

# CONSULTATION PAPER: TOWARDS CANADA-WIDE RULES TO STRENGTHEN RECYCLING AND COMPOSTING OF PLASTICS THROUGH ACCURATE LABELING

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## AMERICAN FUEL & PETROCHEMICAL MANUFACTURERS COMMENTS

### I. Introduction

The American Fuel & Petrochemical Manufacturers (“AFPM”) respectfully submits these comments on the Government of Canada’s *Consultation Paper* titled “Towards Canada-wide rules to strengthen recycling and composting of plastics through accurate labeling” (“*Consultation Paper*”).<sup>1</sup> The Government of Canada has signaled its commitment to introducing labeling rules that prohibit the use of the chasing-arrows symbol on plastic products unless plastics producers can prove the material meets certain requirements. Specifically, the Government of Canada is proposing to require producers to assess their packaging or single-use plastic item to determine whether it is “recyclable” per Canada’s definition of the term. If the material does not meet this definition, it would be prohibited from displaying the chasing-arrows symbol or other recycling labels. In the *Consultation Paper*, the Government of Canada has proposed to consider a material “recyclable” only if the item:

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<sup>1</sup> See “Consultation paper: Towards Canada-wide rules to strengthen recycling and composting of plastics through accurate labelling”, published July 25, 2022, at <https://www.canada.ca/en/environment-climate-change/services/canadian-environmental-protection-act-registry/consultation-rules-recycling-composting-plastics-labelling.html>

- is accepted in public recycling systems accessible to at least 80% of the population in one or more of five regions across Canada; and
- can be sorted into bales that attract a reliable, positive price on a North American end market (that is, high-enough prices that are stable over time, and that contribute to successful recycling outcomes).<sup>2</sup>

The Government of Canada is asking stakeholders to provide their feedback on the *Consultation Paper* and notes that the comments will help the Government understand the key issues, design an effective instrument to put the labeling rules in place, and develop an appropriate implementation approach.

The Government of Canada believes that by improving outcomes at each stage in the recycling process, labeling rules can help keep plastics in the economy to be used multiple times. Specifically, the objectives of these labeling requirements are to: 1) improve plastic packaging design; 2) improve public participation in recycling systems; 3) reinforce public trust in recycling systems; and 4) improve performance of recycling systems to generate more and higher-quality post-consumer recycled plastics.<sup>3</sup>

AFPM supports the objectives of the Government of Canada but does not believe the proposal detailed in the *Consultation Paper* will achieve these objectives. Specifically, the *Consultation Paper* fails to meet these objectives because it:

- Proposes inaccurate and confusing definitions for basic terms like “recyclable” and “recyclability” that abandon straightforward and widely accepted science-based approaches and links such terms to actions of marketability and pricing

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<sup>2</sup> *Id.*

<sup>3</sup> *Id.* section 3.1

allowing some stakeholders an inappropriate role in determining what is “recyclable.”

- Fails to appropriately analyze and even consider the unintended negative consequences of redefining terms associated with recycling and, subsequently, restricting the use of the recycling labels. Such issues include impacts on investments in recycling technologies, development of non-technical trade barriers, and complex compliance issues given the need to constantly police and monitor what meets the 80 percent threshold and other factors.
- Proposes restrictions on labeling that will cause further consumer confusion. Like Canada’s listing of plastic manufactured items as a “toxic” material, eliminating recycling labels is clearly inaccurate, misleads the consumer and does nothing to address the root causes of plastic waste entering the environment.

If finalized the proposal will confuse consumers, stifle industry advancements in product designs and in recycling technologies, and ultimately lead to less material being recycled due to an overly complicated recycling process that disrupts the harmonized recycling communication standards already accepted throughout North America. Adoption of a totally different approach that is more complex will lead to more recyclable items being thrown into the trash because consumers will have difficulty with a new and different system that is more complex.

## **II. AFPM’s Interest in the Consultation Paper**

AFPM is the leading trade association representing the makers of the fuels that keep us moving, the petrochemicals that are the essential building blocks for modern life. Petrochemicals are the building blocks for plastic products that improve the health, safety, and living conditions of humankind and make modern life possible. AFPM members are committed to sustainably and

efficiently manufacturing the petrochemicals and derivatives for plastics that growing global populations and economies need to thrive, improving and innovating recycling technologies, and developing policies to address plastic waste in the environment.

AFPM members are committed to collaborating with policymakers and other stakeholders to develop sound, risk- and science-based policies to address environmental issues including the complex plastic waste challenge. AFPM supports policies designed to protect the environment, decrease emissions, increase recycling rates, and promote research and development in recycling technologies, including pilot phases and full commercialization. By supporting such policies AFPM strives to achieve a truly circular economy for plastics derived from petrochemicals.

A circular economy for plastics is one that utilizes technologies and strategies to recover plastic waste and transform it into usable materials. To achieve circularity in North America, it will require consistent and rational policies that promote trade and simplify recycling. Advanced recycling has already begun throughout North America and depends on free trade in both plastic waste and recycled feedstocks. Unfortunately, this proposal will undo progress already made and create barriers for a truly circular economy for plastics in North America.

### **III. AFPM Comments on the Consultation Paper**

#### ***A. Canada's Definition of "Recyclability" is Deeply Flawed***

In the *Consultation Paper* the Government of Canada claims "there is currently no consistent definition of 'recycling' in Canada." The Government of Canada then notes that for the purposes of this *Consultation Paper*, "recycling" would be defined as "a process consisting of numerous steps that plastics must successfully pass through to be turned into feedstock for new products that are then reintroduced into the market for use." As mentioned previously, the

Government of Canada adds that “recyclability” should be linked to acceptance at a recycling facility and marketability. This definition is inaccurate and could cause confusion among consumers for several reasons detailed below. Like Canada’s listing of plastic manufactured items as “toxic,” eliminating recycling labels is clearly inaccurate, misleads the consumer and does nothing to address the root causes of plastic waste entering the environment.

### *1. The Definition of “Recyclability” Must be Science-based*

At its most basic interpretation, the Oxford English Dictionary defines “recyclable” as “a substance or object that **can be** recycled (emphasis added).”<sup>4</sup> Further, the term “recycle” is defined by the Oxford English Dictionary as “return (material) to a previous stage in a cyclic process.”<sup>5</sup> The Government of Canada, by adding a qualifier “plastics must successfully pass through” numerous steps and complete the process of recycling to their proposed definition of the term, is fundamentally changing the widely understood and agreed upon definition of “recyclability” and this will only confuse consumers. Linking the definition of the use of the term “recyclability” to the threshold related to “recycling systems accessible to at least 80% of the population in one or more of five regions across Canada” is counterproductive in that it will divert additional plastic material to waste disposal systems and is arbitrary and capricious in that the Government of Canada does not provide any supporting data or reasoning supporting the 80% threshold.

The definitions of “recycle” and “recyclability” should be based simply on whether current technologies exist that allow for a material to be recycled. This definition would enable innovation rather than creating a static definition limited by current technology. Specifically, a plastic item should be considered “recyclable” if there are specific technologies, including both

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<sup>4</sup> Oxford English Dictionary. " recyclable, adj. 1." OED Online. Oxford University Press, September 2022.

<sup>5</sup> Oxford English Dictionary. " recycle, v. 2." OED Online. Oxford University Press, September 2022.

traditional mechanical recycling or the various types of advanced recycling (such as chemical or molecular recycling) that can take specific types of plastics (e.g., polyethylene terephthalate) and reuse it for a similar or other useful purpose. A definition like the one the Government of Canada is proposing, linking recycling with accessibility to recycling systems, and in turn a given municipality's ability to invest in specific technologies, is inaccurate.

Under such a restrictive and inaccurate definition few materials would be “recyclable.” For example, items made of glass would not be considered recyclable in the United States (“U.S.”) under such a definition.<sup>6</sup> Basing the initial assessment of what is acceptable at municipal and provincial recycling centers conflates a given region's ability to invest in recycling technologies with the definition of recycling.

## ***2. The Definition of “Recyclable” Should Not Consider Marketability***

In addition to the Government of Canada proposing to link the definition of the use of the term “recyclable” to the 80 percent threshold of “recycling systems accessibility” they also include an additional qualifier that the material can be “sorted into bales that attract a reliable, positive price on a North American end market.” This muddles the definition and ties the definition to additional arbitrary and capricious factors. Baling and prices are inconsequential and unrelated to whether a plastic item can be recycled. End markets should have no bearing on a scientific term like recyclable.

Further, the term “reliable, positive price” is unclear, and while the *Consultation Paper* briefly discusses the idea, the discussion is insufficient, and the concept remains amorphous at

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<sup>6</sup> EPA combined data from the Glass Packaging Institute with information from state environmental agencies to measure the recycling of glass containers in the U.S. The amount of recycled glass containers was 3.1 million tons in 2018, for a recycling rate of 31.3 percent. See <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/glass-material-specific-data#:~:text=EPA%20combined%20data%20from%20the,recycling%20rate%20of%2031.3%20percent>.

best. As discussed later in this document such a labeling restriction would likely serve as an impetus to shut-off the “North American end market” the definition references, since it would effectively create dualling labeling systems in the U.S., Canada, and Mexico.

The markets for recycled plastics do not need Government intervention. The demand for recycled plastics, especially from consumer brands and products manufacturers, far exceeds supply.<sup>7</sup> Consumers are ultimately driving the demand for recycled content in packaging; therefore, marketability is already inherent in recycled plastics throughout the manufacturing supply chain, no matter what the Government thinks or does. Consumer product companies are already focused on sustainability and coupled with consumer demand have every incentive to increase the content of recycled materials in their product packaging. This proposal will diminish the marketability of recycled plastics; therefore, the requirement for marketability for labeling should be dropped altogether.

The primary challenges facing recycling stem from the difficulties in collecting recyclable products and sorting co-mingled wastes. The lack of consistent recycling policies will make it difficult for consumers to easily discern what should go into the recycling bin and what should not. In addition, not all regions have the same resources for recycling. This can also preclude certain recyclable items from actually being recycled. Government could play a significant role in providing resources to assist regions in achieving national recycling goals. Unfortunately, this proposal does not use Government strengths; rather, it assumes that restrictions on the recycling label and unnecessarily confusing labeling requirements will somehow result in more items being placed in recycling bins and be ultimately recycled.

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<sup>7</sup> Closed Loop Partners found that the current supply of recycled plastics meets just 6% of demand for the most common plastics in the U.S. and Canada. See <https://www.closedlooppartners.com/closed-loop-partners-releases-data-visualization-tool-that-shows-significant-opportunity-to-recapture-valuable-plastic-waste-in-the-u-s-and-canada/>

Science should determine what is recyclable, not a municipality or end market Canada outlines the three questions that must be asked to determine whether something can be considered to be recyclable. Specifically, the questions are; 1) is the material accepted in 80 percent of recycling facilities in Canada; 2) are there end markets; and 3) are these end markets reliable? All three of these questions have nothing to do with actual recyclability of a material.<sup>8</sup>

By connecting the definition of the use of the term “recyclable” to the threshold related to “recycling systems accessible to at least 80% of the population in one or more of five regions across Canada” or access to reliable end markets, the Government of Canada also ignores a science-based determination of what is recyclable and allows regions to be the arbiter of recycling and determiner of labeling requirements. This places limits on – rather than expands – the ability to develop and grow recycling programs. Additionally, acceptance by recycling centers introduces subjectivity into the system because certain plastics are not collected or accepted for reasons other than whether they can be recycled with current technologies.<sup>9</sup>

Therefore, for the aforementioned reasons, AFPM strongly recommends that the definitions of “recycle” and “recyclability” be based on the availability of existing technologies that allow for the plastic material in question to be successfully recycled. Associating these definitions to the willingness to invest in recycling technology, market prices, or end markets is not only inaccurate but runs directly counter to all four of the Government of Canada’s stated objectives in section 3.1 of the *Consultation Paper*.<sup>10</sup>

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<sup>8</sup> See figure 6 “Consultation paper: Towards Canada-wide rules to strengthen recycling and composting of plastics through accurate labelling”, published July 25, 2022.

<sup>9</sup> For example, Polystyrene is not collected by many municipalities and provinces due to outside political pressure, even though it is one of the key plastics that can be molecularly recycled to its original building block monomer. Further things like glass are not collected by many municipalities but are still technically recyclable.

<sup>10</sup> The objectives of these labelling requirements are 1) Improved plastic packaging design; 2) Improved public participation in recycling systems; 3) Reinforced public trust in recycling systems and 4) Improved performance of recycling systems to generate more and higher-quality post-consumer recycled plastics.

## ***B. Canada's Proposed Restrictions on Labeling Would Cause Several Negative Unintended Consequences***

The Government of Canada's effort to redefine when a recycling label can be used will have numerous negative unintended consequences should it be implemented. These unintended consequences will ultimately erode consumer confidence in the entire recycling system. Below we highlight unintended consequences related to investment, trade, compliance and the environment.

### ***1. Investment and Advancements in Recycling Plastic Could Be Stifled***

To improve plastic recycling rates in North America we need policies that promote recycling, not dissuade it. Prohibiting certain plastics from displaying the recycling label even though there are technologies that can recycle them could drastically slow the scaling and development of certain plastics as well as advancements and investments in recycling technologies for currently hard to recycle plastics. Petrochemical manufacturers are committed to helping meet the demands of their customers, including consumer brands, by making significant investments in advance recycling technologies and increasing access to recycled feedstocks. For example, since 2017 there have been over 81 recycling projects announced in the U.S. These projects constitute an investment of \$8.7 billion dollars and have the potential to divert 6.2 million tons of waste from entering the environment.<sup>11</sup> With the right policies these successes can be replicated in Canada.

The Government of Canada should not stand in the way of market forces that are leading to increased recycling and should instead seek to provide regulatory certainty to further increase recycling rates and investment in recycling technologies. It is easy to envision the restrictive

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<sup>11</sup> See "New Investments in Modernizing Plastics Recycling in the U.S." <https://www.americanchemistry.com/content/download/8043/file/New-Investments-in-Modernizing-Plastics-Recycling-in-the-US.pdf>

impacts to the market for certain recyclable materials should plastic makers be prohibited from accurately marketing their products as recyclable. If the Government of Canada were to preclude the use of the chasing-arrows label on a plastic material that is “able” to be recycled but is under the Canadian threshold (for example a material with a 20 percent collection rate but growing), it will preclude the future availability of discarded plastic as a manufacturing feedstock and could encourage producers and recycling technology providers to abandon that market. Clearly, this would hurt the quest toward circularity, not advance it. A definition of recycling with several caveats, that allows stakeholders and not science to determine what is recycling, and in turn which items can display the recycling labels, will clearly have a chilling effect on investments and advancements in recycling technologies.

## ***2. Cross-Border Trade of Plastics and Petrochemicals Will Be Impacted***

Canada and the U.S. are competitive internationally and export oil, refined products, and petrochemicals worldwide. In 2019, Canada exported \$2 billion and imported \$817 million of petrochemicals alone.<sup>12</sup> The U.S. is the primary trading partner with Canada's chemical industry and is the destination for 79 percent of Canada's exports and is the source of 66 percent of Canada's imports.<sup>13</sup> Further, plastics trade is included in the top five export and import categories for both the U.S. and Canada (\$13 billion and \$11 billion respectively).<sup>14</sup> It is clear that the petrochemical and plastics industries of Canada and the U.S. are incredibly important trading partners and as such it is important for policymakers to pursue harmonized policies that support plastic and petrochemical industries as well as our upstream petrochemical feedstocks.

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<sup>12</sup> See Chemistry Industry Association of Canada, 2020 Economic Review of Chemistry at page 34, <https://canadianchemistry.ca/wp-content/uploads/2020/07/2020-Economic-Review-of-Chemistry-Final.pdf>

<sup>13</sup> *Ibid* at page 12.

<sup>14</sup> See Office of the United States Trade Representative, Trade partners summary [accessed April 1, 2020] <https://ustr.gov/countries-regions/americas/canada>

The Canadian proposal will create new trade barriers between Canada and the U.S. in conflict with original “North American Free Trade Agreement” and updated “United States–Mexico–Canada Agreement” are expressly designed to avoid. Using a different labeling system than other North American partners, largely based on acceptability by Canadian recyclers, will be viewed as subjective and potentially place market players outside of Canada at a disadvantage because they have no say in the acceptance of materials.

There is a very diverse portfolio of petrochemicals and plastics crossing the border that affects a wide variety of manufacturing supply chains throughout North America. Those supply chains often go back and forth across borders, blurring the distinction of purely American and Canadian manufacturing and creating a North American manufacturing bloc. Regulatory policies in North America that are not compatible or disharmonized create trade barriers between important trade partners.

The implementation of a disharmonized labeling system which effectively creates two standards in conflict with each other will undermine consumer confidence and could potentially impact trade of these products, as some manufacturers may choose not to operate in the Canadian market or the U.S. market. The Government of Canada should seriously consider and analyze extensively the potential trade impacts a change in the recycling labeling would have, not only on plastics producers, but petrochemical manufacturers who make the building blocks for plastics.

### ***3. The New Labeling Scheme Would Create Complex Compliance Issues***

As the *Consultation Paper* notes for Canada’s new labeling scheme to be effective, recyclability and composability labeling rules will need mechanisms to ensure compliance can be verified. The Government is therefore proposing that producers could comply with recyclability

labeling rules using a range of different mechanisms. The Government puts the burden of compliance on plastic producers and suggested mechanisms for compliance could be developed by the producer itself and used internally or could be developed by third parties and used by producers.

The Government of Canada has not conducted an analysis of cost or complexity of compliance with the proposal. Given that several stakeholders are involved, the ultimate validity of the recycling label and the fact that the label's use would be tied to recycling rates that fluctuate and end markets that are not static would be an incredibly complex endeavor, confounding the ability of plastic producers to ensure compliance. Furthermore, the *Consultation Paper* includes virtually no discussion of the required resources the Government of Canada would need to ensure compliance. Rather than labeling the product, transparency around the rates of recycling by municipalities would be a better measure to track, incentivize investment, allow for consistent comparison, and make information public to consumers.

Policing the 80 percent threshold and presence, or lack thereof, of positive end markets would be resource intensive and problematic for the government and producers. Further, given these markets are constantly changing, there would likely be instances of inaccurate labeling. The *Consultation Paper* does not mention how often a producer would need to update their labeling should factors change. This reinforces AFPM's assertion that the recycling definition should be science-based, and the labeling should be as well. While Canada's goal is to create more accurate labeling for plastics, the proposal does just the opposite.

#### ***4. Restrictions in Labeling Could Lead to Increased Greenhouse Gas Emissions and Food Spoilage***

Should the labeling be prohibited and markets for certain plastics in Canada are eliminated, consumers will be forced to use alternatives whose Life Cycle Analysis shows they

produce more greenhouse gas (“GHG”) emissions over their lifespan. Further, this could eliminate some food packaging that increases the shelf life of foods and avoids food waste.

While the *Consultation Paper* focuses on the harmful aspects of plastic waste in the environment, it fails to acknowledge the environmental benefits of plastics, particularly plastics that are recycled. As many studies have noted, the GHG emissions from plastic products, including single use plastics, during their lifecycle compared to their alternatives are significantly lower.<sup>15,16</sup> Plastics also have significantly lower energy, water, and fertilizer inputs than alternative materials such as paper, aluminum, cotton, or glass.<sup>17</sup> In a 2020 GHG emissions assessment, plastics’ GHG emission assessments were lower than paper and metal alternatives in flexible nonfood packaging as well as flexible food packaging.<sup>18</sup> Further, when compared to plastic-enabled mixed materials such as paper milk cartons (with a plastic lid, spout or handle), products made entirely from plastics have similar GHG emission profiles.<sup>19</sup> In approximately 90 percent of applications (when considering both product lifecycle and impact use), plastics have anywhere between “10 to 90 percent lower GHG emissions than the next-best alternative” material.<sup>20,21</sup> These GHG savings are in addition to indirect value-chain impacts such as fuel savings from lighter vehicle loads, reduced incidence of pathogen-based disease, and significant reductions in food spoilage.<sup>22</sup> Moreover, studies show that in the near-term, plastic adoption

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<sup>15</sup> McKinsey & Company. (2022, July 26). *Climate impact of plastics*. Retrieved August 16, 2022, from <https://www.mckinsey.com/industries/chemicals/our-insights/climate-impact-of-plastics>, p.3.

<sup>16</sup> *Id.* at 10.

<sup>17</sup> Ritchie, H., & Roser, M. (2018, September 1). *Plastic Pollution*. Our World in Data. Retrieved August 17, 2022, from <https://ourworldindata.org/plastic-pollution>.

<sup>18</sup> Specifically, high-density polyethylene versus paper bags and multilayer pouches versus aluminum and steel cans; and expanded polystyrene foam trays and polyvinyl chloride film versus butcher paper. McKinsey & Company. (2022, July 26). *Climate impact of plastics*. Retrieved August 16, 2022, from <https://www.mckinsey.com/industries/chemicals/our-insights/climate-impact-of-plastics>, p.6.

<sup>19</sup> *Id.* at 10.

<sup>20</sup> *Id.*

<sup>21</sup> *Id.* at 2.

<sup>22</sup> *Id.* at 10 “polyurethane insulates better than glass fiber and thus reduces heating fuel consumption, while in the latter, plastic tanks reduce vehicle weights and thus improve fuel efficiency.”

actually promotes decarbonization efforts especially when food spoilage rates and energy efficiency are factored.<sup>23</sup>

Plastics also provide benefits to human health and ensure use efficiencies by reducing the rate of food spoilage when compared to plastic alternatives.<sup>24, 25</sup> Plastics are essential components in food packaging that promote food safety and security by preventing food loss, waste, and contamination.<sup>26</sup> Plastic packaging is used ubiquitously in food packaging at a rate that includes 90 percent of all food products sold across several food categories, including fresh and frozen meat.<sup>27</sup> There are few alternatives to plastics in certain food and beverage packaging, specifically caps and closures.<sup>28</sup> AFPM strongly encourages Government of Canada to consider how its restrictions on the recycling label could negatively impact GHG emissions and food security and safety.

### ***C. Canada's Proposed Restrictions on Labeling Will Cause Consumer Confusion.***

Consumers prefer simplicity and consistency when it comes to recycling decisions. Consumers want to recycle and are looking for simple and straightforward answers. Recyclability for consumers answers the question, “can this material be recycled?” It does not mean, “who will recycle this?” or “who will buy the recycled material?” or whether the material will be recycled, landfilled or used for energy recovery.

The purported goal of this proposal is to make recycling easier for consumers, yet the proposal sets out a complicated system that will be confusing at best. Introducing additional

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<sup>23</sup> *Id.* at 2.

<sup>24</sup> *Id.* at 4.

<sup>25</sup> *Id.* at 18.

<sup>26</sup> Ritchie, H., & Roser, M. (2018, September 1). *Plastic Pollution*. Our World in Data. Retrieved August 17, 2022, from <https://ourworldindata.org/plastic-pollution>.

<sup>27</sup> McKinsey & Company. (2022, July 26). *Climate impact of plastics*. Retrieved August 16, 2022, from <https://www.mckinsey.com/industries/chemicals/our-insights/climate-impact-of-plastics>, p.11.

<sup>28</sup> *Id.* at 5.

factors into the recycling equation will complicate the matter and reduce recycling rates.

Acceptance by collection facilities, the existence of end markets, and other factors not familiar to consumers introduce unnecessary and unwanted complexity into an already struggling system.

Labeling systems for recycling in North America currently have consistency. Simple numerical approaches, such as resin codes, help consumers identify items that can be recycled; additionally, the numbers help sort items according to their primary materials. Most consumers in North America are comfortable with current recycling labels and are usually just seeking clarification. There has been no call for a complete overhaul of the North American labeling system for recycling. The Canadian proposal, however, will create a totally different system than what is already used throughout North America. If the proposal is adopted, there will be a patchwork of different recycling systems in different regions, making it difficult for manufacturers and consumers.

The goal of any proposal to enhance recycling should be to unify and simplify recycling systems so consumers throughout North America don't have to guess whether an item should be tossed into the recycle bin or the trash bin. In fact, adoption of a totally different approach that is more complex will lead to more recyclable items being thrown into the trash because consumers will have difficulty with a new and different system that is more complex. Rather than labeling the product, transparency around the rates of recycling by municipalities would be a better measure to track, incentivize, and publicize to consumers recycling progress.

***D. Canada's Proposal Does Not Recognize the Important Role of Advanced Recycling in Addressing Plastic Waste Issues***

Most recycling currently taking place in North America is considered "mechanical recycling." This type of recycling takes certain types of plastic, and shreds, washes, and then melts them into plastic pellets, which can then be used to make new products. An additional type

of recycling, known as advanced recycling, harnesses chemistry to recycle more types of plastics into a wider range of new plastics and products. Further, advanced recycling is used to manufacture feedstock for polymers that are similar to virgin resins. This process can be completed almost an infinite number of times, whereas mechanical recycling can only be iterated two or three times.

Mechanical recycling has its limitations, including the types of materials in which recycled plastics can be used, challenges with contamination and sorting, and the number of times the plastics can be recycled before degrading (like paper recycling). Advanced recycling addresses some of these limitations. Advanced recycling is needed to complement mechanical recycling and can help meet the goals of creating a more circular economy for plastics and increasing overall recycling rates. Furthermore, advanced recycling technologies have the potential of \$120 billion in revenue opportunities in the U.S. and Canada alone.<sup>29</sup>

Like mechanical recycling, advanced recycling would be negatively impacted by Canada's labeling proposal. Unfortunately, Canada's *Consultation Paper* does not consider or even mention advanced recycling and its role in creating a more circular economy for plastics. Pyrolysis oil from mixed plastic waste can be used as a direct feedstock (similar to naphtha) for steam crackers and can subsequently be used to make the petrochemicals that are building blocks for plastics. While Canada notes that current recycling rates of plastics are low and this proposal is designed to foster increased rates, the proposal has the potential to stifle investments in advanced recycling technologies and further decrease recycling rates. Regulatory uncertainty

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<sup>29</sup> *A Landscape Mapping of the Molecular Plastics Recycling Market*. Closed Loop Partners. (2021, November 10). Retrieved August 17, 2022, from <https://www.closedlooppartners.com/research/advancing-circular-systems-for-plastics/>.

created by a dual labeling system could close off certain markets and stifle investment in advanced recycling projects.

Stakeholders throughout the plastics value chain are already making investments and creating a market for recycled content that will drive recycling rates up, but this progress is threatened by this Canadian proposal. The Canadian Government should not create additional obstacles like inaccurate labeling requirements that institute a dual set of requirements. Rather, Canada should support increased recycling (both mechanical and chemical) and provide regulatory consistency in North America. Such consistency will avoid stifling the considerable progress and investments made to improve recycling.

#### **IV. Conclusion**

AFPM appreciates the opportunity to provide input as the Government of Canada considers efforts to address plastic waste in the environment. AFPM recognizes this is a noble effort that should be carefully considered. Linking the use of the recycling label to market factors and regional investment in recycling systems is not only inaccurate but runs directly counter to all four of the Government of Canada's stated objectives. AFPM strongly encourages the Government of Canada to reconsider its approach regarding the use of the recycling label and advises that the Government of Canada consider a science-based approach to what is considered recyclable.

Respectfully Submitted,



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