
SENATE COMMITTEE ON ENVIRONMENTAL QUALITY

Senator Allen, Chair

2021 - 2022 Regular

Bill No: AB 2784
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Version: 5/19/2022
Urgency: No
Consultant: Jacob O'Connor

Hearing Date: 6/22/2022
Fiscal: Yes

SUBJECT: Solid waste: thermoform plastic containers: postconsumer thermoform recycled plastic

DIGEST: Requires that the total thermoforms sold by a food or beverage producer in the state to, on average, contain specified minimum amounts of postconsumer recycled plastic per year, ranging from twenty to thirty percent

ANALYSIS:

Existing law:

- 1) Under the Integrated Waste Management Act of 1989 (IWMA), establishes a state recycling goal of 75% of solid waste generated to be diverted from landfill disposal through source reduction, recycling, and composting. Requires each state agency and each large state facility to divert at least 50% of all solid waste through source reduction, recycling, and composting activities. IWMA also requires a state agency and large state facility, for each office building of the state agency or large state facility, to provide adequate receptacles, signage, education, and staffing, and arrange for recycling services, as specified. (PRC §§ 41780.01, 42921, 42924.5)
- 2) Under the California Beverage Container Recycling and Litter Reduction Act (Bottle Bill):
 - a) Requires that each new glass container manufactured in the state contain a minimum of 35% postfilled (recycled food container cullet) glass. Requires every glass food, drink, or beverage container manufacturer in the state to report the amount of tons of new glass and the tons of postfilled glass used in the manufacturing of those containers to the California Department of Resources Recycling and Recovery (CalRecycle) every month; (PRC §14549) and
 - b) Requires, between January 1, 2022, and December 31, 2024, the total number of plastic beverage containers subject to the CRV for sale in the state to, on average, contain no less than 10 percent postconsumer recycled

plastic per year. Increases that amount to 25 percent between January 1, 2025, and December 31, 2029; and 50 percent on and after January 1, 2030. (PRC §14547)

- 3) Establishes the Rigid Plastic Packaging Container (RPPC) law, which requires that specified plastic containers that are made of plastic, capable of at least one closure, and hold a product sold in California to meet one of the following compliance options (PRC §42310):
 - a) Contain a minimum of 25% postconsumer recycled content;
 - b) Be source reduced by at least 10%, as specified;
 - c) Be routinely reused or refilled at least 5 times;
 - d) Achieve a 45% recycling rate; or,
 - e) The product manufacturer consumes sufficient California-recycled content equivalent to achieving a 25% postconsumer recycled content rate.

This bill:

- 1) Defines, for the purposes of this legislation:
 - a) “Food or beverage producer” as a person who fills thermoform plastic containers, or imports filled thermoform plastic containers, for sale to distributors, dealers, or consumers;
 - b) “Postconsumer thermoform recycled plastic” as plastic produced from the recovery, separation, collection, and reprocessing of a thermoform container that would otherwise be disposed of or processed as waste after consumer use;
 - c) “Thermoform plastic container” as a food or beverage plastic container such as a clamshell, cup, pod, tub, box, or other similar rigid, non-bottle packaging, formed from sheets of extruded resin and used to package items such as fresh produce, baked goods, nuts, deli items, and nonbottled beverages. It does not include thermoform containers that are:
 - i) Medical products;
 - ii) Intended for return to the manufacturer for reuse;
 - iii) Bottles subject to the Bottle Bill;
 - iv) Compostable;
 - v) Comprised of a resin type that less than 1,000,000 pounds of which are sold in California annually; or
 - vi) Comprised of expanded polystyrene (EPS) if less than 40,000 pounds of EPS are sold in California annually
- 2) Allows a recycling center to collect thermoform plastic containers.

- 3) Requires a food or beverage producer to report to CalRecycle before March 1 of each year, the amount in pounds and by resin type of virgin and postconsumer thermoform recycled plastic used to manufacture thermoform plastic containers they sold in the state in the previous year. This information shall be made public on CalRecycle's website within 30 days of submission.
- 4) Requires, beginning January 1, 2025, the total thermoform plastic containers offered for sale, distributed, or imported into the state by a food or beverage producer to, on average, contain at least 10 percent post-consumer thermoform recycled plastic per year.
- 5) Requires, beginning January 1, 2028, the total thermoform plastic containers offered for sale, distributed, or imported into the state by a food or beverage producer in the state to, on average, either:
 - a) Contain at least 20 percent postconsumer thermoform recycled plastic per year if the recycling rate for the type of resin the container is made of equals or exceeds 50 percent for the calendar year 2026; or
 - b) Contain at least 25 percent postconsumer thermoform recycled plastic per year.
- 6) Requires, beginning July 1, 2030, the total thermoform plastic containers offered for sale, distributed, or imported into the state by a food or beverage producer in the state to, on average, either:
 - a) Contain at least 20 percent postconsumer thermoform recycled plastic per year if the recycling rate for the type of resin the container is made of equals or exceeds 75 percent for the calendar year 2029; or
 - b) Contain at least 30 percent postconsumer thermoform recycled plastic per year.
- 7) Subjects any food or beverage producer that does not meet these requirements to an annual administrative penalty, to be collected annually. This penalty shall be equal to twenty cents, or one dollar if the resin is EPS, per pound of virgin recycled plastic used by the food or beverage producer to produce the plastic containers sold in the state.
- 8) Allows these administrative penalties to be paid in quarterly installments or on another schedule subject to approval of CalRecycle. CalRecycle may grant a one-time extension, of up to 12 months, due to unforeseen circumstances.

- 9) Authorizes CalRecycle to conduct audits and investigations and take enforcement action, after giving notice and hearing, against a food or beverage producer for the purpose of ensuring compliance with these requirements. The department must keep confidential all trade secrets and proprietary information that it gathers through this audit process.
- 10) Requires CalRecycle to consider granting a reduction of the administrative penalties for the purpose of meeting the minimum postconsumer thermoform recycled plastic requirements in this bill. When considering a reduction of penalties, they must consider:
 - a) Anomalous market conditions;
 - b) Disruption in, or lack of supply of, recycled plastic due to an unforeseen circumstance or event, such as a natural disaster;
 - c) Other factors that have prevented a food or beverage producer from meeting the requirements; or
 - d) If the recycling rate is 60 percent or higher, lack of available supply due to purchases from outside the packaging industry.
- 11) In order to obtain a reduction in administrative fees, requires a food or beverage producer to submit to CalRecycle a corrective action plan that details why they have failed to meet the requirement and the steps they will take to comply within the next reporting year. The corrective action plan must include a compliance deadline within 24 months from the date of initial notice of violation and the penalties that may be imposed if the producer fails to comply with the plan.
- 12) Requires administrative penalties be deposited into the Thermoform Recycling Enhancement Penalty Account, which is created by the bill, and permits those moneys to be expended, upon appropriation, for the purpose of supporting the recycling, collection, and processing infrastructure of thermoforms in the state.
- 13) Requires an importer or manufacturer of a thermoform plastic container who first sells the container in the state and whose annual total sales exceed 40,000 pounds of EPS or 100,000 pounds of any other thermoform plastic container resin types to:
 - a) Register and pay a registration fee to CalRecycle for the reasonable regulatory costs related to enforcing the provisions of this bill;
 - b) Report to the department the amounts of all thermoform plastic containers sold or imported into the state and the resin types used and the pounds of postconsumer resin used for each purchaser; and

- c) Maintain records of all sales and information regarding the source of any postconsumer resin for verification by CalRecycle.
- 14) Requires an entity in the state that purchases more than 40,000 pounds of EPS or 100,000 pounds of any other thermoform plastic container resin types to:
- a) Have total postconsumer content of the purchased containers that were not exported out of the state meet or exceed the minimum content requirements of this bill;
 - b) Maintain record of purchases as required by CalRecycle; and
 - c) Report to CalRecycle the total pounds of thermoform plastic containers exported by resin type if their exports exceed 40,000 pounds of EPS equivalent or 100,000 pounds of thermoform plastic containers of any other resin types.
- 15) Allows actions pursuant to this chapter to increase the collection, processing and recycling of scrap plastic materials by a food or beverage producer or to develop grading or classifications by to a nonprofit organization of producers to not violate the Cartwright or Unfair Practices Act unless they are made by agreement between two or more producers to affect the price of materials, the output or production of products, or restrict the customers to which products will be sold.

Background

- 1) *Solid waste in California continues to pile up.* For three decades, CalRecycle has been tasked with reducing disposal of municipal solid waste and promoting recycling in California through the IWMA. Under IWMA, the state has established a statewide 75% reduction, recycling, and composting goal by 2020. Additionally, the state has established a target of a 75% reduction in the level of disposal of organic waste from the 2014 level by 2025.

According to CalRecycle's State of Disposal and Recycling Report for Calendar Year 2020, published in December 2021, approximately 77.4 million tons of material was generated in 2020; with about 52% sent to landfills; 17% exported as recyclables; 12% composted, anaerobically digested or mulched; and 13% either recycled or source reduced. According to the report: "We are falling far short of our 75 percent recycling goal and face clear evidence that an economy driven by resource extraction and single-use disposable products continues to endanger our people and imperil our planet."

- 2) *Market challenges for recyclable materials lead to more waste.* The U.S. has not developed significant markets for recyclable content materials. Approximately 50% of plastic waste collected for recycling in the United States is exported; in 2016, 88% of that material was exported to countries that lack the infrastructure to properly manage it, leading to open disposal or open burning contributing to ocean plastic pollution and toxic air and GHG emissions. In California, approximately one third of recyclable material is exported.

China used to be where many countries sent the bulk of their recyclable waste, but beginning in 2017, the country began significantly restricting the types of materials and levels of contamination that would be accepted. As of January 1, 2021, China enacted a complete ban on the importing of solid waste. The initial restrictions in 2017 left waste-exporting countries such as the U.S. scrambling to find alternative destinations, including Southeast Asian nations like Thailand, Vietnam, and Indonesia, which quickly became overwhelmed by the volume of refuse received. Soon after, those countries began to impose their own bans and restrictions on waste imports. Without a global market to send these “recyclable” materials, the contents of many blue recycling bins are being diverted to landfills.

- 3) *Thermoforms.* Thermoforms include a wide range of plastic packaging created by heating sheets of plastic and then forming into a specific shape in a mold. Common thermoforms include plastic “clamshell” trays used for take-out food, plastic egg cartons, and bakery trays. Most thermoforms are made from polyethylene terephthalate (PET), but can be made from a wide range of plastic resins, including polypropylene (PP), and polystyrene (PS), including expanded polystyrene (EPS). In California, thermoforms have included relatively high quantities of recycled content; however, the source of its PET has been PET bottles, not thermoforms. While providing an important market for recycled bottle plastic, recycling PET bottles into thermoforms means that the bottle is recycled once and then discarded (thermoforms usually end up in landfills). Under AB 793 (Ting, Chapter 115, Statutes of 2020), bottle manufacturers are required to include recycled content to ensure that bottles are recycled back into bottles.

In jurisdictions that accept thermoforms in curbside recycling, only thermoforms made out of PET are usually accepted. The majority of PET thermoforms collected are baled with other PET, primarily bottles, even though bottles and thermoforms generally cannot be recycled together. As a result, recyclers separate the thermoforms from the bottles and the thermoforms are discarded.

- 4) *Beware of the plastics.* While plastics are an undeniably useful material their production, use, and disposal have significant environmental and health costs. Plastic production is primarily performed through the refining of petrochemicals obtained by fossil fuel extraction. According to a 2019 report by the Center for Environmental Law, by 2030 plastic greenhouse gas (GHG) emissions could reach 1.34 gigatons per year – equivalent to nearly 300 500-megawatt coal-fired power plants. During their use and disposal chemical additives can also leach out of products, though there are gaps in scientific knowledge about the full health impacts. As plastics are degraded, they can form microplastics which can bioaccumulate in human bodies and contribute to health problems. Another major concern about the end of life of plastics are their impact on ocean and marine life. Plastics are estimated to comprise 60-80% of all marine debris and over 600 marine animal species have been negatively affected by ingesting plastic worldwide. Many of the risks of plastics disproportionately impact disadvantaged communities that are often located close to points of pollution or heavily rely on the marine ecosystem.

Despite these dangers, plastic production has rapidly accelerated in the last few decades. In 2017, the world’s plastic production reached 348 million metric tons, a 20% increase in five years. Because plastics made from new, or “virgin”, material is less expensive than recycled plastics, less than 10% of the plastic produced between 1950 and 2015 was recycled.

Comments

- 1) *Purpose of Bill.* According to the author, “Since shipping recyclables overseas is no longer a viable option, California must develop its own markets for recycled content materials. Thermoform containers, or clamshells, have a low collection rate and are infrequently recycled. As the state is making strides towards increasing minimum recycled content in plastic bottles, thermoforms must do the same. This bill encourages efficient use of recyclable plastics and moves California towards a closed loop recycling system for PET bottles and PET thermoforms. AB 2784 sets a minimum recycled content standard for thermoform containers used in food and beverage applications in California.”
- 2) *Creating a market for thermoform recycling.* The shift in policy of the international markets have resulted in a major disruption in recycling commodities markets, a sign that California can no longer rely on exporting to manage its recyclable materials. As a result, material is being stockpiled at solid waste facilities and recycling centers or disposed of in landfills.

Recycling requires markets for the postconsumer material in order to close the loop and create a new product from the same original material. The recent policies of other jurisdictions provide California with the opportunity to reduce waste, build infrastructure for the manufacture of recycled materials, and build domestic markets to successfully and responsibly manage its own recyclable materials. Unlike the Bottle Bill, which requires the minimum postconsumer recycled content amount to increase over time regardless of recycling rates, this bill creates a tiered structure within each compliance period and links the minimum amount of postconsumer thermoform recycled plastic of a particular resin type to the recycling rate of that same resin type. If the recycling rate for a particular resin type is low, the minimum content requirements will be higher; and vice versa. Bumping up the minimum content requirements, according to the author, will drive up the recycling rate for that resin type while creating a market for recycling thermoforms.

- 3) *Why single out expanded polystyrene (EPS)?* This bill singles out EPS resins with lower threshold of pounds produced in the state necessary to trigger its requirements than any other resin. EPS is commonly known by the brand name Styrofoam. As most people have experienced, EPS is extremely lightweight and so it only takes up a tiny percent of the total municipal solid waste stream by weight. However, EPS takes up a great deal of space and so it contributes a disproportionately large of the volume of the waste stream. As the triggers in this bill are based on pounds of resin sold in the state it makes sense to set a different threshold for the lightweight but voluminous EPS.

It is also worth noting that EPS only has a recycling rate of about 1% in California, due the relatively low market value of collected EPS and the challenges of separating EPS from the waste stream, especially contaminated food containers. Opponents of this bill have argued that the provisions of this bill will amount to a de-facto ban of EPS for food and beverage producers. As of 2019, there are over 120 California cities and counties with ordinances prohibiting the use of polystyrene, 26 of which include the retail sales of products.

- 4) *How does this bill differ from AB 478?* Last year this author ran a very similar bill, AB 478, which was held in the Senate Appropriations Committee. The main difference between the two bills is that AB 478 would have required CalRecycle to exclude thermoform plastics for the purposes of calculating the comingled rate for each type of plastic container. This would have indirectly required haulers to separate thermoforms from bales in order to receive a California Refund Value for the bales, creating a stock of separated thermoforms for recycling. The current bill makes no provision to incentivize

the creation of a stock of thermoforms for recycling, other than by requiring producers to use recycled material in their products.

AB 478 would also have applied to all producers of thermoforms in the state, while this bill only applies to food and beverage producers.

- 5) *You don't know where that thermoform's been.* Some organizations have raised concerns about the potential for toxic compounds to be introduced to food by thermoform recycled content, pointing out that plastic is known to both capture and leech various compounds and that thermoforms may be exposed to various contaminants during their disposal and recovery. The FDA considers each proposed use of recycled plastic on a case-by-case basis and issues informal advice as to whether the recycling process is expected to produce post-consumer recycled plastic of suitable purity for food-contact applications. During this process they determine if there has been no possibility of contamination with substances other than food or if the cleaning efficiency of the recycling process is sufficient to prevent a dietary concentration exceeding 0.5 parts per billion, which the FDA equates to a negligible exposure level. This process is no longer considered necessary for PET or PEN because the FDA has determined that tertiary recycling processes are suitable for food-contact use purity.

Related/Prior Legislation

SB 54 (Allen) would have prohibited producers of single-use, disposable packaging or single-use, disposable food service ware from offering for sale, selling, distributing, or importing in or into the state those products manufactured after January 1, 2032, unless it is recyclable or compostable. SB died on the Assembly floor.

SB 343 (Allen, Chapter 507, Statutes of 2021) prohibits a person from offering for sale, selling, distributing, or importing into the state any product or packaging using a deceptive or misleading claim about its recyclability, including the display of a chasing arrows symbol or any other symbol or statement indicating recyclability, unless CalRecycle has determined the product or packaging is recyclable.

AB 661 (Bennet) requires state agencies, if fitness and quality are equal, to purchase recycled products instead of nonrecycled products, without regard to cost; and amends the State Agency Buy Recycled Program to modify its product

categories and minimum content and recyclability requirements. AB 661 will be heard in this Committee June 29.

AB 881 (Gonzalez, Chapter 501, Statutes of 2021) establishes standards for mixed plastic waste exported for recycling in order to be credited toward a local jurisdiction's solid waste diversion rate.

AB 962 (Kamlager, Chapter 502, Statutes of 2021) specifies that returnable glass beverage container can be included in the Bottle Bill by allowing the returnable glass beverage container to be considered cancelled for purposes of the program if the processor transfers the empty container to a CalRecycle-approved washer.

AB 478 (Ting) established minimum recycled content requirements for thermoform plastic containers, as specified. This bill also redefined "commingled rate" for purposes of California's Bottle Bill program and require the Department of Resources Recycling and Recovery (CalRecycle) to exclude thermoform plastic for purposes of calculating the commingled rate for each type of plastic container. This bill was held in the Senate Appropriations Committee.

AB 793 (Ting, Chapter 115, Statutes of 2020) requires plastic beverage containers subject to the California Beverage Container Recycling and Litter Reduction Act to contain minimum amounts of postconsumer recycled plastic annually, beginning with 15 percent by 2022, and increasing to 35 percent by 2029 and 50 percent by 2030.

DOUBLE REFERRAL:

If this measure is approved by the Senate Environmental Quality Committee, the do pass motion must include the action to re-refer the bill to the Senate Judiciary Committee.

SOURCE: rPlanet Earth

SUPPORT:

Californians Against Waste
Monterey Bay Aquarium Foundation
Recyclesmart
Rplanet Los Angeles

OPPOSITION:

Agricultural Council of California
American Chemistry Council
American Institute for Packaging and Environment (AMERIPEN)
CA Cotton Ginners & Growers Association
California Apple Commission
California Blueberry Association
California Blueberry Commission
California Fisheries and Seafood Institute
California Food Producers
California Fresh Fruit Association
California Grocers Association
California Manufacturers & Technology Association
California Restaurant Association
California Strawberry Commission
Consumer Brands Association
Foodservice Packaging Institute
Plastics Industry Association
Sonoco Products Company
TeknipleX
The Association of Plastic Recyclers
Western Agricultural Processors Association
Western Growers Association
Western Plastics Association

ARGUMENTS IN SUPPORT: According to Californian’s Against Waste, “For more than a decade, California-made PET thermoform packaging has contained high levels of PCR content, substantially reducing California’s dependency on overseas markets for PET plastic recycling. However, most of this PCR was derived from PET beverage containers, and as the beverage industry moves to increase their own recycled content commitment to comply with AB 793 (Ting, Irwin), the thermoform packaging industry and their produce customers will need to transition to their own ‘closed loop’ recycling system.

“To address this issue, AB 2784 builds on the AB 793 model and establishes a uniform timeframe and ‘even playing field’ requirements for the increased use of PCR in all types of thermoform food packaging (non-food thermoform plastic—RPPCs--have had a recycled content obligation in California for more than 25 years), as well as a fair and reasonable ‘penalty’ for packaging that can not safely demonstrate compliance.

“Together, these provisions will help California packaging manufacturers, produce distributors, recyclers and the recycling-public, to work together to increase

‘closed loop’ recycling of this growing source of plastic packaging, while phasing out that package and packaging applications that can not demonstrate compliance with California’s circular economy objectives.”

ARGUMENTS IN OPPOSITION: According to the Agricultural Council of California, “The framework of AB 2784, while well intended, fails to provide a clear path forward to closed-loop recycling and would derail significant progress already made by our industry towards recycling thermoform plastics.

“California fresh fruit and vegetable brands have a long history of using more California post-consumer recycled content in clamshells than any other food packaging in California’s grocery stores. Significant investment has been made in research on alternatives to plastic packaging and how to transition from using rPET bottles to recycled PET clamshells as a source for recycled content...

“AB 2784 exempts all non-food thermoforms, putting the financial burden of recycling thermoforms entirely on the food system. Carve outs like this only exacerbate the current recycling issues impacting the State by creating greater consumer confusion as to what can and should be recycled.”

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