be measured. There are four specific issues an EPR system should take into account when measuring the recovery rate of a take-back program.¹⁷⁵

1. *Measures of products sold and collected.*¹⁷⁶ It can be difficult to establish the recovery rates for an EPR program if the measures of the amount of product sold and the amount of product collected are different. For example, tires are commonly sold by unit but collected by weight. It can be difficult to compare these figures to determine the recovery rate if different tires have different weights, because there is no simple unit to weight conversion. To deal with this problem, there are two possible approaches. The first is to legislate a single measure for each product. The second is to develop a conversion metric for comparing unit and weight measures, usually by studying how, on the whole, unit number compares to weight.¹⁷⁷
2. *Products with lifecycles longer than one year.*¹⁷⁸ If a product has a lifecycle longer than one year, then typically the product will not be collected in the same year it was sold. Accordingly, to determine the recovery rate, the amount collected should be compared to the amount sold in the year the products were actually sold. Often, this means conducting a lifecycle study to determine the functional lifecycle of a product. This can then be used to determine the year or years in which the products were most likely sold and the sales data from that year can be used to calculate the recovery rate. For

¹⁷³ Deloitte LLP, *Performance Measurement for Extended Producer Responsibility in British Columbia* (March 2017), online Government of British Columbia:

[https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/res/performance measurement assessment for extended producer responsibility bc.pdf](https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/res/performance%20measurement%20assessment%20for%20extended%20producer%20responsibility%20bc.pdf) at 36.

¹⁷⁴ *Ibid.*

¹⁷⁵ *Ibid* at 30.

¹⁷⁶ *Ibid.*

¹⁷⁷ See e.g. *Quebec Regulation*, *supra* note 150, art 23.

¹⁷⁸ Deloitte LLP, *supra* note 173 at 30.

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example, in Ontario's EPR system for tires, the target recovery rate is calculated by comparing the number of tires collected with the average of the number sold three, four, and five years prior to the collection year.¹⁷⁹

3. *Products that are intended to be consumed.*¹⁸⁰ For products that are intended to be consumed, such as paint, the recovery rate should not be calculated based on the amount of product sold, because it is not an accurate representation of the amount available to be collected. Instead, to get an idea of the amount of product available for collection, it is typically necessary to conduct studies or household audits. For example, in Quebec's EPR system, producers of consumable products are responsible for conducting this type of study and they must do so as part of their program review every five years.¹⁸¹
4. *Accounting for free-riders.* If some producers are not participating in an EPR system or are underreporting the amount of product they have sold in a year, it will skew the recovery rate, by making it look like fewer products were sold than actually were. This will artificially increase the recovery rate, because it makes it look like a larger proportion of the products sold were collected than actually were. To account for this problem, it may be necessary to conduct studies to assess the actual amount of product sold in a year.¹⁸² In addition, it is important to ensure that there is a robust enforcement system in place to bring free-riders into compliance.

The final thing to consider when setting performance targets is whether there have been any changes to either product design or external circumstances that may affect the performance of the EPR program over time. Where this has occurred, it may be necessary to adjust program targets to reflect new circumstances.

To give an example, if a product is redesigned to be lighter, any performance targets based on product weight will be affected. So, if collection is measured by weight, a lighter product will make it seem like collection rates have dropped, even though the program is still collecting the same number of waste products. Accordingly, program targets should be adjusted to reflect the change in product weight.

¹⁷⁹ *Tires*, *supra* note 101, s 4(2).

¹⁸⁰ Deloitte LLP, *supra* note 173 at 31.

¹⁸¹ *Quebec Regulation*, *supra* note 150, arts 45, 51

¹⁸² See Miller, *supra* note 60 at 13.

Similarly, the costs of an EPR program may be affected by external factors such as the strength of markets for recycled materials or the costs of contracts with service providers. These factors should be considered when assessing the cost-efficiency of an EPR program, to ensure any increases in cost can be attributed to the correct cause and that the performance of the EPR program is evaluated appropriately.

x. Reporting Requirements

Reporting requirements allow governments and the public to understand the operations of a producer take-back program. This is important, because an accurate understanding of an EPR program's operations makes it easier to judge whether or not the program is following the rules of the system. This enables governments to take enforcement measures against programs that are non-compliant. Likewise, accurate data about EPR programs are important for allowing governments to develop and refine policy and legislation for EPR programs, because it lets them assess what is working and what is not. For this reason, an increasing number of governments in Canada and abroad are moving towards more robust reporting requirements for producers.

The CCME recommends that EPR systems should include the following basic reporting requirements for EPR programs.

- A baseline report to establish the state of things prior to the EPR program operating.
- Annual reports with information about the operations of the EPR program.
- Annual plans for the next fiscal year included in annual reports.
- A requirement for relevant records to be kept and made available on request.¹⁸³

Most Canadian EPR systems also lay out detailed requirements for the information producers must provide in their annual reports. These are exemplified by the requirements in British Columbia's EPR regulation, which requires annual reports to include the following.

- A description of educational materials and efforts.
- The location of collection facilities.

¹⁸³ *Canada-Wide Action Plan*, *supra* note 11 at 28-29.

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- Efforts to reduce environmental impacts through the product life cycle and to increase product reusability or recyclability.
- A description of how collected products were managed, according to the pollution prevention hierarchy.
- The total amount of product produced and collected, as well as the recovery rate.
- Independently audited financial statements detailing revenues and expenditures related to any visible fees.
- A comparison of the program's performance with performance measures and targets.
- Any other information specified by the government.¹⁸⁴

Beyond these requirements, it is increasingly common to see governments impose three additional reporting requirements.

1. *More onerous financial reporting.* Given concerns about the financial transparency of EPR programs run by PROs, some governments require general financial reporting in addition to the standard reporting around fees charged to consumers. For example, Saskatchewan requires annual reports to include information about the costs of the program, the costs of administration, any recycling incentives paid, and the amount spent on educational materials and programs.¹⁸⁵
2. *Qualitative audits.* The CCME recommends requiring producers to undergo annual third-party audits to ensure programs are following their program plans, as well as any relevant environmental and health and safety legislation. In line with this recommendation, Quebec requires producers to provide a third-party audit of all the information provided in their annual reports.¹⁸⁶
3. *Reports from service providers.* One way to ensure accurate reporting from producers is to require complementary reports from service providers. In Ontario's EPR system for tires, for example, tire collectors, haulers, processors, and retreaders all must submit

¹⁸⁴ *BC Regulation*, *supra* note 97, s 8.

¹⁸⁵ See e.g. *Saskatchewan Regulation*, *supra* note 75, ss 8(2)(d)-(g).

¹⁸⁶ *Quebec Regulation*, *supra* note 150, art 9.

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reports on the number and weight of tires dealt with, as well as how these tires are disposed of. This allows the government to track the movement of tires through the entire EPR system.¹⁸⁷

One specific issue that arises in the context of reporting requirements is the confidentiality of any proprietary information producers provide in their reports to the government. Across Canada, the provinces have taken quite different approaches to protecting confidential information.

1. *Confidentiality with limited disclosure.* In Ontario, the information submitted in annual reports is confidential, subject to disclosure requirements in the legislation.¹⁸⁸ Under those requirements, information must be disclosed for a proceeding under the Act; in connection with administering the Act and its regulations; to the Minister; to a peace officer as required under a warrant; with the consent of the person to whom the information relates; to the counsel of the person to whom the information relates; and to the extent the information is required or permitted to be made public under any other legislation.
2. *Confidentiality of market share only.* In Newfoundland, New Brunswick, and Manitoba, most of the information included in the annual reports provided by producers is public. However, the market share is confidential.¹⁸⁹
3. *Public information subject to application.* Under Saskatchewan's general environmental legislation, all reports submitted to the government are deemed to be public information.¹⁹⁰ That said, any person who submits a report may request that any part of the report containing proprietary commercial information be kept confidential for up to 5 years after the report was submitted, with the possibility of renewing that request for further periods of up to 5 years.
4. *Public information subject to discretionary protections.* In British Columbia, producers are required to post their reports on their websites, so the information is publicly available.

¹⁸⁷ See *Tires*, *supra* note 101, ss 20-23.

¹⁸⁸ See *Ontario Act*, *supra* note 90, s 57.

¹⁸⁹ See e.g. *Newfoundland Regulation*, *supra* note 90, s 31.12(2)-(3); *New Brunswick Regulation*, *supra* note 90, s 45(2)-(3); *Manitoba Regulation*, *supra* note 102, s 17.

¹⁹⁰ *Saskatchewan Act*, *supra* note 142, s 83.

However, the government has the power to specify that certain information does not need to be included in the version posted on the internet.¹⁹¹

5. *Complete public information.* In Nova Scotia, all information contained in annual reports is public information and subject to disclosure.¹⁹² There are no protections in place for producers' proprietary information.

Most of these confidentiality regimes are set up for single-PRO EPR systems. This is important to note, because in a system with more than one PRO, it would be necessary to increase confidentiality protections to deal with the proprietary information of the PROs as well as that of the producers.

xi. Program Implementation

When introducing a new EPR system, it is important to give producers enough time to develop a program plan and then, once the plan is approved, enough time to implement it. Governments usually set the timelines for producers to register and submit program plans. They sometimes also set deadlines for producers to implement their programs. In either case, when government sets a deadline, it is a good idea to consult with industry and any other affected stakeholders to ensure that timelines are achievable.

In Canadian EPR systems, some provinces require producers to register and submit program plans as soon as the governing legislation or regulations come into force. Others set out subsequent dates by which producers must register and get their plans approved and, if applicable, implement their programs. For example, the regulations in New Brunswick set out the following deadlines for EPR programs for electronic products.

50.35(1) A brand owner who is selling, offering for sale or distributing electronic products within the Province immediately before the commencement of this section shall submit an application for registration within 120 days after the commencement of this section.

(2) A brand owner referred to in subsection (1) is not required to submit an electronics products stewardship plan with the application for registration, but shall ensure that a plan is submitted no later than 180 days after the date of commencement of this section.

¹⁹¹ *BC Regulation, supra note 97, ss 8(1), (4).*

¹⁹² *Nova Scotia Regulation, supra note 86, s 11.*

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(3) A brand owner shall implement the electronic products stewardship plan referred to in subsection (2) within 180 days after the plan is approved by the Board.

(4) ... a brand owner referred to in subsection (1) may continue selling, offering for sale or distributing electronics products within the Province until the Board renders its decision in respect of the brand owner's application for registration.

(5) If the Board refuses to register a brand owner referred to in subsection (1), the brand owner shall cease selling, offering for sale or distributing electronics products immediately on receiving notice of the Board's decision to refuse the application.¹⁹³

Sometimes, producers operate voluntary take-back programs prior to the introduction of a government-mandated EPR system. Where this occurs, most provinces require existing programs to submit a program plan for approval, as would be the case with a new EPR program.

Similarly, sometimes a new EPR system replaces an existing government-run recycling program. When this happens, it is usually necessary to coordinate the transition from the old program to the new one to ensure consumer service is not impacted by the change. As an example, in Ontario, the government is currently in the process of replacing its government-run recycling programs with producer take-back programs. For each existing recycling program, the government has issued or will issue a direction to come up with a wind-up plan.¹⁹⁴ At the same, the government is working with producers to develop regulations to govern the new EPR programs, as well as timelines for implementing them.¹⁹⁵

The transition from an existing government-run recycling program to an EPR model can be especially difficult for programs for printed paper and packaging ["PPP"], because of the role played by municipalities. For the most part, existing PPP recycling programs are run by municipalities, and, to run these programs, municipalities have existing contracts with service providers. As well, in some cases, municipalities have made investments in infrastructure for processing PPP materials. This means that when a new EPR program is introduced, it is necessary to figure out what happens with existing municipal contracts and infrastructure. Doing so can be difficult, because it requires balancing municipalities'

¹⁹³ *New Brunswick Regulation*, *supra* note 90.

¹⁹⁴ See *Waste Diversion Transition Act, 2016*, SO 2016, c 12, Sched 2, s 14.

¹⁹⁵ See e.g. "Electronics" (2020), online: Resource Productivity & Recovery Authority <https://rpra.ca/programs/electronics/>.

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interest in using their existing resources with producers' interest in having control over the EPR program and its costs.

So far, there have not been any perfect solutions to this problem. In British Columbia, the PRO for the PPP program, Recycle BC, has given municipalities three options:

- to continue to run their own recycling programs;
- to allow Recycle BC to run the PPP program, but to continue acting as collectors in exchange for a per household incentive; and
- to allow Recycle BC to completely run the PPP program.¹⁹⁶

For many municipalities, there has been a smooth transition to allowing Recycle BC to run the PPP program, whether the municipality acts as the collector or not. However, there have also been some issues negotiating a fair collection incentive, with some municipalities pointing out that what Recycle BC pays is not enough to cover their collection costs. Recycle BC will be conducting a fee review in 2020 to try to address this issue, although there is no guarantee that fees will be increased to cover municipal costs.¹⁹⁷

In Ontario, the government is currently carrying out consultations with stakeholders to determine a fair system for its new PPP system. So far, the parties have agreed that municipalities should be allowed to bid on providing services, like in British Columbia.¹⁹⁸ However, the specifics of what this might entail have not yet been resolved, so it is difficult to say whether there will be similar problems to those faced in British Columbia.

¹⁹⁶ Recycle BC, *Packaging and Paper Product Extended Producer Responsibility Plan* (June 2019), online: http://recyclebc.ca/wp-content/uploads/2019/07/RecycleBCStewardshipPlan_16July2019.pdf at 10.

¹⁹⁷ "Revised Program Plan", *supra* note 154.

¹⁹⁸ David Lindsay, *Renewing the Blue Box: Final report on the blue box mediation process* (20 July 2019), online: Government of Ontario <https://www.ontario.ca/page/renewing-blue-box-final-report-blue-box-mediation-process>.

xii. Enforcement Mechanisms

One of the keys to a successful EPR system is having a robust enforcement system, as well as the political will to use it. Enforcement is important both for ensuring EPR programs achieve their targets and for making sure there is a level playing field for producers.¹⁹⁹

To achieve these ends, an enforcement system must ensure producers are following the basic rules of the EPR system. To do so, enforcement measures should focus on the following three fundamental requirements.

- *Program participation.* Before all else, it is important to make sure producers are actually participating in the EPR system, whether by operating an individual EPR program or by joining a PRO. To achieve this, specific enforcement actions may be necessary to discover free-riders and bring them into the EPR system.
- *Accurate reporting.* An EPR system relies on accurate reporting from producers to ensure their EPR programs are following the rules of the system. For that reason, it is extremely important to ensure producers are following reporting requirements and providing government with accurate reports about their EPR programs.
- *Performance targets.* Where an EPR system includes mandatory performance targets, it is important to make sure producers are actually meeting those targets. Quite simply, if mandatory targets are not enforced, then there is little point to making them mandatory.

Generally speaking, an enforcement system should allow for progressive penalties depending on the severity of the infraction, as well as the number of times a producer or PRO violates the rules. To achieve this goal, there are a number of different enforcement mechanisms available to EPR systems.

1. *Administrative penalties and regulatory offences.* Most Canadian jurisdictions rely on the general enforcement provisions in their provincial environmental legislation, which set out administrative penalties for violating the provinces' EPR regulations. This legislation usually also makes it a regulatory offence to violate the regulations and sets out a range of fines and possibly jail time that may be issued if a producer or PRO is convicted. The legislation may also grant the ability to issue orders requiring producers to comply with

¹⁹⁹ OECD, *Updated Guidance*, *supra* note 3 at 89.

the regulations or requiring producers to pay back an economic benefit they received from violating the regulations. A few provinces, such as British Columbia and Quebec, include specific offence provisions in their EPR regulations.²⁰⁰ This allows the government to set penalties that are tailored to EPR systems and reflect the severity of different violations.

2. *Performance target enforcement.* Mandatory program targets are not very common in existing Canadian EPR systems, so there are not many examples of an appropriate system for enforcement. In Quebec, producers must pay performance penalties if they fail to meet their performance targets, and the amount of the penalty increases with the extent the EPR program fell short of its targets.²⁰¹ As another approach, the CCME recommends giving government actors the power to direct producers to take remedial actions if a program is not meeting its targets.²⁰²
3. *Producer restrictions.* To deal with free-riders, most Canadian jurisdictions prohibit producers from selling their products unless they operate an EPR program or designate a PRO to operate an EPR program for them. Some provinces, such as Nova Scotia and Prince Edward Island, extend the prohibition to retailers, who are not permitted to sell the products of any producer who does not operate an EPR program or appoint a PRO.²⁰³ In Ontario, the government has taken a slightly softer approach and prohibits producers from marketing their products if the producer fails to operate an EPR program or repeatedly fails to meet its obligations under the EPR system.²⁰⁴
4. *PRO restrictions.* Some jurisdictions outside of Canada prevent PROs from operating if they are seriously non-compliant with the requirements of the local EPR system. If there is only one PRO, the government usually mandates a contingency plan in case the PRO is prevented from operating. In Ireland, PROs must have a contingency fund equal to one year's operating costs.²⁰⁵ In Austria, the government has the power to directly take over the PRO's operations and bill the PRO for the costs.

²⁰⁰ *BC Regulation*, supra note 97, s 16; *Quebec Regulation*, supra note 150, arts 53.1-56.3.

²⁰¹ *Ibid*, arts 13, 14.

²⁰² *Canada-Wide Action Plan*, supra note 11 at 32.

²⁰³ See e.g. *Nova Scotia Regulation*, supra note 86, s 18D; *PEI Regulation*, supra note 92, s 22.

²⁰⁴ *Ontario Act*, supra note 90, s 75.

²⁰⁵ OECD, *Updated Guidance*, supra note 3 at 41.

5. *Published offences.* Some jurisdictions publish lists of the offences committed by producers and PROs with the goal of shaming those who are non-compliant. This mechanism is most commonly used against free-riders who are not participating in the EPR system.²⁰⁶
6. *Miscellaneous enforcement options.* Some jurisdictions outside of Canada have come up with interesting alternative mechanisms for enforcing EPR systems. In Germany, for example, the main printed paper and packaging PRO, Duales System Deutschland, has entered into agreements with retailers under which retailers can enforce penalties against non-compliant suppliers by deducting fees from their payments to those suppliers.²⁰⁷ As another example, in the United States, there is a model EPR law for batteries that includes a civil right of action, allowing producers to sue other, non-compliant parties.²⁰⁸

Beyond the punitive aspects of enforcement, most Canadian EPR systems rely on the provinces' general environmental regulations for the procedures behind enforcement mechanisms, including the appointment of officers, the power to conduct searches, and the power to inspect and seize records.

xiii. Complementary Mechanisms

EPR systems can often meet their objectives more effectively when they are paired with other, complementary mechanisms. These tools can sometimes make an EPR system more economically efficient by impacting the economic incentives the system creates. They can also help the system achieve its environmental goals by taking a more direct approach to setting environmental standards for producers.

The following are some of the most common regulatory mechanisms that can be used alongside an EPR system.

1. *Disposal bans and disposal fees.*²⁰⁹ Disposal bans and disposal fees are two different ways of increasing recycling rates by preventing recyclable products from being landfilled.

²⁰⁶ *Ibid* at 89.

²⁰⁷ *Free-Rider Analysis*, *supra* note 54 at 18.

²⁰⁸ OECD, *Updated Guidance*, *supra* note 3 at 89.

²⁰⁹ *Canada-Wide Action Plan*, *supra* note 11 at 21.

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Disposal bans impose direct prohibitions on landfilling recyclable products, whereas disposal fees impose a charge for landfilling them. Either mechanism can be very effective at increasing an EPR program's recycling rates by preventing products from being landfilled instead of disposed of through the EPR program. However, bans, as well as fees that are set too high, may encourage illegal dumping of waste products.²¹⁰

2. *Hazardous content bans.*²¹¹ Hazardous content bans are regulations that require producers to redesign their products to remove hazardous components. This can make products easier to recycle, because there is no need to deal with hazardous materials. As well, using fewer hazardous materials reduces the risks these materials pose to human health and to the environment in general. As an example of a hazardous content ban, the European Union passed a directive requiring producers to stop using certain hazardous components, such as lead and mercury, in electronics and electrical products.²¹²
3. *Recycled material requirements.*²¹³ Governments may institute requirements for producers to use a certain amount of recycled material in their products. This creates a mandatory end market for the recycled materials, which can increase the value of those materials and, correspondingly, improve economic incentives to recycle waste products.
4. *Green procurement.*²¹⁴ Green procurement policies require government purchasing contracts to favour products made with recycled content or products from companies that have undertaken design for environment initiatives. This uses the government's significant purchasing power to create incentives for product redesign.
5. *Subsidies and incentives.*²¹⁵ Governments can use subsidies and other economic incentives to fund research into new recycling techniques and new markets for recycled materials, both of which will make it easier and more cost effective to recycle waste products.²¹⁶

²¹⁰ Walls, *supra* note 24 at 14.

²¹¹ *Canada-Wide Action Plan*, *supra* note 11 at 20.

²¹² Directive 2011/65/EU, *supra* note 28.

²¹³ *Canada-Wide Action Plan*, *supra* note 11 at 23.

²¹⁴ *Ibid* at 21.

²¹⁵ Walls, *supra* note 24 at 9.

²¹⁶ See e.g. "Programme de soutien au développement des débouchés et d'innovations technologiques pour le traitement de matières résiduelles au Québec" (2019), online : Recyc-Québec [https://www.recyc-](https://www.recyc-quebec.ca/)

The CCME has identified some secondary mechanisms that may be used to complement EPR systems. These mechanisms do not have outcomes that are easily measured or evaluated, so it is difficult to judge how effective they are.²¹⁷ Nevertheless, they may help encourage behaviours that assist EPR systems. The secondary mechanisms identified by the CCME include: eco-labelling to indicate environmentally friendly products to consumers; non-binding environmental product standards to encourage more environmentally friendly recycling practices; and waste reduction strategies to guide government policies related to waste management.²¹⁸

V. RECOMMENDATIONS

EPR in Alberta is an interesting subject, quite simply because Alberta is the only province that has not introduced a producer take-back model into any of its recycling programs. The possibility of bringing this form of EPR into Alberta has been raised a number of times over the last decade. However, few concrete steps have been taken in that direction, with the exception of government consultations in 2013 on a limited introduction of an EPR system for household hazardous and special waste and printed paper and packaging.²¹⁹

The remainder of this section will focus on recommendations for whether and how Alberta should move forward with introducing producer take-back programs. In particular, it will consider whether Alberta should convert its existing recycling programs to an EPR take-back model, whether Alberta should look at introducing a take-back system specifically for printed paper and packaging and, finally, whether Alberta should consider a take-back system for any new recycling programs.

quebec.gouv.qc.ca/entreprises-organismes/mieux-gerer/aide-financiere-entreprises-organismes/programme-developpement-debouches-innovations-technologiques.

²¹⁷ *Canada-Wide Action Plan*, *supra* note 11 at 20.

²¹⁸ *Ibid* at 22-23.

²¹⁹ See The Praxis Group, *Proposed Designated Materials Recycling Regulation Consultation Workbook Feedback Summary Report* (27 January 2014), online: Government of Alberta <https://open.alberta.ca/dataset/e8724474-b277-465d-ad07-67a66bd31b7c/resource/9a8439b7-477a-4f4e-9adb-3ea070b2fd59/download/2014-materialsrecyclingregulationfeedback.pdf>.

i. Existing Recycling Programs

Currently, Alberta has material-specific recycling programs for paint, tires, used oil, and electronics. These programs are run by the Alberta Recycling Management Authority [the “Authority”], which is a not for profit organization empowered by the government.²²⁰ The programs are paid for through environmental handling fees that are charged to consumers at the point of purchase. The fees may be used by the Authority to pay for the actual recycling programs, as well as collection and storage costs, education programs, research and development activities, and the promotion and development of markets for recycled materials.²²¹ The Authority keeps a registry of suppliers who are responsible for charging and remitting environmental handling fees.²²² In addition, the Authority must provide annual business plans and financial reports to the government, along with audited financial statements.²²³

Generally speaking, Alberta’s current recycling programs operate in a very similar manner to producer take-back programs, with the Authority operating like a Producer Responsibility Organization [“PRO”]. The only significant difference is how the programs are paid for: in Alberta’s existing recycling programs, producers are not involved in financing the system. Instead, consumers pay environmental handling fees at the point of retail, which are passed directly to the Authority.

Given the limited differences between Alberta’s existing recycling programs and a producer take-back system, it is unlikely there would be a significant advantage to converting Alberta’s existing programs to an EPR model. To the contrary, Alberta’s existing programs already achieve many of EPR’s main objectives. Benchmarking studies show that Alberta’s existing recycling programs perform at similar levels to the EPR programs found in other Canadian jurisdictions in terms of both recycling rates and costs.²²⁴ Likewise, existing programs are funded by environmental handling fees, so the costs of these programs are carried by consumers and not municipalities. In other words, there would not be any significant cost-savings to municipalities from converting to an EPR system.

²²⁰ See *Designated Material Recycling and Management Regulation*, Alta Reg 93/2004 [Alberta Regulation].

²²¹ *Ibid*, s 6.

²²² *Ibid*, ss 1(h), 3.

²²³ *Ibid*, s 16.

²²⁴ See Kelleher Environmental & Sami Environmental, *Benchmarking Alberta Recycling Stewardship Programs for Tires, Electronics, and Paint* (April 2018), online: Kelleher Environmental http://kelleherenvironmental.com/wp-content/uploads/2019/10/Benchmarking_AB_Recycling_Stewardship_Programs_Report.pdf.

The one potential advantage of implementing an EPR model in Alberta is that it would create financial incentives for producers to redesign their products to be more environmentally friendly and easier to recycle. However, given the limited success of existing EPR programs in causing widespread product redesign, this is probably not be a significant enough reason to convert existing programs.

This is especially true given the inevitable costs of converting Alberta's existing recycling programs to an EPR system. In Ontario, a similar transition has required new legislation,²²⁵ extensive consultations with affected stakeholders, and a program for winding up the organizations responsible for existing recycling programs.²²⁶ With the costs of these processes, the limited incentive for product redesign created by EPR systems is probably not significant enough to justify a change.

If anything, Alberta could look to the EPR systems in other jurisdictions for ideas on how to improve its existing recycling programs. Given the similarities between Alberta's recycling programs and producer take-back programs, many of the regulatory mechanisms used in EPR systems could be implemented in Alberta. At the end of the day, this type of approach would likely be more cost effective and render better results than a complete system reconfiguration.

ii. Printed Paper and Packaging

Printed paper and packaging ["PPP"] is a category of waste that includes most types of paper. It also includes product packaging, such as plastic bags, as well as the containers products come in, such as tin cans and shampoo bottles. The exact products included in a PPP recycling program vary from jurisdiction to jurisdiction.²²⁷

In Alberta, existing PPP recycling programs are funded and operated by municipalities. In the cities, there are typically curbside collection programs as well as collection depots.²²⁸ About half of the smaller urban centers have curbside collection to go with their collection depots, while rural municipalities

²²⁵ See *Ontario Act*, *supra* note 90.

²²⁶ See e.g. "Electronics", *supra* note 195.

²²⁷ See Eunomia Research & Consulting Inc, *Extended Producer Responsibility for Residential Packaging and Paper Products* (6 December 2019), online: Recycling Council of Alberta <https://recycle.ab.ca/wp-content/uploads/2020/03/ACES-Summary-Report-Final-For-release-March-10-2020.pdf> at 98-110.

²²⁸ See Eunomia Research & Consulting Inc, *ibid* at 52.

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primarily rely on collection depots.²²⁹ For those municipalities with curbside collection, some run their own in-house collection services, while others contract with private collection companies.²³⁰ Some municipalities also own and operate facilities to sort and process the products they collect.²³¹

Converting existing PPP programs to an EPR model requires special considerations over and above other product types. In particular, PPP programs represent the biggest opportunity to shift the financial burden away from municipalities, because municipalities currently bear the full costs of these programs. On the other hand, PPP is the hardest product type to design an EPR program for, because it has the most diverse group of products, the highest number of producers, a high proportion of difficult to recycle products, and a complex supply chain.²³²

On a practical level, the complexity of running an EPR program for PPP recycling creates two main problems: the prevalence of free-riders and the difficulty of finding a fair role for municipalities. Each will be discussed in turn.

A. Free-riders

The first problem PPP systems face over and above other EPR systems is that they are especially prone to free-riders. This occurs because the large number of individual producers makes it difficult to ensure all obligated producers are participating in the EPR system. Additionally, most PPP systems include exemptions for small producers to protect them from potentially onerous financial obligations. This means small producers do not have to participate in the EPR system, effectively giving them permission to free-ride.

Although well-intentioned, small producer exemptions can create a significant number of free-riders. For example, in British Columbia, because of exemptions, fewer than 1% of producers are required to

²²⁹ *Ibid* at 52, 73.

²³⁰ *Ibid* at 55.

²³¹ *Ibid* at 53.

²³² Miller, *supra* note 60 at 3.

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participate in the EPR system and the largest 150 producers pay 80% of the costs.²³³ On the whole, fewer than 3,000 businesses are required to participate in the EPR system.²³⁴

Internet sales are also exacerbating the free-rider problem by making it easier to buy PPP from producers in other jurisdictions.²³⁵ If those producers operate exclusively out of a different jurisdiction, the local government does not have authority over them and cannot require them to participate in the EPR system. Given that e-commerce is a growing industry, this means that there are also an increasing number of producers selling PPP but not participating in EPR programs.

Free-riders are a problem for PPP programs for two reasons. First, free-riders can undermine the financial viability of these programs, because they contribute products to be recycled but do not pay the costs of recycling those products. For example, in British Columbia, the newspapers initially refused to participate in the PPP system, which meant they were not making any financial contribution to the existing PPP program, even though newspapers were still being collected and recycled by that program. As a consequence, the program was underfunded by approximately 3-5 million dollars per year.²³⁶

Free-riders are also problematic for PPP programs, because they can affect the accuracy of the programs' performance measures. In particular, free-riders can make it look like an EPR program's recycling rate is higher than it actually is, because the products sold by free-riders are collected by the program, but they are not accounted for in calculations of the total amount sold. This skews the program's recycling rate, because it appears that a greater proportion of the total product sold was collected than actually was.

Free-riders can have a significant effect on the performance measures of an EPR program. For example, in 2017, British Columbia's PPP program reported a recycling rate of 78%. However, one estimate has held that if the products manufactured by free-riders are taken into account, the actual recycling rate could be as low as 57%.²³⁷

²³³ Bellringer et al, *supra* note 58 at 10.

²³⁴ *Policy Interpretation: Small Producer Definition*, online: Government of British Columbia <https://www2.gov.bc.ca/assets/gov/environment/waste-management/recycling/recycle/paper-package/sm-producer-definition-policy-interp.pdf> at 2.

²³⁵ See OECD, *Online Sales*, *supra* note 64 at 4.

²³⁶ Bellringer et al, *supra* note 58 at 14.

²³⁷ Miller, *supra* note 60 at 13.

B. Municipalities

The second problem PPP programs face over and above other EPR programs is that it can be difficult to negotiate a fair role for municipalities. Existing PPP recycling programs are run by municipalities, and many of them have ongoing contracts with service providers to collect and process waste PPP products. Additionally, some municipalities own facilities for sorting and processing the products that have been collected. If a PPP recycling program switches over to an EPR model, it can be difficult to determine what to do with these existing contracts and infrastructure.

This problem has arisen most clearly in British Columbia, where there is only one approved PRO for PPP: Recycle BC. According to its approved program plan, Recycle BC gives municipalities three options: they can continue to run their own recycling program without any help from Recycle BC; they can completely hand PPP recycling over to Recycle BC; or they can hand PPP recycling over to Recycle BC while continuing to provide collection services.²³⁸ If municipalities choose the third option, Recycle BC pays them a per household incentive for collection services provided.

Many municipalities have benefited financially from handing PPP recycling over to Recycle BC, whether they provide collection services or not. However, for other municipalities the incentives paid by Recycle BC do not cover their actual costs of collection, leaving them to cover the remainder of their expenses. In response to this problem, Recycle BC has agreed to undertake a fee review in 2020 to reexamine the amounts paid to municipalities.²³⁹ However, the review will be undertaken by Recycle BC, and there is no clear commitment that fees will be increased to cover municipalities' costs of collection.

A similar situation has arisen in Ontario, where the government is planning on introducing an EPR system for PPP and is currently in the process of consulting with municipalities and producers on program design. So far, the parties have agreed that municipalities should be able to bid for contracts to participate in take-back programs as service providers, like in British Columbia.²⁴⁰ However, there is no specific funding formula in place, making it possible that Ontario will have the same difficulties in setting a fair rate.

²³⁸ Recycle BC, *supra* note 196 at 10.

²³⁹ "Revised Program Plan", *supra* note 154.

²⁴⁰ Lindsay, *supra* note 198.

C. Moving forward

Given the complexities of PPP recycling and the problems created by free-riders and determining the role of municipalities, there are no simple answers when it comes to whether Alberta should implement an EPR model.

With respect to environmental and economic outcomes, it is unclear whether an EPR model would significantly improve on Alberta's existing PPP recycling programs. In British Columbia, the free-rider problem makes it difficult to determine the actual recycling rates and cost efficiency achieved by the EPR program. Additionally, there are some limits to the reporting from Recycle BC that make it difficult to assess the program's performance.²⁴¹

Closer to home, a recent study suggests that implementing an EPR model in Alberta would improve recycling rates, as well as create jobs and reduce greenhouse gas emissions.²⁴² However, given the study's methodology, most of those improvements are the result of increased collection standards rather than a conversion to an EPR model. So, once again, it is difficult to determine how an EPR system would perform in Alberta compared to existing recycling systems.²⁴³

Of course, the clearest advantage of implementing an EPR system in Alberta would be to shift the costs of PPP recycling from municipalities to producers. However, even there, the experiences of British Columbia and Ontario suggest that it can be difficult to set a payment formula that fairly compensates municipalities who continue to provide collection services. In Alberta, most existing contracts with service providers are short, so it may be easier to hand the system entirely over to a PRO.²⁴⁴ However, some municipalities have their own processing infrastructure, so it would still be necessary to decide what to do with these assets, and, given the experiences of other provinces, there are no simple answers for how to do that.

To decide whether to implement an EPR system for PPP recycling in Alberta, it would be necessary to face the problems with existing EPR systems head on to achieve a clearer idea of the costs and the benefits. This would mean taking a closer look at British Columbia's program to assess its economic and

²⁴¹ See Miller, *supra* note 60 at 12-14.

²⁴² Eunomia Research & Consulting Inc, *supra* note 227 at 10.

²⁴³ See Eunomia Research & Consulting Inc, *ibid* at 76, 80-81.

²⁴⁴ *Ibid* at 56.

environmental performance. Likewise, it would mean acknowledging the problems with fairly determining the role of municipalities in an EPR program.

It may be prudent to wait and see what happens in British Columbia and Ontario before launching an EPR system for PPP in Alberta. Both of these other systems are relatively new: British Columbia's launched in 2014²⁴⁵ and Ontario will start implementing its new system by January 1, 2023, with full implementation planned for December 31, 2025.²⁴⁶ This means there is still time to see how these provinces address their problems with free-riders and with finding a fair role for municipalities. Further, it may be easier in future to assess the environmental and economic outcomes of existing programs: Recycle BC has made some changes to its reporting requirements, so there may be more robust data about its program performance going forward.²⁴⁷

iii. New Recycling Programs

In future, Alberta may want to institute new material-specific recycling programs, at which point it could consider using an EPR model instead of its existing recycling model.

The Canadian Council of Ministers of the Environment's Canada-Wide Action Plan has recommended prioritizing certain materials for EPR programs, which Alberta could consider for the development of new recycling programs.²⁴⁸ In particular, with respect to materials not already covered by Alberta's recycling programs, the plan recommends instituting EPR programs for mercury lamps and household hazardous and special wastes. Interestingly, when the Government of Alberta conducted consultations on introducing EPR into Alberta's waste management system in 2013, it looked at implementing an EPR system for exactly these materials.²⁴⁹

Generally speaking, there are advantages to setting up a new recycling program, whether Alberta uses an EPR model or continues with its existing model for recycling programs. In either case, there would

²⁴⁵ EPR Canada, *2016 Extended Producer Responsibility (EPR) Summary Report* (September 2017), online: <http://www.eprcanada.ca/reports/2016/EPR-Report-Card-2016.pdf> at 6.

²⁴⁶ See "Stewardship Ontario Receives Minister's Direction Letter to Begin Blue Box Transition" (2020), online: Stewardship Ontario <https://stewardshipontario.ca/news/stewardship-ontario-receives-ministers-direction-letter-to-begin-blue-box-transition/>.

²⁴⁷ Recycle BC, *supra* note 196 at 27.

²⁴⁸ See *Canada-Wide Action Plan*, *supra* note 11 at 12.

²⁴⁹ The Praxis Group, *supra* note 219 at 81-82.

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be environmental benefits from increased recycling levels, such as preventing hazardous substances from being landfilled and reducing the need for virgin materials to make new products. In addition, recycling products removes them from landfills, which reduces pressure on municipally-funded waste management systems and, in doing so, creates cost savings for municipalities.

At a high level, there is not a lot to distinguish between setting up a new program through an EPR system and setting up a new recycling program using Alberta's existing system.

- Both would incur upfront administrative costs to set up a new program.
- Both would require policy development to tailor the program to the designated materials.
- Both would require ongoing monitoring and enforcement efforts by the government.

Additionally, there is reason to think that both types of program could expect roughly similar success rates in terms of both recycling rates and cost effectiveness. A study commissioned by the European Union found no effective difference between European recycling programs operated by government organizations and those operated by producer organizations.¹⁷⁷

That said, introducing an EPR model would require the government to develop new legislation or regulations to set the legal framework for the EPR system. Like any new system, it would probably also require time and effort to consult with affected stakeholders and to work out solutions to any problems that arise in implementing the new system. On the other hand, using an EPR system would involve producers in waste management, which could lead to increased environmental initiatives such as product redesign.

Given the relative similarities between the two types of recycling system, the decision of whether a new recycling program should fall under an EPR system or follow Alberta's existing model should ultimately be made based on contextual factors. This means considering which system would be better in light of any existing waste management infrastructure, the lifecycle of the products that will be covered, and public awareness and attitudes towards recycling those products. It would also be important to consider the attitude of producers towards setting up an EPR program and whether and to what extent they are interested in pursuing any corresponding product design changes or environmental initiatives. The potential to improve recycling rates by harmonizing EPR programs with those of other provinces would also be a relevant consideration.

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To give an example of how this might work, the Government of Alberta is already funding a partial household hazardous waste recycling program that allows consumers to drop off hazardous products at municipal waste centres in Calgary, Edmonton, Lethbridge, and Red Deer.²⁵⁰ Other municipalities can arrange collection through the Authority, and all materials that are collected are shipped to and disposed of at the Swan Hills Waste Treatment Center.²⁵¹ The program is paid for out of the province's general revenue, with municipalities paying for the collection costs.²⁵²

Given the existence of this partial program, the decision to create a new recycling program for household hazardous waste under either an EPR model or Alberta's existing model should be responsive to existing infrastructure, including current contracts with service providers and established physical drop-off points. Using these existing structures would allow a new program to take advantage of existing consumer awareness of the current recycling program. As well, given that the Authority is already facilitating the program, it would be relevant to consider if there is any role for the Authority's expertise when deciding how to structure the new recycling program.

²⁵⁰ See "Household hazardous waste – think before it hits the sink" (20 July 2016), online: Alberta Environment and Parks <https://albertaep.wordpress.com/2016/07/20/household-hazardous-waste-think-before-it-hits-the-sink/>.

²⁵¹ See "Alberta's Household Hazardous Waste Program" (2020), online: Alberta Recycling Management Authority <https://www.albertarecycling.ca/recycling-programs/hazardous-waste/>.

²⁵² The Praxis Group, *supra* note 219 at 81.

VI. CONCLUSION

Extended producer responsibility is just one model for developing product-specific waste management systems. There are certainly benefits to the model—including significant success in increasing recycling rates, the ability to shift costs away from municipalities and onto producers, and a latent potential to encourage producers to redesign their products to be more environmentally friendly and easier to recycle. However, in comparison with existing recycling programs, a producer take-back EPR system represents an alternative approach to waste management rather than a perfect solution, complete with its own advantages and disadvantages.

In the end, an EPR system will achieve the best results where the benefits of the system align with the primary goals of waste management and where the system has been designed to respond to existing circumstances, such as existing waste management infrastructure, attitudes towards recycling, and population distribution. Moreover, a good EPR system should be complemented with other regulatory mechanisms to create a robust waste management system that works towards the ultimate goals of reducing waste and improving the environment.