

## APPENDIX



# Costs and Job Benefits From Transitioning New Jersey to 100% Clean, Renewable Energy and Storage for Everything

Mark Z. Jacobson  
Stanford University

New Jersey Senate Env. Committee

June 13, 2022

# **What are the Problems? Why act Quickly?**

Fossil-fuel and biofuel air pollution cause ~7 million air pollution deaths/yr worldwide (1,100/yr in NJ), costing world ~\$30 trillion/year

Global warming will cost world ~\$30 trillion/year by 2050.

Fossil fuels cause economic, social, and political instability for several reasons

Drastic problems require immediate solutions

# Wind, Water, Solar (WWS) Solution

Electrify or Provide Direct Heat For All Sectors and Provide the

Electricity and Heat with 100% WWS

ELECTRICITY	TRANSPORTATION	HEATING/COOLING	INDUSTRY
Wind	Battery-electric	Electric heat pumps	Electric arc furnaces
Solar PV/CSP	H <sub>2</sub> fuel cell	District heat/cold	Induction furnaces
Geothermal		Geothermal heat	Resistance furnaces
Hydro		Solar heat	Dielectric heaters
Tidal/Wave			Electron beam heaters

# Types of Storage for a 100% WWS System

ELECTRICITY	HEATING/COOLING	OTHER
CSP with storage	Water tank	Hydrogen
Pumped hydro storage	Ice	
Existing hydroelectric	Underground	
Batteries	Borehole	
Flywheels	Water Pit	
Compressed air	Aquifer	
Gravitational Storage	Building materials	

# **Transitioning an Individual Home to Run on WWS Electricity/Storage and No Gas**

# Rooftop Solar Plus Battery Storage

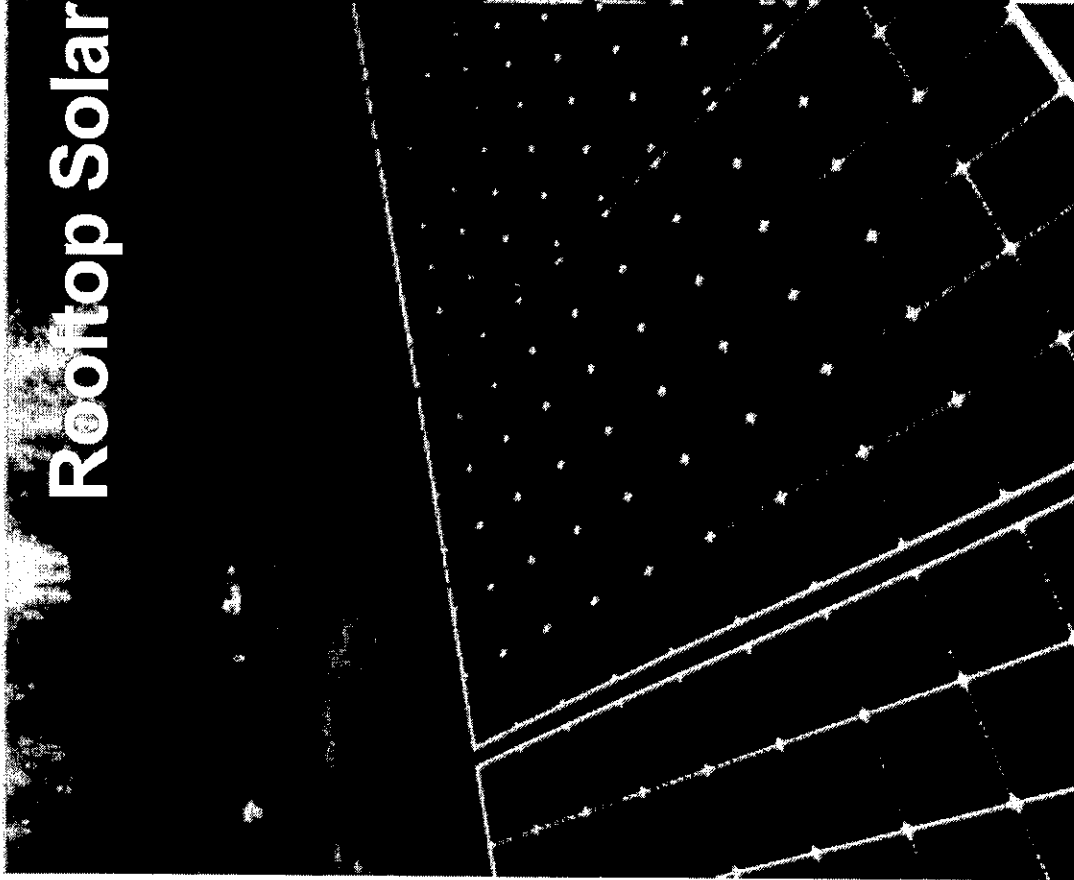
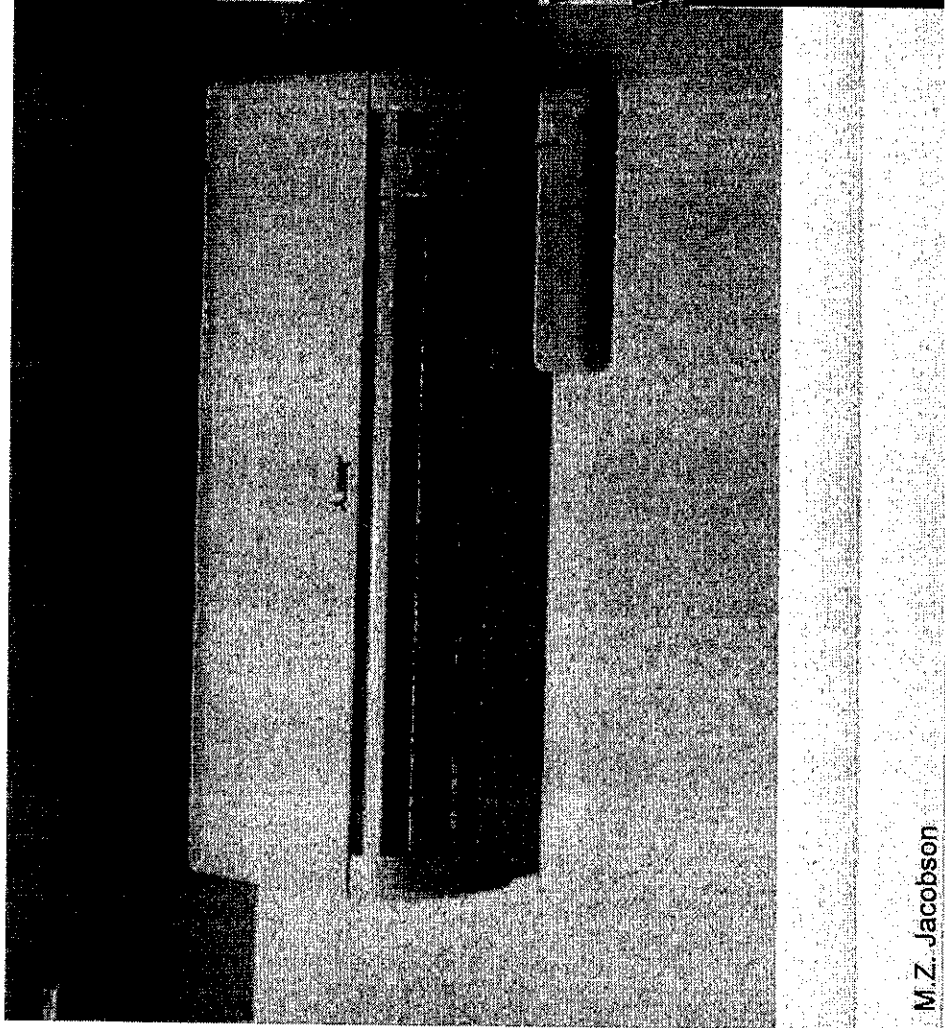
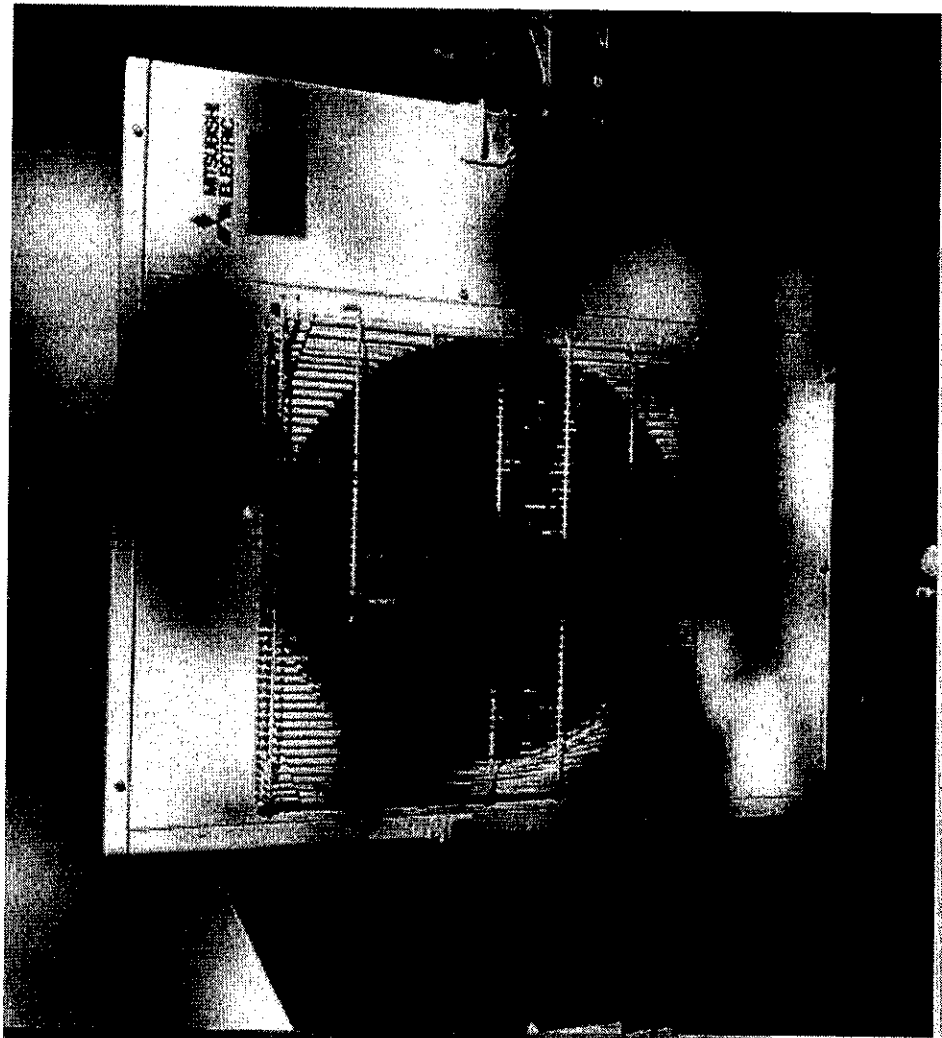


Photo by M.Z. Jacobson

# Ductless Mini-Split Electric Heat Pump Air Heater / Air Conditioner



M.Z. Jacobson



# Electric Heat Pump Water Heater

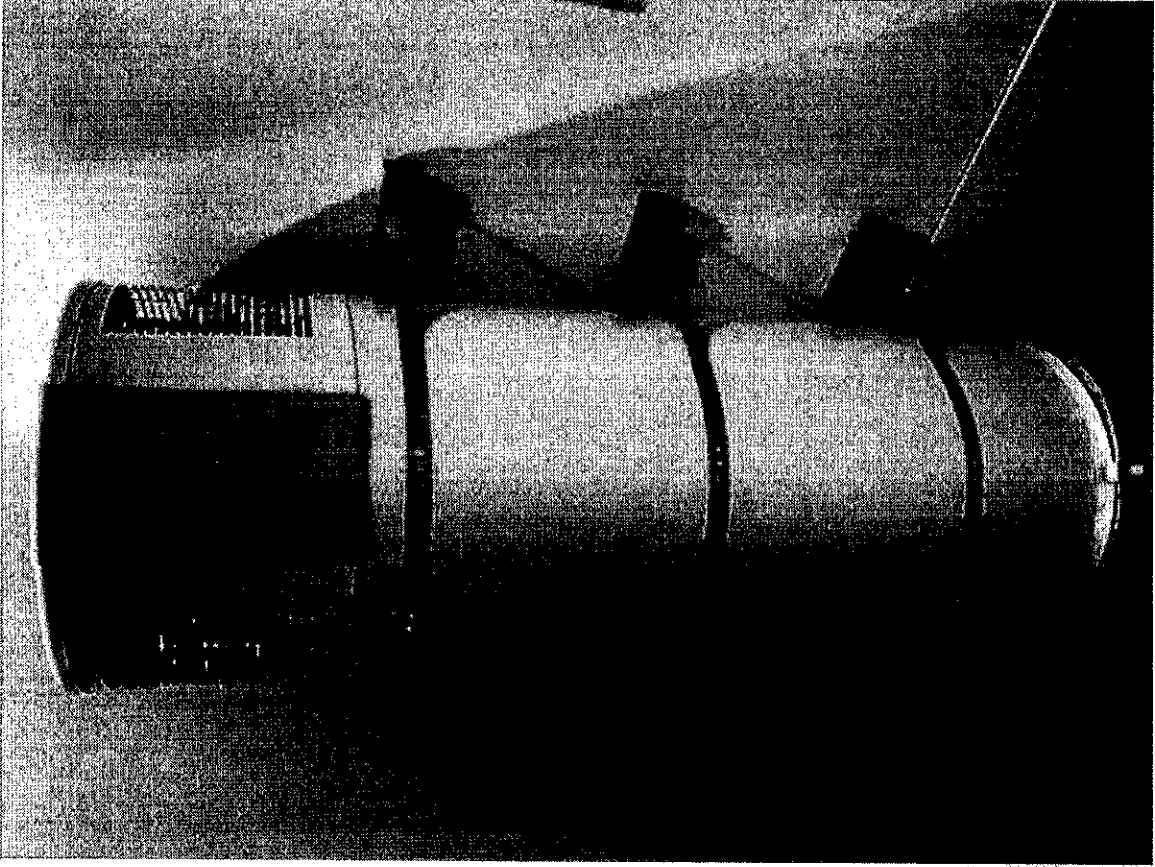


Photo by M.Z. Jacobson

# Electric Induction Cooktop

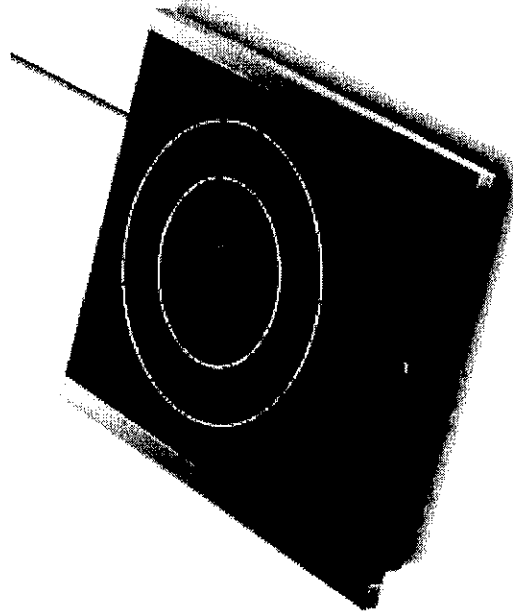
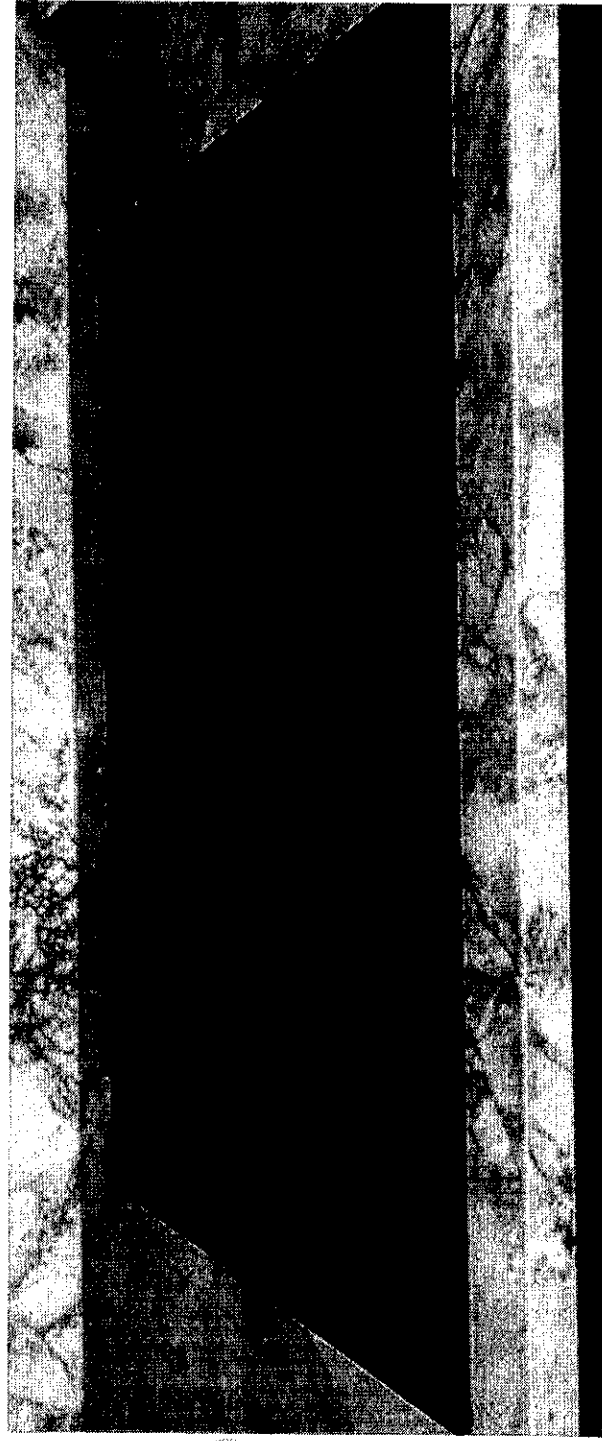


Photo by M.Z. Jacobson

# Five Years of Energy Use

Generated 120% of all home and vehicle energy

→ No electric bill, natural gas bill, or gasoline bill

Received average \$860/yr from CCA for excess electricity to grid

Avoided costs of all-electric home

Gas hookup fee: 3-8 K

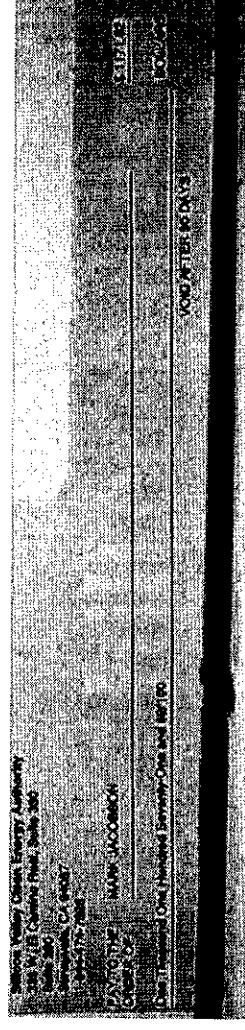
Gas pipes: 2-15 K

Electric bill 1-3 K per year

Natural gas bill 1-3 K per year

Vehicle fuel bill 1-4 K per year

Total: 5-23 K plus 3-10 K per year



5y payback with subsidy; 10y w/o

M.Z. Jacobson

# No Blackout on Hottest Day of Year

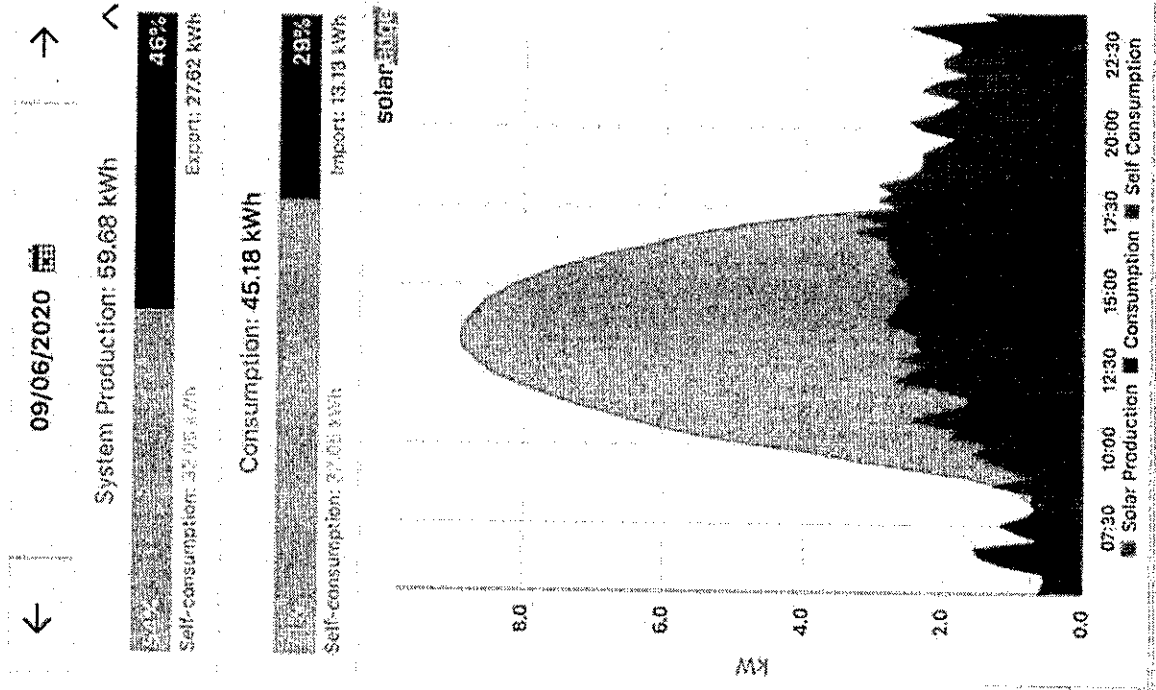
Sept. 6, 2020

Outside temperature: 106 F

Inside temperature: 77 F

Blue=consumption by solar  
during day or batteries after  
sunset (2-3.3 kW/6.4 kWh)

Red=grid electricity



# **Can the World and New Jersey Transition to 100%, Clean, Renewable Energy for all Purposes?**

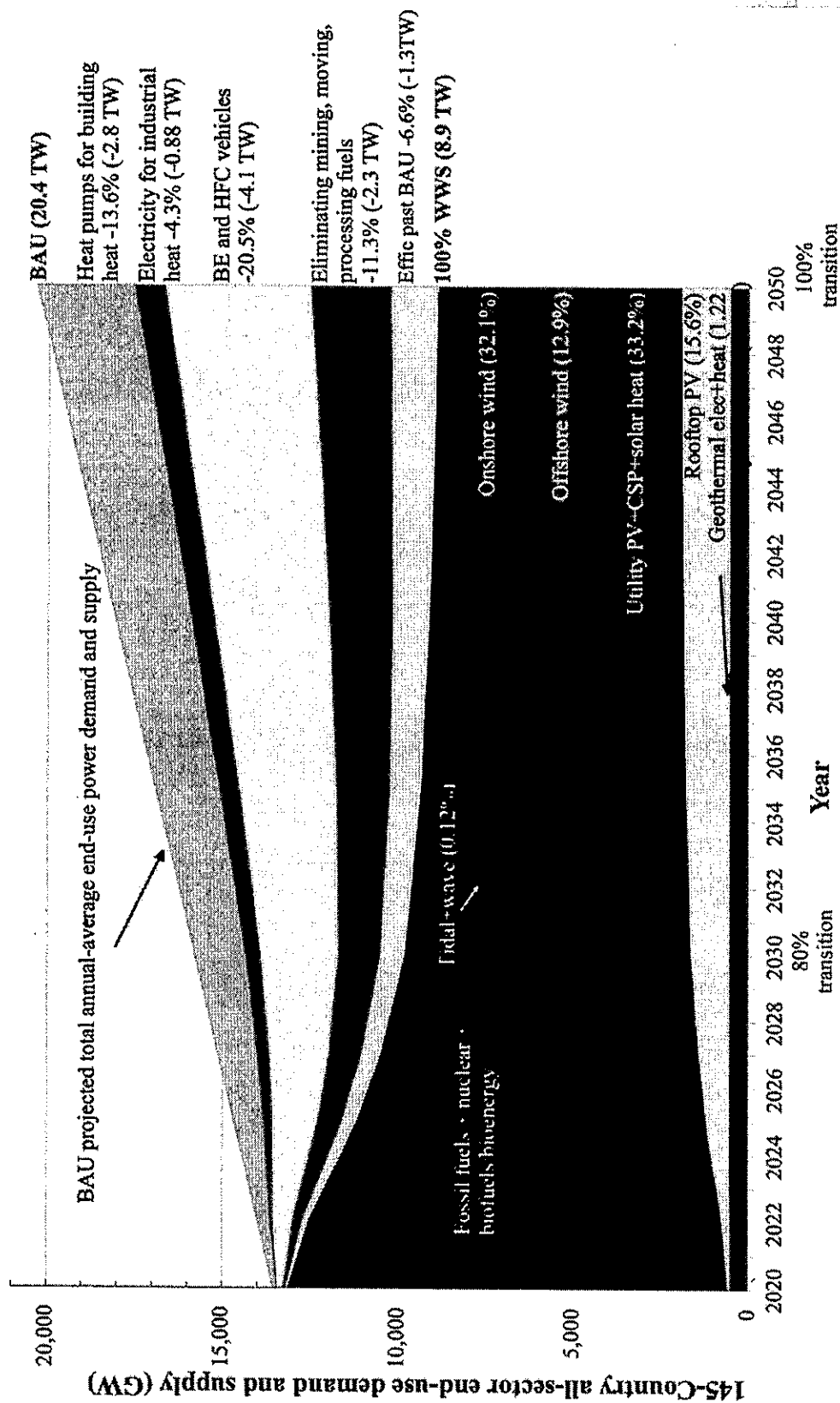
## **Roadmaps for 145 Countries and 50 States**

# All-Purpose End-Use Power Demand

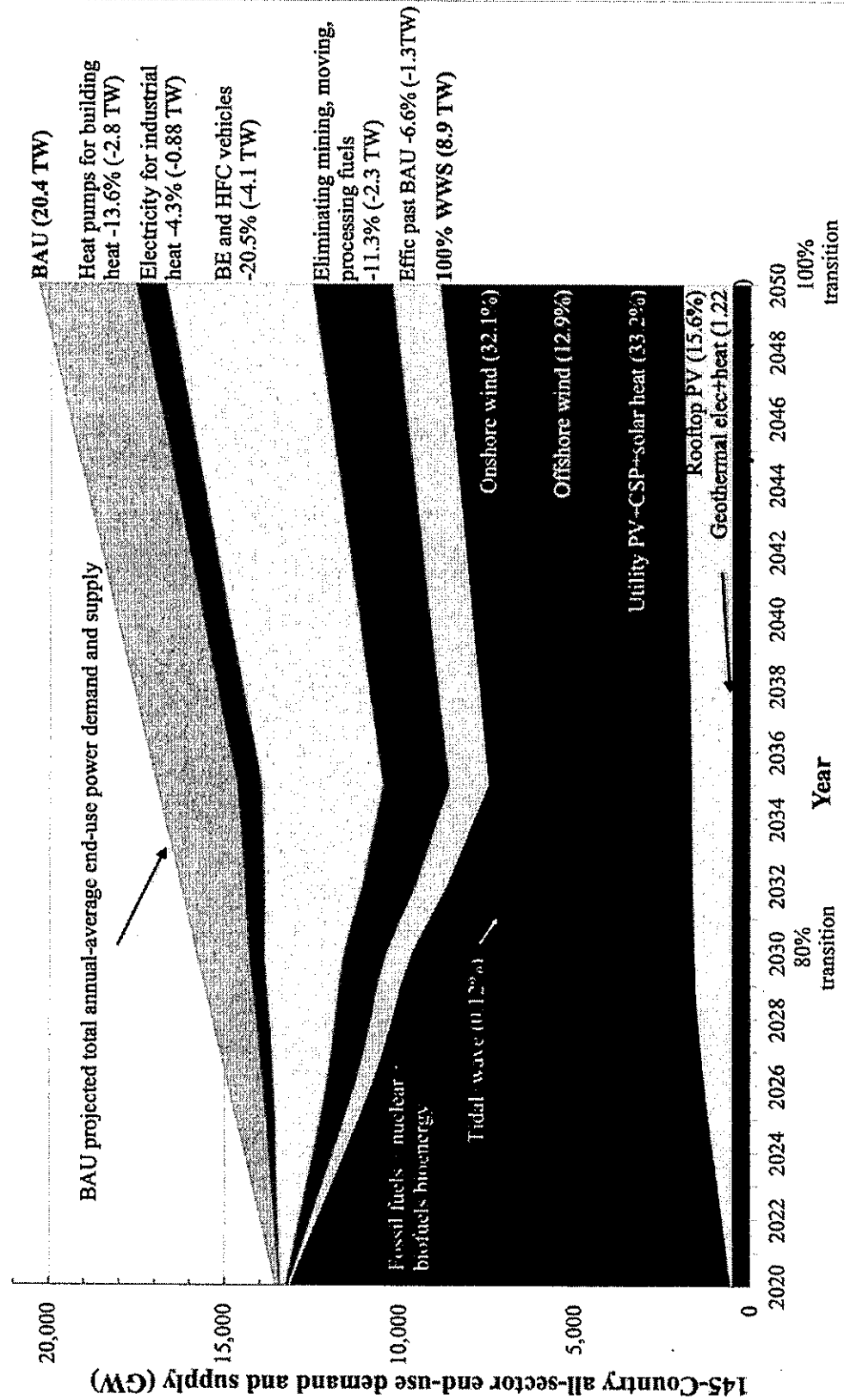
Year and Fuel Type

	145- Countries
2018 End-use demand	13.1 TW
2050 Demand with current fuels (BAU)	20.4 TW
2050 Demand with WWS	8.9 TW
2050 Demand reduction with WWS	56.4%
20.5% efficiency of BE, HFC v. ICE	
4.3% efficiency of electric industry	
13.6% efficiency of heat pumps	
11.3% eliminating fuel mining	
6.6% efficiency beyond BAU	

# Timeline for a 145-Country Transition



# Faster Timeline for a 145-Country Transition

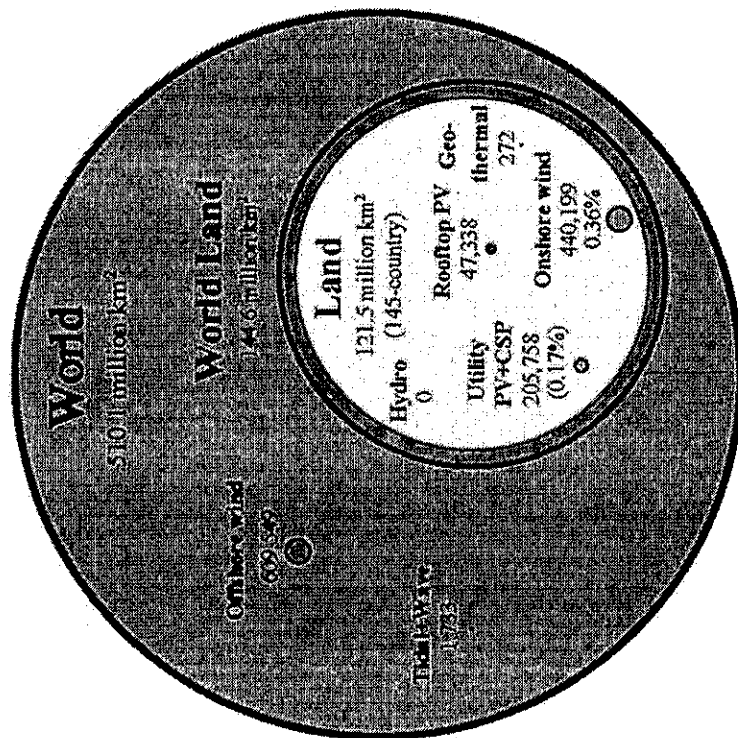


# Percent of 2050 145-Country, U.S., and RFC End-Use Demand Supplied by WWS

TECHNOLOGY	World	U.S.	RFC grid
Onshore wind	32.1%	28.3%	20.8%
Offshore wind	12.9	16.4	14.2
Rooftop Solar PV	15.6	20.5	15.2
Utility PV	30.0	30.8	49.1
CSP	2.73	0.44	0
Geothermal electricity	0.73	0.46	0
Hydroelectric	4.93	2.97	0.48
Tidal	0.04	0.022	0.009
Wave	0.08	0.19	0.17
Geothermal heat	0.49	0*	0*
Solar heat	0.42	0*	0*
	<b>100%</b>	<b>100%</b>	<b>100%</b>

\*Simulations assumed electricity produced 100% of heat.

# Percent of Land Beyond 2018 Installations to Power 145 Countries, U.S., RFC for all Purposes With 100% WWS in 2050

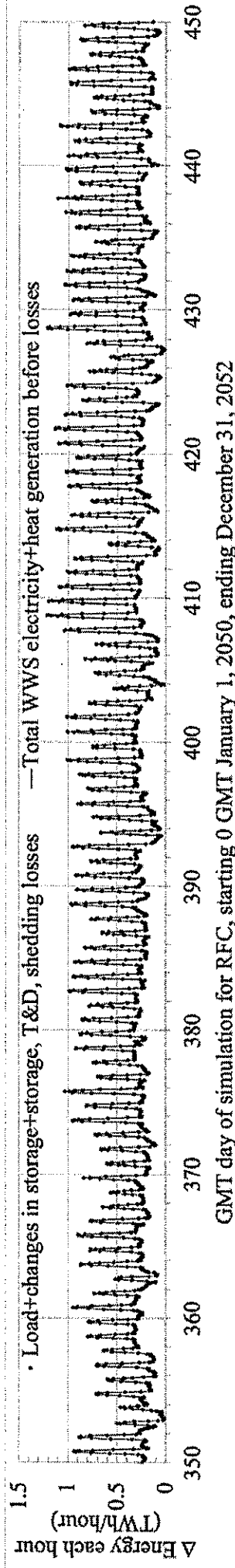
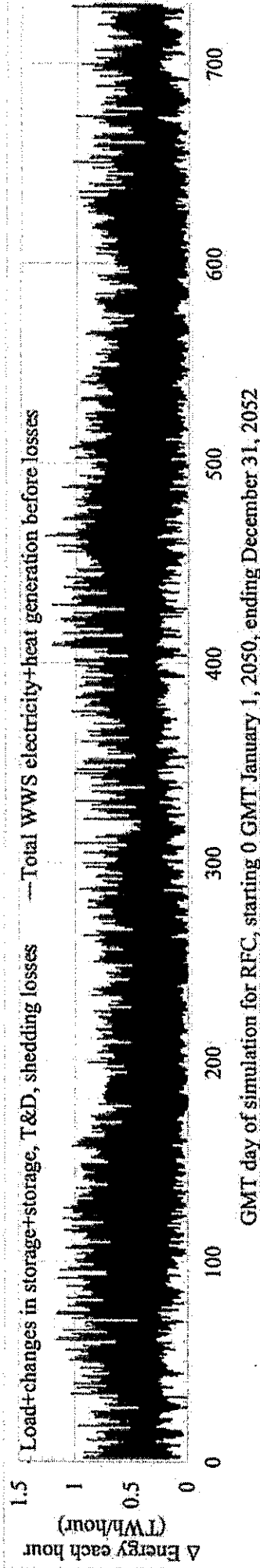


Onshore wind: 0.36%  
Utility PV+CSP: 0.17%  
 Total 145 Countries 0.53%

Onshore wind: 0.55%  
Utility PV+CSP: 0.29%  
 Total U.S. 0.84%

Onshore wind: 1.59%  
Utility PV+CSP: 1.89%  
 Total RFC 3.48%

# Matching RFC All-Sector Demand Every 30 Seconds With 100% WWS+Storage for all of 2050 and for 100 Days



Red = Energy supply

Blue = Energy demand + change in storage + losses + shedding

# **Energy Cost Resulting in a Stable Grid Upon Electrification of all Energy With 100% WWS+Storage**

**World: 8.5 cents/kWh  
Capital Cost: \$61.5 trillion**

**U.S.: 9.0 cents/kWh  
Capital cost: \$8.9 trillion**

**New Jersey: 10.2 cents/kWh  
Capital cost: \$206 billion**

# 2050 World BAU vs WWS Cost

BAU fuel energy cost

\$17.8 trillion/yr

BAU fuel health cost

\$33.6 trillion/yr

BAU fuel climate cost

\$31.8 trillion/yr

BAU total social cost

\$83.2 trillion/yr

WWS total social cost

\$6.6 trillion/yr

WWS reduces energy cost 63% and economic (social) cost 92%

# 2050 U.S. BAU vs WWS Cost

BAU fuel energy cost

\$2.51 trillion/yr

BAU fuel health cost

\$0.70 trillion/yr

BAU fuel climate cost

\$3.58 trillion/yr

BAU total social cost

\$6.79 trillion/yr

WWS total social cost

\$0.93 trillion/yr

WWS reduces energy cost 62.9% and economic (social) cost 86.3%

# 2050 New Jersey BAU vs WWS Cost

BAU fuel energy cost

\$53.5 billion/yr

BAU fuel health cost

\$14.8 billion/yr

BAU fuel climate cost

\$70.4 billion/yr

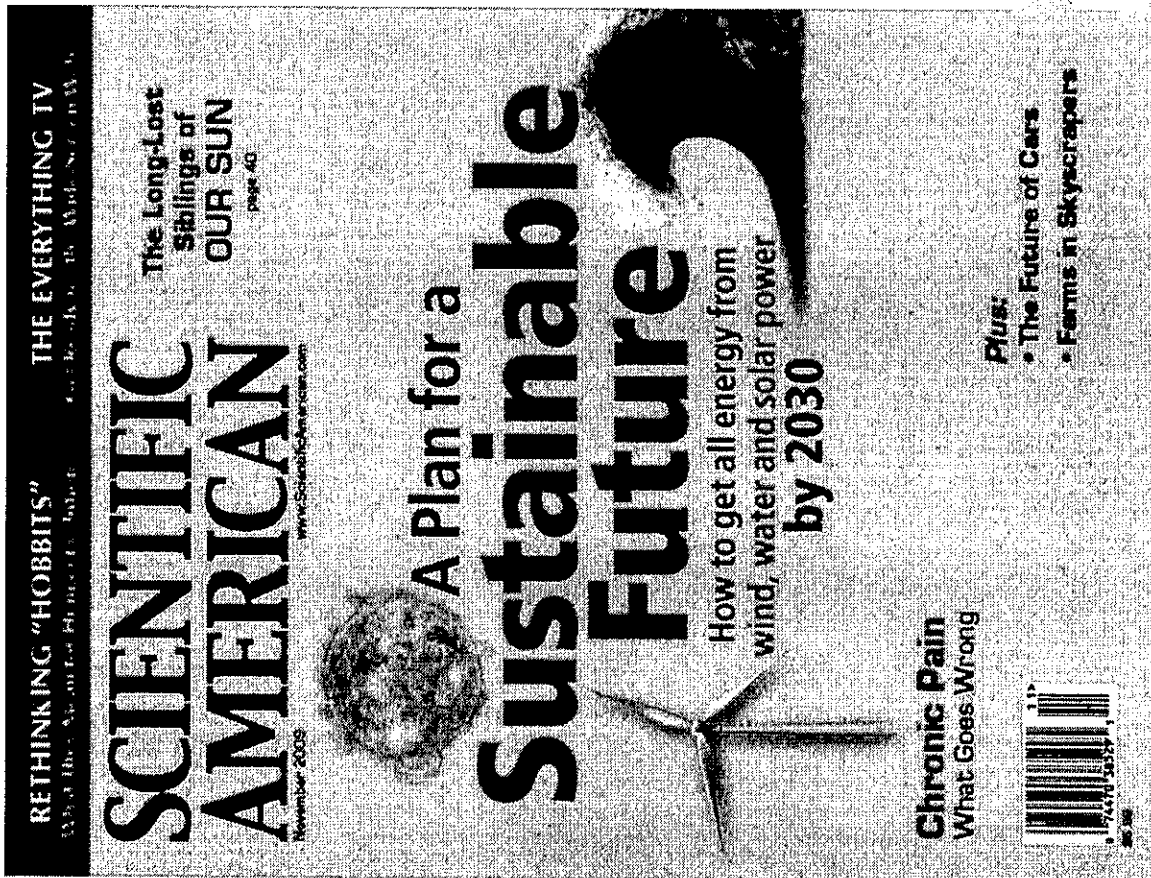
BAU total social cost

\$138.7 billion/yr

WWS total social cost

\$18.7 billion/yr

WWS reduces energy cost 65% and economic (social) cost 86.5%



2009

100% worldwide wind, water, solar (WWS) all-sector energy

plan introduced

Basis for *Green New Deal*

Conclusion

While technically and economically possible to transition by 2030, social and political barriers make

complete transition more practical by 2050 with most (~80%) by 2030

## 61 Countries Committed to 100% Renewable Electricity

Afghanistan	Denmark	Kirbati	Papua N.G. Tanzania
Aruba	Djibouti	Lebanon	Philippines
Bangladesh	Dominica	Madagas	Timor-Les
Barbados	Dom Rep.	Malawi	Portugal
Bhutan	Ethiopia	Maldives	Rwanda
Burkina Faso	Fiji	Marsh Is.	Samoa
Cabo Verde	Gambia	Mongolia	Senegal
Cambodia	Ghana	Morocco	Solom Is.
Colombia	Grenada	Nepal	S. Sudan
Comoros	Guatemala	Niger	Spain
Congo, DR	Haiti	Niue	Sri Lanka
Cook Islands	Honduras	Palau	St. Lucia
Costa Rica	Kenya	Palestine	Sudan
			Sweden
			Yemen
			Tuvalu
			Scotland
			Vanuatu
			Vietnam
			Tunisia
			Tokelau

# 13 Countries Near or Above 100% of their Electricity Generated by WWS in Annual Average and Their Top Two Electricity Sources

Iceland* (H,G)	Kenya (G,H)	H = hydro
Norway* (H,W)	Bhutan* (H)	G = geothermal
Costa Rica* (H,W)	Nepal* (H,S)	W = wind
Paraguay* (H)	Ethiopia* (H,W)	
Albania* (H, S)	Congo, DR* (H,S)	
Tajikistan (H)		
Namibia* (H,S)		
Scotland (W,H)		*97.5-100% WWS; others > 91%

# **18 100% Renewable Electricity State/Territory Laws/Exec Orders Resulting From WWS Roadmaps**

**100% by 2030**

**Rhode Island**

**By 2032**

**Washington D.C.**

**By 2040**

**Connecticut, Oregon**

**By 2045**

**Hawaii, Calif., New Mexico, Wash. State, New York, Illinois**

**By 2050**

**Puerto Rico, NV, ME, WI, VA, NJ, NC, NE**

## Some of 180 US Cities/Counties Committed to 100% Renewables

Atlanta (GA)	Salt Lake City (UT)	Sylva (NC)
Chicago (IL)	San Diego (CA)	Moab (UT)
Cincinnati (OH)	San Francisco (CA)	Boulder (CO)
Cleveland (OH)	San Jose (CA)	Burlington (VT)
Denver (CO)	Spokane (WA)	Rochester (MN)
Kansas City (MO)	St. Louis (MO)	Fayetteville (AR)
Los Angeles (CA)	St. Paul (MN)	Palo Alto (CA)
Madison (WI)	St. Petersburg (FL)	Middleton (WI)
Minneapolis (MN)	Tallahassee (FL)	Missoula (MT)
N. Brunswick (NJ)	Abita Springs (LA)	Questa (NM)
Philadelphia (PA)	Sarasota (FL)	Fayetteville (AR)
Portland (OR)	Hanover (NH)	Clarkston (GA)

## Some of the 360+ Companies Committed to 100% Renewables

IKEA	Adobe	JPMor/Chas	Coca Cola
Google	H&M	HP	Goldman-Sachs
Microsoft	Nestle	Nike	Johnson & Johnson
Apple	S&P	Starbucks	Walmart
Workday	T-Mobile	AB InBev	Bank of America
Bloomberg	BMW Group	Burberry	Citi
P&G	Ebay	Facebook	Estee Lauder
GM	Goldman-Sachs	HSBC	Infosys
Kellogg's	Lego	Mars	Morgan Stanley
Salesforce	Organic Valley	Amazon	Wells Fargo

# **Summary—Transitioning New Jersey to 100% WWS**

**Creates 144,000 more jobs than lost in New Jersey**

**Avoids ~1,120 air pollution deaths per year in New Jersey**

**Reduces annual energy costs by 64% in New Jersey**

**Upfront capital cost of ~\$200 bil. pays itself off through energy sales**

**Reduces annual energy+health+climate costs by 87%**

**Keeps electric grids stable**

**Paper about U.S. State Plans**

**[web.stanford.edu/group/efmh/jacobson/Articles/I/WWWS-50-USState-plans.html](http://web.stanford.edu/group/efmh/jacobson/Articles/I/WWWS-50-USState-plans.html)**

**Infographic Map With U.S. State Plans**

**<https://sites.google.com/stanford.edu/wws-roadmaps/home>**  
**Book on 100% WWS**

**<https://web.stanford.edu/group/efmh/jacobson/WWWSBook/WWWSBook.html>**

**Online short course on 100% WWS**

**<https://online.stanford.edu/courses/xeiet200-planning-sustainable-future-wind-water-and-sun>**

**Twitter: @mzjacobson**



**TESTIMONY OF JUDITH ENCK, PRESIDENT, BEYOND PLASTICS AND FORMER US ENVIRONMENTAL PROTECTION AGENCY REGIONAL ADMINISTRATOR**

**BEFORE THE NEW JERSEY SENATE ENVIRONMENT AND ENERGY COMMITTEE**

**JUNE 13, 2022, TRENTON, NEW JERSEY**

**Thank you for holding this hearing, which includes accepting comments on Senate Bill No. 426, a bill that would require producers of packaging products sold in New Jersey to adopt and implement packaging product stewardship plans.**

**I am pleased to be with you today, my name is Judith Enck and I am the President of Beyond Plastics, a project of Bennington College with a mission to end plastic pollution. I am formerly the Regional Administrator of the Environmental Protection Agency for Region 2, where I had the pleasure of working with many of you.**

The Atlantic Ocean, the beautiful beaches and urban rivers of New Jersey are all being damaged by plastic pollution. When I served at the EPA, during the Obama Administration, I made a point of getting out to the communities that we were working to protect. I kayaked in the headwaters of the Passaic River in Morris County and the area was breathtakingly beautiful. I saw no plastic pollution in the river. Shortly thereafter, I kayaked in the Passaic River in Newark and the contrast could not have been greater. Some of you might be thinking that this is expected. It is, but it should not be accepted. People living in Newark have the same right to a clean environment as do people living up river. That is the very definition of environmental justice and why we need to work to reduce plastic pollution, everywhere.

**The production, use, and disposal of plastic is one of the greatest environmental and health threats of our time.** Plastic pollutes our air, water, soil, and bodies, threatens fish and wildlife and ecosystems, increases illness, widens inequality, and hastens the climate crisis.

A report issued by the National Academies of Sciences, Engineering, and Medicine on December 1, 2021 entitled "Reckoning With the US Role In Global Ocean Plastic

Waste” concluded that “Without modifications to current practices in the United States and worldwide, plastics will continue to accumulate in the environment, particularly the ocean, with adverse consequences for ecosystems and society.” This is a clarion call for legislative action.

In 2020, the world produced 367 million metric tons of plastics and this is expected to triple by 2050. The United States is the largest producer of plastic in the world. Because it is not biodegradable, all the plastic ever manufactured is still present on earth in some form. Much sits in landfills or is littered through the ecosystem. Plastic burned at municipal incinerators is of particular concern, because of the air pollution from the burning process. Roughly half of all plastics ever made were manufactured in the past 16 years, and it is not because consumers want to buy plastic, It is because we have little choice. Forty percent of virgin plastic is used for single-use packaging, much of which is utilized for a short period of time before it is discarded. The impacts are significant.

- **Plastic production is a major driver of climate change.** Plastics release greenhouse gas emissions at every stage of their lifecycle, hastening climate change. In the U.S., the plastic industry’s greenhouse gas emissions are poised to surpass those of the coal-fired power plants by 2030. If plastic were a country, it would be the world’s fifth largest greenhouse gas producer. We cannot solve the climate crisis without also solving the plastic pollution crisis.
- **Plastic pollution is an environmental justice issue.** The burden of plastic is disproportionately borne by low-income communities and communities of color. According to Beyond Plastics’ landmark report “The New Coal: Plastics and Climate Change” published in October 2021, ninety per cent of the U.S. plastic industry’s greenhouse gas emissions comes from just 18 communities where residents earn 28% less than the average U.S. household and are 67% more likely to be people of color. One of these communities is Linden, New Jersey. In addition to greenhouse gasses, these facilities also emit massive amounts of particulates, heavy metals and toxics into the air, threatening residents’ health. Landfills and incinerators are also overwhelmingly located in low-income communities and communities of color, where residents are sickened by air and water pollution, including right here in New Jersey in the Ironbound section of Newark where residents face intense pollution burdens from polluting facilities, including a large garbage incinerator. We need to do everything possible not to send plastics to landfills and incinerators, including those in Newark and Camden and Rahway and Westvill, New Jersey.

- **Plastics are a threat to aquatic ecosystems.** Plastics damage rivers, lakes, beaches, and bays by impeding the flow of water and harming wildlife, which often mistake them for food. Fish, plankton, whales, and seabirds are all known to ingest plastic, which either damages them or works its way along the food chain. Even the open ocean is awash with plastics, which mostly sink to the floor of the ocean and become irretrievable. It is estimated that 9-16 million metric tons of plastic enter the ocean each year, a quantity expected to triple by 2040. Most of this plastic is washed into water bodies from the land. By 2050, there will likely be more plastic in the ocean than fish, by weight.
- **Plastics do not biodegrade, but instead break into smaller and smaller pieces.** Plastics eventually become fragments so tiny that they pervade every aspect of our world: water, soil used to grow food, food, and the air we breathe. These pieces, called microplastics, contain the toxic chemicals used to manufacture plastics, and they easily absorb more as they move through the environment. Many of these chemicals are known carcinogens, endocrine disruptors, and neurotoxins whose presence in the human body is a concern. Recent findings that microplastics can cross into human blood and tissues, including the human placenta have raised even greater concerns. Microplastics also pose a threat to agriculture, damaging soil health. A report from the United Nations released on December 7, 2021, found that plastic has become pervasive in agricultural soils, which contain larger quantities of microplastics than oceans. Images taken through microscopes have revealed fragments of microplastic inside the vasculature of plants, a phenomenon associated with stunting and reduction of crop yields.
- **We cannot recycle our way out of this problem.** For the past 30 years, the plastics industry has promoted recycling as a solution to the plastics problem, yet only 5%-6% of all plastic is actually recycled. This is not surprising. From its inception, plastic recycling was inefficient and poorly conceived. The plastics industry promoted the myth of plastics recycling because it gave consumers a sense of security about their purchases; plastic packaging, they argued, was harmless as long as users placed their plastic packaging in recycling bins. This is a “false solution.” Nearly all of the alternatives suggested by the plastics and petrochemical industry fall into this category. Incineration, burning waste at cement kilns, “waste-to-fuel”, waste-to-energy, pyrolysis, gasification, “advanced recycling” and “chemical recycling” are all fraught processes that are polluting and some are too energy-intensive to be scaled into general use. Their main role

is to distract attention from the extent of the problem, and block legislative efforts to reduce the use of plastics.

- **The overproduction of plastics is driven by manufacturers, not market demand.** As the economy moves away from reliance on fossil fuels for electricity generation and transportation, the fossil fuel industry is losing a portion of its market. The investment in new plastic production facilities is a hedge against this loss. Petrochemical manufacturers are producing and marketing single use plastics at an accelerated pace to make up for declines in fuel revenues. Plastics are “Plan B” for their future earnings. But there isn’t a “Plan B” for the rest of us. A recent survey by the national environmental organization, Oceana, found that more than 80% of Americans want the government to adopt policies to reduce plastics and the support for these policies were bi-partisan. It’s time to take action.

### **RECOMMENDED SOLUTIONS**

**Many of the solutions recommended by Beyond Plastics are included in New York Assembly bill A 10185, introduced by Assemblymember Steve Englebright of Long Island. Assemblymember Englebright is Chair of the NY Assembly Environmental Conservation Committee and has recently introduced the strongest and most comprehensive EPR bill in the nation. A 10185 is attached to this testimony.**

**The solutions that lawmakers adopt must be commensurate with the scope and severity of the problem. Big problems demand big, effective solutions. It is time for New Jersey to adopt the following:**

1. A comprehensive Extended Producer Responsibility law for packaging.
2. A Deposit Return System for beverage containers, known as a Bottle Bill.

### **Extended Producer Responsibility (EPR)**

Extended producer responsibility or EPR laws are economic and administrative policy instruments used to shift the responsibility of the manufacturers of a product to the entire life-cycle of that product, particularly incorporating the collection, recycling, or disposal of the product after the consumer has discarded it. EPR for packaging holds producers and brand owners accountable for the entire lifecycle of their packaging and therefore, can be used to drive waste reduction and design for recyclability, compostability, or reuse and refill systems. EPR systems have been used in the European Union and Canada for years, each with varying degrees of success in

improving recycling. Not many, however, have reduced packaging. We need to learn from that experience and design new EPR laws that require reductions in packaging, not just funding for recycling.

A strong and transparent Producer Responsibility Law can be an excellent tool for addressing the growing problem of packaging waste, but adopting a weak or ineffectual law will be a giant setback, and the details really matter. A well-designed program must do the following:

1. Require, in statute, that packaging be either reduced, or transitioned to reuse and refill by 50% over a ten year period. These rates and dates must be included in the statute.
2. Require that the rest of the packaging be made from recycled material or be easily recycled or composted. Just as we have fuel efficiency standards for cars, we need environmental standards for packaging.
3. Eliminate from packaging known toxic chemicals, including PFAS, phthalates, and heavy metals. This will make packaging safer for human health and ensure that toxins are not recycled into new products.
4. Define recycling so that it prohibits any burning, waste to fuel or energy, or chemical recycling or so-called “advanced recycling” to count towards recycling targets. Separate legislation that promotes chemical recycling, such as Assembly bill 5803, introduced by Assemblymember John McKeon should be rejected.
5. Direct funding to flow to local governments for waste reduction and recycling programs. Waste reduction programs, in particular, are environmentally and fiscally sound since the least expensive way to deal with waste is by not producing it in the first place. This way it does not have to be collected, processed and sent to a facility of any kind.
6. Include strong guardrails for maximum accountability and oversight of the packaging industry to ensure that the intent of the legislation is met by the companies that have created this problem. We recommend clear standards in legislation combined with regular audits and a new office established to manage the oversight of this program. There are many approaches that could work, but the one approach that must be avoided is letting the packaging companies self-regulate. Just as we would not put the tobacco companies in charge of smoking cessation programs, putting packaging companies in charge of solving this gargantuan problem is a recipe for failure and delay.

7. Pair EPR with a deposit return system for beverage containers, known as the bottle bill. This will yield tremendous benefits to New Jersey as it has in nearby states. Less litter, better quality recyclables to market and the creation of jobs.

## **ANALYSIS OF SENATE BILL NO. 426**

We appreciate the time that Senator Smith has put into drafting Senate Bill No. 426. Beyond Plastics has reviewed the bill and has identified some problems that need to be addressed, which are outlined below, as well as recommendations for changes.

### **1. Packaging Reductions**

***Senate Bill No. 426 requires that single-use plastic packaging be reduced by 25% by 2030, but misplaces the reuse incentive and needs revisions to the language.***

25% reduction of plastic packaging is a good initial target, and importantly, it is included in the legislation rather than left to the regulatory process. It is critically important that any EPR program reduces packaging waste, particularly plastics, and Senate Bill No. 426 gets this right.

Plastics recycling has been an abysmal failure, with the national recycling rate hovering somewhere between 5% and 6%. While recycling is important and works very well for many materials such as paper, cardboard and metals, we cannot recycle our way out of our plastic pollution problem.

Recycling and waste disposal is expensive. One way to make the entire system more affordable is to eliminate unnecessary packaging. This will save taxpayers money and will decrease the amount the producers need to pay into the system. Also, packaging reduction requirements will push the industry to address the growing waste problem and it will also help to make enforcement more straightforward.

In the section of Senate Bill No. 426 that lays out the reduction targets, the language “maximum extent practicable” needs to be removed. The reduction targets should be firm. Another concern is that the bill requires packaging companies to facilitate the reuse of discarded packaging products for alternate second-life uses. The intent of this provision needs to be clarified. In all of our analysis of bills around the United States, we have never seen this inclusion.

Specifically, we are concerned that it may allow for the burning of packaging to be included as a second life, and this should be prohibited. Furthermore, if the intent is to incentivise reuse and refill systems, this is the wrong point in the packaging lifecycle to apply those incentives. Reuse incentives must be directed to reuse and refill systems, not for finding a reuse for already discarded packaging. Reusable packaging should be contained within a reuse and refill system that is designed to maximize the rate of return and refill for the reusable containers.

We recommend requiring Producers to include in their plan a description of how they will facilitate the development and implementation of reduction, reuse and refill systems and add a target to transition to reuse and refill systems for all single-use packaging by 2030.

## 2. Packaging design standards

***Senate Bill No. 426 contains packaging design standards, but fails to include a strong definition of recyclable and compostable.***

The legislation requires that all single-use packaging be composed of at least 75% post-consumer content by 2027, and that all single-use packaging be readily recyclable or compostable by 2030. We applaud these strong recycled content standards, which will help drive up the value of recycled materials and recycling rates, which in turn will help lower demand for virgin feedstocks. This will reduce the need to extract natural resources and will significantly lower greenhouse gas emissions, especially from plastics which are set to surpass the emissions from coal-fired power plants within the decade.

While the goals set out in Senate bill No. 426 are laudable, the definitions need greater clarification. We recommend that instead of using the term “readily recyclable” that you use the term “recyclable” as defined by the US Federal Trade Commission’s Green Guide, which defines the use of environmental marketing claims. By this definition, a company can only label something as recyclable when 60% of the population has access to recycling facilities. You should never allow the use of the term “recyclable where local facilities exist”. That is a ploy utilized by packaging companies which confuses consumers and puts the financial burden on local governments. Don’t fall for that phrase.

The term “compostable” should be strictly defined to ensure that any material marketed as such will be amenable to breaking down into compost that is certified clean. Also, a package is only truly compostable if composting facilities accept it and are available to New Jersey residents. Therefore, we recommend using a similar rule as for “recyclable”: 80% of commercial facilities in the state must accept the package, and 60% of the state residents must have access to permitted commercial composting facilities in order for a package to be considered “compostable”. Otherwise, it is another form of greenwashing.

### 3. Toxics

#### ***Senate Bill No. 426 fails to eliminate toxic substances from packaging.***

Elimination of toxics from packaging should be contained within the same legislation and should include known toxic chemicals and chemical classes found in packaging, as well as known toxic packaging materials. Packaging that contains toxic substances poses a threat to the health of people and the environment during production, use, reuse, recycling, and disposal. These toxic substances can leach out of packaging during use; expose workers producing or handling the packaging; be down-cycled into new products; and contaminate waterways and communities along the packaging lifecycle. In order to achieve a truly circular economy, packaging must be made from the safest materials, free of the most harmful toxic substances.

Solution: Include in the legislation a ban on the sale or distribution of any packaging, including reusable packaging containing the following chemicals or chemical classes:

- Ortho-phthalates
- Bisphenols
- Per and polyfluoroalkyl substances (PFAS)
- Lead and lead compounds
- Cadmium
- Mercury
- Hexavalent chromium and compounds
- Perchlorate
- Benzophenone and its derivatives
- Formaldehyde
- Halogenated flame retardants

- Toluene

Some materials that are made from toxic building blocks and/or have very high lifecycle impacts on frontline communities and the environment and should not be used for packaging or reusables. Therefore, the legislation should also ban the sale and distribution of packaging or reusables made from the following materials:

- Polyvinyl chloride
- Polystyrene (note: state law only bans some expanded polystyrene)
- Polycarbonate

It is also important that the legislation contains language that directs the environmental agency to review and update the list of chemicals or classes of chemicals in packaging every three years. It should also allow the public the ability to petition for the inclusion of new chemicals or classes of chemicals to the list of prohibited substances.

#### 4. Definition of Recycling

***The definition of “recycling” in Senate Bill No. 426 leaves room for waste-to-fuel or chemical recycling and advanced recycling schemes to be considered recycling.***

Given that EPR is creating a system to improve recycling and require producers to design for recyclability, it is critical that the definition of recycling only include processes that create more post-consumer materials to be used as inputs for future products. As the definition is currently drafted, processes that create fuels from waste could count as recycling. This is a serious problem.

Turning waste into fuel still creates air pollution, toxic ash, and greenhouse gas emissions when that fuel is burned and is a false solution to our plastics crisis.

The plastics industry knows that plastics recycling has been a failure and that this failure is due to the nature of plastics as a material. With the laudable requirement that 100% of remaining single-use packaging be recyclable or compostable, the plastics industry knows that other, more recyclable materials, such as glass, paper, and metal will become the preferred materials for packaging. The only way they can stay in the game is to get waste-to-fuel to

count as recycling. I encourage you to not endorse this scheme. We must reduce our use of plastics in packaging - that is the point.

Most importantly, this is an environmental justice issue. Waste-to-fuel, chemical recycling, and plastics manufacturing facilities are disproportionately sited in communities of color and low-income communities. These communities already face multiple environmental burdens. It is critically important that we do not create a system that either purposely or unintentionally causes a proliferation of waste-to-fuel facilities and the latest “chemical recycling” false solution.

#### **5. Direct Funding to Municipalities and Local Communities for both Waste Reduction and Recycling**

***Senate Bill No. 426 does not place enough emphasis on waste reduction and fails to require Producers to pay into a larger, coordinated funding pool that should be used to improve recycling and reduce waste.***

The bill states that Producers must develop a plan, either independently or collectively, that details how they will implement the program. The Producers are responsible for covering the costs of implementing their plans, which includes reimbursing municipalities, Material Recovery Facilities (MRFs) and other entities involved in the recycling supply chain, for managing the packaging waste created by the Producers.

Unfortunately there is no mechanism to pool resources to invest in local projects that would help the recycling system or reduce waste. EPR programs should include a statewide assessment of infrastructure needs for improving recycling and reducing packaging waste. The best way to create a source of funding for this is to charge each Producer a fee that is set based on the nature of their packaging, with lower fees on packaging that exceeds minimum environmental targets, known as “eco-modulated fees”. And no fees on refillable or reusable packaging. The fees can be assessed by the State’s fiscal agency.

Once this funding is collected, the state government should direct it to projects that improve waste reduction and recycling. This approach is both environmentally and fiscally sound, since the least expensive way to deal with waste is by reducing it. The state’s solid waste hierarchy puts waste reduction at the top but it never gets top billing when it comes to funding or policy.

Examples of building that infrastructure include:

- Funding for schools to install dishwashing equipment in cafeterias so that students and teachers can stop eating food on single-use disposable plates and utensils. Do the same at public colleges and universities.
- Funding to local offices of the Aging that support the vitally important Meals on Wheels programs so that food can be served on reusable, durable dishware and not single use plastics. Millions of meals are delivered to senior citizens and homebound New Jersey residents every day, many on single-use disposable packaging, including a tremendous amount of single-use plastics. This work is done by community based organizations and includes feeding sites at senior centers. For home delivery, there is a built-in return system: when new meals are delivered to homes, the reusable packaging can be returned. It then needs to be washed by dishwashing equipment, which is very limited or non-existent in the commercial kitchens. State funding for dishwashing equipment could launch this sensible program.
- Funding for regional bottle washing and re-fill operations so that wineries, breweries, and farm operations can access this important infrastructure and shift to refillable containers, saving them money by not having to purchase new ones.
- Finally, there are numerous other opportunities for reuse and refill by business entrepreneurs and small businesses all over the state, but they need funding to get them off the ground. State funding can unleash the innovation economy.

## 6. Accountability + Enforcement

***Senate Bill No. 426 has some strong enforcement and accountability features, but there are also some shortcomings.***

The strong accountability and enforcement features in the bill include: the unambiguous rates and dates for packaging reduction and redesign, an aggressive timeline, and the transferring to the producers the full responsibility of packaging through end-of-life, including the collection, transportation, reuse, and recycling, or disposal of all discarded packaging products in the State.

The very structure of the program, however, will likely cause enforcement problems. Producers are instructed to submit plans for managing their packaging waste - they can either work together or alone. Each plan must be reviewed by the Department of Environmental Protection. With the large number of Producers that sell products in the state, this has the potential to become an unmanageable and unenforceable program that relies on self-regulation by the packaging industry. Furthermore, the flow of money from Producers to municipalities and the stakeholders in the recycling process is not fully defined and left to regulation. The legislature should work to streamline this and clearly spell it out in the legislation.

## **7. Adopt a Deposit Return System or “Bottle Bill” for Beverage Containers**

Beyond Plastics recommends adopting a container deposit law, also known as a “Bottle Bill” in order to achieve the highest recycling rates for beverage containers. Bottle Bills, through the deposit mechanism, provide a financial incentive for the containers to be returned and therefore yield the highest collection rates for beverage containers. Deposit return systems also produce the cleanest and most high-quality recycled feedstocks because the containers are separated by material type, known as source separation. Containers recycled through Bottle Bills create material that is food grade, whereas the same containers collected through curbside programs get mixed with non-food grade containers and can no longer be used for food-grade packaging. In order to achieve the recycled content targets set out in this legislation, New Jersey must enact a Bottle Bill for beverage containers.

Ten states and dozens of countries have deposit return systems for beverage containers and have proven over and over again that Bottle Bills are the world’s most successful recycling programs. They are also a stellar example of Extended Producer Responsibility. Best of all, they’re free to taxpayers and consumers, who can claim their deposit by returning the container. It is long past time to require deposits on beverage containers in New Jersey, many of which end up as unsightly litter in neighborhoods, parks, and on beaches.

A New Jersey bottle bill should include a dime refundable deposit on all soda, beer, water, non carbonated beverages, wine and liquor bottles. A percentage of the containers should be designed to be refillable. Recently, Coca Cola announced that 25% of their beverages sold will be refillable and returnable. I

look forward to seeing their support for a state bottle bill in order to achieve this publicly announced goal.

Once New Jersey enacts a Bottle Bill there will inevitably be some consumers who do not return their bottles. The legislature should be sure to require that unclaimed deposits are used to create a fund for waste reduction, refill, and reuse systems. The best way to save taxpayer dollars on waste disposal is to enact policies that make less waste.

**THANK YOU FOR YOUR ATTENTION TO THIS EXTREMELY IMPORTANT AND URGENT ISSUE. WE ALL MUST DO OUR PART TO END PLASTIC POLLUTION AND WITH SOME CRITICAL CHANGES, SENATE BILL NO. 426 COULD BE ONE OF THE TOOLS THAT NEW JERSEY USES TO BE PART OF THE SOLUTION.**

**THANK YOU.**



# EPR FOR PACKAGING ANOTHER WORLD IS POSSIBLE WITH STATE LEADERSHIP

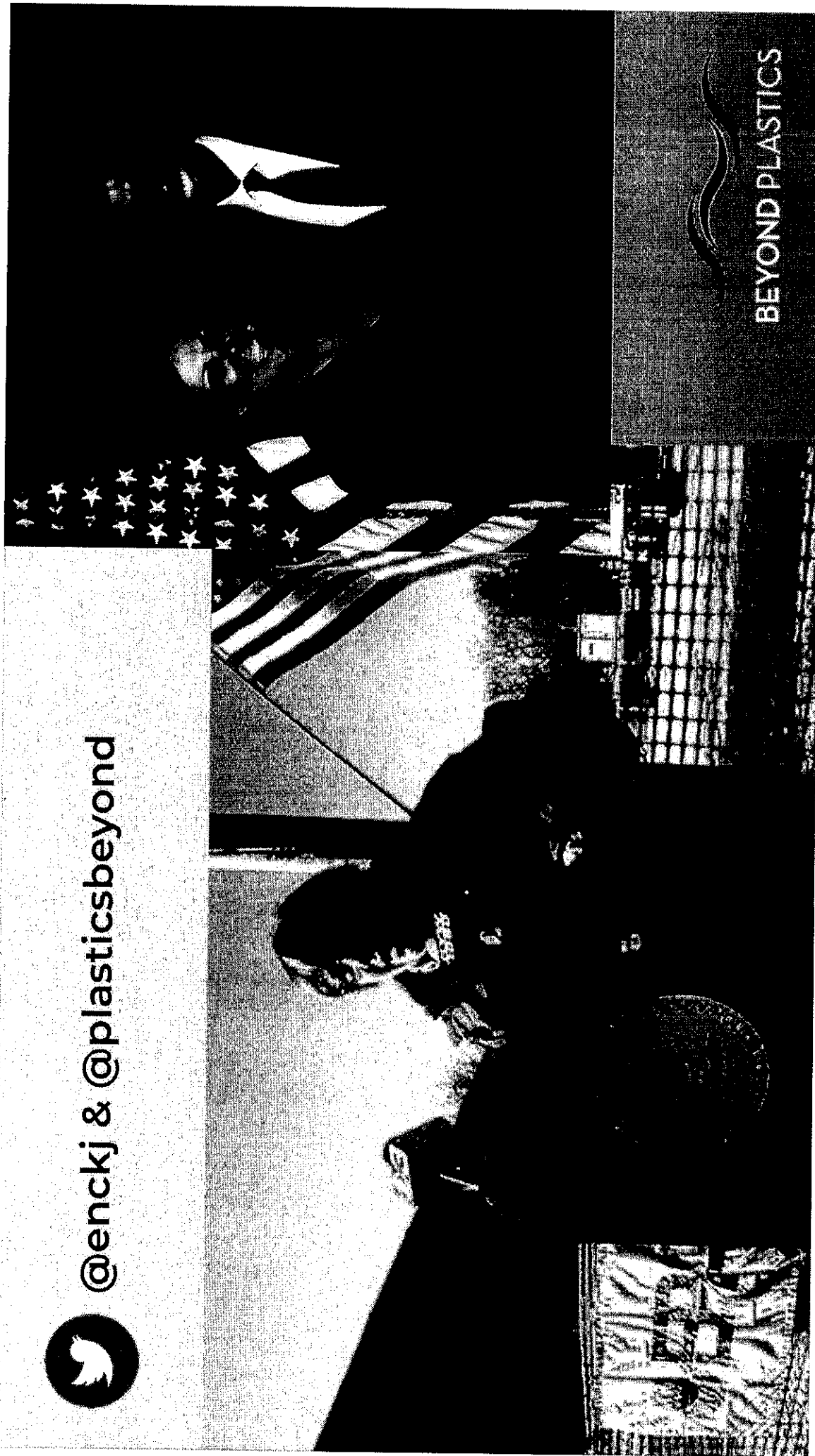
By Judith Enck, President, Beyond  
Plastics

June 13, 2022

  
BEYOND  
PLASTICS



@enckj & @plasticsbeyond



BEYOND PLASTICS

10 million tons of  
plastics enter  
oceans every year.

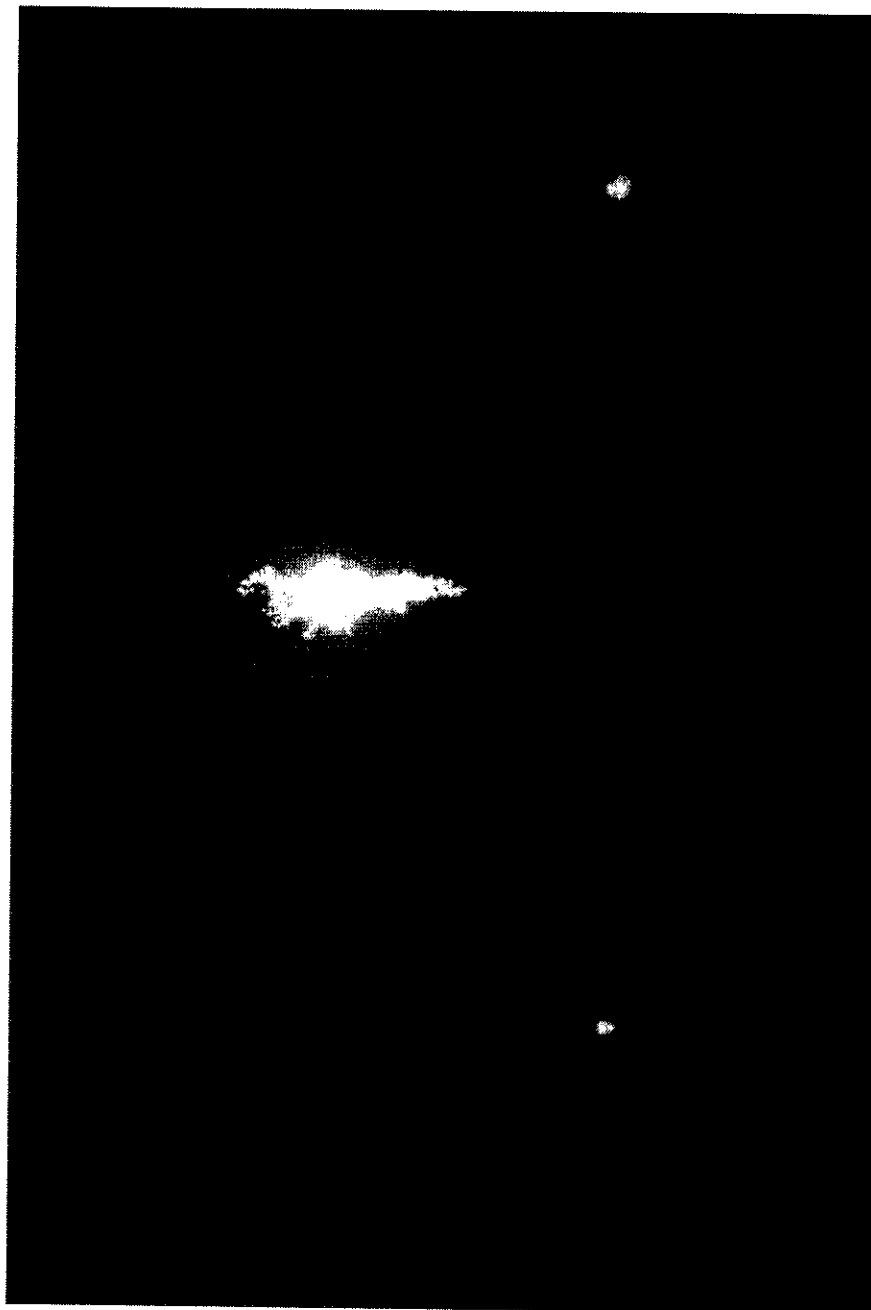
WHY NOW?



The plastic sector's contribution to greenhouse gas emissions in the United States is now poised to surpass those of coal-fired power plants.

**Plastic is the new coal.**



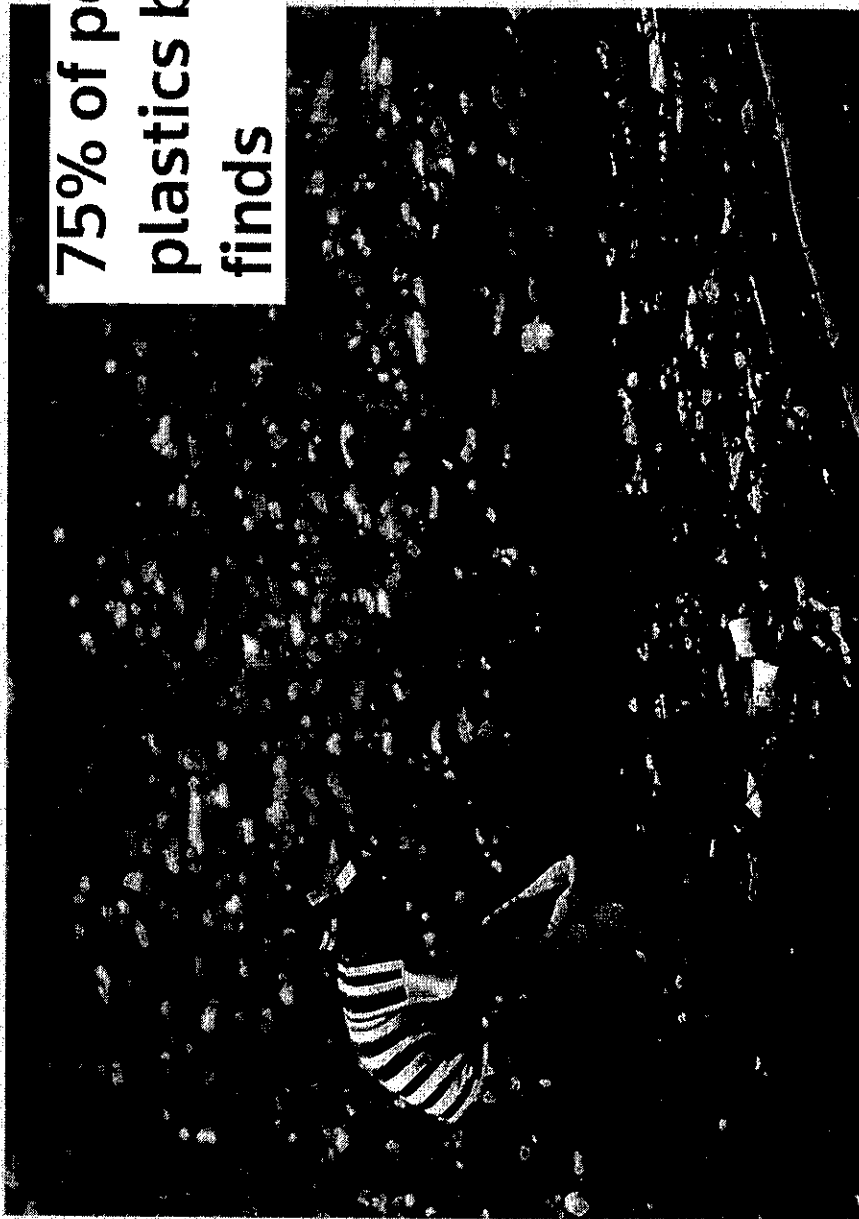


48x



# WHY NOW?

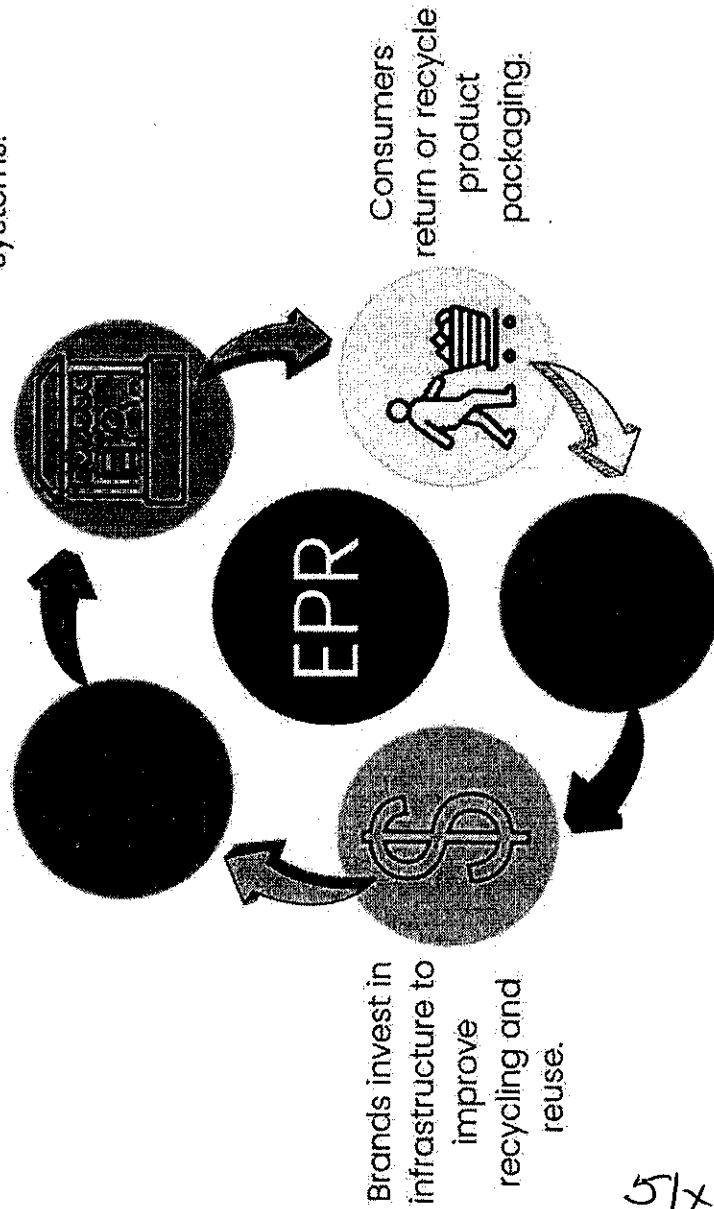
**75% of people want single-use  
plastics banned, global survey  
finds**      IPSOS Poll February, 2022



# EXTENDED PRODUCER RESPONSIBILITY

Brands reduce packaging. Remaining packaging is free of toxics and is recyclable/contains recycled content.

Retailers and brands implement reuse + refill systems.



Brands invest in infrastructure to improve recycling and reuse.

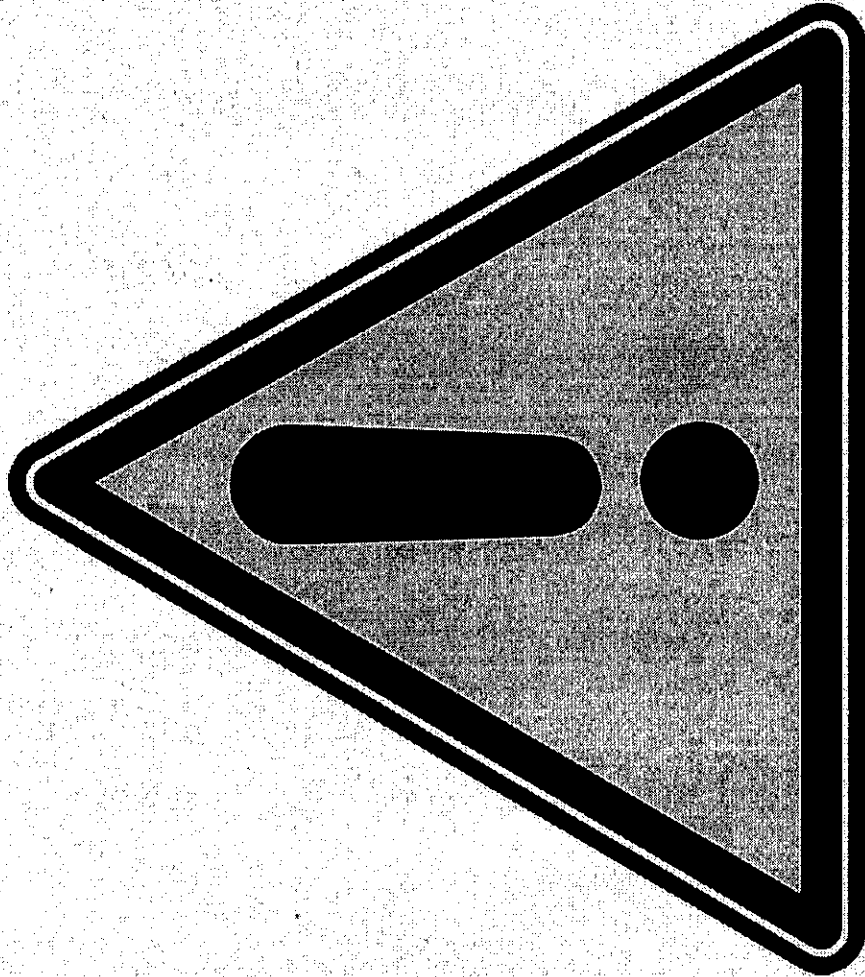
Brands pay for costs of recycling and disposing of product packaging.

## SOLUTION

Strong and transparent EPR can be used to solve the growing problem of packaging waste and plastic pollution.

## RISK

Adopting weak or  
ineffective  
programs will  
prevent the  
progress we need.



1. Require Less Packaging
2. Redesign Packaging:  
No Toxics, Recyclability,  
and Recycled Content.
3. No "Chemical Recycling"
4. Strong Oversight and Accountability
5. Taxpayer Relief and Investments
6. EPR + Bottle Bill: Better Together

## 6 KEY ELEMENTS OF GOOD EPR

## 6 ELEMENTS OF GOOD EPR

54x  
1

# Reduce Packaging

- Companies are required to reduce their packaging and transition to reuse or refilling. Best route: actual reduction.

Given the scale of the problem: the law should require 50% reduction over a period of ten years. Incremental reductions every 2 years.

# REDUCTION TARGETS IN EPR

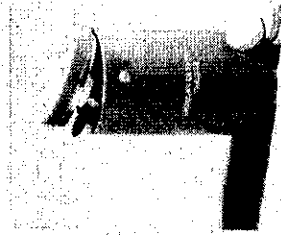
## ACHIEVES FULL SOLID WASTE HIERARCHY



EPR should fix recycling, yes, but should focus first on **REDUCE and REUSE.**

## EPR BEST PRACTICE

Requirements for packaging reduction should be written into the legislation. Includes switching to reusable systems.



## MANDATORY TARGETS



Builds in maximum accountability, but allows companies flexibility in how they will meet targets.

Without targets there will not be progress.

## 6 ELEMENTS OF GOOD EPR

2

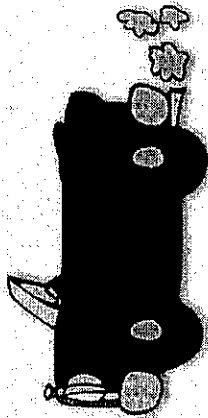
56x

# Redesign Packaging

Companies are required to redesign packaging to remove toxics and make packaging more recyclable and/or contain recycled content.

# PACKAGING STANDARDS IN EPR

## PACKAGING STANDARDS MAKE SENSE

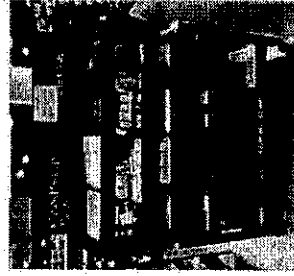


We have fuel efficiency standards for vehicles and energy efficiency standards for appliances.

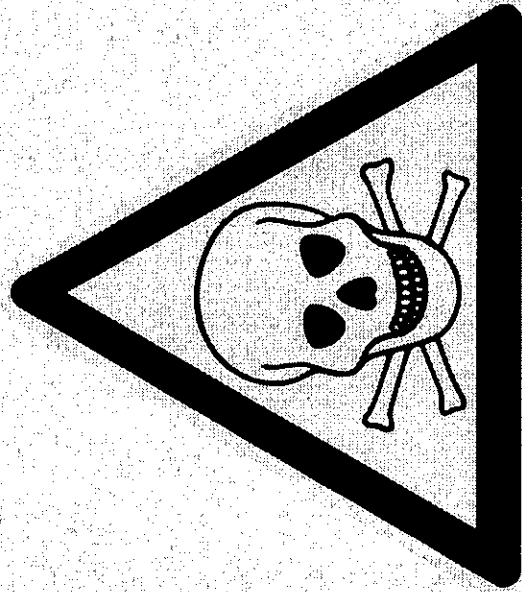
Why not packaging?

## DRIVE DESIGN CHANGES

Eco-modulated fees and design standards increase reuse, recycling, recyclability, and recycled content.



# ELIMINATE TOXICS IN EPR



In a truly circular  
economy  
packaging must be  
made from the  
safest materials,  
free of the most  
harmful toxic  
substances.

## 6 ELEMENTS OF GOOD EPR

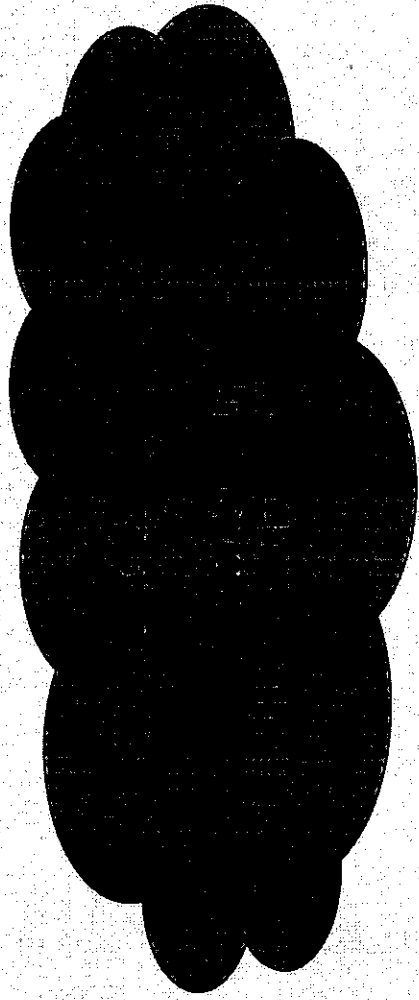
3

59x

# No Burning

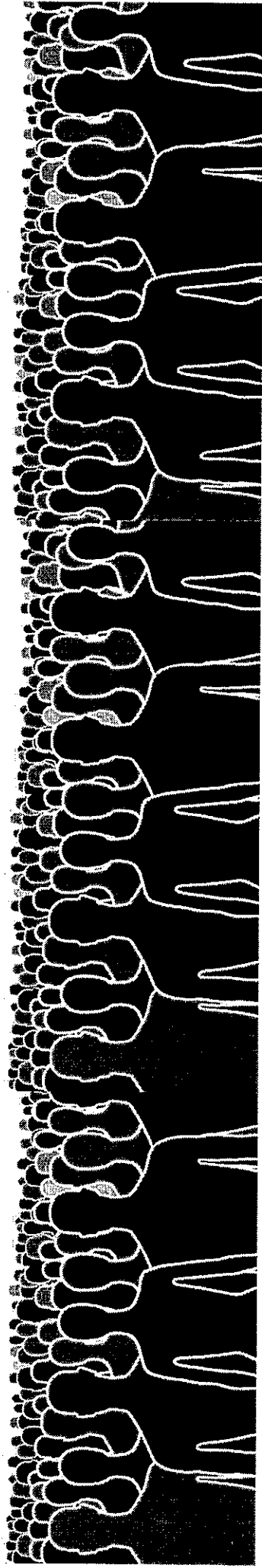
- Good EPR prohibits all types of plastic burning including chemical recycling, advanced recycling, incineration, waste to energy, gasification, and pyrolysis. See strong definition of recycling in NY Assemblymember Steve Englebright bill, A 10185.

# BURNING + CHEMICAL RECYCLING



60x

MAKE RECYCLING EASIER AND MORE ACCESSIBLE



## 6 ELEMENTS OF GOOD EPR

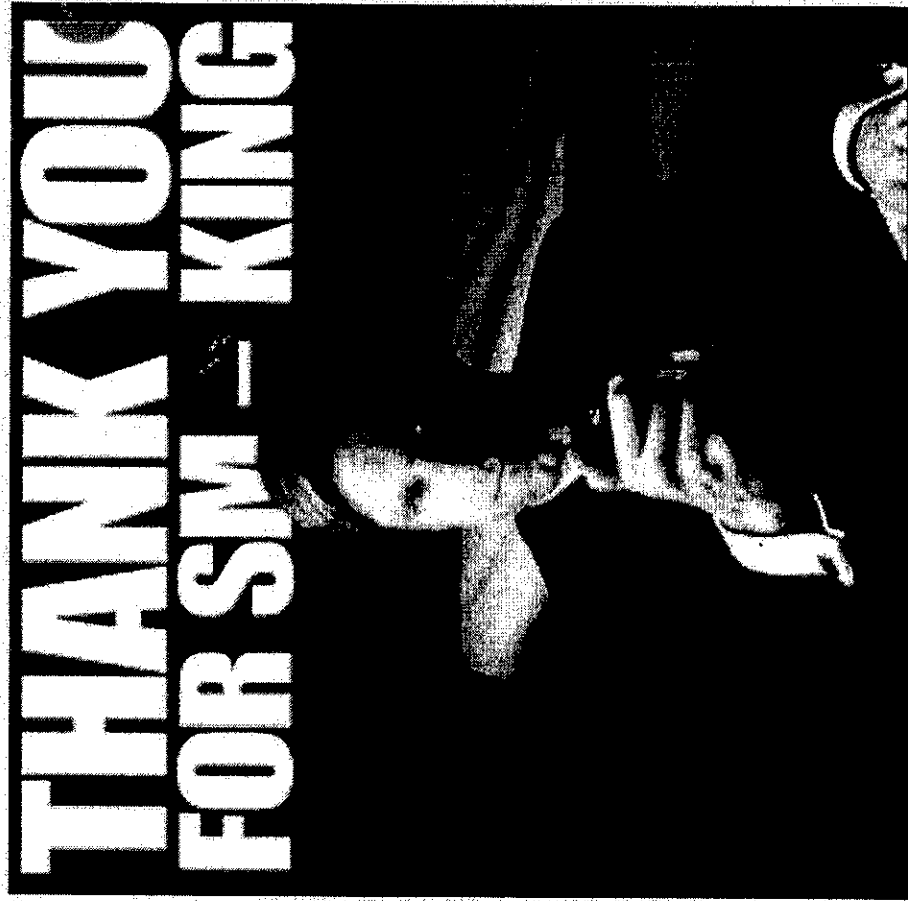
4

6/1x

# Strong Oversight and Accountability

■ Good EPR DOES NOT hand control of the program over to the companies. The State Environmental Agency sets rules and fees, and oversee the program. Mechanisms are in place for enforcement. The fees cover new agency staff and associated administrative needs. Consider having the state tax agency assess fees, collect fees and then distribute to local governments.

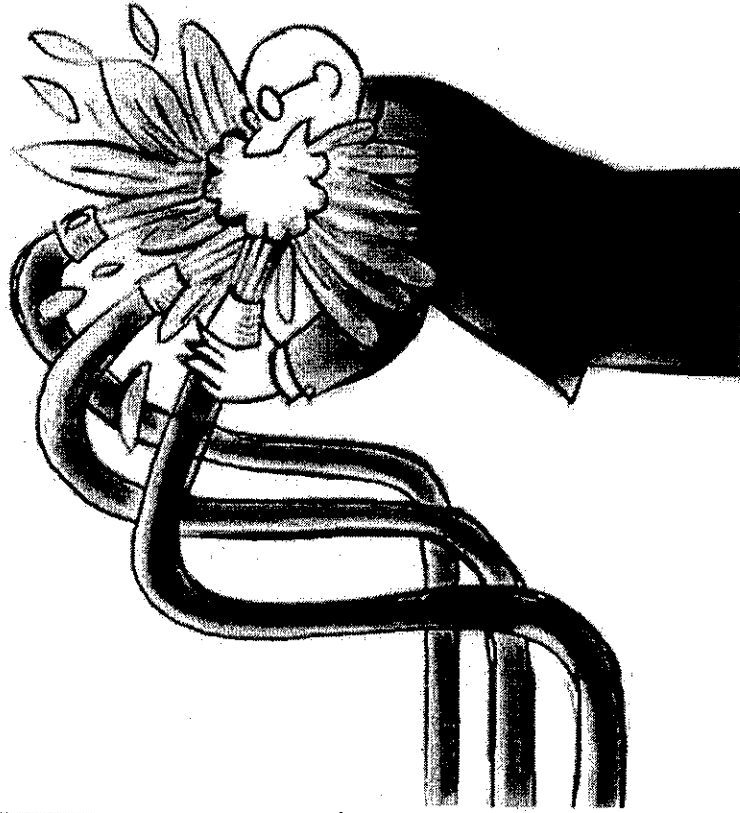
# OVERSIGHT + ACCOUNTABILITY



PRODUCER  
RESPONSIBILITY VS.  
PRODUCER CONTROL

Can you imagine  
putting the tobacco  
companies in charge  
of reducing smoking?

# TAXPAYER RELIEF + INVESTMENTS



Managing the  
packaging that  
comes our way is  
like drinking from  
a fire hose.

We have very little  
control.

## 6 ELEMENTS OF GOOD EPR

5

64x

# Taxpayer Relief + Investments

- Companies pay fees based on how difficult it is to recycle their packaging and whether it contains recycled content. Fees compensate taxpayers for recycling costs and fund reuse and recycling infrastructure. Eco-modulated fees can incentivize better packaging decisions.

## 6 ELEMENTS OF GOOD EPR

6

65x

# EPR + Bottle Bill: Better Together

■ The best example of EPR today is deposit laws on beverage containers, known as Bottle Bills. Ten cent deposit on soda, beer, non-carbonated beverages, wine, and liquor. Reduces litter, keeps recyclable materials clean due to good source separation, creates jobs. Ten states have bottle bills. NY law is 40 years of success.

**EPR +  
Bottle Bill**

66x

## **MODERN BOTTLE BILL**

Deposit systems for beverage containers are the most effective way to ensure that they are recycled.

Add reuse and refill requirements and make sure ALL beverage containers are covered under the Bottle Bill.

**BETTER TOGETHER**

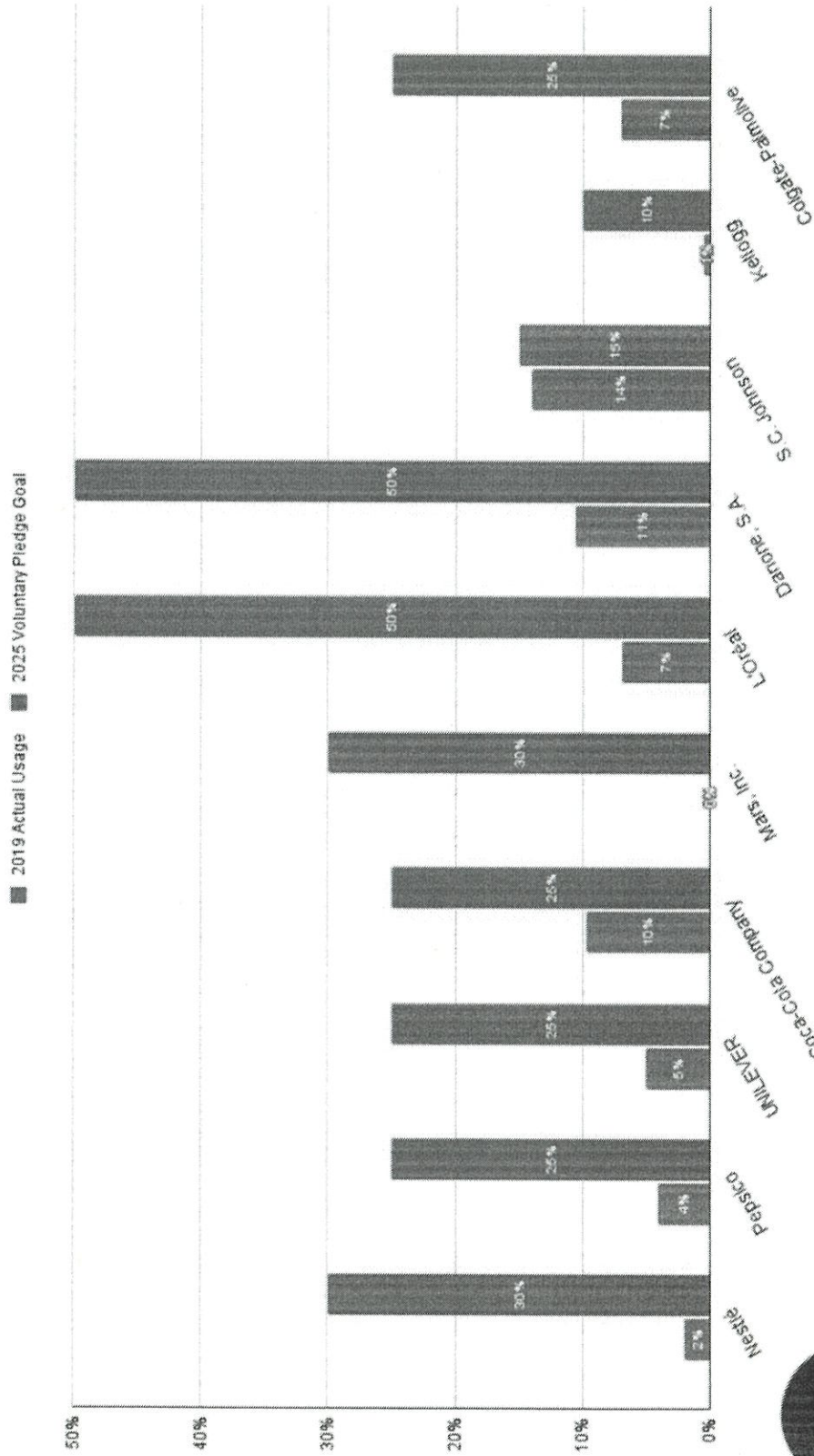
# WE NEED GOOD EPR



Voluntary efforts  
are not enough.  
Another packaging  
world is possible.

Strong EPR  
legislation can help  
us get there.

## Corporate Promises to Use Recycled Materials: Promises vs. Reality



Prepared by Beyond Plastics Oct. 2021. Source: Ellen MacArthur Foundation's The Global Commitment 2020 Progress Report, pp 15-16



69x

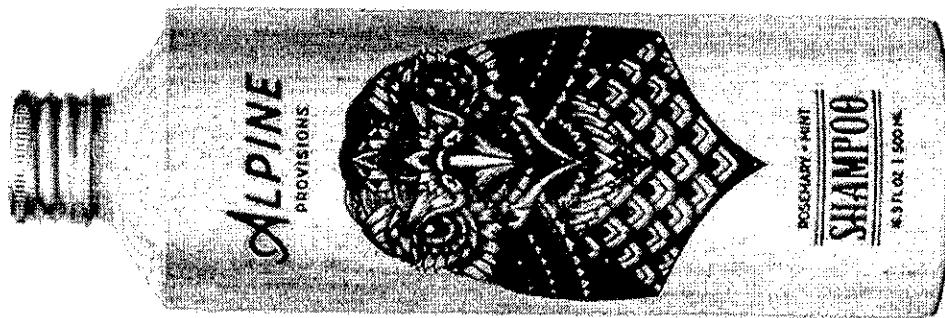
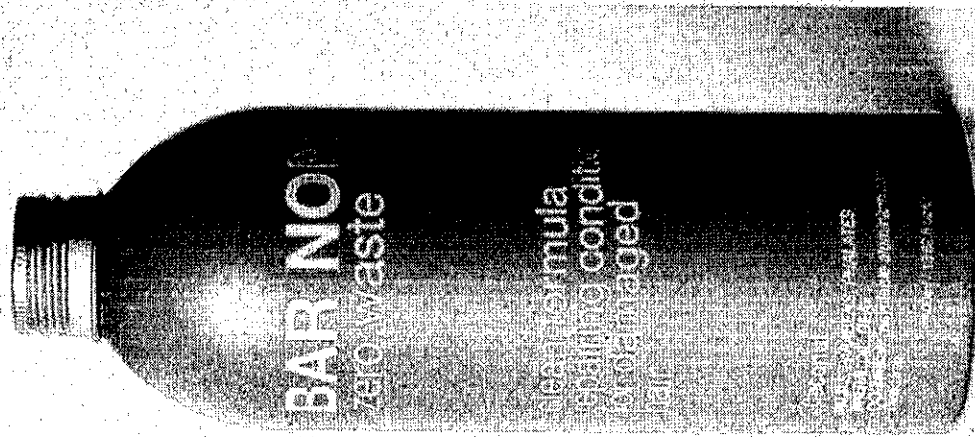
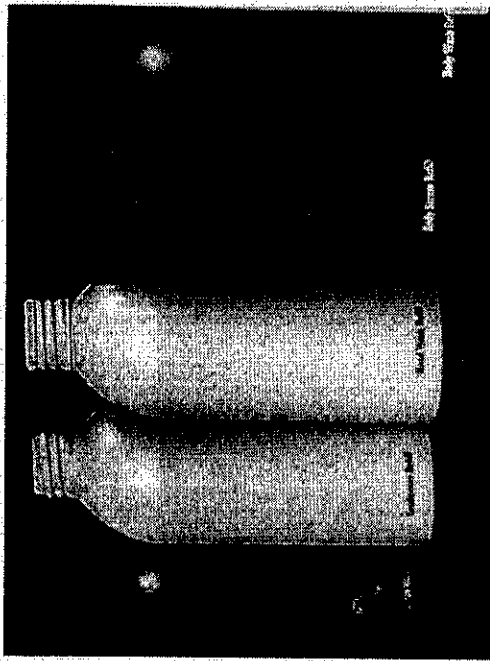
REDUCE

These Good Soap Bars skip the packaging altogether!

*Smarties* becomes the first global confectionery brand to switch to recyclable paper packaging



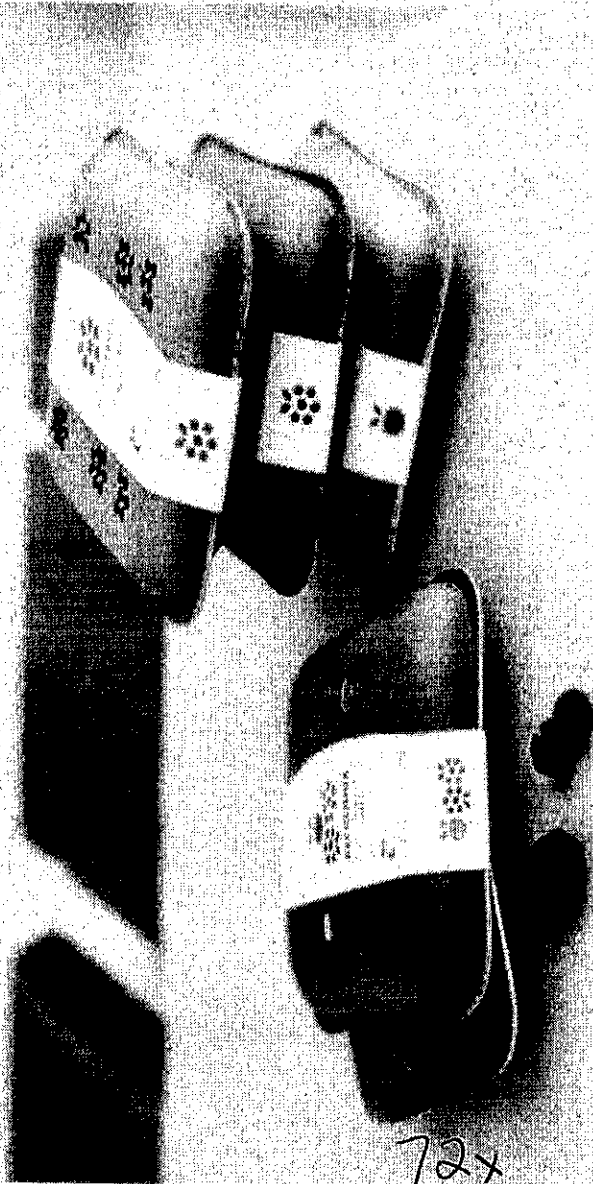
TRULY RECYCLABLE



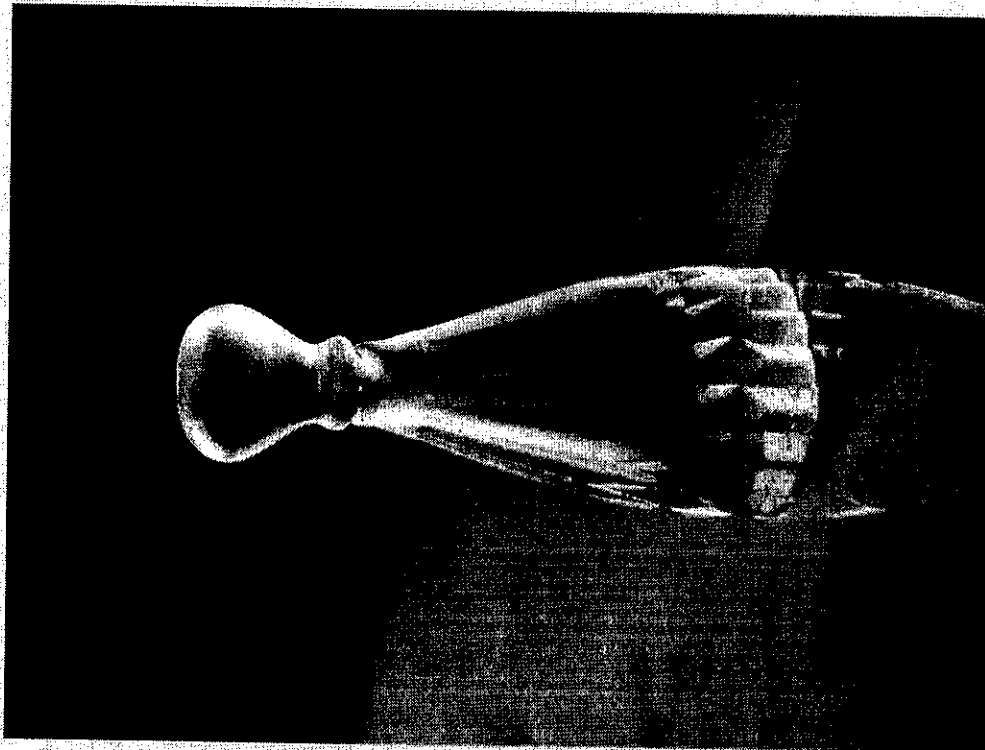
2,000

7/x

Berries replacing the dreaded  
plastic clamshell with a truly  
compostable alternative made  
from hardened palm leaves.



72x



REDUCE

This artistic soap container is made from compressed soap. After you finish the contents you can use the bottle. It completely dissolves.

No waste!

## REUSE + REFILL

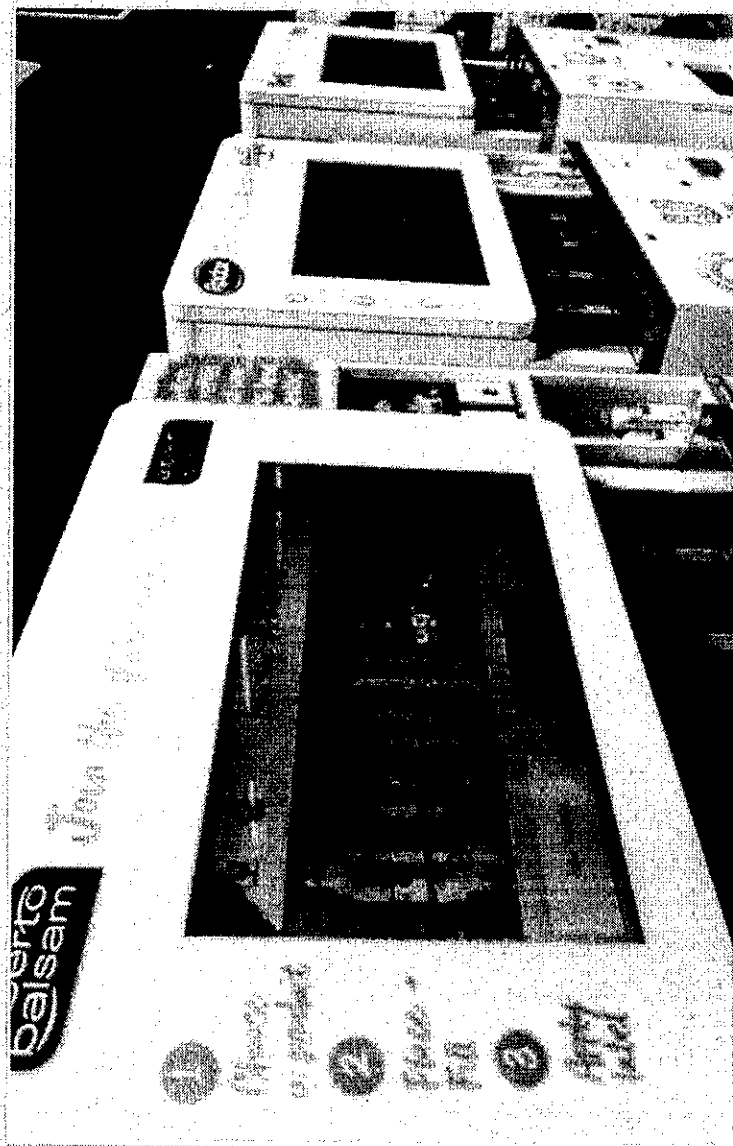
Dove launched a new refillable deodorant line.

You buy the durable container once and then purchase the cardboard refills thereafter.

There are other options for refillable deodorant on the market.



74x



## REUSE + REFILL

Unilever launched a reuse and refill system in England.

Customers return containers back to the store. They are washed and restocked by the company.

REUSE + REFILL

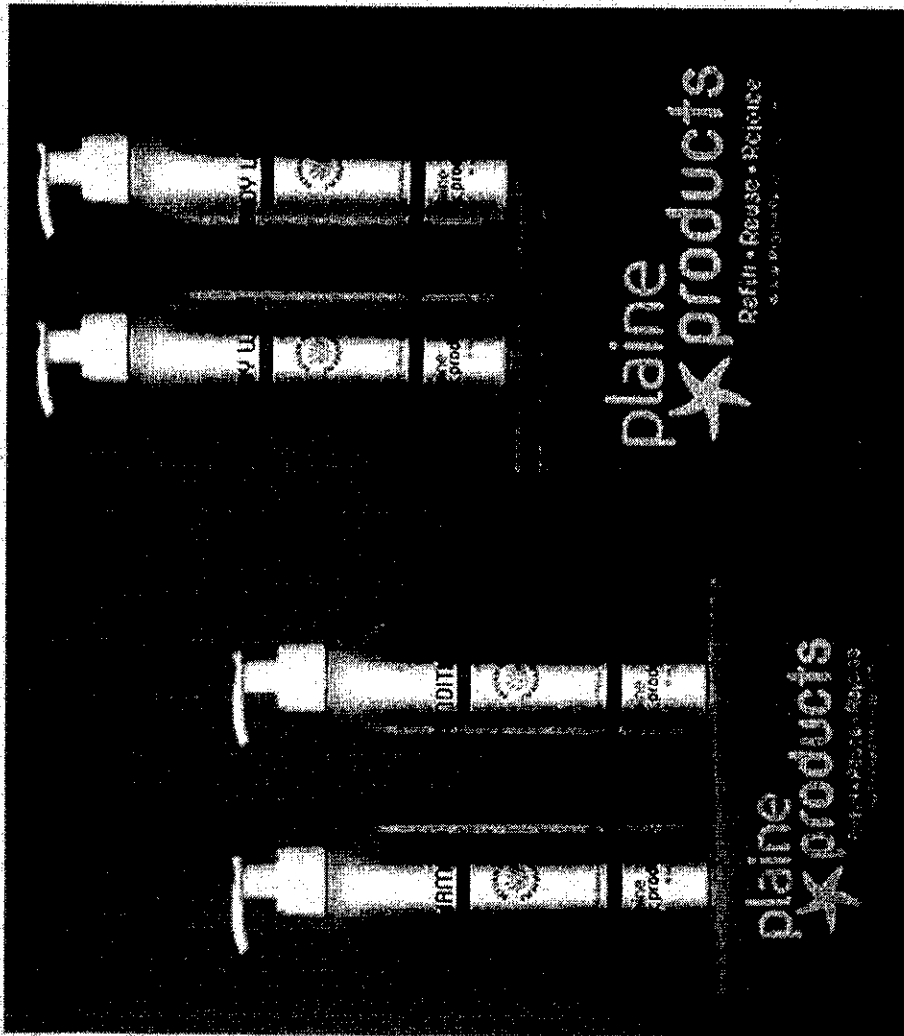
Plaine Products sells their body care in reusable + refillable aluminum containers.

Customers pay a deposit on every container. Once they are empty the customer mails back the containers and they are washed and refilled.

The containers are also recyclable.

Customers pay a deposit on every container. Once they are empty the customer mails back the containers and the are washed and refilled.

The containers are also recyclable.

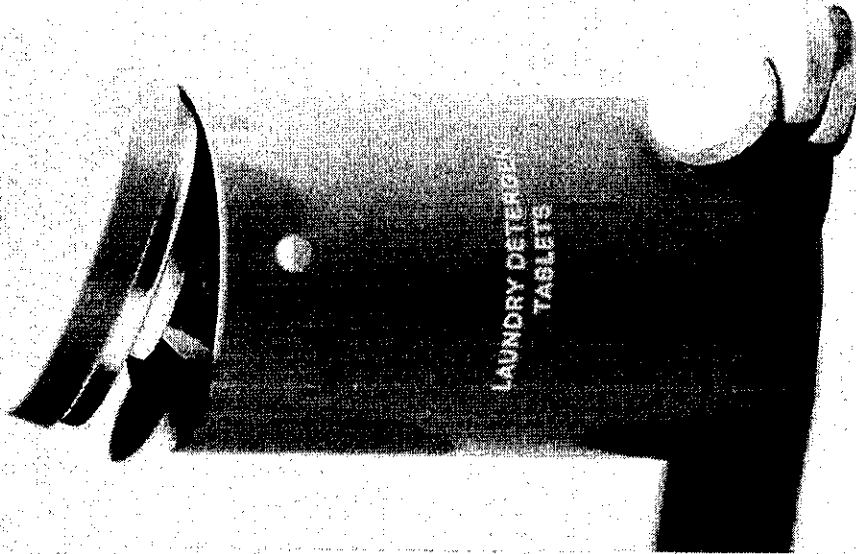


76x

## REUSE + REFILL

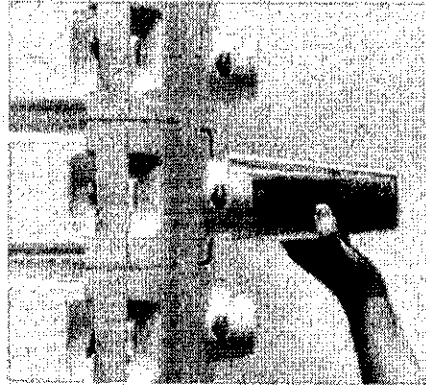
Blueland sells their home care products as refills in concentrated tablet form.

Customers purchase the refillable, durable container once and keep it at home.

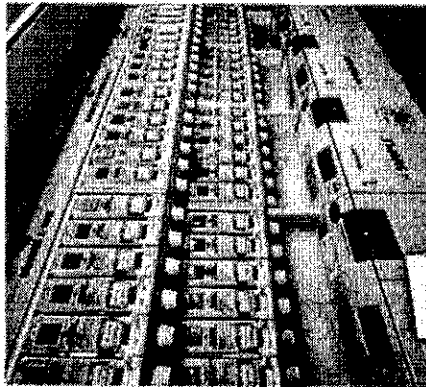


## REUSE + REFILL

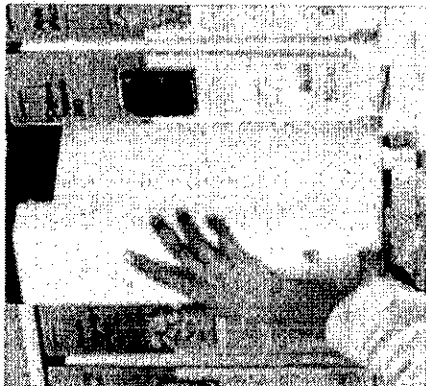
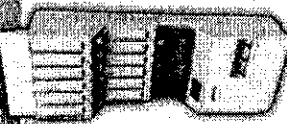
Companies are popping up that provide reuse and refill systems to retailers and brands.



We provide  
smart reusable  
packaging  
And collection boxes for  
their return



We implement  
and maintain  
smart refill  
modules  
for outlets in  
various channels.



We provide  
smart reusable  
canisters  
for B2B delivery and we  
manage reverse logistics  
including cleaning.



# Japanese KitKats Are Replacing Plastic Packaging with Origami Paper You Can Turn into Cranes

By Emma Taggart on September 24, 2019



TRULY RECYCLABLE



TRULY RECYCLABLE

Mentos is launching a 90% paperboard container to replace their plastic one.

80x

8/x



TRULY RECYCLABLE

Paperboard packaging for  
bar soap.

82x

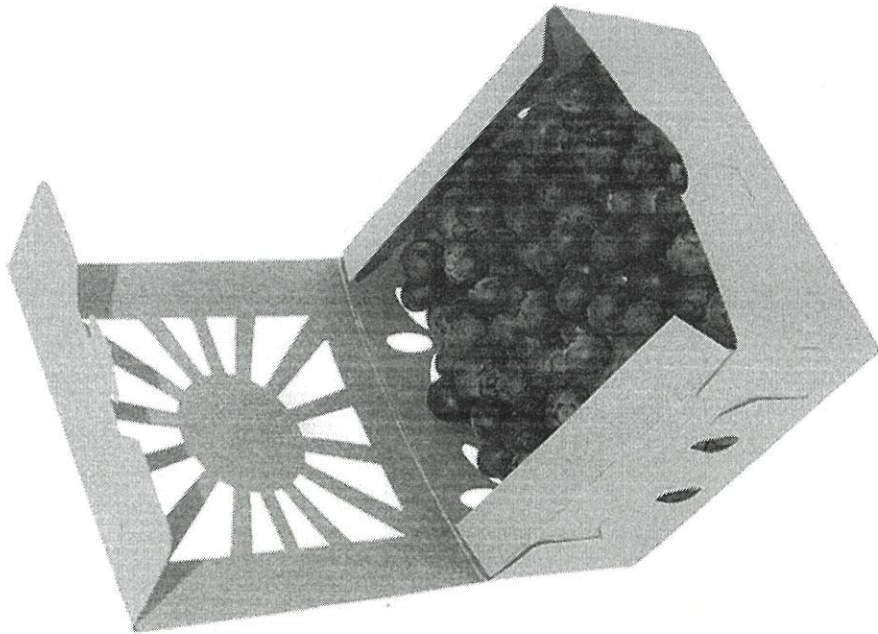


TRULY RECYCLABLE

Paperboard packaging is available for lip balms, lipsticks, and chapsticks.

TRULY RECYCLABLE

Craft paper packaging is available for berries, tomatoes, and other packaged produce.



83x

# QUESTIONS?



84x

# STATE OF NEW YORK

10185

## IN ASSEMBLY

May 5, 2022

Introduced by COMMITTEE ON RULES -- (at request of M. of A. Englebright)  
-- read once and referred to the Committee on Environmental Conservation

AN ACT to amend the environmental conservation law, in relation to establishing an extended producer responsibility program for packaging; and to amend the state finance law, in relation to establishing the packaging responsibility fund

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

1 Section 1. Article 27 of the environmental conservation law is amended  
2 by adding a new title 33 to read as follows:

### TITLE 33

#### EXTENDED PRODUCER RESPONSIBILITY PROGRAM FOR PACKAGING

#### Section 27-3301. Definitions.

6 27-3303. Responsibilities of producers.

7 27-3305. Producer responsibility program plan.

8 27-3307. Collection and convenience.

9 27-3309. Responsibilities of the department.

10 27-3311. Funding mechanism.

11 27-3313. Non-reusable packaging reduction requirements.

12 27-3315. Recycling or post-consumer recycled material require-  
13 ments.

14 27-3317. Toxic substances in packaging.

15 27-3319. Biennial producer responsibility program report.

16 27-3321. Producer compliance information.

17 27-3323. Enforcement.

18 27-3325. Labeling.

19 27-3327. Regulations.

#### § 27-3301. Definitions.

21 As used in this title:

22 1. "Compost" means the biologically stable humus-like material derived  
23 from composting or the aerobic, thermophilic decomposition of organic  
24 matter but shall not mean sewage, septage, or materials derived from  
25 sewage or septage.

EXPLANATION--Matter in italics (underscored) is new; matter in brackets  
[-] is old law to be omitted.

LBD15702-01-2

1     2. "Compostable" means amenable to the controlled aerobic biological  
2     decomposition of organic matter through active management to produce  
3     compost as certified by a third-party certifier and accepted and proc-  
4     essed into compost by at least eighty percent of commercial compost  
5     facilities within the state.

6     3. "Curbside recycling" means a recycling program that serves residen-  
7     tial units, or schools, state or local agencies, or institutions where  
8     such entities were eligible to be served under a contract with a munici-  
9     pality by a municipality or a private sector hauler as of the effective  
10    date of this title, and such recycling program is operated by a munici-  
11    pality or pursuant to a contract with a municipality, private sector  
12    hauler, or other public agency or through approved solid waste manage-  
13    ment plans.

14    4. "Municipality" means a county, city, town, village, local public  
15    authority or public benefit corporation, or solid waste management  
16    district, that provides waste management services for a specific  
17    geographical area.

18    5. "Non-reusable packaging" means packaging material that does not  
19    meet the definition of "reusable".

20    6. "Packaging material" means any part of a package or container,  
21    regardless of recyclability or compostability, including but not limited  
22    to such material types as paper, plastic, glass or metal, that is used  
23    for the containment, protection, handling, delivery, transport, distrib-  
24    ution, and presentation of a product that is sold, offered for sale, or  
25    distributed in the state. Bags and secondary or transport packaging  
26    shall be included within this definition. Packaging material does not  
27    include:

28    (a) material, or a category of material, intended to be used for long-  
29    term storage or protection of a durable product that can be expected to  
30    be usable for that purpose for a period of at least five years as  
31    defined by the department pursuant to regulations;

32    (b) beverage containers subject to title 10 of this article;

33    (c) packaging that is reusable;

34    (d) medical devices and packaging which are included with products  
35    regulated as a drug, medical device or dietary supplement by the U.S.  
36    Food and Drug Administration under the Federal Food, Drug, and Cosmetic  
37    Act, 21 U.S.C. 321 et seq., sec. 3.2(e) of 21 U.S. Code of Federal Regu-  
38    lations or the Dietary Supplement Health and Education Act;

39    (e) animal biologics, including vaccines, bacterins, antisera, diag-  
40    nostic kits, and other products of biological origin, and other covered  
41    materials regulated by the United States Department of Agriculture under  
42    the Virus, Serum, Toxin Act, 21 U.S.C. 151-159; and

43    (f) packaging products used to contain substances hazardous to the  
44    environment, regulated pursuant to section 37-0103 of this chapter, or  
45    packaging products regulated by the federal Insecticide, Fungicide,  
46    and Rodenticide Act, 7 U.S.C. sec. 136 et seq. or other applicable  
47    federal law, rule or regulation.

48    7. "Post-consumer recycled material" means new material produced using  
49    material resulting from the recovery, separation, collection and reproc-  
50    essing of material that would otherwise be disposed of or processed as  
51    waste and that was originally sold for consumption. Post-consumer recy-  
52    clled material does not include post-industrial material or pre-consumer  
53    material, or material generated by means of combustion, incineration,  
54    pyrolysis, gasification, solvolysis, chemical recycling and any high-  
55    heat or chemical conversion process.

56    8. "Producer" means a person who:

1 (a) manufactures or uses in a commercial enterprise, sells, offers for  
2 sale, or distributes the packaging material in the state under the brand  
3 of the manufacturer; or

4 (b) if paragraph (a) of this subdivision does not apply, an entity  
5 that is not the manufacturer of the packaging material but is the owner  
6 or licensee of a trademark under which the packaging material is used in  
7 commercial enterprise, sold, offered for sale, or distributed in the  
8 state, whether or not the trademark is registered; or

9 (c) if paragraphs (a) and (b) of this subdivision do not apply, an  
10 entity that sells packaging in the state which is intended to be filled  
11 at the point of sale; or

12 (d) if paragraphs (a), (b) and (c) of this subdivision do not apply,  
13 an entity that imports the packaging material into the United States or  
14 the state for use in a commercial enterprise, sale, offer for sale, or  
15 distribution in the state.

16 "Producer" includes a franchisor of a franchise located in the state  
17 but does not include the franchisee operating that franchise.

18 9. "Readily-recyclable" means that the department has determined that  
19 the packaging material:

20 (a) can be sorted by entities that process recyclable material gener-  
21 ated in the state; and

22 (b) has a consistent market for purchase, as based on data from the  
23 prior two calendar years, meaning that with respect to a type of packag-  
24 ing material, entities processing recyclable material are willing to  
25 purchase full bales of that type of fully sorted packaging material in  
26 quantities equal to or in excess of the supply of that fully sorted  
27 packaging material. "Readily-recyclable" does not include packaging  
28 material that facilities accept in low qualities or sort out of material  
29 during additional processing steps or if facilities cannot sell a full  
30 bale due to a lack of market or inability to feasibly separate those  
31 materials during additional processing steps. Packaging material cate-  
32 gories or types shall not be considered readily-recyclable, generally  
33 recyclable, compostable, or reusable if they contain a toxic substance.

34 10. "Recycling" means the series of activities by which material is:

35 (a) collected, sorted, and processed; (b) converted into a raw materi-  
36 al with minimal loss of material quality; and (c) used in the production  
37 of a new product to replace the use of virgin materials, including the  
38 original material. "Recycling" does not include energy recovery or ener-  
39 gy generation by any means, including but not limited to combustion,  
40 incineration, pyrolysis, gasification, solvolysis, waste to fuel or any  
41 chemical conversion process, or landfill disposal of discarded material  
42 or discarded product component materials.

43 11. "Reusable" means:

44 (a) designed to be used repeatedly for a number of use cycles that  
45 exceeds the minimum number of times necessary to achieve the same over-  
46 all environmental impact as the non-reusable or disposable product it  
47 replaces, based on a life cycle assessment of the product's impacts from  
48 extraction through production and through disposal or end of life  
49 management;

50 (b) compliant with any statutory or regulatory requirements for toxic  
51 substances;

52 (c) safe for washing and sanitizing according to applicable state food  
53 safety laws; and

54 (d) capable of being recycled at the end of use, with the exception of  
55 ceramic products.

12. "Reuse and refill system" means a set of mechanisms designed to facilitate multiple uses of a reusable container, in order to, at a minimum, achieve the breakeven point for such reusable container. Mechanisms may include, but are not limited to, deposits, incentives, curbside collection, collection kiosks, refill stations, dishwashing facilities, and re-distribution networks.

13. "Toxic substance" means a chemical substance identified in section 27-3317 of this title, or a chemical substance designated by the department on the basis of identification by a government entity and/or identification on the basis of credible scientific evidence as being:

(a) a carcinogen, mutagenic, or reproductive or developmental toxicant;

(b) endocrine disruptor;

(c) damaging to the nervous system, immune system, or organs or causing other systemic toxicity;

(d) persistent, bioaccumulative and toxic;

(e) highly persistent and highly mobile;

(f) persistent, mobile and toxic; or

(g) persistent and very bioaccumulative.

14. "Unit" means each discrete component of a package or container.

15. "Universal product code" or "UPC" shall have the same meaning as subdivision 13 of section 27-1003 of this article.

16. "Waste reduction" means any action which causes a net reduction in the generation of solid waste and includes, but is not limited to, reducing the use of nonrecyclable materials, replacing disposable materials and products with reusable materials and products, reducing packaging, and increasing the efficiency of the use of materials. Waste reduction does not include replacing a recyclable material with a nonrecyclable material or a material that is less likely to be recycled, and does not include a shift from a nonplastic material that currently is recyclable to a plastic material.

#### § 27-3303. Responsibilities of producers.

1. There is hereby established a packaging producer responsibility program by which producers, participating individually or collectively, shall be required to make changes to their product design to reduce packaging consumption and increase waste reduction, shall be required to pay fees based on the amount, by weight and type, of packaging material sold, offered for sale, or distributed for sale in the state and shall be responsible for packaging waste disposal.

2. The producer or producers shall provide all information necessary for the determination of the producer's payment obligations and the determination of the producer's compliance with respect to this title.

3. Within six months of the effective date of this title, the department, or a third party, shall conduct a statewide reduction, reuse and recycling needs assessment, hereafter "needs assessment", to identify barriers and opportunities for reducing, reusing, and recycling packaging. The needs assessment shall at a minimum include an evaluation of capacity costs, gaps and needs for the following factors:

(a) current barriers affecting the creation of reduction, reuse and refill programs;

(b) opportunities for the creation of reduction, reuse and refill programs;

(c) current municipal funding needs, both operational and capital, impacting recycling access and availability and reuse and refill;

(d) existing state statutory provisions and funding sources for recycling, reuse, reduction, and recovery;

1 (e) the existing collecting and hauling system for recyclable materi-  
2 als;

3 (f) opportunities to improve access to recycling;

4 (g) the capacity, cost, and needs associated with the collection and  
5 transportation of recyclable materials in the state;

6 (h) the processing capacity, market conditions, and infrastructure for  
7 recyclable materials in the state and regionally;

8 (i) current state packaging product recovery rates, recycling rates,  
9 and post-consumer recycled content rates, by material type;

10 (j) accounting of greenhouse gas emissions associated with collection,  
11 processing, and marketing of packaging products;

12 (k) an evaluation of state and regionally accepted recycling prac-  
13 tices;

14 (l) current barriers affecting equitable access to recycling and reuse  
15 programs;

16 (m) barriers to the marketability of recyclable materials generated in  
17 the state, and potential solutions;

18 (n) the amount, by weight, of material that is recycled by each recy-  
19 cling facility that accepts packaging material;

20 (o) consumer education needs for reuse and refill systems, recycling,  
21 and reducing contamination in collected recyclable material that reduces  
22 its suitability for recycling;

23 (p) the net cost of curbside collection, commercial collection, or  
24 transfer station operation, on-site processing cost for each readily-re-  
25 cyclable packaging material types, management cost of non-readily-re-  
26 cyclable packaging, transportation cost for each packaging material, and  
27 any other cost factors determined by the department;

28 (q) the availability of opportunities in the recycling and reuse  
29 systems for minority- and women-owned business enterprises; and

30 (r) the location of landfills, incinerators and transfer stations  
31 within the state, the socio-economic conditions where such facilities  
32 are sited and the permitted pollution levels at each facility.

33 3. The department shall be responsible for updating and revising the  
34 needs assessment every three years.

35 4. The department shall post the results of the needs assessment on  
36 its website and issue a report to the legislature.

37 § 27-3305. Producer responsibility program plan.

38 1. Within six months of the effective date of this title, each produc-  
39 er shall register with the department.

40 2. Within eighteen months of the effective date of this title, each  
41 producer, either individually or acting collectively, shall submit a  
42 producer responsibility program plan (hereinafter "plan") to the depart-  
43 ment for approval. A producer may satisfy its obligations under this  
44 title individually or collectively.

45 3. Each producer shall begin program implementation within six months  
46 after the date the plan is approved or no later than two years of the  
47 effective date of this title. If no plan is approved by that timeframe,  
48 the producer shall be subject to penalties for noncompliance.

49 4. Any person that becomes a producer after the effective date of this  
50 title shall submit an individual plan, or join with other producers,  
51 within six months and begin program implementation within six months of  
52 plan approval or be subject to penalties for noncompliance.

53 5. The submitted plan shall, at a minimum, address the following:

54 (a) Contact information, including the name, electronic and physical  
55 address, and telephone number of the authorized representative of the  
56 producer or producers.

- 1 (b) Identify the producer or producers participating in the plan.  
2 (c) A description of how the non-reusable packaging reduction require-  
3 ments and recycling or post-consumer recycled material requirements are  
4 addressed.  
5 (d) A comprehensive list of the types and brands of packaging products  
6 for which the producer or producers are responsible for, including the  
7 UPCs of the products associated with each type of packaging material.  
8 (e) A description of the proposed funding mechanism, identified in  
9 section 27-3311 of this title that meets the requirements of this title  
10 and is sufficient to cover the cost of operating the program, updating  
11 the plan, and maintaining a financial reserve sufficient to operate the  
12 program in a fiscally prudent and responsible manner. At a minimum, the  
13 following funding mechanism details shall be provided in the plan:  
14 (i) proposed program fees, listed by producer, which are based on an  
15 objective formula establishing a reimbursement rate, which covers obli-  
16 gations identified in the needs assessment and takes into account vari-  
17 able regional costs (including at a minimum those identified in clause  
18 (A) of subparagraph (iv) of this paragraph, for participating municipi-  
19 palities or private sector haulers, approved by the department.  
20 (ii) program fees determined based on eco-modulation. For purposes of  
21 this title, "eco-modulation" shall provide that program charges are  
22 structured to provide producers with financial incentives that reward  
23 reduction of waste at the source and recycling compatibility innovations  
24 and practices, reward producers for reusable packaging products, includ-  
25 ing those that are contained within a reuse and refill system and that  
26 disincentivize designs or practices that increase costs of managing the  
27 packaging products.  
28 (iii) the producer or producers may adjust charges to be paid by  
29 participating producers, or may include a credit, based on factors that  
30 affect system costs.  
31 (iv) program fees shall also be variable based on:  
32 (A) costs to provide recycling collection or other form of consumer  
33 service that is, at minimum, as convenient as the previous waste  
34 collection schema in the particular jurisdiction for all consumers;  
35 (B) costs to process a producer's packaging products for sale to  
36 secondary material markets;  
37 (C) whether the packaging product would typically be readily-recycla-  
38 ble except that as a consequence of the product's design, the product  
39 has the effect of disrupting recycling processes or the product includes  
40 labels, inks, or adhesives containing heavy metals that would contam-  
41 inate the recycling process;  
42 (D) whether the packaging is specifically designed to be reusable or  
43 refillable, is contained within a reuse or refill system, and has a high  
44 reuse or refill rate;  
45 (E) the commodity value of packaging products; and  
46 (F) contributions to greenhouse gas emissions from the production,  
47 use, collection, processing, and marketing of the packaging product.  
48 (f) A description of the process for participating municipalities or  
49 private sector haulers to recoup reasonable costs as established by the  
50 needs assessment from the producer, including, as applicable, any admin-  
51 istrative, sorting, collection, transportation, public education or  
52 processing costs if the producer uses services through a municipality or  
53 obtains such services from a private hauler;  
54 (g) A description of the characteristics of each type of packaging  
55 material that are relevant to the eco-modulating factors set forth  
56 pursuant to section 27-3311 of this title.

1 (h) A description of the producer's or producers' public outreach  
2 education program for consumers and other stakeholders that will at a  
3 minimum:

4 (i) be designed to achieve the management goals of packaging products  
5 under this title, including the prevention of contamination of products;

6 (ii) incorporate, at a minimum, electronic, print, web-based and  
7 social media elements that municipalities could utilize at their  
8 discretion;

9 (iii) consult with municipalities and other stakeholders, coordinate  
10 with and assist local municipal programs, municipal contracted programs,  
11 solid waste collection companies, and other entities providing services,  
12 and develop and provide outreach and education to the diverse popu-  
13 lations in the state, including utilizing a variety of outreach and  
14 education tools and ensuring materials are widely accessible and avail-  
15 able in multiple languages;

16 (iv) label or mark packaging information in accordance with the  
17 requirements of section 27-3325 of this title;

18 (v) include details on the following components of the outreach and  
19 education program provided in the plan and make such details available  
20 to consumers and other stakeholders on the producer's or producers'  
21 public education program website:

22 (A) proper end-of-life management of packaging;

23 (B) the location and availability of recycling collection;

24 (C) how to prevent litter of packaging products; and

25 (D) a description of the process for answering stakeholder questions  
26 and resolving any issues.

27 6. A producer implementing an individual extended producer responsi-  
28 bility program or producers acting cooperatively shall undertake  
29 outreach, education, and communications that assist in attaining or  
30 exceeding the minimum post-consumer content, minimum recovery rates, and  
31 minimum recycling rates, as specified by the department in regulation.

32 7. No later than ninety days after the submission of the plan, the  
33 department shall determine whether to approve the plan as submitted;  
34 approve the plan with conditions; or deny the plan.

35 8. The department shall consider the following in determining whether  
36 to approve a plan:

37 (a) whether the plan adequately addresses all elements described in  
38 this section;

39 (b) whether the producer or producers have undertaken satisfactory  
40 consultation with the public and municipalities and have provided an  
41 opportunity for input in the development of the plan prior to submission  
42 of the plan;

43 (c) whether the plan adequately provides for:

44 (i) the producer or producers collecting and funding the costs of  
45 collecting and processing packaging materials covered by the plan and  
46 reimbursing municipalities or private haulers providing such services;

47 (ii) the funding mechanism to cover the entire cost of the producer or  
48 producers' program and whether such mechanism provides for an equitable  
49 distribution of funding;

50 (iii) an evaluation system for the program charge structure, which  
51 shall be evaluated on an annual basis and resubmitted to the department  
52 annually;

53 (iv) effective consumer outreach and education;

54 (v) whether the plan satisfactorily provides for how the producer or  
55 producers implementing an individual extended producer responsibility  
56 program will meet the minimum post-consumer content rates, recovery

9/1x

1 rates, and recycling rates, which will create or enhance markets for  
2 recycled materials; and

3 (vi) whether the plan creates a convenient system for consumers to  
4 recycle packaging products that meets or exceeds the convenience crite-  
5 ria set forth in section 27-3307 of this title.

6 10. The department may deny a plan. (a) If a plan is denied, the  
7 department shall inform the producer or producers implementing an indi-  
8 vidual extended producer responsibility program in writing as to any  
9 deficiencies in such plan. The producer or producers implementing the  
10 plan shall amend and resubmit any denied plans for reconsideration with-  
11 in sixty days of notification of the denial of such plan. The department  
12 shall approve or deny such plan within thirty days of resubmission.

13 (b) If a plan is denied a second time, the department shall provide  
14 the producer or producers with direction for meeting any additional  
15 required elements of the plan it deems necessary. If such requirements  
16 are not met within thirty days, the producer or producers shall be  
17 subject to penalties for each day such plan is delayed.

18 11. The department may rescind the approval of an approved plan at any  
19 time for just cause. If a plan is rescinded, the department shall inform  
20 the producer or producers in writing as to any and all reasons why the  
21 plan was rescinded. The producer or producers implementing the plan  
22 shall amend and resubmit any rescinded plans for reconsideration within  
23 sixty days of such notification. The department shall approve or reject  
24 any such amended plan within thirty days of resubmission.

25 12. The producer or producers shall notify the department of any  
26 proposed modification to the program. If the department determines that  
27 the plan has been substantially modified, the producer or producers  
28 shall submit a proposed plan amendment describing the changes to the  
29 department within ninety days of the determination. Within ninety days  
30 of receipt of a proposed amended plan, the department shall determine  
31 whether the amended plan complies with this title. The department shall  
32 send a letter notifying the producer or producers of: (a) approval; or  
33 (b) disapproval, including the reasons for rejecting the plan. The  
34 producer or producers shall submit a revised plan within sixty days  
35 after receipt of the letter of disapproval.

36 13. The producer or producers shall reimburse the department annually  
37 at the time of annual reporting for all administrative costs associated  
38 with implementation and oversight of the program.

39 14. Beginning two calendar years following the effective date of this  
40 title, a producer shall not:

41 (a) sell, offer for sale, or distribute, in the state, a product  
42 contained, protected, delivered, presented or distributed in or using  
43 packaging material for which the producer has not complied with all  
44 applicable requirements of this title; or

45 (b) sell, offer for sale, or distribute packaging for use in New York  
46 unless such packaging products are in compliance with all applicable  
47 requirements of this title.

48 15. No person may charge a consumer point-of-sale or point of  
49 collection fee to recoup the costs associated with meeting the obli-  
50 gations under this title.

51 16. A producer or producers shall annually report to the department:

52 (a) the total amount of packaging material, by weight, sold, offered  
53 for sale, or distributed into the state by the producer or producers in  
54 the prior calendar year;

1 (b) the total amount of packaging material, by unit, sold, offered for  
2 sale, or distributed into the state by the producer or producers in the  
3 prior calendar year;

4 (c) the percentage of all packaging material the producer or producers  
5 sold, offered for sale, or distributed for sale in the state through  
6 internet transactions; and

7 (d) the following financial information:

8 (i) the total costs of implementing the program, as determined by an  
9 independent financial audit;

10 (ii) a copy of the independent audit; and

11 (iii) a detailed description of whether the program compensates muni-  
12 cipalities, solid waste collection, sorting and processing facilities  
13 and other approved entities for their recycling efforts and other  
14 related services provided and any amount of reimbursement provided.

15 17. In accordance with the regulations adopted by the department, a  
16 producer or producers shall annually report to the department informa-  
17 tion necessary for the department to make a determination of the produc-  
18 er's or producers' compliance with:

19 (a) the non-reusable packaging reduction requirements of section  
20 27-3313 of this title;

21 (b) the reuse and refill system requirements of section 27-3313 of  
22 this title;

23 (c) the recycling or post-consumer recycled material requirements of  
24 section 27-3315 of this title;

25 (d) the toxic substances in packaging requirements of section 27-3317  
26 of this title; and

27 (e) the labeling requirements of section 27-3325 of this title.

28 18. Each producer shall pay fees, associated with the cost of the  
29 needs assessment required by section 27-3311 of this title.

30 19. Notwithstanding any provision of this title to the contrary, a  
31 producer shall be exempt from the requirements and prohibitions of this  
32 title:

33 (a) in any calendar year in which the producer realized less than two  
34 million dollars in total gross revenue during the prior calendar year;  
35 or

36 (b) in any calendar year in which the producer sold, offered for sale,  
37 or distributed for sale in the state during the prior calendar year  
38 packaging materials/products contained, protected, delivered, presented,  
39 or distributed in or using less than one ton of packaging material in  
40 total; or

41 (c) if the producer is a municipality.

42 20. A producer claiming an exemption under this section shall provide  
43 to the department sufficient information to demonstrate that the claim-  
44 ant meets the requirements for an exemption under this section within  
45 thirty days of receiving a request from the department.

46 § 27-3307. Collection and convenience.

47 A producer or producers shall provide for widespread, convenient, and  
48 equitable access to collection opportunities for the packaging materials  
49 identified under the producer or producers' plan at no additional cost  
50 to residents. Such opportunities shall be provided to all residents of  
51 New York in a manner that is as convenient as the collection of munic-  
52 ipal solid waste. A producer or producers shall ensure services continue  
53 for curbside recycling programs that a municipality serves as of the  
54 effective date of this title, either directly or through a contract to  
55 provide services, and that such services are continued through the  
56 plan. A plan may not restrict a resident's ability to contract directly

1 with third parties to obtain recycling collection services if residents  
2 have the option to enter into such contracts as of the effective date of  
3 this title, as long as the resident still voluntarily chooses to  
4 contract directly with the third party. A producer or producers may  
5 rely on a range of means to collect various categories of packaging so  
6 long as options for packaging material include curbside recycling  
7 collection services provided by municipal programs, municipal contracted  
8 programs, solid waste collection companies, or other approved entities  
9 as identified by the department if:

10 1. The category of packaging materials is suitable for residential  
11 curbside recycling collection and can be effectively sorted by the  
12 facilities receiving the curbside collected material.

13 2. The recycling facility providing processing and sorting service  
14 agrees to include the category of packaging materials as an accepted  
15 material.

16 3. The packaging material is not handled through a deposit and return  
17 scheme or buy back system that relies on a collection system other than  
18 curbside or multi-family collection.

19 4. The provider of the residential curbside recycling service agrees  
20 to participate.

21 5. (a) The producer or producers shall adopt a list of minimum types  
22 of readily recyclable materials and products based on the department's  
23 identification of available collection and processing infrastructure and  
24 recycling markets for packaging materials. The producer or producers  
25 shall update and adopt the list on an annual basis, in consultation with  
26 the department, in response to collection and processing improvements  
27 and changes in recycling end markets. If there are multiple lists, the  
28 department shall compile the lists and shall publish a compiled list  
29 to the public. Such lists may vary by geographic region depending on  
30 regional markets and regional collection and processing infrastructure.

31 (b) All municipalities or private recycling service providers shall  
32 provide for the collection and recycling of all identified materials and  
33 products contained on the list of minimum recyclables, based on  
34 geographic regions, in order to be eligible for reimbursement; provided,  
35 however, nothing shall penalize a municipality or private recycling  
36 service for packaging materials that are generated in the municipality  
37 or geographic region that are not included on the list of minimum types  
38 of recyclable packaging materials or products as long as it can be  
39 demonstrated that such materials have a market as determined by the  
40 department in consultation with the producer or producers. Reimbursement  
41 shall cover recycling of all packaging materials so long as the program  
42 includes at least the minimum recyclable list.

43 § 27-3309. Responsibilities of the department.

44 1. Within one year of the effective date of this title, the department  
45 shall promulgate regulations setting recommended program fees for  
46 producers to pay after consulting with multiple stakeholders, including  
47 municipalities, businesses, institutions, and other extended producer  
48 responsibility programs. Program fees shall be set at a rate that will  
49 drive reductions in overall packaging, incentivize adoption of reuse  
50 systems, increase post-consumer recycled material, and promote the use  
51 of recyclable packaging.

52 2. The department shall revise recommended program fees every three  
53 years, beginning three years after the first set of program fees is  
54 established to reflect new data received about material use and manage-  
55 ment, or whenever the targets set in sections 27-3313 and 27-3315 of  
56 this title are not met to drive compliance with such targets.

94x

1     3. The department shall annually compile a list of any producer  
2 noncompliance, and the steps being taken to bring noncompliant producers  
3 into compliance.

4     4. The department shall annually provide a description of the infras-  
5 tructure and education investments made by producers in prior calendar  
6 years and an evaluation of how those investments were designed to  
7 increase access to recycling and refill or reuse systems in the state.

8     5. The department shall provide an annual assessment of the progress  
9 made toward the achievement of any program goals, including but not  
10 limited to the requirements under sections 27-3313 and 27-3315 of this  
11 title.

12     6. The department shall provide an annual assessment of the payment  
13 schedule adopted by producers pursuant to section 27-3311 of this title.

14     7. The department shall provide an annual assessment of whether the  
15 plan has been successful in increasing the amount of packaging material  
16 that is readily recyclable, increasing the transition from non-reusable  
17 to reusable packaging, and incentivizing improvements to the design of  
18 packaging material.

19     8. The department shall consider any proposals for changes to the  
20 program or investments in education and infrastructure designed to  
21 reduce the amount of packaging material used, increase access to recycl-  
22 ing, increase the recycling of or recyclability of packaging material,  
23 reduce program costs, or otherwise increase program efficiency, which  
24 may include an analysis of best practices for municipal recycling  
25 programs and material recovery facilities.

26     9. The department shall consider the results of representative inbound  
27 and outbound audits of recyclable material processed and sold by materi-  
28 als recycling facilities in the state and waste characterization of  
29 municipal solid waste.

30     10. The department shall review the results of a producers' third-par-  
31 ty financial audits.  
32 § 27-3311. Funding mechanism.

33     1. The department shall promulgate regulations setting forth the  
34 manner in which recommended producer program fees on packaging materials  
35 shall be calculated. Payments shall be calculated based on:

36     (a) the packaging material type; and

37     (b) the quantity of each packaging material type, by weight, that the  
38 producer sells, offers for sale, or distributes in the state.

39     2. The list of packaging material types shall include, at a minimum,  
40 the following materials:

41     (a) paper;

42     (b) cardboard;

43     (c) corrugated cardboard;

44     (d) generic paper/cardboard;

45     (e) wood;

46     (f) glass;

47     (g) polyethylene terephthalate (PET);

48     (h) high density polyethylene (HDPE);

49     (i) expanded polystyrene (EPS);

50     (j) polystyrene;

51     (k) bio-plastics;

52     (l) generic plastics;

53     (m) plastic film;

54     (n) other plastics;

55     (o) steel or ferrous;

56     (p) aluminum;

- 1 (q) tinplate; and  
 2 (r) generic metals.

3 3. (a) Program fees shall at a minimum include:

4 (i) costs to provide curbside collection or other form of residential  
 5 service that is, at minimum, as convenient as curbside collection or as  
 6 convenient as the previous recycling collection plan in the particular  
 7 jurisdiction or as convenient as the previous refuse collection plan in  
 8 the particular jurisdiction should recycling collection not be provided;  
 9 (ii) costs to process packaging materials for acceptance by secondary  
 10 material markets;

11 (iii) whether the packaging materials would typically be readily-re-  
 12 cyclable except that as a consequence of the product's design, the prod-  
 13 uct has the effect of disrupting recycling processes or the product  
 14 includes labels, inks, and adhesives containing heavy metals or other  
 15 toxic substances that would contaminate the recycling process;

16 (iv) whether the packaging materials or product is specifically  
 17 designed to be reusable or refillable and has high reuse or refill rate;

18 (v) the commodity value of a packaging material or product.

19 The charges shall be adjusted, or the producers may be provided a  
 20 credit, based upon the percentage of post-consumer recycled material  
 21 content and such percentage of post-consumer recycled content shall be  
 22 verified by an independent third party approved to perform verification  
 23 services to ensure that such percentage exceeds the minimum require-  
 24 ments in the packaging material, as long as the recycled content does  
 25 not disrupt the potential for future recycling.

26 (b) Fees shall be higher for packaging material that is not readily-  
 27 recyclable.

28 (c) The fees for each type of packaging material shall be eco-modulat-  
 29 ed and structured to promote the environmental beneficial packaging  
 30 design in accordance with the following:

31 <u>Fees</u>	<u>Type of packaging</u>
32 <u>Fees are increased</u>	<u>Packaging is not readily-recyclable</u>
33 <u>Fees are lowered</u>	<u>Packaging is readily-recyclable</u>
34	<u>Packing is compostable</u>
35	<u>Packing incorporates post-consumer</u>
36	<u>recycled material</u>
37 <u>No fee</u>	<u>Reusable or refillable packaging contained</u>
38	<u>within a reuse/refill system</u>

39 § 27-3313. Non-reusable packaging reduction requirements.

40 1. A producer shall reduce the total amount by unit, on average and in  
 41 the aggregate, of non-reusable packaging across its brand in accordance  
 42 with the following schedule:

43 (a) by ten percent two years after the implementation of the producer  
 44 plan pursuant to section 27-3305 of this title;

45 (b) by at least twenty percent four years after plan implementation;

46 (c) by at least thirty percent six years after plan implementation;

47 (d) by at least forty percent eight years after plan implementation;  
 48 and

49 (e) by at least fifty percent ten years after plan implementation.

50 2. The reductions required by subdivision one of this section shall be  
 51 measured against the total amount of packaging the producer sold,  
 52 offered for sale, or distributed for sale in the state during the  
 53 respective calendar year. For producers who did not sell, offer for

1 sale, or distribute for sale any packaging during the calendar year, the  
2 reductions required by subdivision one of this section shall be measured  
3 against the first calendar year for which there is data regarding the  
4 amount of packaging the producer sold, offered for sale, or distributed  
5 for sale in the state.

6 3. These reductions may be achieved by eliminating non-reusable pack-  
7 aging, including secondary packaging, or by transitioning away from  
8 non-reusable packaging to a reuse and refill system.

9 4. The department shall promulgate regulations that address the manner  
10 in which each producer will report its compliance with the requirements  
11 of this section.

12 § 27-3315. Recycling or post-consumer recycled material requirements.

13 1. Each producer shall ensure that all non-reusable packaging in the  
14 aggregate, across its entire brand, either:

15 (a) is recycled at a rate consistent with the following schedule:

16 (i) fifty percent five years after implementation of the producer plan  
17 pursuant to section 27-3305 of this title;

18 (ii) eighty percent eight years after plan implementation;

19 (iii) ninety percent twelve years after plan implementation; or

20 (b) incorporates, on average and in the aggregate, the following  
21 amount by weight of post-consumer recycled material:

22 (i) fifty percent five years after plan implementation;

23 (ii) eighty percent five years after plan implementation; or

24 (iii) ninety percent twelve years after plan implementation.

25 2. Any producer that enters the market after the effective date of  
26 this title shall meet the recycling requirements required by subdivision  
27 one of this section as measured against the first calendar year for  
28 which there is data regarding the amount of packaging the producer sold,  
29 offered for sale, or distributed for sale in the state.

30 3. (a) For the purpose of determining a producer's compliance with the  
31 post-consumer recycled material requirements of this section, a producer  
32 shall rely on New York data regarding packaging sales and material use,  
33 if available, or may alternatively rely on the same type of data appli-  
34 cable to a region or territory of the United States that includes the  
35 state of New York.

36 (b) If a producer elects to rely on data regarding packaging sales and  
37 materials derived from data applicable to a region or territory of the  
38 United States that includes the state of New York, the producer shall:

39 (i) pro-rate the regional or territorial data to determine New York  
40 specific figures based on market share or population in a manner that  
41 ensures that the percentage of post-consumer recycled material calcu-  
42 lated for packaging material sold in New York is the same percentage as  
43 calculated for that larger region or territory; and

44 (ii) document the methodology used to determine such New York specific  
45 figures calculated under subparagraph (i) of this paragraph.

46 4. If a producer elects to comply with the provisions of this section  
47 by meeting the post-consumer recycled material requirements, the depart-  
48 ment may assess against a producer that fails to comply with those  
49 requirements an administrative penalty calculated as follows:

50 (a) The department shall add the total amount by weight in pounds of  
51 post-consumer recycled material and the total amount by weight in pounds  
52 of material that is not post-consumer recycled material used by the  
53 producer in all the packaging it sold, offered for sale, or distributed  
54 for sale in the state during the prior calendar year. Unless otherwise  
55 determined by the department, the figure calculated under this paragraph  
56 shall be calculated using the information reported by the manufacturer.

1 (b) The department shall multiply the figure calculated under para-  
2 graph (a) of this subdivision by the minimum post-consumer recycled  
3 material percentage required under paragraph (b) of subdivision one of  
4 this section during the prior calendar year.

5 (c) The department shall subtract from that figure calculated under  
6 paragraph (b) of this subdivision the total amount by weight in pounds  
7 of post-consumer recycled material used by the producer in all products  
8 it sold, offered for sale, or distributed for sale in packaging in the  
9 state during the prior calendar years.

10 (d) The department shall multiply that figure calculated under para-  
11 graph (c) of this subdivision by twenty cents. If the figure calculated  
12 under this paragraph is less than or equal to zero, the department may  
13 not assess an administrative penalty.

14 § 27-3317. Toxic substances in packaging.

15 1. Beginning December thirty-first, two thousand twenty-four, in addi-  
16 tion to the requirements of title two of article thirty-seven of this  
17 chapter, no person may sell, offer for sale, distribute for sale, or  
18 distribute for use in this state, any packaging material containing the  
19 following toxic substances above the practical quantification limit, as  
20 such term is defined in section 37-0901 of this chapter:

21 (a) ortho-phthalates;

22 (b) bisphenols;

23 (c) per- and polyfluoroalkyl substances (PFAS);

24 (d) lead and lead compounds;

25 (e) hexavalent chromium and compounds;

26 (f) cadmium and cadmium compounds;

27 (g) mercury and mercury compounds;

28 (h) benzophenone and its derivatives;

29 (i) halogenated flame retardants;

30 (j) perchlorate;

31 (k) formaldehyde; and

32 (l) toluene.

33 2. Beginning one year after the effective date of this title, no  
34 person may sell, offer for sale, distribute for sale, or distribute for  
35 use in this state, any packaging products containing the following toxic  
36 substances above the practical quantification limit, as such term is  
37 defined in section 37-0901 of this chapter:

38 (a) polyvinyl chloride;

39 (b) polystyrene; or

40 (c) polycarbonate.

41 3. Beginning three years after the effective date of this title, and  
42 every three years thereafter, the department shall designate at least  
43 ten additional toxic substances, unless it determines there are not ten  
44 chemicals that meet the definition of toxic substances. If the depart-  
45 ment determines there are not ten toxic substances that meet such defi-  
46 nition, it shall publish a detailed statement of findings and conclu-  
47 sions supporting such determination.

48 4. Within one hundred eighty days of designating a toxic substance,  
49 the department shall adopt regulations to prohibit the newly designated  
50 toxic substance in packaging, with an effective date no later than two  
51 years after such regulations are finalized.

52 6. Any producer that violates this section shall be subject to a fine  
53 for each violation not to exceed twenty-five thousand dollars for each  
54 violation.

55 § 27-3319. Biennial producer responsibility program report.

1 1. Beginning one year after the implementation of the producer plan  
2 pursuant to section 27-3305 of this title, and every two years thereaft-  
3 er, the department shall generate a producer responsibility program  
4 report.

5 2. The report shall include, at a minimum, the following information:

6 (a) a list of all participating producers and the brands of products  
7 associated with those producers;

8 (b) a baseline report of the number of units of packaging and type of  
9 packaging products, both non-reusable and reusable, that were sold,  
10 offered for sale, or distributed into the state;

11 (c) a list of all materials that are readily-recyclable in the state;

12 (d) results of an audit of inbound and outbound recyclable material  
13 processed and sold within the state;

14 (e) a waste characterization study that specifies the quantity in tons  
15 of packaging material in the waste stream according to types of uses;

16 (f) a statewide litter survey that identifies the quantity of packag-  
17 ing material in litter according to types of packaging material and the  
18 brands which produce the material;

19 (g) a list of the amount of packaging material and packaging material  
20 type sold or offered for sale within the state that year;

21 (h) a description of all funding issued pursuant to the plan; and

22 (i) the compliance of producers with the toxic substances prohibition  
23 provided in section 27-3317 of this title.

24 § 27-3321. Producer compliance information.

25 1. The department shall make available on its publicly accessible  
26 website a regularly updated list of UPCs of products for which the  
27 department has determined the producer has complied with all applicable  
28 requirements of this title and a list of producers and, where applica-  
29 ble, specific products and the UPCs of those products, for which the  
30 department has determined the producer has not complied with all appli-  
31 cable requirements of this title.

32 2. Each producer shall annually provide to the department a certif-  
33 icate of compliance signed by an authorized official stating that all  
34 packaging materials meet the requirements of this title provided howev-  
35 er, where compliance is achieved under an exemption provided in section  
36 27-3305 of this title, the certificate shall state the specific basis  
37 upon which the exemption is claimed.

38 § 27-3323. Enforcement.

39 1. The department may bring an administrative enforcement action  
40 against any producer or other entity to enjoin activity in violation of  
41 any provision of this title, and to assess and recover penalties as  
42 provided in this title.

43 2. The office of the attorney general may bring an action in any court  
44 of competent jurisdiction to enjoin any violation of the requirements of  
45 this title, and to recover penalties as provided in this title.

46 3. All penalties recovered pursuant to this section shall be deposited  
47 in the packaging responsibility fund.

48 § 27-3325. Labeling.

49 1. Producers shall indicate on all packaging material sold, offered  
50 for sale, or distributed for sale in or into the state either:

51 (a) the percentage of post-consumer recycled material;

52 (b) whether the packaging material is readily-recyclable and how to  
53 recycle such unit; or

54 (c) whether the unit is compostable.

55 2. Such labels shall be in a form deemed appropriate by the department  
56 pursuant to regulations.

3. All packaging material sold in the state shall conform with the labeling requirements in this section within two years of the effective date of this title. Packaging that does not meet the requirements of this section may not be sold, offered for sale, or distributed for sale into the state.

§ 27-3327. Regulations.

1. The department shall promulgate regulations as necessary to implement and administer this title.

2. The department shall solicit input from interested parties in the development of any draft regulations to implement this title, solicit public comment on such draft regulations for a period of at least sixty days, and hold at least one public hearing on such draft regulations.

3. The regulations adopted by the department pursuant to this title shall include, at a minimum:

(a) a process for annually determining a schedule of producer payments, which shall include, but not be limited to, provisions regarding the timing of producer payments.

(i) The payment schedule adopted under this paragraph shall delineate criteria to be used to adjust producer payments in a manner that complies with section 27-3311 of this title; and

(ii) Shall include a description of the methods to be used to determine the amount reported for each type of packaging material associated with its products.

(b) a process for a producer or producers that are unable to fully satisfy the reporting requirements due to a failure to obtain sufficient information regarding the characteristics of the packaging of the producer's products that are sold, offered for sale, or distributed for sale in or into the state to, alternatively, report to the department an estimate of the total amount of such packaging based on unit quantities, as long as such alternative reporting includes a description of methods used by the producer to calculate the estimate;

(c) a process for determining on an annual basis those types of packaging materials that are readily-recyclable which shall at a minimum involve consultation with the municipalities and recycling establishments and shall include a transitional period between the time that the type of packaging material is determined to be recyclable or to not be recyclable and the time that such determination shall be in effect for the purposes of calculating producer payments;

(d) requirements for the assessment of program performance, including:

(i) the non-reusable packaging reduction requirements set forth in section 27-3313 of this title;

(ii) standards for reuse and refill systems to ensure they achieve the break-even point for reusable packaging;

(iii) the recycling or post-consumer recycled material requirements set forth in section 27-3315 of this title;

(iv) the toxic substances in packaging requirements set forth in section 27-3317 of this title;

(v) the labeling requirements set forth in section 27-3325 of this title; and

(vi) material-specific recycling rates for each type of packaging material for which a fee has been set pursuant to section 27-3311 of this title. The material specific recycling rate goals shall reflect the following recycling standards:

(A) sorted glass shall be considered recycled if it does not require further processing before entering a glass furnace or before use in the

1 production of filtration media, abrasive materials, glass fiber insu-  
2 lation or construction;

3 (B) sorted metal shall be considered recycled if it does not require  
4 further processing before entering a smelter or furnace;

5 (C) sorted paper shall be considered recycled if it does not require  
6 further processing before entering a pulping operation; and

7 (D) plastic separated by polymer shall be considered recycled if it  
8 does not require further processing before entering a pelletization,  
9 extrusion or molding operation, or in the case of plastic flakes, does  
10 not require further processing before use in a final product;

11 (e) requirements for the producer to conduct representative audits of  
12 recyclable material processed and sold by facilities that process  
13 recyclable material generated in the state, of municipal solid waste  
14 disposed of in the state, and waste littered in the state, which shall  
15 include, at minimum:

16 (i) provisions regarding the sampling techniques to be used in those  
17 audits, which must include random sampling; and

18 (ii) for audits of recyclable materials, provisions regarding:

19 (A) how such audits shall be designed to collect information regarding  
20 the extent to which recycled material processed and sold by those facil-  
21 ities reflects the tons of each type of packaging material collected in  
22 the state for recycling and the amount of each type of packaging materi-  
23 al recycled in the state, as well as the ultimate destination of and  
24 intended use for such recycled material;

25 (B) how such audits shall be designed so that information collected  
26 through the audit of one facility shall not be used to infer information  
27 about a different facility that uses different processing equipment,  
28 different sorting processes, or different staffing levels to conduct  
29 processing;

30 (C) for audits of municipal solid waste, provisions regarding how such  
31 audits will be designed to collect information regarding the types and  
32 amount, by weight, of packaging in the waste stream and the percentage  
33 by weight of the waste stream that is composed of packaging; and

34 (D) for audits of waste littered in the state, provisions regarding  
35 how such audits will be designed to collect information regarding the  
36 packaging material type by amount, weight, in sampled litter, identifi-  
37 cation of the producer or producers of the packaging in sampled litter,  
38 if identifiable, and an evaluation based on those audits regarding the  
39 areas of the state in which litter accumulation is greatest;

40 (f) a process by which the producer or producers shall develop and  
41 submit for department review and a process by which the department shall  
42 review and approve or deny: (i) a proposed investment in recycling  
43 infrastructure and education and (ii) a proposed investment in reusable  
44 or refillable infrastructure and education. The process shall set forth  
45 the manner in which the producer or producers are required to solicit  
46 and incorporate input in the development of proposed investments from  
47 producers, recycling establishments, and municipalities;

48 (g) a process for soliciting information necessary for, and a process  
49 for rendering a determination regarding:

50 (i) a producer's compliance with the non-reusable packaging reduction  
51 requirements of section 27-3313 of this title;

52 (ii) a producer's compliance with the reuse and refill system require-  
53 ments of section 27-3313 of this title;

54 (iii) a producer's compliance with the recycling or post-consumer  
55 recycled material requirements of section 27-3315 of this title;

1 (iv) a producer's compliance with the toxic substances in packaging  
2 requirements of section 27-3317 of this title; and

3 (v) a producer's compliance with the labeling requirements of section  
4 27-3325 of this title;

5 (h) a process for determining how the producer or producers will  
6 distribute funds to municipalities; and

7 (i) a process for determining the minimum number of reuse or refill  
8 cycles required for each type of packaging material to be considered  
9 reusable or refillable, pursuant to section 27-3313 of this title.

10 § 2. The state finance law is amended by adding a new section 92-kk to  
11 read as follows:

12 § 92-kk. Packaging responsibility fund. 1. There is hereby established  
13 in the joint custody of the comptroller and the commissioner of the  
14 department of taxation and finance a special fund to be known as the  
15 packaging responsibility fund.

16 2. Such fund shall consist of all penalties collected pursuant to  
17 title thirty-three of article twenty-seven of the environmental conser-  
18 vation law, and any other monies deposited into the fund pursuant to  
19 law.

20 3. Moneys of the fund shall be made available to fund third-party,  
21 independent audits of both inbound and outbound recyclable material  
22 generated in the state, disposal of both inbound and outbound materials,  
23 and litter audits. Such audits shall be conducted at least every two  
24 years and shall be posted on the department of environmental conserva-  
25 tion's website.

26 § 3. The department of health shall, within one year of the effective  
27 date of this act, examine its rules and regulations to identify any  
28 barriers to the implementation of refill systems, including in food  
29 production and wineries.

30 § 4. This act shall take effect immediately.



american cleaning institute®

June 13, 2022

Senator Smith  
Chair, Environment and Energy Committee  
New Jersey State Senate

Senator Linda R. Greenstein  
Vice Chair, Environment and Energy Committee  
New Jersey State Senate

**RE: Comments for Discussion on S.426**

Thank you for the opportunity to share our perspective on Senate Bill 426 which is being heard before your committee. The American Cleaning Institute® (ACI) is the trade association representing the \$60 billion U.S. cleaning products market. ACI members include the formulators of soaps, detergents and general cleaning products used in household, commercial, industrial and institutional settings; companies that supply ingredients and finished packaging for these products; and oleochemical producers. ACI and its members are dedicated to improving the health and quality of life through sustainable cleaning products and practices. ACI's mission is to support the sustainability of the cleaning products industry through research, education, outreach and science-based advocacy.

We have been actively engaged in packaging policy discussions around the country, contributing good-faith proposals for effective extended producer responsibility (EPR) program design. We look forward to discussing S.426 with New Jersey legislators in more detail. Our industry is dedicating meaningful resources to ensuring our member companies and consumers are practicing sustainable behaviors like designing recyclable packaging, incorporating recycled content, participating in reuse systems, and recycling properly. We are making these investments while continuing to ensure packaging maintains its essential functions like protecting the product and communicating vital safety information.

Senate Bill 426 has some of the common components of a packaging EPR program that we've seen introduced and passed in other states. From our experience we know that it's important to tailor these components to the specifics of the state and markets that are impacted. Responsibility should be equally shared and allow opportunity for all stakeholders to be involved. Recycling targets and recycled content goals should drive innovation while remaining achievable.

We hope the Legislature will take more time to contemplate ACI input on this policy. ACI looks forward to being a priority stakeholder to the development of this legislation, or providing necessary input regarding the performance of our products and packaging to achieve desired policy goals.

Sincerely,

Brennan Georgianni  
Director, State Government Affairs

103x

## **Testimony of Bree Dietly on EPR Best Practices And New Jersey S.426**

Good afternoon, Chair Smith and members of the Committee. My name is Bree Dietly and I am the Principal of Breezeway Consulting in Somerville, Massachusetts. I am here today to discuss extended producer responsibility or EPR programs for packaging and printed paper and am representing my clients at the American Beverage Association.

The beverage industry supports well-designed EPR programs for packaging and printed paper and is actively engaged in several states to establish and implement them. We want to support a similar effort in New Jersey, building on our work with Chair Smith, his staff, and DEP on minimum recycled content legislation. We are confident that we can replicate that constructive engagement on EPR as well.

EPR legislation is complex, many stakeholders are involved, and many legislative approaches are circulating around the country including some that are poorly designed. Fortunately, we have a strong model in Colorado's HB 22-1355, recently signed into law. In this legislative session, we also supported the Senate version of EPR in New York (S.1185C, Kaminsky) and S.5697 Sub. (Das) in Washington State. We have provided brief summaries of these bills at the end of the memo, provided links to the bill language, and summarized provisions of these approaches.

Our support for these bills and our assessment of S.426 and other legislation is informed by our companies' experience with EPR for packaging and printed paper programs around the world and a consensus among many experts and other brands on the principles underlying an effective EPR program. These principles call for program design that will:

- Generate strong environmental outcomes in an efficient, transparent, and accountable manner
- Provide convenient service to consumers
- Create a financially sustainable model that producers fully fund and manage
- Offer producers access to recovered material for closed loop recycling

A well-designed EPR system for packaging in New Jersey would leverage existing recovery infrastructure, make new investments, and restructure programs to achieve improved recycling performance for the affected materials. If the right protocols are in place, the EPR program can do more than just fund the current system – it can enhance that system to achieve environmental goals and improve system efficiency at the same time – something that is difficult to do when individual communities make autonomous decisions about how to recycle. Experience shows, however, that without the right guardrails, producer fees support inefficiency, redundant systems, and costs unrelated to the recovery programs.

If producers are no more than the ATM from which towns and counties withdraw money to fund the status quo, the advantages of EPR are being squandered. This view explains our critical assessment of and opposition to the Maine packaging law because it is not EPR – it is a packaging tax, yet to be established through rulemaking, to fund an indeterminate scope of

activity, also to be determined through rulemaking. Producers have no responsibility other than to pay the bill when the state agency decides how much to charge.

We oppose the Assembly EPR bill in NY, A.10185, because the governance structure is inadequate to support real reform in New York; instead, responsibility lies with the state agency, while producers write the checks and are held accountable for system performance over which they have little control. It is not enough to pass the checkbook to producers and call it EPR – producers need to be given the tools and be held accountable for improved recycling performance.

Our goal in New Jersey is to work with the Committee to bring forward EPR legislation for packaging and printed paper that is consistent with best practices and to design a program that will be efficient and effective at achieving much needed improvements in recycling, circularity, and reduced environmental impacts.

### **Our Employees and Our Commitments**

American Beverage Association members produce and distribute a wide array of refreshment beverages through a network of local bottlers who live and work in the State. Our industry provides jobs to over 6,800 New Jersey residents; these jobs are some of the best paid, highest benefit jobs available in communities to employees with and without college degrees, and many of them are union jobs. We are proud of our employees and how they and the companies they work for are involved in and give back to our communities.

We are long-time advocates for and defenders of the Clean Communities program and we worked with our customers and others to reinstate the disposal surcharge to fund recycling grants to communities. We believe strongly in sustained and reliable funding for recycling, and EPR is the natural next step in our advocacy for those kinds of policies.

The beverage industry plays an important role in advancing the circular economy. Our packaging is specifically designed and optimized for recycling. In particular, our PET bottles and aluminum cans are 100% recyclable, have a high commodity value and, when collected and recycled, can become new bottles and cans. The industry also has invested in local and regional recycling infrastructure for more than 40 years.

The companies have also made commitments to collect and recycle packaging waste, to incorporate more recycled content into our PET bottles and to reduce the amount of new plastic in our bottles. We are working to get every bottle back to meet these ambitious goals and support a circular economy for our beverage containers.

The industry's Every Bottle Back program announced in late 2019 asserted ABA's commitment to reduce new plastic use and increase collection of their valuable bottles. The program, launched by The Coca-Cola Company, Keurig Dr Pepper, and PepsiCo, represents collaboration among competitors to support the circular plastics economy by reinforcing to consumers the value of their 100 percent recyclable plastic bottles and caps and ensuring they don't end up as waste in oceans, rivers, or landfills. We are executing this program in conjunction with two of the country's most prominent environmental nonprofits and the leading investment firm focused

on the development of the circular economy. More information can be found at <https://www.innovationnaturally.org/plastic/>.

## ***Components of Effective Legislation***

In order to establish a level playing field among producers and to develop a comprehensive and coherent approach for recycling, legislation is necessary to set program parameters, assign roles and responsibilities, and lay out a timetable for implementation. Below, we have outlined key elements and principles of that legislation that we believe should be added, clarified, or removed from S.426 in order to align it with global best practices.

### **Program Scope**

Scope is concerned with defining the products subject to the program as well as the services that are the responsibility of the producer responsibility organization (PRO).

- **Covered products should include packaging and printed paper.** Packaging alone ignores the significant waste stream contribution of junk mail, catalogues, directories, magazines, brochures, booklets, newspapers, and similar printed or printing papers.
- **Packaging product definition should capture only packaging received by the final consumer.** Packaging used to ship goods between businesses or for transport does not typically enter the municipal waste stream. Materials in the industrial, commercial, and institutional sector (ICI) are managed through commercial recycling contracts, paid for by producers and shippers.
- **The scope of covered services funded by producers should only include collection, transportation, processing, and marketing of materials collected for recycling along with the associated promotion and education.**
  - This scope includes disposal costs only for residuals captured between collection and sale to end markets. This is fundamentally different from EPR programs for hard-to-manage or household hazardous wastes like mattresses, paint, or electronics, where all management costs fall under the producers' responsibility.
  - For packaging and printed paper, a shared responsibility model remains in place where taxpayers and rate payers continue to fund the collection and disposal of materials that are not recyclable or not recycled, as producers fund recycling so it can be offered at no cost to taxpayers and rate payers.
- **Service standards/convenience standard.** The program must make recycling as convenient as disposal.
  - Recycling should be provided in a manner and location parallel to how trash is managed (*e.g.*, at the curb in a residential neighborhood, at a transfer or disposal site for dropoff, or in a trash room or parking lot of a multi-family complex).
  - Recycling must be provided free to all residential customers.
  - Additional recycling access may be provided away from home as determined by the PRO.

## Program Governance and Startup

- **A single, nonprofit PRO manages the launch of the program and implements key program elements.** Establishing a strong PRO at the outset provides for efficient conduct of the critical early steps in program development and implementation.
  - The PRO acts as an agent on behalf of obligated producers, manages participation in the organization including fee collection, fund disbursements, and program development.
  - Individual producers may develop their own plans to meet performance targets consistent with those of the PRO.
- **Producers prepare a Needs Assessment to inform the development of the plan.** A common component of EPR legislation for packaging and printed paper is a needs assessment, funded and managed by producers, but whose scope and results are subject to review and input from an independent advisory board and the regulatory agency.
  - The needs assessment establishes a baseline of current recycling access and services, assesses the gaps in collection access and convenience, determines what processing capabilities exist and how they could be improved, assesses the feasibility of closing those gaps and the potential costs and barriers to do so, evaluates outreach and education programs, and assesses end markets. The needs assessment also compiles baseline cost data to serve as a starting point for developing reasonable reimbursement rates for service providers.
  - The scope of the needs assessment would be developed by the PRO, reviewed by the advisory committee and Department, and the results made public.
  - The PRO then uses the needs assessment to set informed and achievable goals, determine a minimum recyclables list (see below), prioritize its investments across collection, processing, and markets, and set reimbursement rates.

## Plan Development/Plan Elements

Based on the needs assessment and the legislation, the PRO develops a proposed plan for implementation. The plan is informed by consultation with stakeholders, including the advisory board, and the regulatory agency has ultimate approval authority for the plan and can request amendments to it. Key elements of the plan follow:

- **Set aggressive, but realistic goals.** The needs assessment will establish baseline levels of recycling and scenarios for increasing the rates. Basing goals on actual data is far preferable to arbitrary figures chosen for political purposes.
  - We recommend establishing goals for collection rates (as picked up from households), recovery rates (as material leaves the MRF or other processing facility) and for post-consumer recycled content.
  - Controlling recycling rates (material used in new products) falls outside the scope of the system over which the PRO has jurisdiction and should not be included.
  - Recycled content goals should be consistent with existing law and incorporate best practices regarding averaging, reporting, waivers, and variances.

- **Develop a minimum recyclables list.** The broad scope of covered materials (printed paper and packaging) helps define the producers obligated to fund the program and the scope of materials subject to fees to provide the funding. Not all covered materials can be recycled, however.
  - This list, developed based on the needs assessment, defines the baseline materials collected by recycling programs across the state. This simplifies program management and, allows for consistent communication and promotion efforts statewide.
  - The list is also critical to setting performance standards for service providers because not only must they provide convenient access as defined in the plan, but they must provide collection and processing for all listed materials.
  - Materials not on the list will pay additional fees because they are not, initially at least, recyclable through the program. This helps create an incentive to use recyclable materials and to invest in infrastructure to allow new materials to be added to the list.
  - Individual communities can collect and be reimbursed for additional materials if they demonstrate the viability of markets for the material and, similarly, communities can receive waivers if collection is not practical in a community.
- **Establish funding/reimbursement system for recycling service providers.**
  - Funding is tied to service providers' compliance with standards for service, convenience, minimum recyclables, and other conditions. The goal is not simply to reimburse providers for doing what they do today; it is to improve the system and pay reasonable costs to the providers that support that system.
  - The needs assessment helps to determine reasonable rates or ranges of rates for service in different types of communities/settings; municipalities share data with the needs assessment consultant and PRO. The PRO can also put service out to bid where no provider exists, or none can meet the service standards.
- **Establish material-specific fees for producers.** Fees must cover reasonable costs of recycling service (net of commodity value), the needs assessment, administration of the PRO, state administrative and enforcement costs, and the cost of the promotion and education program plus a reasonable program reserve.
  - Material-specific fees based on net costs to recycle will avoid cross-subsidization of other materials.
  - Adjustments to those fees to reflect environmental attributes (eco-modulation): lower fees incentivize recyclability, high recovery, reuse, and recycled content rates; higher fees penalize non-recyclable materials and materials with disruptive components that complicate sorting or reclamation
- **Develop a coordinated, consolidated promotion and education program.** Promoting the program in a consistent, professional, and sustained manner is at least as important as developing needed infrastructure and access, especially in a state like New Jersey where significant infrastructure already exists. A coordinated outreach program builds off a consistent statewide list of recyclables, the gaps in education identified in the needs assessment, and the importance of promoting participation and how-to-recycle messaging to reduce contamination.

- **Incorporate plan language to promote circularity**
  - Increasing the use of recycled content in packaging and paper products is a key objective of the legislation, so the plan should include language to encourage closing the loop with recovered material, especially for products where downcycling is common and often more economically attractive to markets.
  - The plan should describe how producers or the PRO would have priority in purchasing recovered material from processors at market prices. This protects against material being sold into lower value markets, especially where the producers who paid for its recovery are legally bound to incorporate the recovered material into their new products and packaging.

### **Out of Scope Provisions**

Various advocates are using EPR legislation to regulate packaging, which we do not believe is appropriate. Packaging regulation needs to consider overlapping federal standards, interstate commerce, and existing state laws and is a complex subject on its own. These issues are better addressed in standalone legislation. It is noteworthy that in negotiations among stakeholders in Washington State, these extra-topical provisions were ultimately excluded from the bill language. The topics we have identified as beyond the proper scope of EPR bills include:

- **Litter control.** While minimizing litter during the collection and transportation of recyclables is in scope for EPR, we object to PROs being assigned broader litter control responsibility and labeling mandates related to litter. Many others contribute to the litter problem, and it is better addressed through comprehensive programs such as the Clean Communities program in New Jersey.
- **Labeling mandates.** Some proposed legislation mandates state-specific labeling, such as state-specific recycling or recycled content information. Because of interstate commerce concerns, this should not be part of an EPR law.
- **Source reduction and reuse targets.** We do not support source reduction goals which are difficult to define, have uncertain baselines, and disadvantage producers that have already source-reduced products and packaging. The fee system implemented by producers is a better mechanism for incentivizing lighter, more recyclable materials. Bills such as the NY Assembly bill mandate dramatic reductions in packaging. EPR should focus on systems to collect and recycle material and to incentivize more recyclable and environmentally friendly packaging, not on re-engineering how consumer goods are delivered in a state.
- **Toxic chemical prohibition.** Again, the NY Assembly bill provides an example of regulating packaging through EPR, with a list of 15 substances banned from packaging and a mandate for the state agency to identify at least 10 additional substances to be banned every three years.

## ***Summary of Strong EPR Models<sup>1</sup>***

### **Colorado HB 22-1355 (Rep. Cutter, Sens. Priola and Gonzales)**

The bill was signed into law by Governor Polis on June 3, 2022. It was developed by a coalition including Recycle Colorado, Eco-Cycle, and a broad range of stakeholders from municipalities to producers large and small. Recycle Colorado held over 70 listening sessions with stakeholders over the last six months, which led to broad-based support for the bill, amendments and revisions, and some strong quarters of resistance as well.

This legislation is the first comprehensive EPR bill for packaging and printed paper in the US to have moved this far towards enactment. It draws heavily on the experience of programs in Canada and the EU and establishes a strong This extended producer responsibility (EPR) model will:

- Provide recycling program funding, standards, and promotion for millions of Coloradans who do not currently have recycling available at their homes or away from home
- Standardize and enhance recycling systems in those communities that do offer recycling
- Operate under a producer-run nonprofit, supported by an advisory board and overseen by a state agency
- Collect and manage producer funds, with all revenue dedicated to the operation and oversight of the program
- Significantly increase the collection and sale of recyclables, providing producers first access to purchase recycled materials

For a state with a strong environmental ethic, Colorado has lagged badly in providing recycling services to residents, with a statewide recycling rate of 15 percent, less than half the national average, and nearly six million tons of recyclable material landfilled every year. Those landfilled commodities have a market value of about \$100 million. Colorado has significant potential for environmental, economic, and social benefits from increased recycling owing to job growth and economic development from collecting, processing, and utilizing recycled materials in new products; savings for local governments and taxpayers/ratepayers; and reduced greenhouse gas emissions, landfilling, and dependence on fossil fuels.

### **NY S.1185C (Kaminsky)**

This bill died in the Senate Finance Committee, but was critical in the contentious debate around EPR legislation for packaging and printed paper in New York this session. Earlier this year, Governor Kathy Hochul elevated the priority of EPR by including a version of this Senate bill in her Executive Budget. While the section was not taken up by the Legislature as part of the budget, it raised the profile of the issue. Subsequently, an Assembly Bill (A.10185, Englebright) was introduced, but similarly died in Committee. Though there were negotiations to arrive at compromise language, the principles underlying the Senate and Assembly versions were too far apart to bridge.

---

<sup>1</sup> A table summarizing and comparing key provisions of these bills is attached.

Like the Colorado law, S.1185C reflects principles common in well-designed packaging and printed paper EPR programs elsewhere in the world:

- Through a needs assessment, the PRO identifies gaps in access as well as investment and infrastructure needs
- A single PRO develops a plan consistent with convenience standards for recycling services to provide parallel access to recycling, free of charge, to all households including multi-family households and those institutional locations served through municipal contracts (e.g., NY City Public Schools)
- The PRO proposes reasonable compensation rates for service providers depending on the nature of service provided and the communities served and proposes fees on producers to cover the net costs of these services as well as administrative costs for the state and PRO and the promotion and education program.
- An advisory board of stakeholders, appointed by the Department of Environmental Conservation, reviews the needs assessment, is consulted on plan development, and delivers recommendations to the Department regarding plan approval or modifications.

Recycling access is widespread in New York, but many communities have not been able to keep up with modernizing equipment or improving service as costs increase. Further, there are significant gaps, as there are in most communities, extending recycling service to multi-family households. The advantages of the Senate bill, from our perspective, are the stronger governance structure, limited extra-topical provisions tacked onto the bill, and commitment to a true EPR model where producers not only fund the program but are accountable and responsible for its performance. The Assembly bill places far too much authority with the state agency.

#### WA S.5697 Sub. (Das)

The substitute Senate bill passed out of its initial committee, but saw no further action in the abbreviated legislative session in 2022. The bill was being amended further at the time it was withdrawn as a group of stakeholders was meeting to arrive at compromise language on a number of key provisions.

While this bill meets many of the principles we have identified for a well-designed program, it is somewhat more bureaucratic and cumbersome than the Colorado or New York Senate bills we favor. More responsibility is shifted to state agencies, such as the conduct of the needs assessment, but the amendments were moving in the direction of providing more input and review in the hands of the PRO. The beverage industry was supportive of this negotiated compromise, but the bill was never finalized or acted upon in 2022.



## Testimony In Favor of S426 to the Senate Environment Committee

Doug O'Malley, Director

Environment New Jersey

June 13, 2022

It is no secret that we have a waste problem in New Jersey and the country - in fact, the U.S. throws out enough plastic approximately every 11 hours to fill MetLife Stadium, and that amount is increasing.

Our society continually produces goods designed to be used once or temporarily and then thrown away. Most discarded materials are then landfilled or incinerated, creating pollution and requiring producers to extract more natural resources to make new materials.

Municipalities across New Jersey and country are struggling to support recycling programs while facing an ever-increasing stream of hard to recycle waste from the products we buy. Our recycling rates are low, people have lost faith in the recycling system, and recycling markets for our plastic waste are less and less reliable, all because producers continue to make wasteful, often non-recyclable products with no responsibility for management. S426 can help address these problems by requiring that producers support infrastructure to manage packaging waste, while incentivizing them to make more recyclable products. Our report *Breaking the Waste Cycle* details how producer responsibility has proven to be an effective approach to reducing waste and improving recycling. Such laws already exist in jurisdictions around the world, and they are working well to manage packaging and provide safe disposal for polluting and hazardous items.

Consumers are frustrated by the lack of sustainable options on the shelf, and the ease in which they should be able to recycle. At the same time, companies that produce wasteful single-use plastic products, beverage containers, and other waste that litters our communities, fills our landfills, and is burned in our incinerators have avoided paying up for decades. A big reason why packaging pollution is on the rise is because producers are absolved of all responsibility for where their products end up, and whether their products are labeled correctly. That leaves you and me with confusion and limited choices, meanwhile footing the bill for managing the waste. This law begins to change that by requiring producers to bear some of the costs of our recycling system.

To be clear: recycling can't solve our waste problem by itself. That's why we support a strong producer responsibility law that encourages not only more recyclable packaging, but less packaging, period. With that said, we must also aggressively enact measures to reduce waste and move away from packaging that causes harm to the planet and public health in its production and disposal. New Jersey has already been a leader on that front by passing our state-wide ban on foam food packaging and single-use plastic bags; but there is certainly more we can do.

## **Background on Extended Producer Responsibility Programs:**

Producer responsibility programs around the world have existed for decades and have successfully increased collection and recycling rates for the products they cover. With the growing urgency of the climate crisis, the rising impact of plastic pollution, and the continuing impacts of China's waste import ban on America's recycling system, U.S. cities and states, as well as the federal government, should adopt thoughtfully designed producer responsibility programs – especially for packaging and printed products.

Producer responsibility is a proven approach to reducing waste and improving recycling. Under producer responsibility programs, manufacturers – not individuals or taxpayers – are responsible for the waste their products create, and bear responsibility for the collection and proper recycling of those products at the end of their useful lives. This incentivizes producers to design their products to be more environmentally friendly throughout their lifecycle.

Producer responsibility is particularly important when it comes to addressing waste from packaging, paper and single-use plastics.

- Containers and packaging account for roughly 30 percent of municipal solid waste (MSW), with 80.1 million tons of these materials thrown away in 2017. These materials clog landfills and incinerators, especially following the recent decision by several foreign countries – most notably China – to stop accepting most U.S. waste exports, dramatically increasing the cost of recycling for many U.S. communities.
- In 2020, we saw the introduction of federal legislation to hold producers accountable for wasteful products, reduce packaging, and phase out single-use plastic products. The Break Free From Plastic Pollution Act would place the financial burden of waste management and the clean-up of plastic pollution on the companies that manufacture and sell those products, and require producers to design their products in such a way as to minimize their environmental impacts, among other requirements.

**Effective producer responsibility programs can play an important role in moving the United States toward a circular, zero-waste economy. In adopting those programs, states like New Jersey should:**

1. Integrate producer responsibility programs into an overall approach to waste reduction that:
  - First and foremost, reduces the amount of waste generated;
  - Encourages the reuse, repair and refurbishment of products whenever possible;
  - Recycles or composts all remaining materials, and;
  - Landfills or incinerates as little material as possible.
2. Require producers to bear all of the end-of-life costs of their products, including waste collection, hauling, recycling, composting, landfilling, incineration and litter cleanup costs.
3. Adjust any fees to incentivize producers to use recycled content in their products and design products that last and are easy and economical to repair, recycle or compost.
4. Incentivize the repair or reuse of products where possible, and the recycling or composting of products that have reached the end of their useful lives.
5. Set high standards for oversight and transparency at every stage of the process to ensure that producers are complying with requirements.

## Why Extended Producer Responsibility?

People are pessimistic about being able to reduce their plastic waste. They have good reason, given that recycling rates are down nationwide.

Fifty-four percent of respondents to a new World Wildlife Fund poll say they worry their individual actions won't affect the overall amount of plastic waste.

The poll, released last Monday, reveals a despondent populace: More than 75 percent said they believe that none or only a small fraction of plastic waste in the U.S. actually gets recycled. That sense of futility in turn may be jeopardizing recycling rates: 46 percent say they worry it's pointless to put plastic into the recycling bin because so little of it gets recycled.

At the same time, an increasing share of people think plastics do more good than harm — 45 percent, up from 36 percent in 2020.

But they also want more reusable options: 78 percent said they would prefer reusable to disposable plastic products, and 75 percent said they would prefer to buy things with minimal plastic packaging.

They're increasingly seeing it as a problem for businesses to fix, the poll finds. Fifty-two percent said businesses that produce or sell plastic bear the most responsibility for reducing waste, up 5 points from 2020. And just 25 percent pinned the blame on individuals who use plastic, down from 32 percent in 2020.

## Action That Can Be Taken via S426:

To achieve the reduction in packaging we want to see, it will be critical that the New Jersey Department of Environmental Protection (NJDEP) watchdog implementation and ensure that a program actually rewards reusable and truly recyclable – not hypothetically recyclable products.

Chairman Smith, you have put tremendous effort into this bill over the short-term and we thank you for your past and current work. As we move forward to discuss this bill in 2022, we must maintain proper guardrails to ensure effective enforcement of this bill and independent oversight of industry. For example, no money from this program or state dollars should be used to subsidize the conversion of plastic waste to fossil fuels and feedstocks, so-called “advanced-recycling” or incineration of waste.

Ultimately, Environment New Jersey would like to see more emphasis put on waste reduction, especially on single-use packaging and priority single-use products. We all know the saying, “reduce, reuse, recycle,” but too often we forget: It's reduce first, then reuse, and when all else fails: recycle.

*The principles that should be incorporated into final legislation should include:* 1) Mandatory reduction in statute, through reduction or reuse by 50% over a 10-year period. 2) Eliminate toxic chemicals from packaging, most notably PFAS and phthalates. 3) Ensure recycling is defined as such and not included chemical industry attempts to include waste-to-energy incineration or “advanced recycling” that promotes chemical recycling. 4) Direct funding to cities and town for waste reduction which is environmentally and economically more feasible. 5) Provide certitude for accountability of packaging industry with clear standards, auditing and an independent oversight that doesn't rely on industry self-regulation. 6) The original EPR was bottle bills, which New Jersey never adopted. Bottle bills are incredibly effective for reducing litter, increasing recycling rates and creating a cleaner environment 7) Create environmental standards for packaging to ensure the use of recyclable materials.

#### **S423 Sets Strong & Clear Mandates:**

- 1) All single-use plastic packaging be reduced by 25% by 2030.
- 2) All single-use packaging should be composed of at least 75% post-consumer content by 2027.
- 3) All single-use packaging be readily recyclable or compostable by 2030.

#### **Areas Of Improvement for S426:**

- 1) Clear definitions of recyclable and compostable.
- 2) Ban toxic chemicals from packaging.
- 3) Including clear language restricting waste-to-energy incineration & advanced recycling.
- 4) Require producers to pay into a state program to reduce waste and improve recycling.
- 5) Establish a bottle bill that will incentive improve recycling rates/streams & reduce litter.

#### **Conclusion:**

We share the goal of solving our waste problem and turning back the tide on packaging pollution. Producer responsibility is a critical tool in achieving a zero-waste future. We would like to see a full producer responsibility model be considered in New Jersey, in which producers are responsible for the full cost of the system, everything from product design, to collection, to processing.

We know recycling alone can't deliver all of the environmental protections that we need, especially when dealing with plastic waste. We have to prevent waste at the source. It's reduce first, then reuse, then recycle. We need to make sure we're supporting waste reduction in tandem with any recycling program in New Jersey.

If your bathtub is overflowing, you don't start by bailing out the water-- you start by turning off the tap. We need to turn off the plastic tap, or the problem of plastic pollution in our environment and in our communities will only get worse.



June 13, 2022

Senate Committee on Environment and Energy  
New Jersey Legislature  
Trenton, NJ

**RE: Opposition to Senate Bill 426 – Requires producers of packaging products sold in New Jersey to adopt and implement packaging product stewardship plans**

On behalf of the American Forest & Paper Association<sup>1</sup> (AF&PA), we appreciate the opportunity to share our perspective on legislation under consideration by the Committee: Senate Bill 426. In New Jersey, the forest products industry employs nearly 13,000 individuals, with an annual payroll of nearly \$1.13 billion and manufacturing output exceeding \$3.35 billion annually.

AF&PA must respectfully oppose S.426, which seeks to require producers of packaging products sold in New Jersey to adopt and implement packaging product stewardship plans. The paper industry has a demonstrated, measurable record of success in making paper and paper-based packaging more circular and sustainable through market-based approaches.

Extended producer responsibility (EPR) policies are typically applied as a solution for hazardous, hard-to-handle materials with low recycling rates, such as batteries, paint, mattresses, or electronics. For a highly recycled material like paper, with widely accessible collection programs and robust and resilient end markets, EPR could disrupt efficient and successful paper recycling streams in an attempt to improve the least effective streams. We respectfully ask policymakers to focus on improving recycling for materials with low recovery rates *and allowing legislation crafted and passed with that in mind to work*, instead of creating mandates and fees for paper producers that could direct capital away from investing in recycling infrastructure.

Paper-Based Packaging Recycling Works

Paper recycling rates in the U.S. have consistently increased in recent decades, with 68 percent of paper recovered for recycling in 2021.<sup>2</sup> The paper industry recycles about 50 million tons of recovered paper every year — totaling more than 1 billion tons over the past 20 years. According to the EPA, more paper by weight is recovered for recycling from municipal waste streams than plastic, glass, steel, and aluminum combined.<sup>3</sup>

<sup>1</sup> AF&PA serves to advance U.S. paper and wood products manufacturers through fact-based public policy and marketplace advocacy. The forest products industry is circular by nature. AF&PA member companies make essential products from renewable and recycle resources, generate renewable bioenergy and are committed to continuous improvement through the industry's sustainability initiative — Better Practices, Better Planet 2030: Sustainable Products for a Sustainable Future. The forest products industry accounts for approximately four percent of the total U.S. manufacturing GDP, manufactures nearly \$300 billion in products annually and employs approximately 950,000 people. The industry meets a payroll of approximately \$60 billion annually and is among the top 10 manufacturing sector employers in 45 states.

<sup>2</sup> <https://www.afandpa.org/news/2021/resilient-us-paper-industry-maintains-high-recycling-rate-2020>

<sup>3</sup> [https://www.epa.gov/sites/default/files/2021-01/documents/2018\\_ff\\_fact\\_sheet\\_dec\\_2020\\_fnl\\_508.pdf](https://www.epa.gov/sites/default/files/2021-01/documents/2018_ff_fact_sheet_dec_2020_fnl_508.pdf)

products and the voluntary action already underway. Recovered fiber markets are complex, efficient, and dynamic and are not served by regulations or prescriptive approaches to specify the use of recycled fibers or dictate what type of recovered fiber is used in products.

Moreover, the preference for “post-consumer content” in packaging could be contrary to sustainability goals. Rather than drive increased paper recycling, recycled content minimums in paper products could: make markets for recovered fiber less efficient; prevent recovered fiber from going to highest value end use; raise the cost of production for new paper products; and narrow available choices for consumers.

Current efforts have achieved strong gains in paper recycling and are expected to continue to do so in the future. Putting pressure on producers to arbitrarily change content in certain paper products interrupts the market-based utilization of recovered fiber, prevents recovered fiber from flowing to its highest value end-use, is counterproductive both economically and environmentally, and is inconsistent with the precepts of sustainability.

Recycling programs in the U.S. are operated by local governments, which have more freedom to tailor recycling programs to the needs of local communities. The record of highly centralized, command-and-control EPR programs in Canada and Europe offers no real proof of advantages over the market-based approaches and locally-operated programs prevalent in the U.S. In fact, a 2021 research paper performed by York University in Ontario concluded there is no evidence to indicate that the steward-operated EPR program in Canada will result in cost containment or increased recycling performance.<sup>7</sup>

### Conclusion

S.426 should take a more solution-oriented approach focused on problematic materials in the commingled residential collection stream. Paper recycling has enjoyed decades of success because of the industry’s investments, consumer education, the wide availability of recycling programs, and the efforts of millions of Americans who recycle at home, work, and school every day. The paper products industry is proud to be part of the recycling solution by providing renewable, sustainable, and highly recycled products for consumers.

We respectfully ask policymakers to focus on improving recycling for materials with low recovery rates that contaminate the recycling stream. AF&PA continues to support promoting increased participation in community recycling programs and other best practices, in addition to focusing on hard-to-recycle materials where there may not yet be a well-developed collection infrastructure or good recovery results.

We encourage the Committee to avoid measures that might penalize paper and paper-based packaging and their existing successful recycling programs. We look forward to continuing our work with the State of New Jersey and urge legislators to avoid measures that would penalize the use of paper-based packaging. Please contact Abigail Sztejn, Director, Government Affairs at [Abigail\\_Sztejn@afandpa.org](mailto:Abigail_Sztejn@afandpa.org) with any questions.

---

<sup>7</sup> Review of Recycle BC Program Performance, Dr. Calvin Lakhani, York University

**Testimony of Chris Tandazo, Community Connections Program Manager at New Jersey Environmental Justice Alliance**

**BEFORE THE NEW JERSEY SENATE ENVIRONMENT AND ENERGY COMMITTEE**

**JUNE 13, 2022, TRENTON, NEW JERSEY**

We would like to clarify that the New Jersey Environmental Justice Alliance is in favor of an Extended Producer Responsibility bill for New Jersey, however, we oppose Senate Bill No. 426 due to the lack of clarity on the definition of recycling, which should not include nor allow for chemical recycling to be considered.

Thank you for holding this hearing, which includes accepting comments on Senate Bill No. 426, a bill that would require producers of packaging products sold in New Jersey to adopt and implement packaging product stewardship plans.

I am pleased to be here with you today, my name is Chris Tandazo, they/them pronouns, and I am the Community Connections Program Manager at the New Jersey Environmental Justice Alliance (NJEJA), as well as someone that calls New Jersey their home. The New Jersey Environmental Justice Alliance is the only statewide environmental justice organization in New Jersey, and we are the first state-wide organization created for and by people of color. NJEJA works in coalition with other groups to identify, prevent, reduce and/or eliminate environmental injustices that exist in communities of color and low-income communities.

NJEJA, alongside other environmental justice advocates, collectively advocated and led the way in the passage of the landmark Environmental Justice Bill (S232). The EJ law, and recently proposed rules, would direct the New Jersey Department of Environmental Protection (NJDEP) to deny or condition certain permits due to cumulative impacts of pollution from industrial facilities in overburdened communities. As we await the final set of rules to be adopted by the end of the year, we hope that NJDEP and other elected officials will act in the spirit of the law and protect our communities from currently proposed projects to site polluting facilities in our communities, adding a threat to our health and well-being. We also hope the state holds its promise of ensuring environmental justice for every New Jerseyan and upholding Executive Order No. 23.

For Environmental Justice groups on the East Coast, Extended Producer Responsibility (EPR) has become an important area of work. NJEJA sees it as imperative for environmental justice voices to be present in this area, as we have been at the front line and backend of the plastic crisis and have directly experienced the harms of the entire life-cycle of plastic, from the extraction of fossil fuels for plastic production to the exposure of toxic chemicals when using plastics, to the disposal of plastic waste through burning it at incinerators. Our Black and Indigenous environmental justice partners in the South and the Gulf Coast are actively fighting against the petrochemical industries sited in their communities. This is where the plastic crisis starts, in places like Cancer Alley in Texas, where the presence of petrochemical industries has

exposed Black communities to high rates of cancer-related illnesses and deaths. This crisis expands as less and less plastic is made to be recycled, increasing plastic waste generation and disposal. At this stage, the plastic crisis arrives at our front door, in communities like Camden, Rahway, and Newark, where plastic waste is burned, alongside all other types of waste, at incinerators located in these communities. Burning plastics exposes us to toxic ash and other chemicals, increasing the risk of cardiovascular and respiratory-related illnesses for our communities, which are already overburdened by other socio-economic challenges. And this toxic ash doesn't stay in these communities. The air doesn't have any physical borders, and this pollution is carried to other communities in New Jersey and neighboring states. The current disposal of plastic waste in our communities in New Jersey is a continuation of the environmental racism and injustices that allows for the siting of incinerators and petrochemical industries in communities of color and low-income communities throughout the country. Reducing plastic production is in everyone's best interest.

NJEJA strongly recommends adopting a comprehensive Extended Producer Responsibility law for plastic packaging. Within this law, environmental justice advocates urge lawmakers to:

1. Encourage producers to influence the packaging industry in pushing for the reduction of plastic packaging, removing toxic materials, and having more diverse plastic materials that increase the recyclability rate. Producers should encourage the rethinking of the design of plastic packaging, taking into consideration the materials used, and the life-cycle of the product, and rethink how we dispose of the packaging, by implementing reuse or deposit return systems. By rethinking the design of packaging, we can reduce the amounts of plastic waste that get discarded and burned at incinerators.
2. Ensure the definition of recycling prohibits any burning, waste-to-fuel or -energy, chemical recycling, or so-called "advanced recycling" to count towards recycling targets. Chemical recycling is a false solution to the plastic crisis. Heating plastics generate toxins that pollute the air. The impacts of chemical recycling would be similar to the impacts of burning plastics at incinerators. A chemical recycling plant would likely trigger the EJ Law, however, and given that the EJ Law rules will not be adopted until later this year, we urge lawmakers and the state to act in the spirit of the law and prevent any plans for chemical recycling plants to go any further. As someone from an environmental justice community, I have a crude feeling that if a new chemical recycling plant comes into existence, it would most likely be sited in our communities, and to be honest, we do not need any more pollution — nobody does. Therefore, separate legislation that promotes chemical recycling, such as Assembly Bill 5803 introduced by Assemblymember John McKeon, should be rejected.
3. Eliminate toxic substances from packaging. All the chemicals used to produce plastic are highly toxic and not diverse, which makes the plastic product harder to recycle. These chemicals leech in our food, our waterways, and our air, thereby increasing the levels of pollution and toxicity that environmental justice communities are exposed to on a daily basis. Following the recommendations from Beyond Plastics, we also encourage lawmakers to include in the legislation a ban on the sale or distribution of any packing (including reusable packaging) that contains the chemicals or chemical classes mentioned in Judith Enck's Testimony.

Thank you for your time and attention to this critical issue that affects communities throughout New Jersey and the world. We have the tools, knowledge, and resources to address this crisis, and as my colleague Judith mentioned in her testimony, with some critical changes, Senate Bill No. 426, could be a tool to support New Jersey address this crisis. A reduction in plastic production would mean a breath of fresh, non-polluted air for our communities here in New Jersey, on the gulf coast, and throughout the country.

Chairmen Smith and Kennedy:

Thank you for the opportunity to provide comments on Senate Bill 426 and Assembly Bill 1444, which you sponsor. This legislation requires producers of packaging products sold in the State to implement packaging product stewardship plans.

Appropriate packaging is critically important, especially food packaging. Packaging preserves and protects food by minimizing contamination and exposure to the elements. Before being used, new types of packaging must be tested for years to ensure proper performance, durability, and prevention of microbial contamination.

Manufacturers are working toward sustainable packaging and investing in solutions that address the underlying problems in the recycling markets. We believe there are a number of principles that producer responsibility plans should include to better achieve the goal of increasing recycling rates. A poorly designed system would simply shift the costs of the current recycling system, as well as the costs of waste disposal, to producers of goods.

- **Shared Responsibility & Costs.** Recycling is a system that cannot depend on just one player for its success. Packaging producers, local governments, haulers and consumers all have a role in ensuring that the recycling system works and is improving. Producer responsibility legislation should contain mechanisms that enable the Producer Responsibility Organizations (PROs) to contain costs and ensure that other players continue to have a share of financial responsibility. This helps to ensure all stakeholders are invested in positive outcomes for the system and behaviors are aligned with positive recycling outcomes. This is also important so that recycling costs are not hidden in costs to consumers, resulting in higher costs on packaged goods.
- **Disposal Costs.** This legislation erroneously requires producers to fund disposal costs. Landfilling packaging materials is currently the least costly activity to manage packaging. If producers are obligated to cover the costs of disposal, landfilling will become even cheaper and thus the law could have a perverse effect of sending more packaging material to landfills if there is additional financial support for this type of waste disposal.
- **Needs Assessment.** A needs assessment should be conducted well in advance of the implementation of stewardship plans and should be required in this legislation. This analysis is the foundation of a functioning program and establishes a budget.
- **Stewardship Organization is Critical.** This bill should include a stakeholder advisory committee which would create stewardship programs and provide ongoing analysis and recommendations for improvement. Producer responsibility programs ideally integrate stakeholders through a stewardship organization that creates collaborative rates and solutions that incorporate real-world data and information. This is consistent with the principle that packaging producers have the responsibility and ability to help create solutions for recycling. Instead, the current bill draft creates a government run system

which separates producers from key decisions about rates and fees, resulting in non-market-based rates being set and fewer incentives for improved recycling infrastructure.

- **Improvement in Recycling Infrastructure.** This legislation focuses on funding the current recycling and waste management systems. This bill should allocate funds for continuous improvement in recycling infrastructure to allow for advanced technologies and processes.
- **Ensure New Responsibilities are Harmonized with Recent Mandates.** This bill follows enactment of the new recycled content law, which requires manufacturers to use post-consumer recycled content in many products, including food and beverages. The requirements of the existing minimum recycled content law are inconsistent with the requirements of the proposed legislation to reach 75 percent recycled content by 2027. These goals should be aligned. The producer responsibility legislation should focus on supporting producers as they work toward compliance with the recycled content law. This support can include longer timeframes, consumer education initiatives, and allowing the use of advanced or chemical recycling processes to increase the supply of recycled material, including material that is appropriate for food contact.
- **Incentivize Products that are More Readily Recycled.** This legislation should incentivize certain materials and products which are more readily recyclable as well as products which utilize reusability systems. These incentives could include different fee structures and exclusions of certain products.
- **Consumer-Centric Focus.** Consumer education is integral to the success of recycling initiatives. Recycling programs will only be successful if consumer convenience is prioritized in the creation and implementation of these programs.
- **Producer Responsibility Organizations.** This legislation should provide for the PROs to retain control of funds to invest back into their infrastructure and operations. The State should not keep or control these funds, especially given that funds designated for a specific purpose are sometimes transferred to other State departments or programs.
- **Implementation Planning is Essential.** Creating product stewardship programs requires a great deal of coordination and clearly defined roles between stakeholders and government entities and involves the entire packaging supply chain. It takes a significant amount of time and resources to create brand new systems, effectively implement these systems, determine how to measure progress, and educate consumers. This legislation should include a five-year period for the creation of implementation plans and more clearly delineated authority for the PROs.
- **Focus on Packaging.** This legislation includes provisions that go beyond increasing recycling. This proposal authorizes labeling mandates and shifting the cost of waste disposal to producers. This bill should be narrowly focused on increasing recycling rates in New Jersey.

Thank you for considering this information. Please contact Mary Ellen Peppard, Vice President of the New Jersey Food Council, at 609-203-0168, or via email at [mpeppard@njfoodcouncil.com](mailto:mpeppard@njfoodcouncil.com) for additional information about this issue.

124x



June 13, 2022

Senator Bob Smith, Chair, Environment and Energy Committee ([senbsmith@nileg.org](mailto:senbsmith@nileg.org), [igurrentz@nileg.org](mailto:igurrentz@nileg.org))  
Senator Linda R. Greenstein, Vice Chair, Environment and Energy Committee  
New Jersey State House  
Environment and Energy Committee  
125 W State Street  
Trenton, NJ 08608

**RE: Testimony in SUPPORT of S426/A1444 EPR for packaging and printed paper, with critical amendments outlined below**

Dear Chairman Smith, Vice Chair Greenstein, and Members of the Committee:

My name is Sarah Bloomquist, and I am the Director of Public Affairs for Recycling and Circular Economy at TOMRA Systems. TOMRA is a pioneer in advanced technology for the collection and sorting for recycling, with over 50 years' experience operating in more than 40 EPR-for-packaging and EPR-for-beverage-containers markets (aka deposit return systems) around the globe. Thank you for the opportunity to submit testimony on S426/A1444 EPR for packaging and printed paper (EPR-PPP). TOMRA supports this bill with critical amendments recommended.

**Summary of our position on S426**

We support the components of this bill which are designed to increase the quantity and quality of recycling in New Jersey and add to a more climate resilient future for the state. As outlined below, we recommend that existing infrastructure is utilized and upgraded as needed to meet the high targets that are critical to successful EPR. Additionally, core to the success of all EPR programs is the setting of ambitious and staggered targets for recycling and post-consumer recycled content (PCR). And to be able to meet those targets, the system must put an emphasis on quality, through meaningful definitions and investment in technology that can meet the stringent specifications required for circularity. A summary of our six recommendations follows below. **Please see pages 4-5 for full details.**

1. Set ambitious performance targets in statute that scale up over time, including a target for recycling rate.
2. Establish definitions and measurements that drive quality and circularity, measuring only the material that truly gets recycled into new products.
3. Invest in the system so that targets can be achieved, and the classic 'chicken or egg' dilemma is avoided.
4. Match packaging scope to the most effective EPR program, including a deposit return system for beverage containers.
5. Update and clarify costs covered by producers, including collection, transportation, sorting, recycling, and reuse of packaging.
6. Expanded recycling access should be built around convenience to maximize participation.

**About TOMRA Systems**

TOMRA provides sensor-based solutions in the collection and sorting sectors of the recycling value chain, including reverse vending machines for beverage containers and optical sorters at material recovery facilities (MRFs), and other solutions and services that promote a circular economy. There are approximately 40 TOMRA sorting systems in place in New Jersey, sorting the material collected in curbside recycling programs into high quality bales that are

then returned to the manufacturing sector. For example, the Mazza MRF in Tinton Falls uses several of our sensor-based units to sort all of Monmouth County's curbside recyclables into valuable commodities that then continue for processing at other facilities, many of which are within the region.

We also provide Reverse Vending Machines (RVMs) in every major container deposit market around the world to provide convenient, cost-effective, and secure container redemption technology. In the Northeast we provide much of the back-end services that keep container deposit systems running, from clearing the exchange of deposits and handling fees, to picking up, processing, and brokering recyclables.

### **Introduction – Shifting to circularity in packaging**

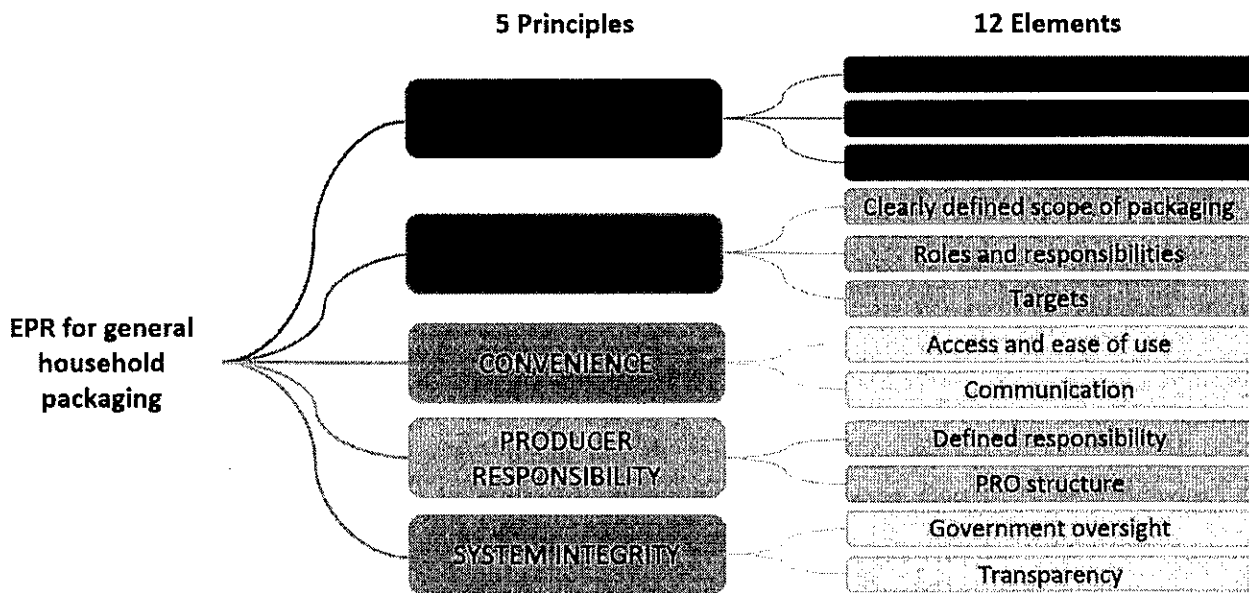
Depending on where you live or who you talk to, there's a sentiment that recycling is failing. Yes, there are areas that are doing great at recycling, but overall, the industry is in need of an overhaul. Solutions exist that can greatly increase the quantity and quality of recycling, and with the right incentives, we can shift packaging design and systems to be more sustainable where materials are recycled and put back into new products to achieve circularity and reduce waste.

EPR for packaging and printed paper is a proven solution to improve New Jersey's recycling performance, change how the system is financed, and help balance the economics of recycling. For example, ambitious recycled content mandates were signed into law earlier this year, which is a promising move in the right direction. However, as most anyone in the industry will tell you, supply is also a critical issue; they need more material. Recycled content mandates are a solid policy approach for increasing demand, however without policy that addresses the supply side of recycling then we'll find ourselves at a standstill unable to fulfill those recycled content mandates. EPR, if designed correctly, includes targets for recycling, which drive the supply side of the system and ensure that recycled content targets can be met.

### **NJ is leading the way on addressing waste and recycling with smart policy**

The state has taken serious action recently to address plastic pollution as evidenced by the plastic bag ban and recycled content mandates. These are only two of the tools in the toolbox. Properly addressing this requires a suite of solutions like the European Union's Single Use Plastics Directive (SUPD), which includes recycled content targets, bans, AND collection target for beverage containers.

Given the widespread interest in adopting EPR across the U.S., over the past year we analyzed the best practices of the existing EPR programs around the world that reach high performance. We released our findings earlier this year, outlining the key principles and elements found in high performing systems (see [\*EPR Unpacked – A Policy Framework for a Circular Economy\*](#) and [Figure 1](#)). One key finding is that EPR-PPP which includes meaningful recycling targets and proper enforcement mechanisms will drive an increase in both the quality and quantity of recycled materials throughout the system. While dedicated investment resources enable the implementation of the sophisticated solutions needed to deliver on those quality requirements.



**Figure 1. TOMRA's Principles and Elements for a High-Performing EPR for Packaging System**

**Deposit return systems, a form of EPR, achieve the highest collection rates for beverage containers**

Regions with the highest collection and recycling rates for all packaging, include deposit return systems (DRS) for beverage systems. DRS is a form of EPR specifically for beverage containers and have been proven to achieve the highest collection rates both in the U.S. and around the world (above 90% in high-performing systems). Incorporating the principles of EPR, successful deposit return programs engage producers and retailers to manage the environmental impact of a product back into the packaging production cycle.

**EPR for packaging started in Europe but now is being developed in the U.S.**

The timing is right to expand EPR strategies to include packaging. Three states – Maine and Oregon in 2021 and Colorado just last week – have recently passed EPR-PPP legislation to improve how materials are managed, reduce disposal, and change how the system is financed. A dozen other states are currently developing EPR-PPP bills, as well as activity at the federal level with the Break Free From Plastic Pollution Act which adopts both EPR-PPP and DRS at the national level.

Those three states have made progress on environmental policy for waste and recycling, however, New Jersey has the opportunity now to set precedent for best-in-class EPR policy. While Maine's version was admirable for getting the ball rolling and starting to change how the system is financed, it did not include targets in statute as are core to high-performing EPR systems. In Oregon, only around 28% of system costs are covered due to specific stakeholder interests in that state. True EPR requires full cost coverage from producers and ensures improved performance for how materials are managed. Both Maine and Oregon will be developing their programs starting this year and for several years to come through the rulemaking process. That could end in a more robust EPR framework than what currently exists, but that approach includes much uncertainty and a delayed implementation, neither of which do much to change the status quo.

Colorado's EPR bill, on the other hand, was designed for a state with dismal recycling rates and lackluster recycling infrastructure. New Jersey already has substantial recycling infrastructure so the state is better positioned than Colorado to set and achieve ambitious recycling and recycled content targets.

It should be mentioned that EPR for hard-to-recycle materials such as e-waste, paint, and batteries is already common practice in most states, but not yet for packaging, although the trend is in that direction.

#### **EPR incentivizes circularity for packaging**

In line with the success of EPR programs in Canada, Europe, and many other countries, EPR for packaging shifts the financial burden from taxpayers to producers, so that those who control the type of packaging put on shelves are the ones financially incentivized to ensure it is recyclable and recycled. This is accomplished through a producer fee schedule determined at a packaging material level to reflect the true cost of recycling and avoid cross subsidization of materials, and also by layering on eco-modulated fees that incentivize better packaging design (e.g., recyclability, reduction in packaging quantity, etc.). In the existing system, producers do not have an obligation to use packaging that can be recycled; there's no tracking and no penalties. Under EPR, the types and quantities of packaging will be reported in order to gauge how the system is performing and to identify more precise solutions.

#### **TOMRA's specific comments on S426/A1444:**

EPR-PPP, with our recommended amendments incorporated, would ensure that access to recycling is improved and that adequate solutions are in place to properly recycle materials, decreasing dependence on landfills and improving circularity. We have outlined below our key recommendations.

1. Set ambitious performance targets in statute that scale up over time, including a target for recycling: Targets are critical to ensure an EPR system does not merely shift the cost of recycling from taxpayers to producers, but that it improves waste diversion efforts. We appreciate that minimum performance targets are established. However, we recommend that in addition to targets for post-consumer recycled content, recyclability, and reduction, there should also be a minimum target for recycling, which is a fundamental measurement of a system's performance. Recycling and recycled content targets specifically, are the two groups of targets which are complementary in nature and are both necessary to establish a more balanced supply and demand dynamic for sustainable materials management. In addition, we recommend that the targets are set in a way that scales up over time, allowing industry time to adapt to the changes. Lastly, of critical importance to the effectiveness of the targets is that the statute must provide for appropriate enforcement and establish a regular schedule for review of the program.
2. Establish definitions and measurements that drive quality and circularity: How "recycling" and "recycling rate" are defined and measured lay the foundation for achieving meaningful change throughout the system. Precise definitions ensure accurate data capture and high-quality yields which enable circularity and the true achievement of targets.
  - a. "Recycling": We support that thermal treatment is generally excluded from the definition of what counts as recycling in consideration or the preferential treatment of waste (see EPA's Waste Hierarchy) which is based on environmental impact.
  - b. "Recycling rate" – Measuring recycling: Accurate measurement of recycling is critical to fully understanding material flows, to accurately report on the progress of achieving targets, and to identify underperforming sections of the system so that they can be improved. "Recycling rate" is not currently included because there is not yet a requirement for a recycling rate. The measurement should be taken from a precise and harmonized point along the value chain so that all players are using the same point of measurement. Only the material that enters for final recycling should count towards the recycling rate. In order to avoid the inclusion of contamination (e.g., food residue, inks, labels and other materials that are ultimately disposed of), recycling should not measure the quantity of material that enters or exits a MRF. The European Union is in the process of adapting this new metric, to correctly exclude contamination and waste from what is deemed "recycling."

3. Invest in the system so targets can be achieved: We appreciate that consideration has been made as to how existing infrastructure will be implemented under EPR. We also recommend that there should be a focus on how the existing infrastructure will be upgraded and expanded to meet the new requirements under a high-performing EPR system. Expanded investment in recycling infrastructure is critical to catalyze additional sources of investment throughout the value chain, that altogether focus on delivering high-quality yields that can be turned back into new products. In order to achieve ambitious post-consumer recycled content targets, the system must emphasize quality, which is critical to achieving circularity and ensuring that materials are turned back into new products. For example, we recommend the addition of a requirement for producers to allocate a minimum of 5% of their funds into infrastructure that supports the recycling of covered materials for the first 5 years of the program. Packaging formats and materials are continually evolving, and any high-performing system must have the mechanism to adapt and implement new technology and solutions that can handle all types of packaging. This ensures that EPR doesn't merely shift costs, but that system performance is achieved, and it also avoids the chicken and egg scenario for recycling investment/performance. If proper investment is not made, then producers will not be able to meet their targets. This recommended funding mechanism would ensure producers finance a system that supports necessary upgrades to process their choice of packaging.
4. Match packaging scope to the most effective EPR program, including a deposit return system for beverage containers: Update the scope of covered materials and program requirements to reflect the characteristics of the higher performing EPR systems around the globe, both for all consumer packaging as well as beverage containers. Deposit return systems have proven to reach much higher recycling rates than any curbside program is able to achieve, even when EPR-PPP is in place.
5. Update and clarify costs covered by producers: The language in the bill should clarify that the producers are responsible for the costs associated with the collection, transportation, sorting, recycling, and reuse of packaging. The current definition does not include the sortation part of the value chain, which follows collection and precedes recycling. It's in the sortation phase where quality systems are critical in turning curbside packaging into high value commodity streams that can return to new products.
6. Expanded recycling access should be built around convenience to maximize participation: Currently not everyone in New Jersey has convenient access to recycling. The bill as written only requires recycling access to match the current conditions and levels, but it doesn't set a convenience standard or targets for improving access. Convenience should be improved beyond what currently exists and access should be expanded to everyone. Rather than making recycling as convenient as the previous collection scheme, a better metric is to make recycling as convenient as trash disposal. A 'convenient access' standard should be added and quantified in order to ensure convenience. Additionally, drop off facilities should be limited and acceptable only in low-density areas.

## Conclusion

TOMRA supports well-designed high-performing extended producer responsibility programs for packaging. As proven in deposit states in the U.S. and around the world, a deposit return system is the most effective program for capturing and recycling beverage containers. For all non-beverage packaging, EPR-PPP is the right system. S426/A1444 has some excellent components that we see around the globe in high-performing EPR systems, for example a minimum requirement for targets on recycled content, recyclability, and reuse. However, as outlined above, there are several critical areas that must be revised in order to align with other high-performing systems, including: 1) adding a minimum target for recycling; 2) adding a precise definition for how recycling is measured; 3)



setting investment thresholds with a focus on quality systems; 4) maximizing recovery of beverage containers through a deposit return system; 5) updating and clarifying the costs the producers must cover; and 6) improving recycling access so that it is widespread and convenient for all residents of New Jersey.

Thank you for the opportunity to share our perspective with the Committee on high-performing well-designed EPR programs, based on our experience in implementing advanced collection and recycling solutions across the globe. We welcome any follow-up inquiry.

Sarah Bloomquist  
Director, Public Affairs (Recycling & Circular Economy)  
TOMRA Systems ASA  
+1.203.690.2675  
[Sarah.Bloomquist@tomra.com](mailto:Sarah.Bloomquist@tomra.com)

#### **ABOUT TOMRA**

TOMRA provides a range of advanced vision systems that utilize sensor-based technology to sort everything from bottles to blueberries allowing companies and consumers to reduce their waste footprint and providing a stream of clean valuable material to the 'circular economy'.

**TOMRA SORTING:** TOMRA Sorting creates sensor-based technologies for sorting and process analysis within the recycling, mining, food, and other industries. TOMRA Recycling is a global leader in its field and has pioneered the automation of waste sorting. Its flexible sorting systems perform an extensive range of sorting tasks and can both prepare and sort various types of metals and waste for either material recycling or energy recovery. Currently TOMRA Sorting Recycling has an installed base of close to 5,960 units across more than 40 markets.

**TOMRA COLLECTION:** With an installed base of approximately 83,000 systems in over 60 markets including all 10 U.S. states with deposit laws, TOMRA Reverse Vending is the world's leading provider of reverse vending and clearinghouse solutions. Every year TOMRA facilitates the collection of more than 40 billion empty cans and bottles and provides retailers and other customers with an effective and efficient way of collecting, sorting, and processing these containers. TOMRA's material recovery business includes the pick-up, transportation, and processing of used beverage containers in North America, as well as the subsequent brokerage of the processed material to recyclers. The revenue stream in this business area is derived from fees received from bottlers based on the volume of containers processed. Currently, TOMRA Material Recovery processes over 340,000 metric tons of containers annually. TOMRA has over four decades of experience in markets with deposit return laws in place. Throughout the Northeast TOMRA provides many services solely to power container deposit systems or 'the bottle bill'.



**Written Testimony of  
Alex Schenck, PepsiCo**

Before the New Jersey Senate Environment and Energy Committee  
For discussion on *S. 426, requiring producers of packaging products sold in New Jersey to adopt  
and implement packaging product stewardship plans*

---

Greetings Chairman Smith, Vice Chair Greenstein, and members of the committee. On behalf of PepsiCo, thank you for the opportunity to provide comment on this important legislation.

I am Alex Schenck, Senior Manager, Environmental Policy, and lead the company's environmental policy efforts in North America. PepsiCo applauds the Chairman's interest in Extended Producer Responsibility (EPR) legislation. The company shares your concern over the state of recycling in New Jersey and the impact that litter poses to the environment.

PepsiCo is a strong supporter of well-constructed EPR and believes that industry action would help minimize pollution and achieve a circular economy. Producers of products found in the solid waste stream should share the responsibility for litter prevention and management activities and promote policies to support recycling systems and achieve circularity.

PepsiCo has led and participated in EPR programs throughout the world and has learned through years of experience how to maximize efficiency and strong environmental outcomes. PepsiCo believes that EPR systems are an effective means of improving and managing recycling systems provided they are founded on a set of critical design parameters.

PepsiCo developed the following principles as part of the Consumer Goods Forum's Plastic Waste Coalition of Action, which has identified several key design parameters for optimal EPR programs. These principles aim to shift from the status quo toward a waste and recycling future with better recycling rates, activated consumers, and circular use of materials, including recycled content in our packaging.

Individually and as members of the Coalition of Action, we have taken a leadership position to develop principles and key design parameters for optimal EPR programs, which you can review in [\*Building a Circular Economy for Packaging: A View from the Consumer Goods Industry on Optimal Extended Producer Responsibility\*](#).

As described in our paper, we support well-designed EPR founded on the following principles:

- Strong environmental outcomes,

- Efficient, cost-effective and accountable,
- Shared financial responsibility,
- Convenient for consumers,
- Long-term financial sustainability,
- Allow producers to secure material for closed loop recycling, and
- Social inclusiveness and fairness, especially in developing markets with informal sector involvement.

PepsiCo is active in its pursuit of EPR solutions across the United States at the state and federal level. I encourage the state to consider the demonstrated success of the above principles in other markets, where recycling rates of all materials exceed the performance of the best systems in the United States. These principles should be retrofitted for US recycling systems to achieve desired outcomes.

I would like to draw your attention to a few of the principles above that should be considered as the state continues to draft EPR legislation:

### **Governance**

To maximize the performance of an EPR system, producers must be empowered to run the program under the supervision of public authorities, with appropriate provisions for transparency, reporting, performance, auditing, and compliance. As it pertains to EPR, New Jersey and producers share the goal of achieving robust recycling rates and strong environmental outcomes while maximizing efficiency.

In our vision for optimal EPR, the state would maintain full authority over the system but delegate the day-to-day management and funding obligations to an industry-led, not-for-profit Producer Responsibility Organization (PRO). The PRO should set bold recycling targets for all materials based on a thorough statewide needs assessment.

EPR should not be a system where producers are asked to fund status quo recycling operations but instead be designed to disrupt the status quo with the goal of achieving significant improvements to recycling system performance. Improvements to recycling rates and positive environmental impacts are not possible if EPR is seen solely as a pay-for.

### **Shared Financial Responsibility**

EPR must be part of a broad solution in which the roles and responsibilities of all actors are properly attributed and fulfilled, and all material types should bear a fair share of the costs. EPR systems function best when all materials pay their own way, which ensures that all affected stakeholders have a vested interest in the performance of the system and its outcomes. Opportunities for fee reduction are provided to producers of environmentally friendly and easily recycled material through an ecomodulation process.

Further, the funding obligations of producers should be proportionate to their management authority. Our principles call for recycling costs to be distributed equitably between producers, municipalities, and taxpayers. If producers are expected to fully fund the recycling system, they should have authority over its day-to-day management to ensure that high performance standards and targets are being met. PepsiCo is on the record supporting full funding models, most notably Colorado's HB 22-1355.

### **Out of Scope Provisions**

EPR is a system designed to improve curbside recycling systems and is best addressed as standalone legislation. There is a tendency for stakeholders to view EPR legislation as a vehicle for non-germane measures that hinder passage and obstruct legislative consideration. Recycling policy is complex and divisive enough without inviting additional headwinds and stakeholder opposition.

While addressing plastic pollution is a critical issue and one that is a major focus for PepsiCo, recycling legislation often fails because non-germane provisions are added to streamlined recycling and collection bills. These measures include, but are not limited to: labeling mandates, source reduction, litter control, and reuse/refill targets.

#### **The Role of Producers in a Producer Responsibility Program**

- The needs assessment should be funded and managed by the PRO in close consultation with the Department and consider input from the Advisory Council.
- The PRO should propose goals for collection rates, recycling rates, and post-consumer recycled content. These goals should be presented to the state for approval with opportunities for input by an Advisory Council.

#### **Clear Scope and Definitions**

- The bill should provide a clear definition for “packaging material waste”, which is difficult to measure and could present significant challenges for PRO members if left undefined.

#### **Additional Provisions**

- Clear performance standards for recycling programs should be established and a determining factor when considering funding eligibility. Based on information learned from the needs assessment, the PRO should establish a minimum recyclables list and service standards for service providers. The PRO should have the ability to enforce these standards to guarantee system performance and achieve strong recycling rates and environmental outcomes.
- The legislation should be amended to ensure that the recycling system is managed by a single PRO. Multiple PROs create needless complexity and logistical challenges that can limit overall system performance, create conflict between PROs, and disrupt the management of the overall system.
- EPR legislation should focus solely on issues related to financing for improved curbside recycling. Goals related to important issues such as GHG emissions, composting, and reuse should be addressed separately using the appropriate policy tools.

Thank you for taking these points into consideration. PepsiCo asks that S.426 be amended to accommodate the above principles which we believe will strengthen this legislation and enable New Jersey to establish a best-in-class EPR system that could be a model for other states.

PepsiCo is eager to work with you toward this important goal.

Testimony of Gary Sondermeyer  
Vice President of Operations  
Bayshore Family of Companies  
Representing the Association of New Jersey Recyclers  
Senate Environment and Energy Committee Meeting on S426  
Packaging Product Stewardship Act  
June 133 2022

Good Afternoon Chairman Smith and esteemed members of the Senate Environment and Energy Committee, my name is Gary Sondermeyer, Vice President of Operations at the Bayshore Family of Companies. Thank you for the opportunity to offer brief testimony today on behalf of the Association of New Jersey Recyclers (ANJR) on Senate 426, the Packaging Product Stewardship Act addressing extended producer responsibility (EPR). The bill represents a significant movement forward toward requiring manufacturers to be responsible for the management of the packaging externalities associated with their products. We enthusiastically support the bill and the beginning of discussion on this important topic which we hope to understand further as the legislative process unfolds, particularly with respect to the all-important mechanics of program implementation.

The mission of ANJR is to support, promote and enhance source reduction, reuse practices, organics management, and recycling activities in the State of New Jersey. ANJR provides educational and training programs, and also advances policies that support sustainable materials management, which in turn benefits the environment, the communities and the economy of New Jersey. We are a notfor-profit, 501 (c) (3), nonpartisan network that was incorporated in 1984. ANJR's members consist of individuals and organizations from both the public and private sectors, governmental entities, the recycling industry, and the business community.

We thank you Chairman Smith for focusing on the critically important topic of extended producer responsibility, a movement that is taking place across the United States at this time. We are aware the EPR legislation has been enacted in Maine, Oregon and, most recently, Colorado. In total, we understand that

legislation has been passed or is active in a total of 17 states across New England, Pennsylvania, New York, Maryland, Kentucky, Tennessee, Virginia, Minnesota, Illinois, California, Washington State and Hawaii. ANJR has also been involved in discussions at the national level through the National Recycling Coalition and regionally through NERC (Northeast Recycling Council) and NEWMOA

(Northeast Waste Management Officials Association) over the past two years on this important topic toward the future of recycling and packaging stewardship. As you know well, we also have in-state experience in a like program enacted by the legislature related to consumer electronics recycling.

There is much we wish to highlight and applaud in the bill:

- The comprehensive scope of packaging materials covered under the bill as outlined in the definitions section under "Packaging Products" where all packaging is covered, paper, plastic, glass, metal, a mixture thereof or any other material serving as packaging;
- o Similarly the inclusive nature in covering the entire supply chain of primary, secondary and tertiary packaging including manufacturers, distributors, exporters, importers and anyone involved in the supply chain of products and packaging;
- e We are most supportive of the comprehensive approach taken in the requirement of "packaging product stewardship plans" as outlined in Section 3. Here, we particularly want to highlight our complete support for the performance goals outlined in Section 4, namely:
  - A minimum 75% post-consumer content for all single-use packaging by January 1, 2027;
  - All single-use packaging to be readily recyclable or compostable by January 1, 2030; and
  - A reduction goal of at least 25% of all single use plastic packaging by January 1, 2030.

- Perhaps most important to the New Jersey recycling industry is Section 3.a.(5) which requires producers to describe how they will utilize "existing municipal solid waste collection and recycling infrastructure" to implement the stewardship plans. This is absolutely critical. As this committee knows very well, New Jersey was the first State in the country to adopt mandatory recycling back in 1980. We have established an extremely mature and well defined solid waste and recycling collection and management infrastructure in the State which simply must be utilized
- ° Section 30a(6) similarly amplifies this point, which ANJR totally supports, in requiring producers to describe how they will "work with existing waste haulers, storage and recycling facilities and counties and municipalities throughout the State to effectuate the collection, transportation, reuse, and recycling or disposal of packaging products?"
- e We also wish to recognize and totally support the "teeth" provided within the bill. Section 6 is unequivocal that non-participating packaging producers "shall not sell, offer for sale, distribute, or import for sale or distribution ..... any packaging products unless the producer is participating in the implementation of..... a packaging product stewardship plan." Similarly, Section 8 provides for enforcement provisions for packaging producer non-compliance, which are essential. These include the ability to assess civil/administrative penalties between \$5,000 \$10,000 per day with all collected fines going toward implementation of the Act.
- o Finally, we wish to highlight and totally support Section 4.e. which maintains an ongoing focus on stewardship plans which must be reviewed and updated at least every 5 years. Further, we support the DEP's ability under Section 4.e.(2) to review a stewardship plan at any time to determine whether the plan is being implemented in accordance with the act.

Notwithstanding our strong support for S426, we do wish to highlight several concerns:

- o Giving the game-changing nature of the bill, it is difficult to fully understand the mechanics of how packaging producer responsibility and payment can occur. Once again, the extraordinarily mature and comprehensive nature of New Jersey's existing solid waste and recycling collection processing and disposal infrastructure makes it difficult to see how implementation can take place, We wish to remain very active in the discussion of S426 to work with packaging producers to better understand how an EPR system can actually be implemented;
- ' As noted earlier, our biggest concern as an industry is how the existing solid waste and recycling infrastructure in the State will be utilized, Further, if packaging producers are paying for collection, processing and disposal services, what rights or authority will these private entities have over existing public and private entities operating in the Statea It is essential that this be thoroughly vetted and understood;
- e We are very concerned with the timeframes provided under Section 4 related to DEP review within 120 days. EPR and stewardship plan review will represent a very new level of responsibility placed upon the Department We feel this timeframe may not be realistic, but obviously this is most appropriately addressed by the DEP;
- ' Finally, as this Committee knows very well, with your leadership in January of this year New Jersey passed exceptionally progressive legislation regarding recycled content in packaging in the form of S2515/A4676. We believe that great care should be taken to perform side-by-side review of S2515/A4676 and S426 to ensure that these bills are fully compatible, both in terms of goals and implementation timeframes.

Let me most respectfully close by thanking Chairman Smith and the entire Committee for proposing and beginning the discussion of Extended Producer Responsibility, which we feel is a critical next step in the future of addressing the sustainable management of packaging, reuse and recycling. We applaud the bold provisions outlined in S426 and look forward to working closely with the manufacturers and packaging producers to arrive at a bill that works well within

the mature state of our solid waste and recycling collection processing and disposal infrastructure. I would be happy to answer any questions you may have.

Thank you.